



# Corporate Social Responsibility and Mining: A Canadian-Panamanian Cross Comparison

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April 2011*

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## Executive Summary

### **Corporate Social Responsibility and Mining: A Canadian-Panamanian Cross-Comparison**

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#### *CSR and mining:*

The dynamics and rhetoric of large-scale mining projects in Latin America have experienced significant shifts in the last few decades as a result of changes to available technology and in the environmental views of prominent shareholders. A result of these changes has been the establishment of Corporate Social Responsibility (CSR) policies, which outline the environmental and social parameter goals of a company – namely how companies seek to compensate or support communities and environments in the development of industrial projects. CSR plans have however, come under fire in recent years due to their lack of transparency, poor implementation, and lack of collaboration with impacted communities.

#### *Project Objectives:*

As requested by CEASPA, this report seeks to provide a general overview of corporate social responsibility. This includes a history of the term and the reasons for its implementation, while placing it in the context of the rapidly growing mining industry in Panama. Two of the largest Canadian mining companies soon to be involved in major open-pit concessions in Panama, Inmet Mining (known to be interested in bidding on the Cerro Colorado copper mine) and Corriente Resources Inc. (which has commenced construction at the Cobre Panama mine), were evaluated on their CSR policies and practices in order to shed light on their past performances and to better prepare communities for the future outcomes of projects implemented by these companies.

#### *Methods:*

The two companies were evaluated using a rubric that analyzed various elements of their CSR plans. The performance of Corriente's mine site in Ecuador and Inmet's mines in both Quebec (the Troilus mine) and Papua New Guinea (the Ok Tedi Mine) were assessed on the quality of policy and implementation of their: commitment and management, environmental performance, social performance, economic performance and reporting abilities. Each category item was then scored on a scale of 0 to 2. A score of 0 indicated no existing relevant policies or very poor policy implementation and a score of 2 indicated the existence of relevant policies and excellent implementation, with a score of 1 falling in between. An overall score was calculated and a letter grade assigned to each project. These assessments were compiled through online research of media and academic literature, as well as through interviews with company representatives in Panama City.

#### *Results:*

Corriente Resources Inc. received a final grade of C for their performance in the gold mines of Ecuador. The highest grade Corriente received was for their economic reporting and performance. Corriente scored very poorly in environmental performance, receiving a grade of just 3 out of 18. This can in part be explained by the lack (or rather total absence) of sustainability reports, which normally detail such factors. However, Corriente has also been highly criticized for their environmental practices, which have led to the contamination of rivers, loss of fish alpha and greater biodiversity, and decreased productivity of agricultural lands. Corriente also scored poorly in social performance (receiving 9 out of 12). The company has been highly criticized by community members for failing to follow through with community development plans. Furthermore, their lack of meaningful consultation has resulted in many protests. In 2007 a community-led protest, demanding the closure of the mine until consultation occurred, resulted in violence and threats against indigenous organizers by company representatives.

Inmet mining received a grade of C+ for their Troilus Mine. The mine, located on indigenous Mistissini territory in Quebec, scored highest in commitment and Management. While scoring higher than the other projects reviewed, the Troilus mine received its worst scores in environmental and social performance. This is due to the failure of Inmet to make available its plans for mine closure, the large volume of hazardous waste the mine creates, as well as an unapproved effluent discharge site. Inmet's social performance score declined due to poor consultation practices with the local community.

Inmet's Ok Tedi mine, located in Papua New Guinea, received the lowest score, with a grade of F. The mine has come under great criticism for its poor environmental practices. Consequently, this category received the lowest score with only 2 out 18. This mine is estimated to dump approximately 80 thousand to 66 million tones of mining waste into the Ok Tedi River every year with disastrous impacts to local flora, fauna, and downstream Yoonggom and Wopkaimin indigenous populations. Similarly, it scored very low in social performance (3 out of 12) due to continued lawsuits and poor implementation of compensation and development projects.

#### *Conclusions:*

As demonstrated through these three case studies, and a review of academic literature concerning mines worldwide, the successful implementation of CSR policies is largely dictated by the strength and enforcement of local legislation. As these two companies prepare to commence two major mining projects in Panama, it is important to note that Panama (and more specifically ANAM) has a poor track record of enforcing its environmental legislation. If Panama wishes to protect their lush and diverse natural environment while also respecting the livelihoods of indigenous and campesino communities during the development of these mining projects, it is imperative that a solid environmental and social legal framework not only be developed but be enforced.

## Resumen Ejecutivo

### **Responsabilidad Social Corporativa y Minería: El comportamiento de las empresas canadienses en las minas de Panamá**

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#### *RSC y la minería:*

La dinámica y retórica de los proyectos mineros a gran escala en América Latina ha experimentado cambios significativos en las últimas décadas como resultado de cambios en la tecnología disponible y en los puntos de vista del medio ambiente de los accionistas más importantes. Un resultado de estos cambios ha sido el establecimiento de la Responsabilidad Social Corporativa (RSC), que describe los objetivos de los parámetros ambientales y sociales de una sociedad - es decir, cómo las compañías tratan de compensar o apoyar a las comunidades y los entornos en el desarrollo de proyectos industriales. Los planes de RSC han estado bajo la mira y recibido muchas críticas en los últimos años debido a su falta de transparencia, mala aplicación, y la falta de colaboración con las comunidades afectadas.

#### *Objetivos del proyecto:*

Conforme a lo solicitado por CEASPA, este informe pretende ofrecer una visión general de la responsabilidad social de las empresas. Esto incluye una historia del término RSC y las razones de su aplicación, mientras que lo coloca en el contexto de la industria minera, la cual está en rápido crecimiento en Panamá. Dos de las mayores compañías mineras canadienses, las cuales pronto participarán en importantes concesiones de minería a cielo abierto en Panamá; Inmet Mining (conocidos por estar interesados en hacer una oferta en la mina de cobre Cerro Colorado) y Corriente Resources Inc. (que ha comenzado la construcción en la mina Panamá Cobre), fueron evaluados en sus políticas y prácticas de RSC a fin de arrojar luz sobre sus actuaciones pasadas y de preparar mejor a las comunidades para los resultados futuros de los proyectos efectuados por estas empresas.

#### *Metodología:*

Las dos empresas fueron evaluadas utilizando un método rúbrico que analiza los diversos elementos de sus planes de RSC. El rendimiento de la mina Corriente en las minas de Ecuador y de Inmet, tanto en Quebec (la mina Troilus) y Papua Nueva Guinea (la mina Ok Tedi) fueron evaluados en la calidad de la política y la aplicación de su: compromiso y gestión, el desempeño ambiental, desempeño social, los resultados económicos y las capacidades de presentación de informes. Cada ítem de la categoría fue puntuado en una escala de 0 a 2. Una puntuación de 0 indica ausencia de políticas existentes pertinentes o la aplicación de políticas muy pobres y una puntuación de 2 indica la existencia de políticas y ejecución excelente, con una puntuación de uno siendo un intermedio entre ambas. Una puntuación global se calculó y una calificación fue asignada a cada proyecto. Estas evaluaciones fueron recopiladas a través de la investigación en internet, medios de comunicación y publicaciones académicas, así como a través de entrevistas con representantes de la empresa en la Ciudad de Panamá.

### *Resultados:*

Corriente Resources Inc. recibió una calificación final de C en su desempeño en las minas de oro de Ecuador. La calificación mas alta que recibió fue de la capacidad de brindar información económica y de su rendimiento. Obtuvo muy mala calificación en desempeño ambiental, recibiendo una calificación de tan sólo 3 de 18. Esto puede explicarse en parte por la falta (o más bien ausencia) de reportes de sostenibilidad, que normalmente detallan esos factores. Corriente también ha sido muy criticado por sus prácticas ambientales, que han llevado a la contaminación de ríos, la disminución de peces y de la biodiversidad, igualmente se ha notado una disminución de la productividad de las tierras agrícolas. Corriente también obtuvo malos resultados en el desempeño social (recepción de 9 de 12). La compañía ha sido muy criticada por miembros de la comunidad por no seguir adelante con los planes de desarrollo comunitarios. Por otra parte, por falta de consultas significativas se ha dado lugar a numerosas protestas. En 2007 una protesta liderada por la comunidad, exigiendo el cierre de la mina hasta lograr consultas comunitarias. Como resultado, se generaron brotes de violencia y amenazas contra los líderes indígenas por parte de representantes de la empresa.

Inmet Mining recibió una calificación de C + por su mina de Troilus. La mina, ubicada en el territorio indígena Mistissini en Quebec, obtuvo la mayor puntuación en compromiso y gestión. Mientras que su puntuación fue superior a la de otros proyectos revisados, recibió la peor puntuación en el desempeño ambiental y social. Esto se debe a la falta de Inmet de poner a disposición sus planes de cierre de la mina, el gran volumen de residuos peligrosos que la mina genera, así como un sitio de descarga en afluentes no autorizados. La puntuación en desempeño social de Inmet ha disminuido debido a las pobres prácticas de consulta con la comunidad local.

La mina Ok Tedi Inmet, ubicada en Papua Nueva Guinea, recibió la puntuación más baja, con una calificación de F. La mina ha sido objeto de críticas por sus malas prácticas ambientales. En consecuencia, en esta categoría recibió la puntuación más baja con sólo 2 de 18. Esta mina se estima que ha desechado aproximadamente de 80 mil a 66 millones de toneladas de residuos de minería en el río Ok Tedi cada año con efectos desastrosos para la flora, fauna, y aguas y para las poblaciones de Yoonggom y Wopkaimin que viven río abajo. Del mismo modo, recibió una puntuación muy baja en el rendimiento social (3 de 12) debido a las demandas surgidas y la deficiente aplicación de proyectos de compensación y desarrollo.

### *Conclusiones:*

Como se ha demostrado a través de estos tres analisis de casos y una revisión de la literatura académica sobre las minas en el mundo, la implementación exitosa de políticas de RSC se debe en gran parte por la fuerza y la aplicación de la legislación local. A medida que estas dos empresas se preparan para iniciar dos importantes proyectos mineros en el país, es importante señalar que Panamá (y más específicamente ANAM) tiene un historial pobre de hacer cumplir la legislación medioambiental. Si Panamá desea proteger su entorno natural exuberante y diverso al mismo tiempo que se respeten las condiciones de vida de las comunidades indígenas y campesinas en el desarrollo de estos proyectos mineros, es imperativo que un sólido marco jurídico ambiental y social se desarrolle y ejecute.

## Table of Contents

<b>I. Host Organization</b> .....	7
<b>II. Context</b> .....	7
• Mining in Latin America	
• Mining in Panama	
• Introduction to CSR and Mining	
<b>III. Objectives and Hypothesis</b> .....	11
<b>IV. Study Site</b> .....	13
<b>V. Methodology</b> .....	13
<b>VI. Case Studies</b> .....	19
• Ecuador and the mines of Corriente	
• Inmet’s Troilus Mine	
• Inmet’s Ok Tedi Mine	
<b>VII. Discussion</b> .....	60
<b>VIII. Recommendations</b> .....	66
<b>IX. Acknowledgements</b> .....	68
<b>X. References</b> .....	69
<b>XI. Product for Host Institution</b> .....	74

**I. Host Organization**.....

CEASPA (Centro de Estudios y Acción Social Panameño) is a social and environmental justice organization that was established in 1977 by Xabier Gorostiaga. The organization has worked on a diversity of projects over the years, all with a focus on the development of political participation, economic well being, and environmental sustainability in the poorer regions of Panama. Through projects such as the Achiote El Tucan environmental education center, the San Lorezo Park at Fort Sherman, and a variety of collaborative projects done in indigenous communities across the country, CEASPA commits itself to its focus on research, public education, and human rights.

***Supervisor***

Sr. Jesus Alemania, Encargado de Capacitación

***Number of Research Days:***

28 days were spent, primarily in Ciudad del Saber and the library of the Smithsonian Institute, researching this project. Among these days, 3 were spent interviewing company representatives whose headquarters were located in Panama City.

**II. Context**.....

***History of Mining in Latin America***

The industrial era marked the beginning of improved technology used for mining

developments in Latin America, which “moved the mineral frontier outwards, converting once economically uninteresting deposits into viable options” (Bebbington et. al 2008 – 976). This simultaneously increased the ecological footprint that such activities had on the natural environment. Following an exhaustion of deposits using these methods, open-pit mining was eventually introduced in Latin America in the 1970s as a more efficient means of extracting precious metals, though an even more environmentally and socially invasive process. This brought increased international presence, as open-pit mining projects require considerable funding and scientific expertise, bringing the industry to the forefront of the global market. Compounding this were the neoliberal trade agreements of the 1990s, which allowed for increased and less regulated foreign direct investment, producing profound effects on resource-rich countries like Panama. While mining investment in developed countries declined between the years of 1999 and 2001, Latin America saw a steady increase in its share of global investment from 12% in 1990 to 33% in 2001. Latin America was home to 12 of the world’s 25 largest mining investment projects in the 1990s (Bebbington et. al 2008 – 975).

National mining codes and environmental legislation specific to each country were also being developed at this time, which unfortunately had (and still have) little power in dictating the future of extractive processes on their lands, as economic development and international agendas are generally given precedence over local community desires. This has led to terrible social and political unrest all throughout Latin America, and movements in opposition to these projects have become almost as paramount as the developments themselves. Today, large mining developments continue to take place all throughout Latin America, and plans for open-pit mines are not only increasing in number but in duration and intensity as well. Canadian mining companies represent

an overwhelming majority of current and prospective mine operators in Latin America, giving them the crucial task of being a responsible international player in the extractive industry of the region.

### ***Mining in Panama***

Panama is a country whose economic wellbeing has been primarily marked by its role as a transportation zone and secondly by its extractive mining projects. Historically, Panama has been the main route through which precious metals coming from elsewhere in Latin America have been shipped overseas, predominantly to Europe. However, in discovering significant metal deposits over the last few decades, Panama has opened up to a number of their own gold and copper projects that have changed the economic, environmental and social dynamics of the country. Home to two of the largest undeveloped copper mines in the world, as well as numerous gold and silver deposits, mining developments in Panama have been labeled as a promising new area of the economy (Business Panama 2010). Right-wing Panamanian president Ricardo Martinelli has seized this opportunity and pushed forward mining legislation directed at attracting foreign investment.

The largest project currently in production is Petaquilla's Molejon Gold project, which is located 120 kilometers west of Panama City and approximately 10 kilometers from the Caribbean coast. The project includes 8 different gold and copper projects, with planned expansion to more deposits in the region. The project sparked considerable criticism and protests for fear of the country's social and environmental sovereignty (Mining Watch 2009)

The Cerro Colorado project is on the brink of becoming the next big mining area in the country. Located in the central cordillera of Panama 250 kilometers west of Panama City, and within the Ngöbé-Buglé comarca, Cerro Colorado is home to one of the world's largest untapped copper reserves. With estimates projecting a mineable 1.4 billion tonnes of 0.7% grade copper, the government wants private mining companies to come in and exploit the most accessible areas in the very near future (Business Panama). Indigenous, environmental and social justice groups alike are very concerned by the impending impacts of such a large-scale industrial project to both the community and its surrounding environment.

Finally, there is the Cobre Panama copper mine that is being developed by Inmet. The mine is located nearby the Petaquilla gold mine, and is 100% owned by the Canadian company. The concession for this mine totals an area of 13,600 hectares (Inmet 2011). The 4.3 billion dollar project is projected to disrupt 5900 hectares of predominantly primary rainforest (Mining watch 2010b). The mine is currently in development and is located in a highly biodiverse area of rainforest. Inmet claims that the project will result in a *gain* of conserved areas as a result of project conservation initiatives (Inmet 2009). Inmet is seeking additional funding to go through with the project, most notably from state-owned companies L-S Nikko Copper of South Korea and Temasek Holdings Ltd. of Singapore. Community members, already impacted by the Petaquilla mine, are understandably concerned about the effect this mine will have on their environment and livelihood.

In most recent developments, president Martinelli green-lighted a controversial mining law, Law 8, in February of this year that would open Panama's doors to a large number of mining developments funded and managed by private international companies. The law gave foreign state governments the right to own tracts of land within Panama, and also doubled the royalty fee of mining-generated income from 2% to 5%. Law 8 was repealed less than a month later in response to major countrywide protests, and has since been taken off the table (Lapress 2011). This has left mining investments across the country unstable, impacting Inmet's ability to go forward with the Cobre Panama project, and leaving indigenous Ngöbe on edge regarding the development of Cerro Colorado.

### **III. Objectives and Hypothesis**.....

Mining is currently a very contentious topic in Panama, largely as a result of the recently proposed Cerro Colorado mine in the heart of the Ngobe-Buglé indigenous territory. Terms such as corporate social responsibility and sustainable mining, while understood by well-informed individuals in the mining industry, are generally foreign concepts to the majority of the population. The objective of this paper is to provide a general overview and breakdown of what corporate social responsibility means and the role it plays in the mining industry, particularly as these terms are being used more frequently than ever in Panama's news and media outlets. It further seeks to examine two of the largest Canadian mining companies that are involved, or looking to be involved, in

major mining concessions in Panama, namely Inmet Mining and Corriente Resources Inc.

Inmet's Panamanian subsidiary, Minera Panama, is currently in the exploration stage at the Cobre Panama mine, located 120 kilometers west of Panama City in the district of Donoso in Colon province, Panama. Corriente has recently expressed interest in bidding for the proposed Cerro Colorado copper project, which is located in the southern region of the Ngobe-Buglé Comarca. Although it cannot be inferred that corporate practices at these Panamanian mine locations will occur precisely as they did in the other study sites, there are still valuable lessons to be learned from these companies' track records which might help these sites better prepare for mining developments.

Our analysis will include looking at their general company profiles, specific CSR policies, and track records related to other mining concessions around the world in the form of three case studies. By developing a rubric that presents a broad list of CSR policies and practices, we will evaluate how these two mining companies in Panama rank in accordance to these standards. In doing so, we hope that this analysis will point to potential benefits or dangers that should be prepared for as these companies move forward in their extractive goals.

We hypothesize that both Inmet Mining and Corriente Resources Inc., will fall short in terms of sound CSR practices in both their past and present operations. The discussion section of this report will look at which practices and policies are most lacking in their operations related to the specific case studies presented. We hypothesize that the largest discrepancies will exist between the policies or promises by the companies, and how these are actually implemented.

Furthermore, we expect that some of the largest shortfalls for both companies will be with regard to their environmental and social performance, particularly in their relationships (and consultation processes) with local communities.

**IV. Study Site**.....

While no specific study site was visited in order to complete this report, individual case studies were completed on three of Inmet and Corriente’s mining concessions in different locations around the world. The first case study, Ecuador and the mines of Corriente, examines the history of Corriente Resources Inc. in the Corriente Copper Belt, an area extending approximately 62,000 hectares in southeast Ecuador. The second case study, Inmet’s Troilus Mine, is located 120 km North of Chibougamau Quebec, and 160 km North West of Mistissini, Quebec in Canada. The third case study, Inmet’s Ok Tedi mine, is located in the North Fly District of the Western Province of Papa New Guinea.

**V. Methodology**.....

The information presented on the history of mining in Latin America and Panama, as well as corporate social responsibility, was compiled through research and review of formal reports, papers, and investigative studies on the subject matter.

In performing our case study analyses, we drew from online resources, including company websites, news reports, official documents, other case studies and interviews. The

second part of our case studies includes an evaluation of the corporate social responsibility policies and practices of Inmet and Corriente with regard to the examined mining projects. This evaluation was completed using a rubric developed on similar CSR evaluation schemes in two academic papers: one by Philip Peck and Knud Sinding, and the other by Fabiana Perez and Luis E. Sanchez. We loosely followed the format of the Peck and Sinding scheme, while adding certain sub-categories from the Perez and Sanchez format. By doing this, we were able to create a broad but relevant rubric by which we evaluated both Inmet and Corriente's CSR policies and practices. The rubric was broken down into 5 general categories: commitment and management, environmental performance, social performance, economic performance, and reporting. Each contained specific sub-categories that fell under either "policies" or "practices". These sub-categories were then rated using a scale of 0 to 2, as per Peck and Sindig. Policy parameters were scored in the following way:

- 0: Absent or essentially insignificant in depth or coverage.
- 1: Present but minimal in depth or coverage, or presented in a non-comparable form.
- 2: Present, covered to some depth and presented in a form directly, or nearly comparable to other reporting organizations.

And practices were evaluated in the following way:

- 0: Little or no positive impact
- 1: Some positive impact or progress made
- 2: positive impact and noticeable progress made

The scores received for each sub-category were decided upon based on information available on the company websites regarding their specific CSR policies, as well as the environmental impact assessments, investigative studies, and field reports done on the mining projects. Depending on their final number out of the full 60 points, the company was assigned a letter grade as an overall marker of their performance. The letter grades were determined based on the following scale:

95-100 = A+
85-94 = A
80-84 = A-
75-79 = B+
70-74 = B
65-69 = B-
60-64 = C+
55-59 = C
50-55 = D
<50 = F

Following this, an analysis of general CSR criticisms was completed through an extensive literary review, which was then applied to our specific case studies.

All research, fieldwork, and literary investigation during the course of the internship was completed in accordance with the McGill University's Code of Ethic and Protocol for Research in Panama's Indigenous Communities.

### ***Corporate Social Responsibility and the Mining Industry***

Corporate Social Responsibility is a term that arose out of a period of great criticism towards the practices and legitimacy of international mining operations. Disapproval for the

negative impacts mining has had on ecosystems, poor economic trickle down to local residents, and of the many-recorded human rights abuses pushed the mining industry to seek out a means to re-brand their activities to shareholders.

After the formation of the Brundtland Report in 1987, notions of sustainability became more pervasive throughout academic and industrial circles. With increasing pressure from shareholders to pursue more ethical practices, a coalition of members from the United Nations, government, industry, and civil groups established the Global Reporting Initiative as a means of standardizing reporting of industry-specific impacts on local communities (Mudd 2007). The GRI quickly became the international standard for industry reporting and spurred the creation of various other reporting formats.

Most notably, in 1998 after the Rio Earth Summit was held, nine of the largest mining companies got together and created the Global Mining Initiative to set mining industry best-practice and reporting standards. Another notable reporting initiative arose in 2001: the International Council for Mining and Minerals (ICMM). The ICMM is a group of 18 companies and 30 national and regional mining associations that joined together to form a self-regulating body of responsible mining companies. In order to join this initiative companies are required to sign on to their “sustainable development framework” and agree to the 10 principles of social and environmental responsibility, as well as agree to third party reporting (Bebbington et al 2008). In 2003 the ICMM adopted the Extractive Industries Transparency Initiative arguing for the importance of transparency, accountability, disclosure, and engagement with civil society

(EITS.org 2011)

With an increase in different reporting methods and an overall increase in social concern for the ethical practices, CSR policies became more prevalent among mining companies. Jenkins and Yakoleva explain in their 2006 report *Corporate Social Responsibility in the Mining Industry*: “The mining sector started producing Environmental Reports more slowly in the 1990s and gradually gathered momentum. It has been noted that companies operating in so-called environmentally-sensitive industries such as mineral extraction, oil and gas and forestry are *more likely* to provide social and environmental disclosure” (273).

*Motivations for the employment of CSR rhetoric:*

While it may seem counter-intuitive for mining companies to report their poor environmental performance to increasingly socially conscious shareholders, there are several theories that point to the driving push for the adoption of CSR policies and practices. Jenkins and Yakoveleva outline many of these theories in their 2006 paper *Corporate Social Responsibility in the Mining Industry*. The first among these ideas is the legitimacy theory. This theory suggests that companies that adopt CSR policies that are in line with local and international policy and legislation are “more visible or rely more on political or social support” and thus are seen as more legitimate by the public (Cormier and Gordon 2000). This makes investors more likely to invest in their projects or see the projects as ‘valid’.

Second is the political economy theory. This theory suggests that business, or rather

profit, is the ultimate motivation for the adoption of such CSR policies (Kemp 2009). It is believed that voluntary compliance with these measures will attract more investors and thus increase profit margins (Hamann 2004). This can in part be attributed to the screening-out of non-compliant companies from socially responsible investing schemes (Jenkins and Yakoleva 2006).

A third rational is the stakeholder theory. Some have posited that CSR programs are part of a process by which companies can discern and act upon the desires of their stakeholders (Kaplus 2002). Others attribute the adoption of CSR policies as a sign that companies are folding to public pressure in order to maintain status with their major stakeholders, as their legitimacy has been challenged at both a local and international level (Hamann 2004; Jenkins and Yakovleva 2006). This pre-emptive reporting and corporate openness may be motivated in part by stock exchange regulations, but may also be driven by fear of having to disclose even more information: “mining groups may fear that unless they report voluntarily, or in a pre-emptive fashion they may be forced to report in even more detail upon matters they would rather keep private” (Peck and Sindig 2002).

An additional theory suggests that CSR policies may be implemented in order to assure social stability and thus investor security. With growing globalized resistance to large-scale mining projects, particularly among indigenous populations, it has become increasingly important for companies to engage with local communities in order insure that their operations can continue to operate without obstructions (Kaplus 2002). Adopting community development

plans may, in this light, be seen as a way of “buying” local communities to insure continued operations (Jenkins and Obara 2008).

Finally, Regulations and Standards theory suggests that self-reporting and adoption of CSR policies are a largely a result of legislation. Jenkins and Yakovelva illustrate this most effectively: “100% of mining companies from Australia, Canada, South Africa, US and the UK reported info on their company’s corporate governance practices compared to 50% of companies from ‘other’ countries; this is explained by varying requirements for corporate governance disclosure in each country” (277).

With ever-increasing prevalence, CSR rhetoric and policies have become increasingly sophisticated. While there remain doubts about the degree to which these policies result in positive impacts to communities, they do appear to be an effective tool to gain shareholder support. Thus, in an era where large-scale mining projects are pervasive and their impacts increasingly significant, it is important to look beyond rhetoric and examine the empirical impacts of these policies.

## **VI. Case Studies.....**

### ***VI.i) Ecuador and the mines of Corriente Resources Inc.***

Although the mineral industry in Ecuador has been in development for approximately 15 years, no large-scale mining projects have yet gone into production. However, there exist an overwhelming number of plans for such projects, and over 90 per cent of the money being

invested in Ecuador's metal mining sector is Canadian capital (Moore 2008a). Canada therefore plays an interesting and influential role in Ecuador's political, economic and social stability.

Ecuadorian President Rafael Correa has in recent years been adamantly working to liberalize national mining laws to bring in international investment and development to the mining sector. Correa considers mining to be a promising alternative to Ecuador's shrinking oil exports, which previously paid approximately 40% of their national budget (Moore 2008a). This has been met with huge resistance from local populations, and strong rural, indigenous, and environmentalist coalition groups have formed in opposition to Correa's invitation of international investment.

In an area extending approximately 62,000 hectares in southeast Ecuador lie some of the largest undeveloped copper and gold deposits in the world today. Discovered in 1994 by BHP Billiton, the region is now managed with a majority interest by Corriente Resources Inc., a Canadian natural mineral resource company operating primarily in South America since 1992. Known as the Corriente Copper Belt, it covers a 20 by 80 kilometer area and contains four copper and copper-gold porphyry deposits called Mirador, Mirador Norte, Panantza and San Carlos. To date, six additional copper exploration targets (La Florida, San Luis, San Marcos, San Miguel, Sutzú and Dolorosa) have been identified in the belt (Corriente 2011).

Since entering two option agreements with BHP in October 1999 and April 2000, Corriente acquired a 70% interest in a large package of mineral exploration properties identified by BHP Billiton in the Rio Zamora valley in southeast Ecuador. Today, this property is known as the Corriente Copper Belt and is the company's principal asset. Between 2000 and 20002,

Corriente completed numerous scoping studies that led to the assessment of several other mining developments in the region, including the Panantza-San Carlos and Mirador projects. Following this, Corriente informed BHP of their plans to acquire a majority interest in the Panantza project, after which they also acquired title to the San Carlos and Mirador projects (2002). Corriente now controls 100% of its concessions in Ecuador, which are subject to a 2% net smelter royalty interest (NSR) to BHP Billiton (Corriente 2011).

The Mirador and Mirador Norte deposits in the Corriente Copper Belt are currently in development and are moving toward production. In 2006, an Environmental Impact Assessment was approved by the Ecuadorian Ministry of Mines and Petroleum (“MMP”, formerly called the Ministry of Energy and Mines). In the assessment, the environmental aspects of proposed mining operations in Mirador and community and social plans were examined. Corriente states that during the preparation of the EIA, “the company worked closely with the MMP to ensure that the report met all required government guidelines and regulations”, and that “the Mirador EIA is one of the most comprehensive documents on social and environmental issues ever submitted to the MMP in Ecuador for a mining project” (Corriente 2011). The company also maintains that: “the submission of the EIA and subsequent approval followed an extensive consultation process with local communities carried out in late November and early December 2005” (Corriente 2011). In 2006, an amendment to the EIA regarding mill, tailings and dump location changes was submitted, although it was decided that this would require further study. The mine currently operates under the terms of the original EIA.

The Panantza and San Carlos deposits are currently entering development. Extensive drilling took place in 2006 as part of a two-year feasibility study designed to incorporate the

Panantza and San Carlos concessions into a single copper development. A Preliminary Assessment Technical Report for a 90,000 tonne per day combined Panantza-San Carlos copper mining operation was completed and made available in December 2007, which made many substantial promises, including the creation of 2,000 jobs during construction and over 500 direct and 4,000 indirect jobs during the mine's 20 year life span (Corriente 2011).

Local communities affected by these specific mining developments have repeatedly contested Corriente's declarations, stating that promises made have never materialized or are not being fairly met.

The National Coordinator for the Defense of Life and Sovereignty, established on January 26th, 2007, represents a collection of groups, organizations and associations in opposition to large-scale mining activity in Ecuador and seeks to bring attention to human rights violations. In 2007, they demanded that the government suspend all mining activities, as they violated the Ecuadorian constitution with regard to fair community consultation on state projects affecting the environment. President Correa and the former Minister of Energy and Mines both agreed that community concerns were valid with respect to such unconstitutional behaviors in the country's extractive projects. Despite this acknowledgement, no formal promises or changes were made, which led to multiple protests ending in violence and bloodshed within indigenous groups (Moore 2007). Protesters have been labeled as being opposed to the President and therefore right-wing extremists. The real issue, protesters explain, is one of increased national dependency on primary resource extractive processes that are not only vulnerable to international market fluctuations, but also severely detrimental to the natural environment, food security, and the cultural diversity of Ecuador (Moore 2008a).

Communities affected by the Corriente mining projects have frequently complained about company failure to consult with community stakeholders, despite formal promises and constitutional regulations that guarantee such practices. In addition, there have been loud criticisms regarding inadequate environmental impact assessment procedures, which have allowed companies to pass through these loopholes and proceed with environmentally unsound developments (Moore 2008c).

Beyond unmet policy promises, perhaps the greatest resistance has surrounded the environmental destruction and pollution from the mining projects that directly affect the livelihoods of the local inhabitants. There have been numerous reports of contaminated rivers, loss of fish alpha diversity, reduced biodiversity, and decreased productivity on agricultural lands. Social factors such as the loss of cultural traditions and the spread of sexually transmitted diseases have also been raised as great concerns within affected communities.

In trying to protest against these wrong-doings, activists have continuously reported being violently treated by the military and mining representatives. In one such case, Salvador Quishpe, an indigenous leader who represents the province of Zamorra-Chinchipe, was arrested by military forces in January of 2007 while leading a protest against Corriente Resources. He stated that "They bound my hands and feet and ... wrapped my whole head, even my nose and mouth, in packing tape" (Ottawa Citizen 2007). Corriente CEO Kenneth Shannon denies such abuse at the mine protest, but Quishpe and others maintain that numerous other protesters were also violently abused. Protests are frequent, and often involve road or bridge blocks to mining sites.

Stemming from increased outcry to negative environmental impacts, failure to consult with involved communities, and encroachment on protected areas, the Ecuadorian National Constituent Assembly passed a mining mandate on April 18th, 2008 that suspended all large-scale mining activities until a new law was passed. Activists were temporarily assuaged, but later called the mandate a “deception,” as criteria meant to rectify these violations were not put into the draft law. This has meant continued operation of multiple extractive companies, including Copper Mesa Mining, IAMGOLD, and Corriente Resources in pristine and biodiverse ecosystems (Moore 2008a).

On September 28th 2008, a new Ecuadorian constitution was put into effect with a 64% approval rate. This new constitution allowed a number of changes to state regulations regarding land use and rights to natural resources, opening doors to foreign investment for future extractive projects (Moore 2008a; The Economist 2008). Despite ongoing protests, the Mirador developments in the Corriente Copper Belt are now on their way to the production phase, with several other projects planned to follow in coming years.

To deal with questions of ethics and sustainable development, Corriente Resources has adopted a code of conduct that must be followed by its subsidiaries in Ecuador. It states that employees must apply environmental and health protection measures in order to meet legal permit and certification standards, as well as company requirements and community policies. Environmental projects include a reforestation initiative in the Mirador project area to offset some of the deforestation related to the mine, as well as the planting of a botanical garden.

In 2009, a report titled “Large-Scale Mining in Ecuador and Human Rights Abuses: The Case of Corriente Resources Inc.” was prepared by the Ecuadorian Ecumenical Commission for

Human Rights (Comisión Ecuánica de Derechos Humanos) with support from the International Federation for Human Rights and its Ecuadorian member organizations, the Regional Foundation for Advisory Services in Human Rights (Fundación de Asesoría Legal) and the Ecuadorian Center for Economic and Social Rights (Centro Ecuatoriano de Derechos Económicos y Sociales), and from the Canadian organization Rights & Democracy. The document examined the numerous social and environmental conflicts that arose as a result of Corriente's mining developments in Ecuador between 2000 and 2010, and also outlined the legal and political frameworks of Ecuador's mining laws, Corriente Resources' policies, and the affected community agendas. Drawing from the research of this report, as well as from news reports, the official company code of conduct and corporate creed, and interviews with stakeholders, the following report card seeks to provide a general rank of where Corriente Resources stands with regard to responsible mining practices.

**Table 1. Report Card for Corriente in Ecuador**

<b>Generic Category</b>	<b>Indicator Item</b>	<b>Score (0-2)</b>	
Commitment and Management	<i>Policies</i>	- Description of the sustainability vision and strategy.....2	
		- Description of governance structure.....2	
	<i>Practices</i>	- CEO statement.....2	
		- List of main stakeholders.....1	
		- Employee training in safety and environmental protection.....1	
		<b>Category total: 8/10</b>	
	Environmental Performance	<i>Policies</i>	- Environment goals.....2
			- Policies/plans/financial provisions for closure & rehabilitation.....0
		<i>Practices</i>	- Environmental impact assessment (preferred by 3 <sup>rd</sup> party).....1
			- Prevention of environmental accidents.....0
- Waste management.....0			
- Greenhouse gas emissions.....0			
- Impacts on biodiversity.....0			
- Water consumption.....0			
- Energy consumption.....0			
<b>Category total: 3/18</b>			
Social Performance	<i>Policies</i>	- Human rights policies.....2	
		- Compliance with ILO conventions.....2	
	<i>Practices</i>	- Community consultation processes.....1	
		- Management of land tenure-related issues.....1	
		- Local employee inclusion and involvement.....1	
		- Community outreach programs/projects.....2	
	<b>Category total: 9/12</b>		
	Economic Performance	<i>Policies</i>	- Employee benefits and salaries.....2
- Policies addressing bribery and/or corruption.....2			
<i>Practices</i>		- Financial contributions to community.....1	
		- Payments to government.....2	
<b>Category total: 7/8</b>			
Reporting	<i>Practices</i>	- Data richness and availability.....1	
		- Comparison of indicators over time.....2	
		- Comparison of indicators across organizations, sectors, or regions...0	
		- Third party assurance.....2	
		- Feedback mechanisms or results.....1	
		- Contact information for questions.....2	
		<b>Category total: 8/12</b>	
		<b>GRAND TOTAL: 35/60</b>	
		<b>FINAL GRADE: C</b>	

## **Discussion:**

### *Commitment and Management:*

Corriente Resources ranked a 2 for all policy categories, as this information is outlined and documented in a clear manner on their website. For their practices, while stakeholders are occasionally mentioned throughout the document, there is no formal presentation of stakeholder identification. Additionally, for what identification is given, there is a disproportionate amount of attention given to the corporate stakeholders and their constituencies, hence their score of 1.

Employee training in safety and environmental protection received a score of 1, as this is explicitly mentioned as a commitment in their Health, Safety, Environment and Community Policy, but there is no available data on the number or severity of accidents per year. It would also be important to include these numbers over time, to see if there is an improvement in prevention measures that have resulted in fewer accidents in successive years.

### *Environmental Performance:*

A score of 2 was assigned for environmental goals, as Corriente outlines these in their Health, Safety, Environment and Community Policy, as well as in the company creed and a brief mention of sustainable development in their code of conduct. They fail, however, to include any discussion in their EIA of mine closure procedures, rehabilitation plans, and compensation (financial and otherwise) to affected peoples and areas. They have therefore received a 0 for this category.

In the practice categories, the EIA was completed by a third party, but further research conducted by external organizations in following years revealed major gaps, unapproved measures, and incomplete data, despite government approval. As a result, this category received a score of 1.

For the categories of prevention of environmental accidents, waste management, greenhouse gas emissions, impacts on biodiversity, water consumption and energy consumption, there is no accessible data in order to verify how these practices are being carried out. For this reason, all of these categories have received a score of zero. There is likely mention of this in the EIA somewhere, but as the EIA is not available to the general public, it is impossible to see how Corriente ranks in these categories. This can also be considered a reporting failure (data and richness availability), which is examined later on in this rubric.

*Social Performance:*

The policy categories under social performance were both given scores of 2, as Corriente has detailed outlines of their social responsibility commitments in both the code of conduct and their Health, Safety, Environment and Community Policy, which comply with international regulations.

Despite company claims that community consultation was carried out fairly and extensively, discussions with involved communities reveal that one of the largest complaints was company failure to adequately consult with local inhabitants. At the company's request, a third

party team from the Corporate Engagement Project of CDA Collaborative Learning Projects was hired and visited Ecuacorriente installations to “help corporate managers better understand the impacts of corporate operations on local people and societies.” (Comisión Ecuamélica de Derechos Humanos 2010). In their report, the team advised Ecuacorriente that “from a community perspective, the ECSA company-community engagement is perceived as: favoring certain groups over others; focused on individuals who have land or already have the capacity to provide local content; working with people or groups that may lack representative legitimacy; communicating mining information mainly to those who are already pro-mining; presenting information that is biased towards positive impacts; giving work to those who are most disruptive” (Comisión Ecuamélica de Derechos Humanos 2010). They have therefore received a score of 1 for this category.

On the topic of land tenure-related issues, the same report revealed that hundreds of families are vulnerable as a result of company practices related to land acquisition. Ecuacorriente’s Environmental Management Plan presented a land acquisition procedure based on transparency and equity, but its implementation has instead been characterized by individualized negotiations. This has inevitably resulted in conflicts between several local inhabitants, which were revealed in interviews and letters sent to Ecuacorriente (Comisión Ecuamélica de Derechos Humanos 2010). The Ecuadorian State is normally responsible for establishing a reliable system to guarantee individual property ownership in areas that are affected by social conflict and economic interests, but in this particular case the state has failed

to intervene in any such matters. This has given the company full responsibility in dealing with land-tenure issues, resulting in land acquisition that unjustly benefits their projects. The company has admitted that this has been a very difficult process, which has resulted in considerable social uprising. They have therefore received a score of 1 for this category.

Local employee inclusion and involvement was also assigned a value of 1, as their Health, Safety, Environment and Community Policy states that Corriente will “support local communities and their development by giving preference to local people for jobs and seeking a supply of goods and services from within the community” (Corriente 2011). However, there is no available data on employee statistics to confirm that this is maintained in practice, which is why they have not received full points for this section. This can also be considered a reporting failure (data and richness availability).

Community outreach programs/projects has received a score of 2, as Ecuacorriente has a detailed report on the programs they have run and a break down of the expenditures that have been dedicated to various projects in the involved communities. This includes education programs, reforestation initiatives, athletic events, a botanical garden, health programs, and community capacity building programs. This information can be found on their document entitled “Memoria Socio Ambiental ECSA 2008” on Ecuacorriente’s website.

#### *Economic Performance:*

A value of 2 was assigned to policies addressing bribery and/or corruption as this is

clearly addressed in the company code of conduct. There is no data on additional financial contributions being given to the communities within which they are working other than market prices for the land that the company has bought from inhabitants, hence a score of 1. Payments to the government received a 2, as they are held accountable by the Ecuadorian State and have done what is required in terms of what the government has demanded. However, it should be noted that the Ecuadorian government has been less than present in many of Ecuacorriente's mining projects, and this has allowed them to get by with practices and behaviors that would otherwise be considered illegal or unjust.

*Reporting:*

As previously mentioned, there has been little or no available data on some of the listed categories on this rubric, including, for example, access to the final environmental impact assessment report. Because of this, data richness and availability has received a score of 1.

Information on comparisons of indicators over time has received 1 point, as there exist many documents (such as technical reports) that are released every year or so on the progress of their mining projects. However, these reports are largely focused on figures that have meaning for their investors or shareholders, and almost no reports can be found on the state of the environment over time that include numbers pertaining to other stakeholders in the mining operations.

Comparison of indicators across organizations, sectors or regions received a score of 0, as

there are no documents that provide information or data farther reaching than within the mining industry. However, it should be noted that this is one of the harder reporting elements to successfully achieve, and organizations and sectors of all kinds struggle with meaningful standards that can be communicated and understood across broader scales.

Third party assurance was assigned a value of 2, as there has been repeated evidence of 3rd party intervention for various projects, including the EIA. Feedback mechanisms and results has been given a score of 1, as there is some evidence available on the development of their projects and how this has in turn affected different elements of the industry. Although again, this information is largely limited to the corporate side, and fails to look at (or report on) all involved fields that are affected by mining developments.

Finally, contact information has received full points, as this information is readily available on their website and is open to questions or comments via phone or email.

*Overall:*

Corriente scored a grand total of 35 out of 62 points. As hypothesized, Corriente's largest shortcomings were seen in their environmental performance, most specifically in their practices. This is largely because there was no available or accessible data on many of the environmental parameters by which the company could be assessed. Had the company made the environmental impact assessment available online and/or done a better job of annual reporting on the status of environmental indicators, this might have substantially changed their grading. Corriente

therefore receives the grade of C, as they scored a 56%.

#### ***VI.ii) Inmet's Troilus Mine***

Inmet's Troilus mine is located 120 km North of Chibougamau Quebec, and 160 km North West of Mistissini Quebec. Inmet owns 1,365 hectares of land, located within the traditional territory of the Mistissini Cree (Inmet 2006). The Mistissini Cree are the largest Cree population in Quebec (Mistissini 2003). The open pit gold and copper mine is 100% owned by Inmet (Inmet 2006). Troilus makes up 15% of Inmet's worldwide gross sales, totaling just under Can\$150 million. First opened in 1995 the mine was originally set to close in 2009. However, recent ore discoveries have extended the mine's production life to 2010 (NRSC 2007).

As of 2007, the mine employed 260 non-unionized employees of whom 19 were women and 14% were Cree (NRSC 2007). Workers of the mine live on-site, and as reported by Inmet there is only one family in the area, which lives within 1 km of the mine (Inmet 2006).

Some controversy surrounds the ownership of the mine. In 1997 Inmet struck a deal to transfer full ownership of the Troilus mine to Homestake Canada Inc. Homestake Canada failed to complete the purchase of the mine and Inmet took legal action. Inmet was subsequently awarded \$88.2 million in damages by order of the British Columbia Supreme Court (Inmet 2002). In 2006 Inmet again sought to sell their shares in the mine (Argent 2006), but with no buyers present the mine's full concession remained under the management of Inmet.

It must also be noted that this community has had substantial previous experience dealing

with large-scale extraction processes. The Mistissini Cree population is located in the James Bay area and participated in the successful Cree opposition to large-scale hydroelectric projects (Mistissini 2003). The 1975 James Bay Agreement granted the Mistissini Cree greater control over their territory, and gave the Cree the authority to designate representatives to sit on the federal and provincial panels. In recent years the Mistissini Cree stood in opposition to advanced uranium exploration by Strateco Resources in their territory (Mining Watch 2010a).

**Table 2. Report Criteria Assessed for Inmet's Troilus mine**

<b>Generic Category</b>	<b>Indicator Item</b>	<b>Score (0-2)</b>
Commitment and Management	<i>Policies</i>	
	- Description of the sustainability vision and strategy.....	2
	- Description of governance structure.....	2
	- CEO statement.....	2
	<i>Practices</i>	
	- List of main stakeholders.....	1
	- Employee training in safety and environmental protection.....	1
		<b>Category total: 8/10</b>
Environmental Performance	<i>Policies</i>	
	- Environment goals.....	1
	- Policies/plans/financial provisions for closure & rehabilitation.....	1
	<i>Practices</i>	
	- Environmental impact assessment (preferred by 3 <sup>rd</sup> party).....	2
	- Prevention of environmental accidents.....	0
	- Waste management.....	2
	- Greenhouse gas emissions.....	1
	- Impacts on biodiversity.....	0
- Water consumption.....	1	
- Energy consumption.....	1	
		<b>Category total: 9/18</b>
Social Performance	<i>Policies</i>	
	- Human rights policies.....	0
	- Compliance with ILO conventions.....	1
	<i>Practices</i>	
	- Community consultation processes.....	1
	- Management of land tenure-related issues.....	2
	- Local employee inclusion and involvement.....	1
- Community outreach programs/projects.....	2	
		<b>Category total: 7/12</b>
Economic Performance	<i>Policies</i>	
	- Employee benefits and salaries.....	2
	- Policies addressing bribery and/or corruption.....	0
	<i>Practices</i>	
	- Financial contributions to community.....	1
- Payments to government.....	2	
		<b>Category total: 5/8</b>
Reporting	<i>Practices</i>	
	- Data richness and availability.....	1
	- Comparison of indicators over time.....	2
	- Comparison of indicators across organizations, sectors, or regions....	0
	- Third party assurance.....	2
	- Feedback mechanisms or results.....	1
- Contact information for questions.....	2	
		<b>Category total: 8/12</b>
		<b>GRAND TOTAL: 37/60</b>
		<b>FINAL GRADE: C+</b>

## **Discussion:**

### *Commitment and Management:*

A value of two was assigned to all policy categories of Commitment and Management, as Inmet has a clear environmental and social sustainability strategy. Their sustainability strategy is easily accessible on their website (see: <http://www.inmetmining.com/sustainability/default.aspx>) and outlines objectives for safety, the environment, and for community collaboration. These strategies are also included in annually published sustainability reports and detailed quite fully in their *Safety, Environmental, and Community Affairs Standards (SECA)* manual.

Inmet has an extensive guide to employee health and safety, but did sustain some on-site injuries at the Troilus mine. In 2009 for a 475,294-work hour period, the Troilus mine had a total injury frequency of 2.5; this was a significant decrease from 6.6 in the previous year (Inmet 2009b). This data however, is not easily comparable across sectors, as there seems to be no database of comparable injury frequencies.

### *Environmental Performance:*

Inmet does include a section of environmental policies and goals within its sustainability reports but the overarching policies are quite vague. In its SECA manual, the environmental policies are outlined in just four pages (compared to health and safety regulations which comprise fourteen pages). Inmet states that they will utilize the International Council for Mining and Metals (ICMM) as the bases for environmental and biodiversity standards, but at no point

outline which specific policies will be applied. Inmet does however dedicate a quarter of its stated environmental policies to planning for the closure of the mine. The overarching policy of Inmet leaves mine closure policies up to individual projects detailing little other than financial measure which must be taken. No real mention of environmental procedures for mine closure is expressed in the SECA manual.

Specific environmental goals were more thoroughly outlined for the Troilus project, but again lacked great detail. For example, a stated goal in the 2009 sustainability report was to reduce green house gas emissions, but no percentage goal was identified (Inmet 2009c). Similarly, plans for rehabilitation are mentioned in the 2009 sustainability report, but no details are elaborated. Inmet has submitted a final closure plan to Quebec regulators, but this document is not openly available to the public.

As mandated by the Canadian and Quebec governments, Inmet was required to complete an environmental impact assessment. This assessment was completed before the mine began operation in 1997. Prevention of environmental accidents received a score of zero due to the increased number of reported environmental incidents, despite stated goals throughout the years to decrease the number of incidents and infractions. For example, in 2007 the Troilus mine reported 5 petroleum spills; this number increased substantially to 24 in 2009 (Inmet 2007; Inmet 2009c). Throughout the years (as stated in Inmet's sustainability reports from 2005 to 2009) the mine had continual difficulties with elevated levels of total suspended solids in settling pond effluents, as well as persistent problems with "fugitive dust" from ore stockpiles.

Despite difficulties with dust and environmental accidents, Inmet seems to perform relatively well in their waste management practices. The Troilus mine has the highest volume of total waste (1 873 768 kg of hazardous waste in 2009) excluding the Ok Tedi mine (Inmet 2009a). However, this waste is disposed of in a government-approved site. Moreover, dykes and waste rock dump piles have been evaluated as stable and there are no signs of acid generation (Inmet 2009a).

The Troilus mine is the 3rd highest emitter of greenhouse gasses among the Inmet projects but the total number of tonnes of CO<sub>2</sub>/tonne of copper released has decreased over the years: 35,604 tonnes in 2005 to 15,845 tonnes in 2009 (Inmet 2009a).

There is not much information available on the impacts of the mine to biodiversity, but as the mine has disturbed 737 hectares of boreal forest it must be presumed that there has been some negative impact on the biodiversity of the region (Inmet 2009c). Inmet has listed no goals to improve or mitigate environmental impact to the surrounding ecosystem.

The Troilus mine does however perform comparatively well in water recycling. At 75%, it has the highest rate of recycling of any of the projects. However, this rate was higher in 2007 at 81%. Furthermore water withdrawn has decreased little from just over 3 million m<sup>3</sup> in 2005 to 2.8 million m<sup>3</sup> in 2009 (Inmet 2009c).

The Troilus mine performed poorly in their energy consumption. Inmet reported a 0% saving in energy as a result of conservation efforts and direct consumption increased from 588 461 GJ in 2005 to 585 753 GJ in 2009 (Inmet 2009c).

*Social Performance:*

In its most recent sustainability report, Inmet indicated that they are working towards creating corporate human rights policies, however none of their investments include human rights clauses or have undergone human rights screenings. As stated in the report, INMET has no policies or procedures in place to deal with such screenings: "We do not currently have a formal policy or procedures for human rights screening. However, the countries where we operate have human rights laws in place and our contracts have general requirements for compliance with all legislation" (INMET 2009a). Inmet's Troilus mine does seem to follow the regulations of Canadian and Quebec law fairly well, but have received a number of infractions over the years. In 2006 Inmet was charged with 21 exemptions from regulatory complain and upon audit were found to have 23 management practices issues (Inmet 2006). Similarly, in 2007 an audit found 4 compliance issues and 2 notices of violation issued by the province of Quebec, related to the unapproved effluent discharge point previously discussed in the environmental performance sector.

While Inmet has an extensive health and safety policy that falls in line with the standards set by the ILO (ILO 2011b), it is unclear whether or not Inmet's Troilus mine has met the standards outlined in ILO convention No. 169 on indigenous consultation processes that requires "that these peoples are able to engage in free, prior and informed participation in policy and development processes that affect them" (ILO 2011a). Over the years Inmet has made repeated reference to "engaging with the community" through the Troilus Agreement Implementation

Committee (Inmet 2009b). This committee is made up of three Inmet representatives, three representatives nominated by the Cree band council, and a Troilus-Cree coordinator. This committee however, only met a small number of times over the years (three times in 2006, twice in 2007, and twice in 2008) and the repeated goal to "develop and implement a formal community engagement and dialogue plan and hold at least one community meeting in Chibougamau and Mistissini" (stated in sustainability reports from 2006 onwards) has never been met (Inmet 2006; 2007; 2008; 2009a).

The Troilus agreement was first signed in 1994 as a part of an Impact and Benefit Agreement, setting up targets for employment, economic development and environmental development (NRC 2007). While the true nature of the Troilus Agreement remains unclear, it was agreed upon by members of the Mistissini Band Council. In Québec there have historically been some disputes between traditional councils and band councils in regards to which party holds legitimate authority in indigenous communities [see for example the struggles of Barrier Lake First Nations to maintain their traditional governance system, while the federal government continues to impose band council reforms (Lukacs 2009)]. Thus, while no evidence of such a dispute was available, the Troilus agreement must be evaluated under a cautious eye. The consultation process has thus been given a value of 1.

It is however notable that the Troilus agreement has been given, by industry and government alike, as an example of a successful agreement between a mine and the population whose lands traditionally occupy the territory (NRC 2007). There have been no known land

claim disputes since the establishment of this agreement, thus the value of 2 given to the Management of land tenure-related issues category.

Over the years Inmet has given noticeable financial contributions to the Mistissini community. In 2006 Inmet donated \$26 000 Canadian to the local community, this sum increased to \$67 650 in 2007 (Inmet 2006; 2007). No exact donation sums were available for 2008 or 2009, but the sustainability reports of these years reported after-tax contributions to the community of 0.2% and 0.1% respectively (Inmet 2008; 2009a). The contributions of 2008 and 2009 fall below the 0.5% contribution repeatedly stated as a goal by Inmet. The failure to meet this goal thus lowered the compensation value to 1.

Similarly, the Troilus Agreement specifies a goal of 25% Cree employment in the mine. While Inmet's local employment level was comparatively high when juxtaposed to its foreign projects, the Troilus mine consistently fell short of this goal, thus the value of 1. For example, in 2007 Inmet had only 14% Cree employment (NRC 2007). Inmet has however contributed substantial sums over the years to community education and development programs. In 2006 Inmet donated \$26 000 to the community. This sum increased substantially as approximately \$15 million were granted to Aboriginal-owned companies for "mine development activities such as line cutting, road building, platform and building foundation construction, and the installation of potable water and waste water systems" (NRC 2007). In the same year, Troilus contributed \$63 000 to numerous local organizations such as the local women's shelter, sporting groups and cultural celebrations (NRC 2007). Despite a 25% increase in net income, community

contributions decreased by 50% from 2008 to 2009. While there have been recent declines in the percent contribution to the community, Inmet has continued to give substantial sums of money and thus was given a value of 2 for their community outreach.

*Economic Performance:*

Inmet's Troilus mine follows Quebec and Canadian legislation regarding employee benefits and salaries, and have policies that state such (Inmet 2009b). There have been no recorded violations regarding employee salaries or benefits and thus this category has been assigned a value of 2. Troilus, nor any of Inmet's operations, do not have a formal policy to deal with bribery or corruption. While there have been no accusations of such behavior at this mine, the lack of an existing policy to deal with such an occurrence necessitates a valuation of 0 for this category.

Inmet follows provincial and federal regulation for taxes paid to the government, this category has therefore been given a valuation of 2.

*Reporting:*

Inmet releases yearly sustainability reports through their website. These reports are generally available in English, as well as the national language of the project communities. The sustainability reports for the Troilus report are readily available online from 2006 onwards. However, the data contained in these reports is quite general for certain categories. Specific

agreement/legislative violations are stipulated, but for example, specific data on types and quantities of effluents released into waterways are not shared publicly. There is also variation over time in the format and type of data released by Inmet. For example, while in 2006 and 2007 the real-dollar value of community contributions was reported, this data was presented as a percentage of post-tax revenue for 2008 and 2009. Post-tax revenue was notably not listed in these years. Owing to the availability of some data, but the insufficient richness of this data and its poor comparability over time, both of these first two categories in reporting received a value of 1.

Inmet has committed to the reporting system outlined in the Global Reporting Initiative (GRI), and thus the data it does present is more easily comparable across different organizations and sectors (thus its given value of 2). As per the suggestion of the GRI, Inmet conducts third party evaluations and audits within all its sectors. These audits appear to provide much of the information for their yearly evaluations and thus for the goals of the following year. Each sustainability report lists the year's performance relative to previous goals and establishes goals for the following year. This system seems to present an effective and iterative evaluation of their operations. The Troilus mine however, has repeatedly failed to meet such goals in numerous sectors, indicating weak or ineffective feedback mechanisms despite this clear evaluation system.

Finally, the Troilus mine does clearly list contact information for the head offices of Inmet. However, the response rate and openness to questions is quite limited. Attempts to obtain an interview with a company representative resulted in upwards of five unanswered phone calls

and a month-long series of e-mails in which clearly stated questions were never answered.

*Overall:*

The Troilus mine has well-stated and implemented health and safety regulations. The same is true for the corporate strategy and governance system. Where the Troilus mine falters most seriously is in its reporting of environmental incidences, its effort to limit impacts to biodiversity, and in its reporting of such across the years. The Troilus mine has thus received an overall grading of 37 out of 60, or a grade of C+.

***VI.iii) Inmet's Ok Tedi Mine***

Ok Tedi is an open-cast copper mine located in the Star Mountains of the Western Province of Papua New Guinea. The mine is 900 km NW of the capital city of Port Moresby and 15 km from the border of Indonesia (Hearn 1995). This mine is important not only for its environmental and social impact but also for the substantial economic contributions it makes to the economy of Papua New Guinea. As reported in 2004, the country's mines make up approximately 70% of all export income. In 2008 mining also accounted for 25% of the country's GDP (Kepore et. al 2008). With reserves of 540 million tonnes of copper, Ok Tedi makes up one of the most important copper-gold porphyry deposits in the world (Hettler et. al 1997). It has also consistently ranked among the top gold producers since the mid 1990s (Peterson 2009).

Ok Tedi has a long history dating back to the first exploratory projects in the area in 1968. During this time Papua New Guinea's newly post-colonial government, under external pressure such as the World Bank, began investing in mining projects (WRI 2003). Inmet has maintained its 18% interest in the project until January of this year (Inmet 2011).

Prospecting on the site began in the late 1970s, and under the 52% ownership of Australian mining company BHP (the remaining 30% of the project was owned by the government of Papua New Guinea under Ok Tedi Mining Limited - OTML), excavation began in the mid 1980s (Hearn 1995; Hilson and Haselip 2004). Inmet, however, did not become involved until this time when it acquired an 18% interest in the project (Hearn 1995).

As explained by Hearn in his 1995 report on the geology of the mine site, the area is isolated and built on difficult terrain: "The combination of adverse geological structures, highly fractured bedrocks, steep topography, heavy rain, rapid weathering and intermittent seismic activity, has resulted in an unstable and fragile natural environment" (49). He further explains that the mine site is one with low rock strength, surrounded by dense tropical forest, has high precipitation levels (as high as ten meters in one year), high rates of erosion, and poorly drained slopes which are prone to collapse (49).

Importantly, this mine is located along the Ok Tedi and Fly River system upon which various villages reside (Kepore et. al 2008). Approximately 50, 000 people, predominately indigenous Yoonggom and Wopkaimin subsistence farmers, live along these two streams (WRI 2003). Many of the 40,000 Wopkaimin who were sustained by the aquatic and forest ecosystems

along the Fly River system were forced to relocate when the mine began construction (Hilson and Haselip 2004).

These communities have witnessed significant negative impacts since the mine initiated operations in the 1980s due in large part to the massive disposal of industrial waste into the river systems upon which their livelihoods depend. A large dam had been built in the early 1980s to keep tailings from seeping into the Ok Tedi River system as per the suggestions of an Environmental Impact Assessment (WRI 2003). Even with a dam in place, the EIA had suggested that copper and other heavy metals would have severe impacts on downstream aquatic ecosystems (Townsend and Townsend 1996). Moreover, in 1984 a landslide destroyed the dam's foundations releasing an estimated 140,000 liters of cyanide into the Ok Tedi/Fly River system (Kirsch 1996; Hilso and Haselip 2004). As stated by the World Resource Institute, "Under pressure from BHP not to force the expensive building of another dam, the government granted OTML temporary permission to release mine waste into the headwaters of the Ok Tedi River" (2003). The permit was further extended in 1988 and is still in effect today.

Thus the toxic tailings containing cyanide, heavy metals and other pollutants are dumped adjacent to Mount Fublian and washed into the upper Ok Tedi River. It is estimated that approximately 80 thousand to 66 million tonnes of mining waste is dumped into the Ok Tedi/Fly River system every year (Hettler et. al 1997; Hilson and Haselip 2004). An environmental impact assessment of waste in the Ok Tedi river performed by Hettler, Irion and Lehman in 1997 found: "suspended matter content in present-day water of the Middle Fly River is between 330-600

mg/l, i.e. about 5-10 times higher than the estimated natural background of about 60 mg/l," further stating that "significant quantities of mine-derived sediments are being deposited and trapped in creeks, lakes and swamps adjacent to the Fly River. Such off-river sites are likely to play an important role in the food web and in the reproduction cycle of aquatic organisms like invertebrates and fish" (284). Much of this suspended matter is copper-rich material and has been found to travel all the way to the river system's delta, an important area for the recruitment of fish and primary productivity. Adding to the disastrous impacts to the aquatic system, the project has destroyed over 1000 km<sup>2</sup> of pristine rainforest and wetlands (Hilson and Haselip 2004).

Things reached a tipping point in the early 1990s when local communities began lobbying the Papua New Guinea government and BHP Billiton to recognize the damages suffered to their land and livelihoods. Two community members traveled to Australia, Brazil, and the United States seeking support in their demand for US\$6.6 million in compensation for villagers living directly adjacent to the mine site (Kirsch 2001). In 1994 a lawsuit was filed against BHP Billiton, Inmet, and OTML. The lawsuit settled out of court and resulted in a settlement act worth roughly US\$80 million at the time (Kirsch 2007). \$56 million was given to compensate the adjacent community and another \$20 million was given to downstream communities (Hilson and Haselip 2004). University of Michigan anthropologist Stuart Kirsch, who has worked in the area for over 30 years, has however been critical of the compensation package that came out of this lawsuit: "the agreement required the 30,000 plaintiffs in the case to choose between monetary compensation and continued participation in the litigation in Australia" adding that

"the agreement stipulated that the compensation payments could be reduced or eliminated altogether to pay for any additional expenditure on tailing containment required by the government of Papua New Guinea" (307).

Despite the agreement from BHP Billiton and the other owners of the Ok Tedi mine, tailings waste continued to be directly disposed of in the Ok Tedi River. In 1999 BHP Billiton released a statement admitting that under the previously obtained government permit, tailings were still being discharged directly into the river system due to their inability to construct a tailings and waste rock facility (Hilson and Haselip 2004). A waste management study released in the same year found that "even if mining were to stop immediately, the environmental problems would continue to increase given the sheer volume of tailings already in the river system and ongoing erosion from waste rock fumes in the mountains" (Kirsch 2007).

The continued poor environmental performance of the mine resulted in the release of a study by the World Bank in 2000. Despite the World Bank's historical support for the development of this mine, the report concluded that BHP Billiton and Inmet should shut down operations and facilitate a post-mine economic transition (Kirsch 2007). The mine did not stop operations and later that year BHP was brought to court for violating the terms of the 1996 agreement. The lawsuit was once again settled out of court, although this time due to lack of evidence (Kirsch 2004).

In 2002, after stating that Ok Tedi was "not compatible" with their environmental values, BHP Billiton transferred its 52% share of the company to the Singapore owned PNG Sustainable

Development Program Ltd. and pulled out of operations (Kepore et. al 2008; Kirsch 2007).

Many environmental and social justice groups saw this move as an unjust evasion of the company's responsibility for the damage created in Ok Tedi. Anthropologist Stuart Kirsch confirms these criticisms in his 2007 article *Indigenous movement and the risks of counter globalization*: "BHP Billiton was not only able to avoid future economic liability for the environmental impact of the Ok Tedi mine, but it also evaded public scrutiny of its continuing moral responsibility for the lives of the people affected by the mine" (309).

In 2006, Ok Tedi Mining Limited (owned by the government of Papua New Guinea and now the major share owner of the project) performed a review of the mine that included all of the major stakeholder groups. The review resulted in the signing of a Memorandum of Understanding in May 2007. The Memorandum increased compensation and development packages to mine-impacted communities (Kepore et. al 2008).

Despite these various agreements and lawsuits, mining activity continues to seriously impact the Ok Tedi/Fly River aquatic and ecological systems. By 2007, more than 1 554 km<sup>2</sup> of rainforest had been affected by pollution from the mine, local fauna composition is not expected to return to pre-mine conditions, and grasslands have replaced much of the once existing ecologically diverse rainforest (Kirsch 2007).

In like manner, the mine continues to attract much social unrest. Community members remain divided by their distrust of the mining companies, distaste for the environmental distraction the mine has caused, and their need for employment and economic development

(Kirsch 2007). Furthermore, conflicts have arisen amongst mine employees. In 2010 an 'illegal' strike occurred when workers demanded an increase in pay (Inmet 2010).

In late January of this year Inmet sold off its shares to the Ok Tedi Mining Limited, dispossessing its responsibilities to the mine and its cleanup (Inmet 2011). While representatives from the company were unavailable to comment on the reasons why this transaction was pursued, it must be speculated that the continued poor environmental performance and social discontent surrounding the project may have been at the heart of the decision. Inmet received gross revenue of \$335 million from the transaction (Inmet 2011).

OTML and the government of Papua New Guinea are preparing for the mine's closure in 2013, but are making inquiries to extend the life of the mine to 2022 (Ok Tedi, 2011).

**Table 3. Report Criteria Assessed for Inmet's Ok Tedi mine**

<b>Generic Category</b>	<b>Indicator Item</b>	<b>Score (0-2)</b>	
Commitment and Management	<i>Policies</i>	- Description of the sustainability vision and strategy.....2	
		- Description of governance structure.....2	
		- CEO statement.....2	
	<i>Practices</i>	- List of main stakeholders.....1	
		- Employee training in safety and environmental protection.....1	
		<b>Category total: 8/10</b>	
	Environmental Performance	<i>Policies</i>	- Environment goals.....1
			- Policies/plans/financial provisions for closure & rehabilitation.....1
		<i>Practices</i>	- Environmental impact assessment (preferred by 3 <sup>rd</sup> party).....0
			- Prevention of environmental accidents.....0
- Waste management.....0			
- Greenhouse gas emissions.....0			
- Impacts on biodiversity.....0			
- Water consumption.....0			
- Energy consumption.....0			
<b>Category total: 2/18</b>			
Social Performance	<i>Policies</i>	- Human rights policies.....0	
		- Compliance with ILO conventions.....1	
	<i>Practices</i>	- Community consultation processes.....1	
		- Management of land tenure-related issues.....0	
		- Local employee inclusion and involvement.....0	
		- Community outreach programs/projects.....1	
	<b>Category total: 3/12</b>		
	Economic Performance	<i>Policies</i>	- Employee benefits and salaries.....0
			- Policies addressing bribery and/or corruption.....0
		<i>Practices</i>	- Financial contributions to community.....1
- Payments to government.....2			
<b>Category total: 3/8</b>			
Reporting	<i>Practices</i>	- Data richness and availability.....1	
		- Comparison of indicators over time.....2	
		- Comparison of indicators across organizations, sectors, or regions...2	
		- Third party assurance.....0	
		- Feedback mechanisms or results.....0	
		- Contact information for questions.....1	
		<b>Category total: 6/12</b>	
<b>GRAND TOTAL: 22/60</b>			
<b>FINAL GRADE: F</b>			

As the focus of this report is on mining companies present in the mining industry of Panama, this case study will focus in particular on the reporting and practice of Inmet, rather than BHP Billiton or OTML, the major owners of the mine. The evaluation performed is thus based on data directly available from Inmet.

*Commitment and Management:*

As outlined in the case study of the Troilus mine, Inmet has a very clearly stated and accessible sustainability declaration, description of governance structure and CEO statement. Similar problems were found with Ok Tedi's list of stakeholders as with the Troilus project. Local communities were well identified, but excluded were other environmental and social groups working within the community and exerting pressure on government and public opinion.

Health and safety policies were again clearly outlined through Inmet's SECA (Inmet 2009b), and most years reported no major injuries. 2009 lay as an exception as one employee passed away as a result an explosion caused by sing propane instead of ox-acetylene to preheat a welding surface (Inmet 2009c). This serious accident lowered Inmet's safety training practices down to 1.

*Environmental Performance:*

The Ok Tedi mine does have environmental goals outlined in the yearly environment and sustainability reports published by OTML and Inmet. The goals stated in these publications are not particularly specific, but they are meaningful (i.e. to reduce the occurrence of acid mine drainage). While OTML releases very detailed reports every year (beginning in 2003, undoubtedly as a result of the legal action taken against the mine) outlining all, and the quantities of, effluents released into the river system as well as impacts to local flora and fauna, no specific goals are stated as to how to improve on these factors. Similarly, while a plan for the closure of the mine does exist, details are not readily available to the public. Importantly, the mine closure date has twice been extended and the company is now seeking to further extend the closure date to 2022 (Ok Tedi, 2011).

The Ok Tedi mine did have an independently performed environmental impact assessment before it began operations by an Australian contract company. However, the warnings given in this assessment were not headed by BHP Billiton, Inmet or OTML, especially in regards to the ineffectiveness of the planned tailings dam and the severity of impact caused by heavy metal contamination of the Ok Tedi/Fly River systems (Townsend and Townsend 1999).

The Ok Tedi mine has performed rather abysmally when it comes to both the prevention of environmental accidents and waste management. In 2009 the mine experience four oil spills totaling 647 m<sup>3</sup> of oil spilled (Inmet 2009a). Despite calls from the World Bank to shut the mine

down, operations have persisted and continue to dispose of tailings waste directly into the Ok Tedi river. In 2006 OTML did institute a \$30 million dollar dredging program designed to lower the riverbed and prevent flooding to adjacent forests. Unfortunately, the dredging program only removes roughly half of the tailings material produced by the mine and only 20% of the total volume of waste material discharged into the river system (Kirsch 2007). Furthermore, there continue to be problems with acid mine drainage and leaching of sulphuric acid and other heavy metals into the river system with disastrous effects to organic life (ibid). In 2009 Ok Tedi did begin to add limestone to the river to reduce the potential for acid mine drainage, and a second quarry put in place for the same purpose (Inmet 2009a).

While there are no easily comparable international standards for mining greenhouse gas emissions, the Ok Tedi mine has the highest rate of any Inmet project. Their levels have also increased over the years: from 208,253 tonnes of CO<sub>2</sub>/tonne of copper to 254 088 (Inmet 2009a).

The impact of the Ok Tedi mine on biodiversity has likewise been quite severe. As reported by BHP Billiton, "Fish stocks have fallen by 70–90 percent, animals have migrated, and about 1,300 square kilometers of vegetation have died or become blighted, forcing villagers to hunt and fish over larger distances. Copper concentrations in the water are about 30 times background levels, though the river still meets World Health Organization drinking water standards" (WRI 2003). As already detailed, millions of tons of tailings and waste rock have been dumped into the Ok Tedi River system, and vast areas of rainforest destroyed with serious impact to the 128 native freshwater species (among which 17 are unique to the Fly River basin)

recorded in the area (WRI 2003).

The Ok Tedi mine is the third highest consumer of water among Inmet projects and has the highest direct water withdrawals (Inmet 2009a). The mine has also increased its total water withdrawals steadily since 2007 (the earliest available data). Withdrawals in 2007 were just over 1 million m<sup>3</sup> whereas water withdrawals in 2009 were just over 3.6 million m<sup>3</sup>. Moreover, the overall percentage of water recycled declined from 70% in 2007 to 58% in 2009 (Inmet 2009a).

Similarly, Ok Tedi is the highest energy consumer of any of Inmet's mines. Energy consumption has fluctuated over the years, but Ok Tedi's rates increased from their 2005 level of 2 047 118 GJ to 4 248 951 GJ in 2009.

#### *Social Performance:*

Again, as examined in the Troilus mine case study, none of Inmet's investments include human rights clauses or have undergone human rights screenings and no policies or procedures exist to deal with such screenings (Inmet 2009a). Inmet complies with most ILO conventions, however the consultation process (as outlined in ILO convention 169) was not followed during the original development of the mine. No consultation process occurred and many Yoonggom community members living along the Ok Tedi River were forcibly removed (Kirsch 2007).

Consultation processes have been set up in subsequent years (i.e. the Memorandum of Understanding signed by all major stakeholders in 2007) but community members continue to lack real decision-making power (ibid). Thus while improvements have been made, meaningful

consultation remains elusive, hence the value of 1 given for this category.

The land-tenure management in the Ok Tedi region has been complicated by state-recognized land ownership legislation. The land upon which the Ok Tedi mine stands was historically held in customary ownership by small clans. However, in a system similar to that of Panama's, sub-soil resources are property of the state (WRI 2003). This gave government superior rights over those living on the lands of the mine site. An agreement was made between the roughly 2000 landowners living on the mine site and OTML to give compensation for relocation and funds, but little was actually done in this effort until the lawsuit was pursued in 1996 (Kirsch 2001). Under the Community Mine Continuation Agreement made by OTML and community members in 2007, Inmet and OTML have committed to compensating the community \$300 million over the next six years to 60,000 affected community members. Inmet has listed among their priorities an increase in direct compensation, \$7 million/year over six years to development projects and that one sixth of the 30% dividend will be committed to community projects. Inmet has declared a continued commitment to this plan, and in 2009 stated a focus in community development projects to increase water supplies, the funding of poultry farms for economic self-sufficiency, a focus on education of women and children, and finally a focus on community health: "Doctors have reported an increase in average life expectancy from 30 years to more than 50 years, and infant mortality rates are down to less than 15 per thousand from 129 per thousand before mining began" (Inmet 2009a). While community members have been financially compensated for their loss of land, it is certain that their dislocation (both

physical, economic, and social) has had a huge impact on the epistemological orientation of the community (Kirsch 2007). Due to the forced relocations and lack of real and timely compensation, the Ok Tedi mine was given a value of zero for management of land-tenure issues.

Inmet was given a value of 0 for local employee inclusion and involvement as they have limited local employees at entry-level positions and 0% of senior-management is local (Inmet 2009a). This is true of all years for which data is available. A report exploring the implementation of CSR policies done by Kepore, Goddard and Higgins in 2008 found that despite mine development, unemployment was still highly prevalent in communities along the Ok Tedi River (8). The mine seems to have done little to help local employment but has destroyed their ability to maintain a subsistence based livelihood, creating dependency on the compensation packages of the mine. Kirsch again summarizes this most aptly in his 1996 report: "With productivity no longer linked directly to that of the physical environment. The largest source of income among the Yonggom is cash payments for the mine's impact on their river and forests. The compensation they receive does not result from the use of their land and resources, but from the destruction of its productive capacity" (376).

#### *Economic Performance:*

Inmet has uniform policies across all its projects guarantying compliance to local legislation on employment and benefits. No specific data however, was provided for salaries and

benefits received by Ok Tedi employees. Furthermore, union strikes in late 2010 demanding pay increases from the company indicate that employees are not satisfied with the policies of Inmet and OTML (Inmet 2010). Thus, for the category of employee benefits and salary Inmet received a rating of zero.

The compensation of communities has been thoroughly explained in conjunction with community development projects under the social performance division.

As Ok Tedi works directly with the government of Papua New Guinea on this project (the government is a major shareholder in the project) and complies with federal tax laws, they have received a value of 2 for their payments to the government.

*Reporting:*

As with Inmet's Troilus mine, Inmet seeks to meet the standards outlined by the Global Reporting Initiative. There are, however, some gaps in the detail of reporting. Social indicators are not reported on in any detail beyond the annual sustainability reports published by Inmet, but environmental indicators are reported on in greater detail through reports released by the OTML through its website Oktedi.com. These reports detail very specific environmental conservation goals and the data from their ongoing monitoring. The data shared is, however, in a similar format across the years allowing for comparisons of progress to be made (or rather highlighting the little progress that has been made at the Ok Tedi mine). This data has only been made available since 2003, largely as a result of the serious legal action taken against the project. As

data is presented in congruence with the standards of the Global Reporting Initiative, their standards are comparable across sectors and industry.

Ok Tedi's environmental reporting is completed based on self-reported data and is not assured by a third party. This is also true of their social indicators. While Inmet does have a self-reflexive evaluation system that evaluates progress over the years, their clear failure to meet environmental objectives year after year indicates a failure to establish effective feedback mechanisms.

As with Inmet's Troilus mine, Inmet does clearly list contact information for their head offices, and the offices of the Ok Tedi mine. However, the response rate and openness to questions is quite limited. Attempts to obtain an interview with a company representative resulted in upwards of five unanswered phone calls and a month-long series of e-mails in which clearly stated questions were never answered.

*Overall:*

The Ok Tedi mine has significantly polluted the Ok Tedi/Fly River system, resulting in significant fish kills, rainforest destruction, as well as the displacement of thousands of people and a great loss in livelihood.

While Inmet has clearly delineated CSR policies and environmental goals, their repeated inability to implement such plans has resulted in an overall grade of 27 out of 60. Inmet's Ok Tedi mine receives a grade of **F**.

## **VII. Discussion**.....

A review of academic literature on CSR policies and their implementation revealed several common criticisms. First, as many countries do not legally obligate mining companies to report their environmental and social impacts, such an initiative may be completely voluntary. This is illustrated in the discrepancy of data availability between the Inmet and Corriente projects. No specific legislation exists in Ecuador requiring Corriente to release environmental data. Few countries legally require such reporting, resulting in a selective release of data (Jenkins and Yakovleva 2006).

Furthermore, there are no internationally binding laws regarding the form and content of data released. Despite initiatives such as the GRI, this lack of binding legislation has resulted in a high degree of variability across companies (Jenkins and Yakovleva 2006). In countries where disclosure laws do exist (such as Canada) the form of disclosure often precludes the ability to make any meaningful assessment of the data released. As with Canada's National Pollutant Release Inventory, simple measures such as 'metal to water' waste are often legally required in the place of more meaningful assessments such as volumetric emissions, biological availability, and relative metals content (Peck and Sindig 2002).

There are further concerns with the actual impacts of these programs. Some have argued that CSR policies are employed as a simple profit-maximizing tactic, and as such corporations are not truly interested in the development of these communities (Kaplus 2002). With profit as the major driving factor behind these plans, if the cost of CSR policies becomes too great some

fear that mining companies will pull out of development projects, leaving community members to deal with environmental outfall without company support (Kemp 2009).

Others worry about negative impact to community dynamics as a result of consultation processes. The rhetoric typically employed in these reports is generally devoid of discussions of power and privilege, despite the presence of tactical decisions made by companies when identifying sympathetic ‘leaders’ among communities in the consultation process (Kemp 2009). Generally given little voice in the assessment period, the ramifications of excluding discussions of power are most noticeable among women in mining communities: “[women] are unlikely to receive direct employment from the mine. This leads to greater vulnerability, powerlessness and a lack of voice and greater dependency on the mine and on men and those with power in the community” (Jenkins and Obara 2008).

Many studies on the impact of mining projects to the economic and social wellbeing to communities point to the occurrence of the ‘resource curse’. Communities dependent solely on mining are tied to the fluctuations of market prices and may face mine closure when mineral prices drop. This may lead to a sharp increase in unemployment and a deficiency in socio-economic resources (Jenkins and Obara 2008). In their study *Mining and Poverty Reduction* Pegg found: “mineral dependent states have significantly higher levels of inequality than other states with similar incomes: the more that states rely on mineral exports, the smaller the share of income that accrues to the poorest 20% of the population” (378).

A state's ability to work towards development through the diversification of its markets and management of economic shocks is in large part related to the strength of its governance. Unfortunately, states highly dependent on mineral and mining wealth have historically been prone to corruption, thus inhibiting positive economic spin-off effects from reaching those communities most in need (Pegg 2006). Governments that obtain large sums of funding from corporations are less dependent on the support of their citizens and thus feel less accountable to their constituents. This corruption may create patronage, clientalism, and an over-expansion of bureaucracy that may limit the quality of governance (Bebbington et. al 2008).

The trickle-down effects from economic development so commonly heralded in CSR plans have also come under fire. While companies often cite mines as a source of employment and prosperity to neighboring towns, empirical evidence shows otherwise. As mining technology has shifted towards more capital-intensive extraction, fewer low-skilled workers are necessary and a greater number of foreign workers are brought in. Moreover, relative to the size of revenues, the number of jobs created by capital-intensive large-scale mines is quite small (2 to 3 million worldwide, vs. 13 million in small-scale mining) (Pegg 2006).

Moreover, the presence of mines has been shown to have an important impact to social dynamics. Mining towns experiencing a rapid influx of workers have witnessed high rates of inflation alongside rising housing prices. This can result in a division between highly paid incoming workers and low-income residents, leaving them with "significantly shrunk real incomes" (Pegg 2006). Furthermore, this influx has been attributed to an increase in social ills

such as alcohol abuse, prostitution, child labor and public health risks such as HIV/AIDS (Pegg 2006).

While mining companies continue to claim that CSR policies aid poverty reduction through an increase in economic and infrastructural investment, states dependent on mining have experienced little socio-economic improvement. The oil discoveries of the Niger Delta demonstrate this most aptly: 40 years after oil was discovered in the region “the vast majority of people there still don’t have access to basic infrastructure like electricity or pipe-borne potable water. Infrastructure improvements that either do not materialize or are solely designed to benefit corporate mining firms will not produce substantive poverty reduction” (Pegg 2006).

Unrealized infrastructural promises and disruption of community dynamics are not the only failures of CSR policies. Promises of educational attainment have also failed to meet company promises. A study performed by Thorvaldur Gylfason found that states with a higher degree of dependency on oil exports demonstrated correlative low educational expenditures (Pegg 2006).

Corporate control of social service expenditure has important implications in an increasingly globalized world where the lines of responsibility between business and government have become increasingly blurred. Especially in contexts of weak governance, communities may become increasingly dependent on companies (who, as previously discussed are not as accountable as government to citizens) to provide their social services (Kaplan 2002; Kemp 2009). It may therefore be very difficult for communities to effectively challenge companies if

governments rely on corporations to solve developmental problems: “Depending on companies undermines the power of governments to act and ultimately gives the company more power – a vicious circle” (Jenkins and Obara 2008).

A final criticism, which is particularly pertinent to the future challenges of the communities neighboring Cerro Colorado and Cobre Panama, is the historic failure of companies to actively engage with local populations on a similar epistemological plane. The scientific ‘development rational’ frequently employed by mining corporations has been documented as coming into conflict with more holistic indigenous worldviews based on oral histories and a connection to the physical environment. This may cause problems when trying to actively engage indigenous communities in decision-making processes (Jenkins and Obara 2008).

An important criticism identified by many authors in their analysis of the implementation of CSR policies in varied communities is the importance of strong legislation and governance (Jenkins and Obara 2008; Kaplus 2002; Kemp 2009). Without this, it is up to companies to self-report and there are few procedures to enforce reporting or the implementation of development projects.

This criticism is particularly pertinent to the communities of Cerro Colorado and Cobre Panama. Our analysis makes clear that the varied performance of Inmet and Corriente is in part related to the binding legislation present in the mine communities. The performance of Inmet’s Troilus mine is much higher than at the Ok Tedi mining site. While environmental factors certainly come into play, the continued dumping of raw tailings directly into the Ok Tedi/Fly

River system is due to poor government legislation and permitting of environmentally destructive behaviour.

Panama does possess some legislation meant to guide the actions of mining exploration and extraction. The Ngöbe-Buglé Comarca (site of Cerro Colorado copper deposit) has its own legislation, with Law 10 specifying an obligation for consultation with community members prior to mine development (CoNaPi et. al 2003). ANAM, the national environmental regulating body, also has several legislative measures that impact mining (i.e. road construction, soil quality, radiation, industrial hygiene and safety, water use), but none are mining industry specific. Decree 59 of March 2000 introduced regulations concerning the requirements to perform Environmental Impact Assessments. These reports must be performed for any new project and approved by ANAM, however major gaps have been found in EIAs performed for previous projects in Panama.

The 1963 mining code of Panama deals primarily with the legality of obtaining and extending concessions, but articles 95 and 102 both stipulate that companies must maintain records of their activities and report “general information related to mining operations” to the General Director of Mining Resources. However, the Petaquilla gold mine site, located just next to the Cobre Panama project and owned by Panamanian run Minera Panama, stands as an example of the poor enforcement of existing environmental legislation in Panama. Under the recommendations of ANAM, Petaquilla was fined \$1 million for their environmental damages in 2008, but just one week later the government approved the deficient EIA for Petaquilla’s gold

mine allowing for production to proceed (Mining Watch 2009). That government officials have continued to permit the mine to operate with such poor environmental performance with disregard for the precautionary measures intended by the EIA, indicates that Panama has a poorly established legal and political framework to ensure the successful implementation of CSR policies.

### **VIII. Recommendations.....**

Our case studies and analysis demonstrate that despite an increase in the employment of CSR rhetoric among companies, without binding legislation reporting is often selective and the impacts no less detrimental to communities. This was particularly evident in the case of Corriente, where huge gaps exist in their environmental reporting. Moreover, reporting that is made by companies is often not comparable across corporations. Legally binding and enforced international standards of reporting and social/environmental impacts would greatly improve upon existing CSR practices.

For states such as Panama, relying on industry self-regulation is a dangerous wager. As various other reports have shown, strong local governance and environmental legislation are far more effective tools for regulating industry behavior. This is especially pertinent in consultation processes (i.e. with the Ngöbe in the development and construction of the mine site in Cerro Colorado). While Law 10 of the Ngöbe-Buglé Comarca stipulates that communities must be consulted prior to mine extraction, this law has been poorly enforced (see this year's report by

Moolji and Simms for more information). Without legitimate enforcement of consultation, mines may proceed without the support of communities, resulting not only in potential social divisions but seriously limiting the success of CSR policies. If mining activity is to proceed in Cerro Colorado, and CSR policies employed, then these policies must be developed *by* community members *for the needs of* community members. Community members must be made fully aware of the potential impacts of mining projects, be given self-determination and decision-making power, and fully consent to the implementation of a project (Hilson and Murch 2002).

Regardless, it is certain that community members must be wary of the gap between rhetoric and the reality in implementation of CSR policies. As our case studies have shown, in situations of limited legislation isolated from shareholder scrutiny, the social and environmental performance of both Inmet and Corriente decline.

*Project Recommendation:*

Many challenges were faced in the research and writing of this report. CEASPA is an organization that has contributed greatly to the environmental and social well-being of Panama. They are involved in a great many projects, and as such have limited time and capacity to deal with two interns. Paired with the complexity of the issue at hand, and the tense political context surrounding the contentious changes to Law 8 of the 1963 mining code, we were unable to travel to the Comarca and assess the community's perception of CSR plans already in progress through the Petaquilla and Cobre Panama mines. We were therefore limited to speaking with company

representatives in the capital and online resources. This presented it's own set of challenges.

Company representatives were often unwilling to meet with us, and when we were lucky enough to obtain a meeting their responses were generally filtered as well-rehearsed quotes from company policy.

While this report is aimed at deconstructing often puzzling CSR rhetoric and examining the track-records of two companies present in mining endeavors in Panama, an exploration of community perception of company development projects would be highly useful (i.e. in Coclesito region where construction has begun on the Cobre Panama mine, and in the Ngöbe-Buglé Comarca where community 'consultation' programs have begun for the Cerro Colorado mine). While this report draws heavily on company and media reports, it lacks the community input necessary to paint a full picture of the mining company behavior in Panama.

Furthermore, as the legislation surrounding Panama's mining practices has undergone contentious changes through the implementation (and subsequent repeal) of law 8, a more detailed analysis of the environmental and social legislation would be highly beneficial. As legislation can to a large degree dictate the enforcement of some CSR policies and their consequent success, a legal analysis of such a framework would add greater depth to predictions about the potential behavior of Inmet and Corriente in Panama.

**IX. Acknowledgements.....**

We would first like to thank CEASPA and Jesus Alemanca for helping us get through initial setbacks in our internship project, which required the development of an entirely new project upon our arrival. Their guidance and support throughout the development of this document were greatly appreciated.

We would also like to extend a special thank you to Prof. Daviken Studnicki-Gizbert for his wisdom and insight, and for providing us with important documents that were critical for the literary review and analysis portions of this report. This was most valuable due to our inability to complete fieldwork in the comarca as a result of the social unrest related to mining protests.

A warm thank you to Keisha Kerr for helping us organize the design of our internship project and reassuring us throughout the repeated setbacks that came our way.

Finally, a huge thank you to Rafael Samudio, our wonderful internship overseer who was extremely understanding over the course of our ever-changing project. Thank you for the guidance in developing our project, contacting important people in times of need, and always keeping a great attitude and reassuring spirit when we found ourselves in doubt.

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PAGE

PRODUCTO POR CEASPA

## **Responsabilidad Social Corporativa y Minería: El comportamiento de las empresas canadienses en las minas de Panamá**

*Alizé Carrère*

*Dana Holtby*

La dinámica y retórica de los proyectos mineros a gran escala en América Latina ha experimentado cambios significativos en las últimas décadas como resultado de cambios en la tecnología disponible y en los puntos de vista del medio ambiente de los accionistas más importantes. Un resultado de estos cambios ha sido el establecimiento de la Responsabilidad Social Corporativa (RSC), que describe los objetivos de los parámetros ambientales y sociales de una sociedad - es decir, cómo las compañías tratan de compensar o apoyar a las comunidades y los entornos en el desarrollo de proyectos industriales. Los planes de RSC han estado bajo la mira y recibido muchas críticas en los últimos años debido a su falta de transparencia, mala aplicación, y la falta de colaboración con las comunidades afectadas.

Conforme a lo solicitado por CEASPA, este informe pretende ofrecer una visión general de la responsabilidad social corporativa. Dos de las mayores compañías mineras canadienses, las cuales pronto participarán en importantes concesiones de minería a cielo abierto en Panamá, Inmet Mining (conocidos por estar interesados en hacer una oferta en la mina de cobre Cerro Colorado) y Corriente Resources Inc. (que ha comenzado la construcción en la mina Panamá Cobre), fueron evaluados en sus políticas y prácticas de RSC a fin de arrojar luz sobre sus actuaciones pasadas y de preparar mejor para los resultados futuros de los proyectos efectuados por estas empresas.

Las dos empresas fueron evaluadas utilizando un método rúbrico que analiza los diversos elementos de sus planes de RSC. El rendimiento de la mina Corriente en las minas de Ecuador y de Inmet, tanto en Quebec (la mina Troilus) y Papua Nueva Guinea (la mina Ok Tedi) fueron evaluados en la calidad de la política y la aplicación de su: compromiso y gestión, el desempeño ambiental, desempeño social, los resultados económicos y las capacidades de presentación de informes. Cada ítem de la categoría fue puntuado en una escala de 0 a 2. Una puntuación de 0 indica ausencia de políticas existentes pertinentes o la aplicación de políticas muy pobres y una puntuación de 2 indica la existencia de políticas y ejecución excelente, con una puntuación de uno siendo un intermedio entre ambas. Una puntuación global se calculó y una calificación fue asignada a cada proyecto. Estas evaluaciones fueron recopiladas a través de la investigación en internet, medios de comunicación y publicaciones académicas, así como a través de entrevistas con representantes de la empresa en la Ciudad de Panamá.

RESULTADOS:

**Tabla 1. Tarjeta de Reporte: Corriente en Ecuador**

<b>Categoría</b>	<b>Sub-categoría</b>	<b>Puntuación (0-2)</b>
<b>General</b>		
Compromiso y Gestión	<i>Políticas</i>	
	- Descripción de la visión de la sostenibilidad y la estrategia.....	2
	- Descripción de la estructura de gobierno.....	2
	- CEO statement.....	2
	<i>Prácticas</i>	
	- Lista de las accionistas principales.....	1
	- Formación de los trabajadores en seguridad y protección del medio ambiente.....	1
	<b>Total de la categoría: 8/10</b>	
Desempeño Ambiental	<i>Políticas</i>	
	- Objetivos ambientales.....	2
	- Políticas, planes y disposiciones financieras para el cierre y rehabilitación.....	0
	<i>Prácticas</i>	
	- Evaluación del impacto ambiental (preferido por 3ª parte).....	1
	- Prevención de accidentes ambientales.....	0
	- Gestión de residuos.....	0
	- Emisiones de gases de efecto invernadero.....	0
	- Impactos sobre la biodiversidad.....	0
	- Consumo de agua.....	0
	- Consumo de energía.....	0
	<b>Total de la categoría: 3/18</b>	
Desempeño Social	<i>Políticas</i>	
	- Políticas de derechos humanos.....	2
	- Cumplimiento de convenios de la OIT.....	2
	<i>Prácticas</i>	
	- Procesos de consultación con comunidades.....	1
	- Gestión de la tenencia de la tierra.....	1
	- Inclusión de los empleados locales.....	1
	- Programas de divulgación en la comunidad.....	2
	<b>Total de la categoría: 9/12</b>	
Desempeño Económico	<i>Políticas</i>	
	- Salarios y beneficios a los empleados.....	2
	- Políticas relativas al soborno y cohecho.....	2
	<i>Prácticas</i>	
	- Contribuciones financieras a la comunidad.....	1
	- Pagos al gobierno.....	2
	<b>Total de la categoría: 7/8</b>	
Presentación de Informes	<i>Prácticas</i>	
	- Riqueza y disponibilidad de los datos.....	1
	- Comparación de los indicadores a través del tiempo.....	2
	- Comparación de los indicadores entre organizaciones, sectores, o regiones.....	0
	- Garantía de terceras partes.....	2
	- Resultados de los mecanismos de retroalimentación.....	1
	- Información de contacto para preguntas.....	2
	<b>Total de la categoría: 8/12</b>	
	<b>GRAN TOTAL: 35/60</b>	
	<b>NOTA FINAL: C</b>	

**Tabla 2. Tarjeta de Reporte: La mina Troilus de Inmet**

<b>Categoría General</b>	<b>Sub-categoría</b>	<b>Puntuación (0-2)</b>	
Compromiso y Gestión	<i>Políticas</i>	- Descripción de la visión de la sostenibilidad y la estrategia.....2	
		- Descripción de la estructura de gobierno.....2	
		- CEO statement.....2	
	<i>Prácticas</i>	- Lista de las accionistas principales.....1	
		- Formación de los trabajadores en seguridad y protección del medio ambiente.....1	
		<b>Total de la categoría: 8/10</b>	
		Desempeño Ambiental	<i>Políticas</i>
	- Políticas, planes y disposiciones financieras para el cierre y rehabilitación .....1		
	<i>Prácticas</i>		- Evaluación del impacto ambiental (preferido por 3ª parte).....2
			- Prevención de accidentes ambientales.....0
- Gestión de residuos.....2			
- Emisiones de gases de efecto invernadero.....1			
- Impactos sobre la biodiversidad.....0			
- Consumo de agua.....1			
- Consumo de energía.....1			
<b>Total de la categoría: 9/18</b>			
Desempeño Social	<i>Políticas</i>	- Políticas de derechos humanos.....0	
		- Cumplimiento de convenios de la OIT.....1	
	<i>Prácticas</i>	- Procesos de consultacion con comunidades.....1	
		- Gestión de la tenencia de la tierra.....2	
		- Inclusión de los empleados locales.....1	
		- Programas de divulgación en la comunidad.....2	
		<b>Total de la categoría: 7/12</b>	
Desempeño Económico	<i>Políticas</i>	- Salarios y beneficios a los empleados.....2	
		- Políticas relativas al soborno y cohecho.....0	
	<i>Prácticas</i>	- Contribuciones financieras a la comunidad.....1	
		- Pagos al gobierno.....2	
		<b>Total de la categoría: 5/8</b>	
Presentación de Informes	<i>Prácticas</i>	- Riqueza y disponibilidad de los datos.....1	
		- Comparación de los indicadores a travez del tiempo.....2	
		- Comparación de los indicadores entre organizaciones, sectores, o regiones.....0	
		- Garantía de terceras partes.....2	
		- Resultados de los mecanismos de retroalimentación.....1	
		- Información de contacto para preguntas.....2	
<b>Total de la categoría: 8/12</b>			
		<b>GRAN TOTAL: 37/60</b>	
		<b>NOTA FINAL: C +</b>	

**Tabla 3. Tarjeta de Reporte: La mina Ok Tedi de Inmet**

<b>Categoría</b>	<b>Sub-categoría</b>	<b>Puntuación (0-2)</b>
<b>General</b>		
Compromiso y Gestión	<i>Políticas</i>	
	- Descripción de la visión de la sostenibilidad y la estrategia.....	2
	- Descripción de la estructura de gobierno.....	2
	- CEO statement.....	2
	<i>Prácticas</i>	
	- Lista de las accionistas principales.....	1
	- Formación de los trabajadores en seguridad y protección del medio ambiente.....	1
	<b>Total de la categoría: 8/10</b>	
Desempeño Ambiental	<i>Políticas</i>	
	- Objetivos ambientales.....	1
	- Políticas, planes y disposiciones financieras para el cierre y rehabilitación.....	1
	<i>Prácticas</i>	
	- Evaluación del impacto ambiental (preferido por 3ª parte).....	0
	- Prevención de accidentes ambientales.....	0
	- Gestión de residuos.....	0
	- Emisiones de gases de efecto invernadero.....	0
	- Impactos sobre la biodiversidad.....	0
	- Consumo de agua.....	0
	- Consumo de energía.....	0
	<b>Total de la categoría: 2/18</b>	
Desempeño Social	<i>Políticas</i>	
	- Políticas de derechos humanos.....	0
	- Cumplimiento de convenios de la OIT.....	1
	<i>Prácticas</i>	
	- Procesos de consultación con comunidades.....	1
	- Gestión de la tenencia de la tierra.....	0
	- Inclusión de los empleados locales.....	0
	- Programas de divulgación en la comunidad.....	1
	<b>Total de la categoría: 3/12</b>	
Desempeño Económico	<i>Políticas</i>	
	- Salarios y beneficios a los empleados.....	0
	- Políticas relativas al soborno y cohecho.....	0
	<i>Prácticas</i>	
	- Contribuciones financieras a la comunidad.....	1
	- Pagos al gobierno.....	2
	<b>Total de la categoría: 3/8</b>	
Presentación de Informes	<i>Prácticas</i>	
	- Riqueza y disponibilidad de los datos.....	1
	- Comparación de los indicadores a través del tiempo.....	2
	- Comparación de los indicadores entre organizaciones, sectores, o regiones.....	2
	- Garantía de terceras partes.....	0
	- Resultados de los mecanismos de retroalimentación.....	0
	- Información de contacto para preguntas.....	1
	<b>Total de la categoría: 6/12</b>	
	<b>GRAN TOTAL: 22/60</b>	
	<b>NOTA FINAL: F</b>	

Corriente Resources Inc. recibió una calificación final de C en su desempeño en las minas de oro de Ecuador. La calificación mas alta que recibió fue de la capacidad de brindar información económica y de su rendimiento. Obtuvo muy mala calificación en desempeño ambiental, recibiendo una calificación de tan sólo 3 de 18. Esto puede explicarse en parte por la falta (o más bien ausencia) de reportes de sostenibilidad, que normalmente detallan esos factores. Corriente también ha sido muy criticado por sus prácticas ambientales, que han llevado a la contaminación de ríos, la disminución de peces y de la biodiversidad, igualmente se ha notado una disminución de la productividad de las tierras agrícolas. Corriente también obtuvo malos resultados en el desempeño social (recepción de 9 de 12). La compañía ha sido muy criticada por miembros de la comunidad por no seguir adelante con los planes de desarrollo comunitarios. Por otra parte, por falta de consultas significativas se ha dado lugar a numerosas protestas. En 2007 una protesta liderada por la comunidad, exigiendo el cierre de la mina hasta lograr consultas comunitarias. Como resultado, se generaron brotes de violencia y amenazas contra los líderes indígenas por parte de representantes de la empresa.

Inmet Mining recibió una calificación de C + por su mina de Troilus. La mina, ubicada en el territorio indígena Mistissini en Quebec, obtuvo la mayor puntuación en compromiso y gestión. Mientras que su puntuación fue superior a la de otros proyectos revisados, recibió la peor puntuación en el desempeño ambiental y social. Esto se debe a la falta de Inmet de poner a disposición sus planes de cierre de la mina, el gran volumen de residuos peligrosos que la mina genera, así como un sitio de descarga en afluentes no autorizados. La puntuación en desempeño social de Inmet ha disminuido debido a las pobres prácticas de consulta con la comunidad local.

La mina Ok Tedi Inmet, ubicada en Papua Nueva Guinea, recibió la puntuación más baja, con una calificación de F. La mina ha sido objeto de críticas por sus malas prácticas ambientales. En consecuencia, en esta categoría recibió la puntuación más baja con sólo 2 de 18. Esta mina se estima que ha desechado aproximadamente de 80 mil a 66 millones de toneladas de residuos de minería en el río Ok Tedi cada año con efectos desastrosos para la flora, fauna, y aguas y para las poblaciones de Yoonggom y Wopkaimin que viven río abajo. Del mismo modo, recibió una puntuación muy baja en el rendimiento social (3 de 12) debido a las demandas surgidas y la deficiente aplicación de proyectos de compensación y desarrollo.

Como se ha demostrado a través de estos tres analisis de casos y una revisión de la literatura académica sobre las minas en el mundo, la implementación exitosa de políticas de RSC se debe en gran parte por la fuerza y la aplicación de la legislación local. A medida que estas dos empresas se preparan para iniciar dos importantes proyectos mineros en el país, es importante señalar que Panamá (y más específicamente ANAM) tiene un historial pobre de hacer cumplir la legislación medioambiental. Si Panamá desea proteger su entorno natural exuberante y diverso al mismo tiempo que se respeten las condiciones de vida de las comunidades indígenas y campesinas en el desarrollo de estos proyectos mineros, es imperativo que un sólido marco jurídico ambiental y social se desarrolle y ejecute.