The Ecology and Economy of Indigenous Resistance: Divergent Perspectives on Mining in New Caledonia

Saleem H Ali and Andrew Singh Grewal

Development conflicts over mineral resources are fairly widespread across the world, though often the debate on particular mining projects tends to be polarized by activists on the one side (Gedicks 2001; Evans and others 2001) and vehement industrialists on the other (Mikesell and Whitney 1987; AGI 2001). Indigenous communities in areas where mining occurs often find themselves being pressured by both sides of the political spectrum who feel that the communities' allegiance would bring greater legitimacy to the project.

A fierce debate over the mining of nickel has recently engulfed one of Europe's last remaining colonies, France's tiny Melanesian archipelago of New Caledonia. Although nearly 20,000 kilometers from Paris, New Caledonia remains a French overseas territory—in effect a colony—since it is neither a French *département* (the equivalent of a US state) nor entirely autonomous. The territory, also known by its native name, Kanaky, is located in the South Pacific between Fiji and Australia, about 1,500 kilometers northeast of mainland Australia (map 1). It has been on the United Nations' decolonization list for over twenty years and comprises a main island, Grande Terre, and the smaller Loyalty Islands of Ouvéa, Lifou, and Maré off its eastern shore. Grande Terre, where the capital city Nouméa is located, is only 400 kilometers long, yet is still one of the largest South Pacific islands. Literally "Big Land," Grande Terre is also the location of nearly one quarter of the world's entire known nickel reserves.

It did not take long for the French, who took control of the island in 1853, to begin exploiting the rich mineral resources. By the early 1990s, liberalized restructuring allowed multinational mining conglomerates, as

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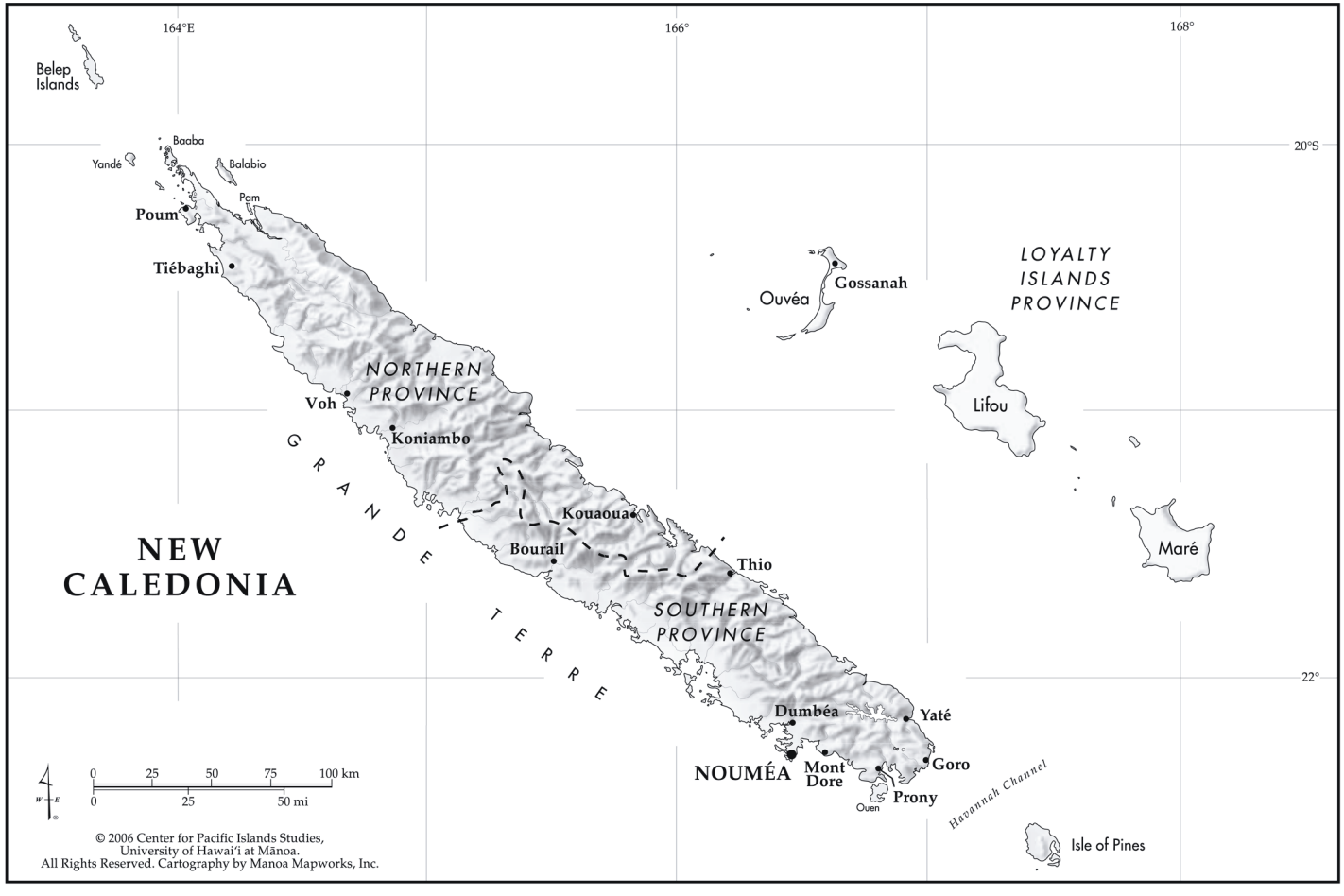

Map 1

well as the indigenous Kanak population, to take part in the nickel ventures that dominate the New Caledonian economy. But because nickel mining tends to have environmental and social repercussions, it is not surprising that opposition to nickel mines has increased dramatically in recent years on this island where virtually no formal French or European Union environmental regulations apply (Roberts 2001). The environmental costs as well as the distribution of the economic benefits resulting from nickel mining are the subjects of increasing conflict between social and cultural groups in the territory. However, the level of resistance and indeed the complementary level of cooperation vary considerably depending on the location and type of extraction processes as well as the process of engagement that corporations employ.

This article explores how resistance from indigenous groups, such as the Kanak, is highly localized and influenced by the specific ecology of the region and the social context in which the ecosystem is perceived to be threatened. Resistance in such contexts is more complex than a linear model predicated on educational disparities or generic cultural differences may suggest. We present two examples of ostensibly similar mining projects in different parts of the island and analyze the difference in resistance in the two cases. Our findings suggest that development enterprises on indigenous lands can succeed and meet mutually agreeable outcomes if requisite measures of environmental and social performance are operationalized within the specific context of the region in question.

Two major mining complexes are scheduled to begin production on Grande Terre before the end of 2010, one near Goro and another at Koniambo, both with significant investment from multinational mining companies. In this essay we will analyze the ongoing conflicts over nickel mining in New Caledonia by using these current projects as case studies from which to examine the complex historical, social, political, and environmental issues involved.

Methodology

The selection of New Caledonia to exemplify divergent indigenous resistance was based on its relatively anachronistic colonial circumstance as well as the emergence of a strong and often militant indigenous rights movement. If mineral development under these circumstances can be reached amicably, then it is likely that important inductive insights can be drawn. Lessons learned from our case analysis may thus be applicable in

other cases of less acute colonial or postcolonial subjugation of indigenous movements. We followed a qualitative comparative case analysis to understand the dynamics of resistance (Ragin 1989). We reviewed detailed ethnographic studies, where possible, and conducted or consulted personal interviews of key stakeholders in the mineral development negotiations as well as key players in the resistance movements. This was not meant to be an anthropological study; rather it falls in the scholarly domain of environmental planning, in which a conflict assessment is presented along with an integrative analysis of current events.

Visits to both mining sites as well as to some of the areas of projected impact were also conducted. Interviews were transcribed as they were conducted unless requested by the interviewees—in which case they were transcribed later the same day. Insights gleaned from interviews are embedded in the text rather than directly referenced due to the sensitivity of the issues discussed; most interviewees preferred to remain anonymous. Wherever possible, attempts were made to collect primary statistics on cost of production, demographics, and environmental impact from the sources that had conducted empirical studies for this purpose.

Overview of Nickel Mining in New Caledonia

Although nickel mining has captured some attention in France, it is by far the most prominent issue in New Caledonia, where it dominates the economy, accounting for 93 percent of the territory's exports (Alailima 2002). Nickel is a hard metal used for protective plating and the production of stainless steel and other alloys. The French have been mining nickel on Grande Terre since 1874 (*MAR* 2001), and Société Le Nickel (SLN), which originally had its labor supplied by an infamous penal colony established on the island a decade earlier, was founded in 1880. Interestingly enough, SLN was partly held by the infamous German armament manufacturer Krupps Steel, and nickel was exported to Germany, with the knowledge of French officials, throughout World War I and as late as 1939 (Burchett 1942). Gradually the nickel industry grew—as did Eramet's profits—thrusting this tiny South Pacific archipelago to the forefront of world resource markets as the single largest producer of ferronickel (ie, an alloy composed of nickel and iron) and the world's third largest supplier of nickel ore, behind Russia and Canada (Eaton 2002). New Caledonia is also home to one of the world's biggest nickel mines, located at Thio,

which operates in coordination with the main island's fourteen other operating mines to produce 30 percent of the world's total nickel (Roberts 2001).

Most of New Caledonia's nickel is currently shipped overseas as unrefined ore, but new developments in the territory plan to export a more finished product to the growing metal markets in East Asia. In recent years, fluctuating nickel prices have created an uncertain market, but nickel ventures on the island continue to be profitable enough that new mines are being planned.

Environmental Impacts of Nickel Mining

Originally mined by French convicts, the nickel on Grande Terre is now extracted with the use of massive machinery and chemicals, which is typical of mining projects the world over. Due to a pervasive lack of environmental regulations coupled with irresponsible management, these mining activities in the past have had deleterious effects on the land and people of New Caledonia. Indeed, negative impacts of extractive resource enterprises have been documented elsewhere in the Pacific—Papua New Guinea and Nauru being two well-known examples.

In New Caledonia, residential areas are surprisingly close to nickel operations, as a huge smelter looms over the city of Nouméa. Nickel itself is carcinogenic, and, when dispersed as dust from a smelter, can be responsible for a number of respiratory ailments. Tests have revealed that household dust in Nouméa contains three times as much nickel as the ore being mined nearby (Alailima 2002). Heavy metal pollution has also been recorded in the potable water supplies as well as in lagoons that surround Grande Terre, which are major sources of food for the territory's population, who annually harvest some 4,000 tonnes of fish from it (Coumans 2002a).

Although present and past mining ventures have raised some concerns, those planned for the future have been subject to growing scrutiny on environmental and social grounds. Grande Terre is surrounded by the world's second largest coral reef and the entire archipelago has been recognized as one of only a handful of Global Biodiversity Hotspots by Conservation International because of its extraordinarily high numbers of endemic species. Mining operations have already had visibly destructive impacts on the island's ecosystems and only recently have environmental

concerns spurred reclamation efforts at older mine sites on Grande Terre. Approximately 500 million tonnes of tailings have been cleared thus far, with 100 million of that originating from the mines at Thio, where mitigation efforts have just begun (*LNC,* 11 Dec 2002). However, new mining projects may continue to threaten the territory's unique ecosystems, as estimates posit that a 20 percent expansion of mining in New Caledonia would prove extremely detrimental, especially to the health of the reef ecosystems (Roberts 2001).

Aside from the chemicals used in ore processing, erosion is another of mining's deleterious effects on the New Caledonian environment. Natural erosion is exacerbated by the mining process and, especially during heavy rains, sediments pour into the coastal waters, suffocating the reef and destroying marine ecosystems (Hopquin 2002). These very visible effects on the air and water quality of coastal areas are also thought to have negative impacts on the development of tourism, the territory's second largest industry.

In 2001, the environmental group Corail Vivant initiated a proposal to list the coral reef that surrounds Grande Terre as a World Heritage Site (Serre 2005a). The proposal has since been delayed in part by political disagreements in France and New Caledonia; in addition, UNESCO requires a more thorough application than that originally compiled by Corail Vivant, as well as assurances that local measures will be implemented to protect the reef because the World Heritage designation is purely symbolic. Currently, there are efforts underway to submit a politically acceptable version that would classify only certain parts of the reef system. Experts are currently analyzing parts of the reef with the UNESCO application in mind (*LNC,* 26 Jan 2006). However, the success of the new application is still uncertain because the French government is not committed to providing the provinces with any real assistance for environmental monitoring or enforcement, and local protections for the reef remain weak (Serre 2005a).

Regulatory Framework

Because New Caledonia is not an incorporated part of France, French regulations do not automatically apply in these islands, and the absence of restrictions of any kind until about fifteen years ago has allowed nickel to be recklessly extracted for decades. Laws created by the French govern-

ment are applicable to all *départements,* but they only apply in overseas territories if adopted by the local territorial governments. Thus far, New Caledonia has largely neglected movement toward enacting any French environmental regulations within the territory (Sarimin Boengkih, pers comm, 12 Dec 2002).[1] Responsibility for environmental management falls almost exclusively on the local provincial governments and the Northern Province. The provinces are free to adopt French environmental legislation in whole or in part, but so far no province has opted to do so.

Currently no specific government organization is responsible for the conservation of the archipelago's coastal regions or extensive coral reef. However, the French state is party to several international treaties such as the MARPOL Convention (the Convention for the Prevention of Pollution from Ships, 1973/1978), making for a complex yet anemic system of regulations in the territory (Falconbridge NC 2001). Minimal impact studies must be compiled in application for any *installation classée* (a broad category that includes everything from buildings to mines), but beyond that nothing is required of companies planning large projects. In the view of environmentalists, the absence of any enforceable environmental regulation, combined with significant tax breaks offered by politicians in Paris, has made the rich New Caledonian nickel reserves even more attractive to large mining companies.

Two Canadian mining companies that plan to begin nickel extraction and processing on Grande Terre by 2010 have been granted their first fifteen years of operation entirely tax-free and the following five years at a 50 percent tax reduction (*TMJ* 2001). The world's second largest nickel mining company, the Toronto-based International Nickel Company (INCO), is moving ahead with plans to develop an open-pit mine and a hydrometallurgical extraction plant (using liquid reagents in the treatment or reduction of ores) at Goro on the southern tip of Grande Terre, amid widespread protests from both environmental and indigenous activists. A second project is a joint venture between Falconbridge, another Canadian mining giant, and the Kanak company Société Miniere du Sud Pacifique (SMSP), which is scheduled to develop a mine at Koniambo, in the relatively impoverished and underdeveloped Northern Province of the main island. Currently, this planned pyrometallurgical project (depending on the action of heat, such as smelting) at Koniambo boasts support from both Kanak and environmental groups, who see it as a much more socially and environmentally sound endeavor than that at Goro.

The Kanak Independence Movement and its Effects on the Nickel Industry

In recent years the dominant nickel sector of the New Caledonian economy has been the subject of several major transformations, brought about by the continuing independence movement of the indigenous Kanak people (Horowitz 2004). The most important changes have seen the Kanak obtain a significant share in the nickel activities. In the 1980s, New Caledonia experienced social upheaval due to the efforts of militant, pro-independence Kanak groups. This eventually led to new negotiations with the French government that resulted in political and economic concessions. The Front de Libération Nationale Kanak et Socialiste (FLNKS) was the organization at the forefront of this struggle, claiming to represent the Kanak people, whose ranks include hundreds of tribal groups, speaking twenty-eight different languages. The Kanak, who had long seen the profits from natural resources leaving Grande Terre and had become an impoverished minority in their own land, began to express their agitation with the French colonialists. A spate of protests, boycotts, and strikes in the mid-1980s disrupted mining ventures and turned violent when armed Kanak insurgents took hostages and clashed with gendarmes. The turmoil subsided with the signing of the 1988 Matignon Accord, which provided for a political restructuring of New Caledonia into three provinces: the Northern and Southern provinces on Grande Terre, and a third province comprising the Loyalty Islands (see map 1). Table 1 compares the popu-

Table 1. A Comparison of the Northern and Southern Provinces of New Caledonia

Indicator	Northern Province	Southern Province
Total Population	44,470 (est; ISEE 2004)	164,230 (est; ISEE 2004)
Area	9,582.6 sq km	7,012 sq km
Ethnic makeup (% Kanak)	77.9% (1996 census)	25.5% (1996 census)
Number of functional mines	10	4

lation, area, and ethnic make-up for the two provinces on Grand Terre, along with the number of nickel mines currently operational in each.

The Matignon Accord also devolved more responsibilities to these regional governments and afforded the underdeveloped North and Loyalties provinces increased funding with which to manage them. The Nouméa Accord, which gave even further autonomy to the territory, was signed in May 1998 by Kanaks and French loyalists and was overwhelmingly approved in a November 1998 referendum (Downer 1998). However, the latter also superseded the Matignon Accord by postponing a 1998 independence referendum for ten to fifteen years.[2]

The Matignon Accord also set the stage for economic reorganization in New Caledonia, which began to concentrate more economic authority into the hands of Kanaks. The first change in the existing structure of the nickel industry was the sale of the SMSP company in April 1990. Jacques Lafleur, the conservative president of the Southern Province and current leader of the anti-independence, pro-French political group, Rally for Caledonia in the Republic (RCPR), sold the company to the Northern Province, home to a primarily Kanak population, for US$20 million (Fraser 2001). Once under Kanak control, the Société Miniere du Sud Pacifique made astonishing progress under its head, Raphael Pidjot, who, before taking the SMSP post, had been an active independence leader, FLNKS chief of staff, and later a close associate of the late Kanak nationalist, Jean-Marie Tjibaou. Under Pidjot's direction, SMSP made great strides and grew to control a large portion of the territory's nickel resources. Pidjot (who died in late November 2000 in a helicopter accident) also successfully lobbied the French government, with the help of Kanak activists who once again obstructed mining activities, to grant concessions of nickel deposits to SMSP. The largest of these concessions was at Koniambo, an extraordinarily rich reserve where the company is beginning to develop a large mine complex and smelter in cooperation with Canadian mining conglomerate Falconbridge. Paris officials, who had also restructured the ownership of Eramet's subsidiary in New Caledonia, facilitated the SMSP acquisition of Koniambo deposit. By making such changes in favor of SMSP, which has been called "the economic arm of the independence movement" in the territory (Madoef 1996), the former left-leaning French government attempted to quell the growing agitation of Kanak nationalists, who had renewed their activities in the 1990s. The government of France, which then owned 55 percent of Eramet through a holding company called ERAP, or Entreprise de recherche

et d'activités pétrolières (Golding 1997), was able to force an unfavorable swap that gave Koniambo to SMSP in exchange for inferior deposits near Poum, despite vocal opposition from foreign shareholders such as US investment funds Fidelity and Templeton. In July 1999, SLN, the oldest nickel company in the territory, was restructured to reduce Eramet's share of the company from 90 percent to 60 percent. Another 10 percent was sold to Nisshin Steel of Japan and the remaining 30 percent was transferred to the Kanak through a new company, Société Territoriale Calédonienne de Participation Industrielle. SLN, which is seeking to expand its operations by 25 percent, currently operates four open-pit mines and the island's only active smelter at Doniambo near Nouméa. However, if the two major projects—that of INCO at Goro and the joint Falconbridge/SMSP venture at Koniambo—go ahead as planned, then the SLN smelter will then be only one of three in the territory.

Background on the Goro Project

INCO, one of the world's largest nickel producers, is currently in the early stages of developing a mine and hydrometallurgical plant through its subsidiary Goro Nickel SA near Goro in southern Grande Terre. According to Laurence Kuntz, the Goro Nickel communications officer whom Grewal interviewed in Nouméa on 11 October 2002, the company was aiming to start production in the second quarter of 2004,[3] but we were later informed via e-mail by William Napier, INCO vice president for environment and health, that production had been delayed due to a reevaluation of the project because of rising costs and labor disputes (pers comm, 29 July 2004).[4] Laurent Chatenay, director of community relations at Goro Nickel, detailed the ownership scheme during our meeting with him in Nouméa (7 Jan 2005): INCO presently controls 69 percent of the Goro development, while 21 percent is held by a consortium of Japanese companies that includes Sumitomo and Mitsui. The remaining 10 percent, which was previously owned by the French government through its Bureau de Recherches Géologique et Minières, was recently distributed among the territory's three provinces, with 5 percent going to the Southern Province and 2.5 percent to each of the Northern and Loyalty Islands provinces (Serre 2005b). With the cost of the entire endeavor estimated at US$1.4 billion, INCO secured a US$200-million bond in March 2001 (*MAR* 2001), and is in the process of garnering further funding. The deposit at Goro is estimated to contain "370 Mt [million tonnes] averag-

ing 1.6 percent nickel and 0.17 percent cobalt, including proven and probable reserves of 47 Mt" (*MAR* 2000). INCO estimates Goro's annual production capacity to be 54,000 tonnes of nickel and 5,400 tonnes of cobalt and the mine is expected to produce a nickel oxide project containing 78 percent nickel and a cobalt carbonate product destined for stainless steel and cobalt markets in China, South Korea, and Taiwan (Coumans 2002a).

INCO highlights job creation and employment training as two aspects of the project beneficial for New Caledonians. Its press releases report that the company will strictly abide by ISO (International Organization for Standardization) 14000 standards related to environmental management, and that it has already spent over US$5 million in efforts to prepare the indigenous peoples for jobs at the site (INCO 2001). The company also claims that the project will supply 800 jobs and 1,500 derivative jobs, 90 percent of which will "likely" be filled by New Caledonians (INCO 2002), although Jean-Philippe Gibaud, Goro Nickel's director of environment, indicated that INCO has ruled out any favorable hiring policy for the indigenous people (interview with Ali and Grewal, Nouméa, 7 Jan 2005).[5] However, it is doubtful whether even placing Kanaks in management positions at Goro would quiet critics of the project, because various factors analyzed later in this article. The recently renewed mining operations at Goro were halted at the beginning of February 2005 by protestors from Rhéébù Nùù, an umbrella organization representing the various environmental and indigenous groups opposed to the development. After being forcibly removed by police, the protesters subsequently marched through the Nouméa, where they met with government and company officials (Frédière 2005c). Thus far, their main demand for a review of the project by an independent body has not been met, so the potential for similar disruptions remains.

The Prony Concession

In July 2002, the Southern Province government took the unexpected step of granting INCO a six-year exploration permit to an approximately 8,300 hectares area near Prony (Van Peteghem 2002), adjacent to their Goro site, at the minimal cost of about US$22 million (Coumans 2002b). In December 2003, Goro Nickel obtained the official "research permit" for which other companies had also applied (William Napier, pers comm, 29 July 2004). As Southern Province law allows (Province Sud 2003), the

permit was granted almost directly by the president of the Southern Province, who at the time was political strongman Jacques Lafleur. This move, called the "Prony Concession," has the potential to increase the output at Goro project by up to 180,000 tonnes per year (Coumans 2002b). It has been seen as detrimental to the environment because it greatly expands the area of land open to mining activities on Grande Terre. It is also viewed as a threat to the viability of the Koniambo project, for a mine of this magnitude could undercut the costs of production and out compete the Northern mine. In response to the Prony Concession, an umbrella group called the Collective for Defense and Control of the Prony Heritage was formed by numerous environmental, political, and social organizations to advocate for a reversal of these rights issued to Goro Nickel. The collective led marches and demonstrations in late 2002. The exploration permit for Prony, granted during the Lafleur administration, has since been suspended by a new government elected in May 2004 and is currently pending a review. Jean-Michel N'guyen, Goro's assistant director of environment, told us during a 10 January 2005 interview in Nouméa that Goro Nickel has thus stopped its exploratory drilling in the region, pending a final decision from the Southern Province government.

The Opposition to Goro

Before the Prony Concession cemented opposition to the Goro project, both environmentalists and indigenous Kanaks had already positioned themselves against INCO and its governmental supporters in Paris and Nouméa. They had been continuing their call for an independent environmental review of the project as well as an extension to the one-month public comment period on INCO's more than 2,100-page project assessment to more fully examine the lengthy document (INCO 2002). On 21 November 2001, Kanak leaders from the Djubea Kapune area, near the Goro site, presented to French Secretary of State Christian Paul a proposal to postpone final approval of the project so as to provide adequate time to prepare a comprehensive impact report. Sylvain Pabouty (now a leading member of the Parti de Liberation Kanak, or Palika) said that as work at the site was beginning, Kanaks from the Goro area were still searching for a group of experts to provide independent and ongoing analysis of the expected impacts at the mine site (interview with Grewal, Nouméa 16 Oct 2002).[6] Along with the Senat Coutumier (Customary Senate), which represents the voice of the Kanak people, local Kanak

tribes are opposing the project on the grounds that pollutants generated by the nickel complex would threaten their traditional hunting and fishing and pose serious risks to the health of their members. Outside of Nouméa, many people, mostly Kanaks, continue to lead a quasi-traditional lifestyle that is heavily dependent on fishing and subsistence agriculture; thus any threat to the marine and terrestrial ecosystems could have grave and widespread consequences.

Many New Caledonians, especially Kanaks, are also concerned about profits from the Goro project leaving the territory, because currently the local stake in Goro Nickel is small and the companies involved have been granted extensive tax holidays. Further, "France has agreed to finance [US]$350 million of the project's direct costs" (Kuck 2004). The tax breaks, also offered to Falconbridge/SMSP, assure no revenues for local government for at least fifteen years, limiting the potential benefits of the project to merely employment opportunities. However, it is unclear who will get the jobs created by the Goro project. INCO/Goro Nickel currently participate in a number personnel training projects (none of which is completely funded or operated by them), in which 179 students are currently enrolled (William Napier, pers comm, 29 July 2004). Many skilled teams from Australia and other foreign nations were hired by Bechtel, Technip, and Hatch (BTH), the contractor that was building the complex for Goro Nickel, and the company planned to import approximately 3,000 foreign laborers. A labor dispute between BTH and Goro Nickel regarding the complexities and expenses of constructing the project led to a breakup of this corporate partnership, but William Napier informed us that INCO/Goro Nickel aims to rehire all previous BTH employees (pers comm, 29 July 2004). Needless to say, Goro Nickel has attracted further criticism since it announced its intention to import labor. Laurence Kuntz said that most of these workers are expected to be Filipinos or other skilled laborers such as pipe fitters and instrumentalists, specialties that are not prevalent among the New Caledonian workforce; she also said these positions are short-term, lasting about three years, and the company wants to provide more permanent employment for the local people (interview with Grewal, Goro mine site, 11 Oct 2002). However, even short-term work is better than none at all, and according to Sarimin Boengkih (pers comm, 12 Dec 2002), Goro Nickel had known for years that these jobs were required and had ample time to provide appropriate training to locals for these positions. Boengkih was also quick to point out that the plan to import labor, and even the operation of foreign companies in New

Caledonia, is in direct conflict with UN Resolution 35/118, that is, the Plan of the Action for the Full Implementation of the Declaration on the Granting of Independence to Colonial Countries and Peoples. Although France is in violation of almost every provision of this resolution and other similar UN anti-colonial resolutions, annexes 6 and 9 are of particular relevance to mining in New Caledonia. Annex 6 declares that establishment and operation of foreign ventures in the territories should be prohibited, while annex 9 provides that UN member states should "discourage or prevent the systematic influx of outside immigrants and settlers into Territories under colonial domination" (UN 1980, 2). Furthermore, concerns have been expressed over the potential spread of diseases that can be exacerbated through migrant labor flows, such as HIV/AIDS (an unfortunately common phenomenon in closed industrial towns).

Environmentalists are also firmly against INCO's proposed development due to its potential for environmental degradation. The three environmental nongovernmental organizations that have been voicing their opposition to the project's plans are Corail Vivant, Point Zero, and Koné Avenir (see table 2). Corail Vivant, literally "living coral," is primarily concerned with the health and welfare of the coral massif that surrounds Grande Terre. Point Zero (formerly Action Biosphere), is opposed to mining development in the region, but sees Goro's plan as worse than Koniambo's because of the risks related to hydrometallurgical processing. Koné Avenir focuses on promoting increased development and environmental management in the Koné area. These three organizations believe that the toxic runoff from Goro could damage the reef and have detrimental impacts on local people and tourism in New Caledonia. Recently, these environmental groups have joined with local Kanak organizations to form the Rhéébù Nùù committee to spearhead opposition to the Goro project. However, despite the cohesion provided by Rhéébù Nùù, the groups do not entirely agree on how to proceed in opposing the INCO's planned development at Goro.

Within the last few years an extensive international network of peoples in communities affected by mining activities has arisen, including many so-called "fourth-world" indigenous groups like the Kanak. These groups are in contact with one another, support each other's campaigns, and write to politicians expressing their unity and opposition to potentially destructive ventures. In the case of Goro, groups from India and Indonesia have sent letters to officials in New Caledonia stating their solidarity with local Kanak chiefs and their disapproval of the project. The Kanak are also

supported by the Innu of Canada, who ultimately reached an agreement with INCO to allow the company to begin mining activities adjacent to their homes near Voisey's Bay in Eastern Labrador.

INCO has been active in nickel operations in New Caledonia for decades; it has operated on Grande Terre since 1982 at the Tiébaghi chromite deposit, of which it owns 55 percent (*MAR* 2001), and since 1984 at the Pomalaa East nickel deposit. Although the Goro project continues to have the strong support of politicians in both Nouméa and Paris, because of the minimal local stake in the Goro project, it lacks the legitimacy of its rivals Société Le Nickel, which as been operating on Grande Terre for over one hundred years, and Falconbridge, which is partnered with the

Table 2. Environmental Groups Involved in the Resistance Movement in New Caledonia

Name of Group	Focus of Activism	Funding Sources	Position on Mining Development
Corail Vivant	Listing coral reef as World Heritage Site, ensuring environmental protections at Goro, urging return of Prony Concession	Private sources in region	Koniambo is less of an environment problem than Goro, which poses great threats to the health of the terrestrial ecosystems as well as to the coral reefs that surround Grande Terre.
Point Zero (formerly Action Biosphere)	Opposing Goro Project and Prony Concession	Environmental Defense Fund (US)	Koniambo's pyrometallurgical process poses risks such as carbon dioxide emissions but is preferable to Goro's hydrometallurgical process.
Koné Avenir	Advocating development and environmental protection in Koné area	Private sources in region	Primarily concerned with Koniambo, although it views Goro as a dangerous project.

local company, SMSP. INCO has also provoked concern over its practices by maintaining a relative lack of transparency regarding its plans for the development. The company delayed the release of its project report, including an environmental assessment, and, as mentioned earlier, allowed a period of only one month for public response period to its 2,100-page document. The report has also been criticized for being created in an office thousands of kilometers from New Caledonia and for the quality of its translation into French (Borsa [2002]).[7] In 2001, a group of concerned New Caledonians, including environmentalists and senior Kanak members of the Senat Coutumier, was denied a copy of the "Bankable Feasibility Study" that included an initial environmental impact assessment, even after traveling to INCO's Toronto headquarters (De Santis 2001).

Environmental Concerns Over Goro

INCO's perceived evasiveness and its initial refusal to release the environmental impact assessment only heightened concerns over the anticipated ecological effects of the project. INCO's president, Scott Hand, claimed, "INCO intends to put in place a world class environmentally sound operation" (*AMM* 2000). Indeed, INCO has had some notable success in environmental remediation, particularly in improving the conditions around the smelting areas of Sudbury, Ontario, Canada. However, the actual environmental assessment of the Goro project reveals many ecological risks that have been differentially noted by the indigenous population and activists, in contrast with the Koniambo project.

The wastes from INCO's proposed mine at Goro are the most significant cause for concern to environmentalists and indigenous groups in New Caledonia because of their destructive potential to native fauna and flora and their contaminant effects on air and water. INCO plans to implement a "proprietary hydrometallurgical and solvent extraction process technology" (*TMJ* 2001). This is similar to a technique called Pressure Acid Leach, which separates the nickel from the surrounding material with sulfuric acid and extremely high pressure, through the use of an autoclave. The disposal of the wastes generated by this hydrometallurgical extraction process poses the greatest environmental risks. The submarine effluent disposal system for liquid wastes and the high concentration of hazardous materials produced at Goro are extremely problematic in the eyes of many New Caledonians. While tailings (solids) will be disposed of on land in the Kwe Basin at the convergence of three rivers where a dam will be con-

structed in an effort to confine the pollutants, wastewater (effluents) from the development will be deposited directly into the ocean (Goro Nickel 2002).

Contamination of water supplies and marine ecosystems is a common effect of mining activities, due to the toxicity of the compounds used in ore extraction. In the case of Goro, there are legitimate fears about chemicals and heavy metals from the hydrometallurgical extraction process employed at the mine entering local waters. An analysis of INCO's project assessment by Corail Vivant reveals the concentrations of these metals carried in the runoff from Goro to be significantly higher than those allowed by French law. Concentrations of the extremely carcinogenic metal chromium, could reach 0.5 milligrams per liter, even though French restrictions only permit up to 0.1 mg/l.8 Activists Bruno van Peteghem and Jean-Jacques Paponaud told Grewal in an interview in Nouméa on 8 October 2002 that environmental groups perceive these high levels of chromium (particularly the extremely toxic hexavalent chromium, or Cr_6) in the wastewater, which could reach up to 0.1 mg/l, to be the greatest threat to the fragile ecosystems surrounding the Goro site. Goro Nickel has requested an exemption from regulations restricting the manganese concentration in the effluents deposited into the lagoon. The company has been granted preliminary approval, allowing its effluents to reach a concentration of 100 mg/l per liter, which is 100 times the current standard of 1 mg/l. Since the effects of high levels of manganese on the marine environment are uncertain, the Southern Province government is requiring the company to provide impact reports before it will grant this exemption from the regulation. This is a crucial issue to the project because the costs required to bring the wastes into accordance with the current restrictions on manganese concentrations would be significant; Goro's Jean-Michel N'guyen told us that the manganese problem might be serious enough to endanger the economic viability of the project (interview with Ali and Grewal, Nouméa and Goro, 10 Jan 2005).

Besides chromium, other heavy metals such as lead, mercury, and arsenic are typically the most dangerous waste products from mines; all of these will be contained in the effluents exiting the site. The pH levels of the wastewaters must also be closely monitored because the acids involved in the extraction processes. Temperature is another problem: the effluents will be at least 35 degrees Celsius, which is higher than the 30-degree limit imposed by Southern Province regulations regarding liquid discharges from *installations classées* (Province Sud 2003). These toxic discharges,

noted in INCO's report, have led environmentalists and other groups to keep a close eye on the Goro plan. On 10 August 2002, the French Institut National de l'Environnement et des Risques (INERIS) released conclusions about its review of the Goro report, uncovering inaccurate information on both the company's estimated chemical pollution and the effects of waste metals on the environment, and highlighting thirty-seven other problems regarding the development. William Napier has asserted that Goro Nickel "will implement all the recommendations proposed by INERIS" (pers comm, 29 July 2004), which cover a wide range of subjects, from safety to environmental protection. Overall, the INERIS study emphasized the necessity of implementing the precautions contained in its study prior to further work at the site.

Air pollution is another major concern at Goro, as carbon dioxide, the primary greenhouse gas, will be produced at Goro at a rate of about 1.2 million tonnes per year, or over 5 tonnes annually for every individual in the territory (*Environnement: Nouvelle-Calédonie* 2003, 15). The 110-megawatt coal-burning power plant that will power the mine operations and consume some 600,000 tonnes of coal annually will account for the significant carbon dioxide emissions (Goro Nickel ND, 16). There are further concerns over the type of coal to be used in these power plants; as the territory has no regulations on emissions, activist Jacky Mermoud, formerly of Action Biosphere and now working with Point Zero, expressed concern that coal from Australia with particularly high sulfur content may be used (interview with Grewal, Nouméa, 16 Oct 2002). Furthermore, Goro Nickel's environmental specialist, Jean-Michel N'guyen, showed us during a site tour on 10 January 2005 that the power plant will be located directly across an access road (approximately ten meters wide) from the Forêt du Nord, one of several forest reserves flanking the site that are threatened by the atmospheric pollution from the plant.

To combat erosion and biodiversity loss, Goro Nickel has established a nursery at Goro, according to a company advertisement in the magazine, *Environnement: Nouvelle-Calédonie* (Goro Nickel 2003). The massive revegetation efforts will require 100,000 plants each year and include the reestablishment of local plant species, such as eight species of *Gymnostoma* (*Casuarinaceae* family) that are native to New Caledonia. However, during our tour of the site, N'guyen pointed out the shortcomings of the small nursery, which currently produces only 20,000 plants annually; this raises questions about the company's level of its commitment to revegetation, in this region of extraordinary endemism and biodiversity.

Besides the environmental concerns, the proposed hydrometallurgical extraction system would allow Goro Nickel to produce nickel at a cost of less than US$1.00 per pound, easily outcompeting rival mining companies on Grande Terre. Further, if Goro Nickel ever begins to exploit the Prony deposit, competitors like SLN and Falconbridge/SMSP, which produce nickel at about US$1.55 and $1.20 per pound respectively (Squillario 2002), could face serious difficulties.

Beginning in mid-2002, the Goro project experienced a series of disruptions that have recently resulted in a work stoppage that lasted nearly two years.[9] Rising costs, which are estimated to be as high as 45 percent more than previously anticipated (Hiscock 2002), along with recent labor and subsequent contract disputes have culminated in this major setback for the development. On 5 December 2002, INCO announced its intentions to "undertake a comprehensive review of the project" in light of rising cost estimates (William Napier, pers comm, 29 July 2004). In October 2004, after a favorable review of the project, INCO reaffirmed its commitment to the development and restarted its work at Goro in February 2005, with full production expected by the end of 2007 (Béligon 2004). When work resumed, demonstrators from the Rhéébù Nùù committee, demanding an independent environmental review of the project, blockaded the access roads and forced closure of the site that lasted several days. In the meantime, according to Goro Communications Director Catherine Guillame, Goro Nickel has begun construction work on the port complex amid uncertainty regarding future demonstrations (Maclellan 2005). Recently, though, Philippe Gomes, president of the Southern Province, promised another environmental review. However, this new study will only analyze certain parts of project, like the effluent discharges, and Sarimin Boengkih indicated that it is not comprehensive enough in its scope to satisfy local activists (Maclellan 2005).

The Plan for the Koniambo Deposit

The Koniambo project finds itself in a very different social and political context than that at Goro, due to its location, ownership, and the fact that it is a pyrometallurgical, rather than hydrometallurgical project. The project, near Koné in the Northern Province, is expected to bring much-needed economic activity to the underdeveloped region. The acquisition of the deposit by SMSP came about due to intense pressure from Kanak activists who obstructed exports from SLN mines and forced the French

government to make concessions by ceding control of some of Grande Terre's richest nickel deposits in the form of lopsided swaps favoring SMSP. The trades from SLN prior to the restructuring of its ownership were contingent on SMSP finding a partner with whom to develop the sites (Fraser 2001); when SMSP enlisted Falconbridge as its partner in the venture, the French government pushed the deal through, and even forced the removal of Eramet's chairman, Yves Rambaud, who opposed the trade (Golding 1997). In 1997, the rich nickel reserve at Koniambo was signed over to SMSP in exchange for far inferior deposits at Poum. The deposit, which comprised approximately 25 to 30 percent of the Eramet's reserves, contains about 151 million tonnes of minerals at an average 2.58 percent nickel (Falconbridge NC SAS 2002, 41–43). SMSP currently has a majority stake of 51 percent in the venture while Falconbridge accounts for the remaining 49 percent (Zenati 1998). The 1998 Bercy Accord, which transferred the reserve at Koniambo from SLN to Falconbridge/SMSP, stipulated that the companies would have to invest US$100 million in the project prior to 1 January 2006 or the deposit would revert back to SLN control (Frédière 2005a). Falconbridge finalized its commitment to the project in December 2005 after reviewing its plans for Koniambo in light of rising costs, which had exceeded previous estimates by up to half a billion US dollars. Exchange rate fluctuations (gains by the euro and Australian dollar versus the US dollar) have accounted for much of the cost increases. Michel Rioux, Falconbridge's director of human resources and government and community relations, detailed the cost overruns to Grewal in an interview in Nouméa on 12 January 2005, explaining that Falconbridge scaled down its infrastructure investments to cut costs. The size of the large, deepwater port originally planned for the site has been reduced significantly, and instead of constructing a dam to meet the site's water needs, the revised plans call for a desalinization plant. These along with other changes to the Koniambo development plans have required new feasibility studies, impact assessments, and permits, all of which have contributed to delaying final approval of the project. The start date for construction at the site has also been pushed back because of funding issues. Falconbridge and SMSP expect project construction to take forty-three months, with full production to begin shortly thereafter (Frédière 2005b). A smelter and a series of open-pit, mountaintop mines are set to produce ferronickel and have a yearly output of 60,000 tonnes, with the first exports expected sometime towards the end of 2009 (Falconbridge NC/SMSP 2003; Béligon 2005).

Support for and Opposition to Koniambo

A key aspect of the Koniambo project is its anticipated beneficial impact on the territory's economy. If the development proceeds as planned, it will significantly increase Kanak economic participation. This may have motivated French loyalists in government, like Lafleur and his fellow RCPR members, to grant Goro Nickel the Prony Concession, which could counter the effects of the Koniambo project on the territory's economy. For these same reasons, Kanak groups generally support the Koniambo development. SMSP, which owns five limonitic nickel mines and purchased Nickel Mining Corporation along with its Kouaoua deposit in early 2000, already exports 70,000 tonnes of unrefined nickel per year from Doniambo (*MAR* 2000). Thus, when coupled with the SLN's reorganization, the development at Koniambo could very well have shifted much of the nickel resources in the territory to the control of Kanak companies, if it were not for the recently expanded potential for the Goro project.

There are concerns that Koniambo may be destructive to the environment because it requires the construction of massive infrastructure as well as a 250-megawatt coal-fueled power plant, which will burn an estimated 887,000 tonnes of coal per year (Falconbridge NC SAS 2001, 41), almost one and a half times the amount to be consumed at Goro (Goro Nickel ND, 16). Martin Boucher, the former director of human resources and government and community relations at Falconbridge's New Caledonian subsidiary, told Grewal in a 14 October 2002 interview in Koné that the sulphur dioxide (SO_2) emissions from the Koniambo plant will be reduced through the use of 20,500 tonnes per year of limestone, but the emissions are still anticipated to be higher than those released from the plant at Goro.

Revised project plans, which have eliminated the dam and reduced the port area, may decrease the overall environmental impact of the development. However, apprehensions regarding the mine's impact on local waterways and marine ecosystems remain. Kanaks who live in the surrounding villages have expressed concern about erosion and siltation of local rivers, and also about increased fishing competition due to population growth associated with the mine activity (Horowitz 2002). Falconbridge/SMSP also plans to dredge a shipping lane for large vessels through a portion of the lagoon and reef, which will certainly damage marine ecosystem. The recent inclusion of a desalinisation plant also presents new

ecological risks, which have yet to be scrutinized by the environmental groups on Grande Terre.

However, attention to the environmental impacts of the Koniambo project seems minimal, with most environmental groups focusing on the potential damage from the hydrometallurgical process to be implemented at Goro. The Koniambo project will implement a pyrometallurgical processing plant, in which the extracted ores are placed directly into a furnace and the waste generated is slag, which is deposited on land before it hardens into a glassy rock-like substance. This process is substantially different from the hydrometallurgical processes intended to be used at the Goro site, where liquid effluents will be deposited in the surrounding lagoon. The potential for pollution and contamination is much higher at a hydrometallurgical project like Goro because of the hazardous metals content of the tailings as well as the pH level and temperature of the effluents. Thus, the pyrometallurgical Koniambo project is considered much safer and is favored by environmentalists over the hydrometallurgical Goro development. Although much of the slag will have to be stockpiled at the mine site, Martin Boucher told Grewal that Falconbridge will try to market its slag internationally to be used in asphalt production (interview, Koné, 14 Oct 2002). Michel Rioux of Falconbridge also told Grewal that they have not ruled out the possibility of implementing a hydrometallurgical plant in the future to process limonitic ores that are unable to be extracted pyrometallurgically (interview, Nouméa, 12 Jan 2005). The companies developing the Koniambo project have been praised by environmentalists for their openness in communicating the details and environmental impacts of the development to the public, exemplified by their thorough environmental study.

In sum, then, there appears to be united opposition to Goro and support for Koniambo, although the Falconbridge/SMSP project still faces some opposition from environmentalists and Kanak alike. However, Falconbridge/SMSP's response to the opposition has generally managed to quell large-scale discontentment regarding the project. Two salient examples of this involved the discussion about siting a refinery and a dam and reservoir to provide water for cooling of machinery. The proposed refinery site was supported by the customary landowners but opposed by the Kanak cattle cooperatives, who filed a legal challenge. The company engaged both parties constructively and eventually chose an alternative site. In the case of the dam and reservoir, customary landowners opposed the site, which was proposed for the most technically feasible area, due to concerns about flooding of hunting terrain as well as for the location's

historical and spiritual significance. In this case also, after initial negotiations revealed the importance of the proposed site to the community, the company agreed to locate the dam in a technically more difficult area (Horowitz 2002).

The local environmental group Koné Avenir wants SMSP and Falconbridge to do more to foster development in the surrounding communities. Members of Koné Avenir are wary of the environmental destruction already wrought by past nickel mining and the economic hardship that followed the nickel booms of the late 1960s and 1970s. Aside from monitoring the environmental impacts such as sedimentation downstream from the mine, Koné Avenir wants the companies to invest in local employment and regional infrastructure.

Larger-scale opposition to the Koniambo project, however, will likely arise once Falconbridge/SMSP formally announces its plans to import about 1,500 foreign laborers on temporary contracts to construct the complex. However, unlike Goro Nickel, Martin Boucher said that Falconbridge/SMSP has a timeline to phase out all non–New Caledonian employees, so that by the time the mine is in its fifth year of operation no more than 100 expatriate employees will remain (interview with Grewal, Koné, 14 Oct 2002).

Thus, at present, despite complaints by some local environmental groups, support for the Koniambo project among Kanaks and indigenous organizations such as the Senat Coutumier and the FLNKS remains strong; Regis Vendegou, the senate's secretary-general, said that people are confident because of the ownership scheme that much of the profits from the development will remain within the territory (interview with Grewal, Nouméa, 10 Oct 2002).

The difference in responses of the Kanak community to the two projects reflects a combination of cautious and differentiated pragmatism rather than the positional resistance that is often assumed by many environmental activists.

Divergent Decisions: Lesson for Mineral Developers

INCO announced on 11 October 2005 that it was planning to acquire Falconbridge in a friendly takeover offer of US$12.5 billion, creating the world's largest nickel company (INCO 2005) If completed, this deal would invite some valuable empirical analysis in organizational change, because, as we have noted, the two companies have very different approaches to conflict management. Table 3 shows the key differences and similarities

between the two projects based on our analysis. There are clearly some quantitative differences between the economic returns for the Kanak. This may lead some economic determinists to simplistically assume that economic returns are the key deciding factors regarding the formation of resistance movements. However, in-depth investigation of the projects reveals that the decision-making by the majority of the Kanak community follows a more complex and long-term planning process for the articulation of their indigenous rights. Indeed, the Koniambo project also faced opposition and there was a convoluted process of decision-making and the articulation of resistance, as noted by some recent anthropological studies of the project (Horowitz 2002). However, the resistance was principled rather than positional and could thus be addressed through appropriate negotiations and concessions—the onus for which lay with the mineral developer.

Some key lessons can be gleaned from these two cases, for mineral

Table 3. A Comparison of the Goro and Koniambo Projects

Indicator	Goro	Koniambo
Reserve	370 million tonnes	151 million tonnes
Ore grade	1.60%	2.58%
Ownership	69% INCO (Canada) 21% Sumitomo/Mitsui (Japan) 5% NC Southern Province 2.5% NC Northern Province 2.5% NC Loyalty Islands Province	49% Falconbridge (Canada) 51% SMSP (Northern Province)
Labor required and origin	803 local 3,000 (temp. contract) imported	850 local ~1,500 (tentative) imported
Tax deal	15 years tax free, then next 5 years at 50% reduction	15 years tax free, then next 5 years at 50% reduction
Cost of production	Less than US$1.00 per pound	US$1.20 per pound
Ore extraction process	Hydrometallurgical	Pyrometallurgical (for now)
Environmental concerns	Submarine tailings disposal	Emissions, water usage

developers and governments alike, with regard to amicable negotiations with indigenous communities:

Ownership and an Articulation of Property Rights

As noted in other studies (Ali 2003), the primacy of sovereignty in contemporary indigenous movements is often neglected by environmentalists and developers alike. The former assume it to be synonymous with a primordial subsistence lifestyle, which most indigenous groups are happy to move away from, while the latter assume it to be synonymous with cash payments, which indigenous groups also find patronizing and demeaning. Ownership is more akin with control over decisions and the legal authority to occupy and manage land. This was clearly an important winning card for the Koniambo project. While this may not be unequivocally necessary for development, it can certainly make it far more amicable and indeed more sustainable—in physical, economic, and political terms.

Transparency: Beyond Legal Disclosure

Most guidelines for corporate social responsibility nowadays include transparency as an imperative. However, often the word is used as a means of ensuring legal compliance with disclosure laws rather than a genuine means of procedural openness. For indigenous communities, in particular, transparency also has a temporal dimension. Decisions must be taken at a pace that allows for the flow of information to be absorbed by the community. This indeed involves additional expense for developers but should be regarded a normal cost of doing business in order to build trust and minimize resistance. The environmental impact assessment process for Goro was perceived by the community to be hurried and procedural rather than substantive. While INCO had considerable experience working with indigenous communities such as the Innu and Inuit in Labrador, the lessons from those interactions were not readily employed here due to devolved regional and local management. It is essential for companies to have collective organizational learning across business units and operational arenas, particular in today's Internet-savvy activist climate where comparisons are often easily drawn. Consistency of transparency is thus also essential.

Flexibility of Plans: Willingness to Change

Due to a persistent legacy of colonial paternalism, indigenous communities are particularly sensitive to having plans for development imposed on them. Governments and developers alike have tended to present plans to

communities and ask for comments, followed by a decision that incorporates only cosmetic modifications to the original plan. Expenditures have often already been allocated and there is systemic inflexibility in plans, no matter how well intentioned they might be. Such a process is often unacceptable to indigenous communities, who want to be part of the planning process to decide on which scenario is workable rather than providing comments on predetermined outcomes. The willingness of the Koniambo developers to completely change siting decisions for the reservoir and the refinery based on indigenous concerns helped to build trust and mutual respect. The lesson here is that plans must be designed with inherent flexibility, and options that might not be technically optimal should be considered based on social concerns that might in the long term be more consequential than technical criteria.

Differentiating Impacts of Relevance to the Community

The previous point should not be taken to imply that scientific criteria, particularly with regard to environmental impact, should be discounted —rather they should be considered within a social context. In the Goro case, the debate on the efficacy of submarine tailings disposal should be considered in the context of how risks are perceived by the community and what risks local people are willing to take. There is a temptation on the part of developers to make such cases a scientific contest rather than a societal decision. It is also important to recognize that environmentalists and indigenous communities might not always agree on the importance of particular impacts. In the New Caledonian cases many activist groups had specific environmental concerns such as coral reef preservation. By the same token, some indigenous communities value particular resources more than others. But because the concerns of environmentalists and indigenous groups are often not congruent, lumping these groups together can be mutually divisive as well as detrimental to achieving consensus on viable development plans.

Conclusion

Indigenous communities all over the world are now beginning to assert their right of self-determination through engagement in how their natural resources are developed. Our study of two cases in New Caledonia revealed the maturity of indigenous decisions in differentiating between development plans. Building on Pierre Bourdieu's notion of "recognition

capital" or "symbolic capital" (1994), Horowitz has summed up these views (and we concur), that "while financial benefits in their own right undoubtedly interested people, their desire to receive visible, tangible forms of recognition from the mining company actually represented a wish for confirmation of a high social standing which was far more important . . . than the money itself" (Horowitz 2002, 42). The perennial questions of whether economic incentives are enough to quash resistance, and whether markets can in some way internalize social movements, miss the complexity of contemporary indigenous movements. Rather than following a short-term approach of jumping on the next mineral bonanza, indigenous groups are considering their options carefully and deciding on resistance in some cases and concessions in other cases. The challenge for governments and developers alike is to present their case for development most constructively and be willing to show inclusiveness, flexibility, transparency, and specificity in their proposals.

Notes

1 Sarimin Boengkih explained this point to Grewal during a meeting in Nouméa on 9 October 2002. Boengkih, the former FLNKS liaison in Sydney, is now affiliated with the Agence Kanak de Development, and works with both Corail Vivant and Action Biosphere. He is thus a very knowledgeable source on these issues.

2 It should be noted that the results of the independence vote provided for by the Matignon Accord would not necessarily have guaranteed an end to French colonial rule of the islands, because at present, the largely pro-independence Kanak only comprise 42.5 percent of the population (UN 2001, 11). The territory's mainly pro-French European population accounts for about 37.1 percent, and the remaining population is made up of various minority groups, including Polynesians, Indonesian, and Vietnamese (CIA 2006).

3 Kuntz denied the existence of any major problems at Goro and maintained that the estimated time schedule for the mine remained unchanged.

4 Napier's letter, e-mailed from INCO's Toronto headquarters, responded to a draft of this article.

5 Gibaud strongly objected the notion of favorable hiring policies for Kanaks, stating that doing so would amount to discrimination and "would be against the French constitution."

6 Pabouty, who was then a member of FLNKS, informed us of the group's continued efforts to ensure independent and ongoing monitoring of the mining at Goro.

7 The commentary by Philippe Borsa, who is a genetics specialist at the Institute de Recherche pour le Développement (IRD), was sent to us via e-mail by Sylvain Pabouty on 24 April 2002.

8 Borsa [2002] included the information from Corail Vivant's analysis of INCO's project assessment.

9 Boengkih, in an e-mail dated 12 December 2002, informed Grewal of possible delays in the overall time schedule as a result of INCO's difficulties at Goro.

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Abstract

Mineral development in remote parts of the world has become a major focus of environmental and social resistance movements. Despite the economic benefits that may accrue for local people, the impact of such projects is increasingly being questioned, particularly by indigenous communities. However, there are ways by which amicable and effective resolutions to development disagreements can be achieved despite cultural differences between the developer and the community. Using qualitative research methods, this article presents a comparative analysis of two mining projects on the Pacific island of New Caledonia where the indigenous Kanak community has shown differentiation in their response to the two projects. Our analysis shows that the project encountering less resistance has more effectively embraced principles of transparency, flexibility, and indigenous ownership. Our analysis suggests that mineral developers operating on indigenous lands should consider the power of process in reaching agreements rather than erroneously assuming that litigation or buyouts are inevitable. Such an approach is likely to reach more sustainable solutions to development in remote indigenous communities.

KEYWORDS: New Caledonia, nickel mining, smelting, decolonization, Kanak, INCO, Falconbridge