Mining Sector Sustainability in 2014: A Global Game-changer

By Joseph Kirschke, News Editor-Mining

Protestors gather outside the 2014 Mining Indaba Conference in Cape Town, South Africa.

In February, during Cape Town's Annual Investing in African Mining Indaba Conference, South Africa became an unwitting global lightning rod for mining sector Corporate Social Responsibility (CSR). Just as top executives from around the world assembled at the headlining event, police at an Anglo American Platinum shaft 900 miles north dispersed 3,000 workers with rubber bullets as the nation with sub-Saharan Africa's No. 1 mining industry grappled with its worst strikes in a century.

As dozens of "Alternative Indaba" and nongovernmental organization (NGO)-led protestors massed outside, Mineral Resources Minister Susan Shabangu spoke assertively for a country with massive mineral reserves and a sector employing 1.3 million—many of whom lost billions from 2014's walkouts. "Government has intervened decisively to provide stability," she said; before the 8,000-strong conference ended, a silent minute honored 10 killed in a Harmony Gold mine accident in the weeks before, South Africa's worst since 2009.

As fast-changing CSR transforms across borders and industries alike, so too does its evolution within the mineral extraction industry—a terrain increasingly defined by relentless social and environmental challenges. A 2014 study by Harvard's Kennedy School and the University of Queensland illustrated community conflict-related productivity losses at their worst—projects between $3 and $5 billion costing $20 million weekly with exploration-stage prospects at $50,000 per week. Other costs include lost future projects opportunities, sales and expansion plans—all impacting employee schedules from senior managers to CEOs alike.

Growing evidence, that is, illustrates sustainability is now a core nontechnical function of mining itself—in lockstep with innovation, market fluctuations and declining ore grades—as miners, engineers and exploration crews scour fragile frontier states ever-deeper for mineral wealth. Many operations, accordingly, have become perfect storms: epicenters amid swirling reputational threats, land use conflicts, politics, regulations, infrastructure, corruption, and community relations—each one unique.

CSR's changes mirror those of integrating economies, treaties and multiplying borders since the Soviet Union's 1991 collapse revved up the pace while pushing extractives offshore and deeply upstream. But amid environmental, human rights and climate change concerns, notions of a "triple bottom line"—people, planet, profit—are becoming more holistic: a "living economy," or a "purpose economy," of "shared value," or what some are calling "Capitalism 2.0"—as global frameworks, industry associations, academic institutions, think tanks and government initiatives join the fray.

But while definitive implementation and, especially, reporting standards are in greater demand than ever, ambivalence persists: CSR 21 Land Citizenship, a nonprofit, has lambasted popular misunderstandings as "Confusing Semi-Requirement" or "Convoluted Semantic Respectability."

Even basic metrics of progress are lacking, noted Assheton Carter, a lead adviser at Equitable Origin, stakeholder-based social and environmental certification, certificate trading, and eco-label system for exploration and production in extractives. Reporting "on ther more intangible things like the community, the environment?" he said. "That's hardly developed at all—there's a long way to go."

Yet little of this is lost on top boardrooms industry-wide: the stakes are simply too high. According to the 2013 U.N. Global Compact-Accenture CEO Study on Sustainability, for example, 63% of chief executives surveyed expect sustainability to transform their industry within five years, while a May survey by CDP, a Washington-based sustainability nonprofit, reported 50% of 767 institutional investors worth $92 trillion felt climate change is "already hitting the bottom line."

The World Turns in a Global Economy

Throughout the 20th century, something remarkable happened: The world's population quadrupled as its economy surged by 20 times its size, yet values for basic commodities—including food, water, energy, metals and minerals—all declined. But after unprecedented emerging market growth and a global recession, the post-2000 years devoured all previous decreases as commodity demands swelled 147%, with global trade in natural resources having increased 50% since.

Population demographics underscore the picture: For the first time ever, more than 50% of the world's population resides in cities—with a 20% increase pending 2020. Five years later, this will include 2.5 billion Asians representing 54% of the global population, an acceleration originating with post-World War II exports, state-backed manufacturing, land reform and strict fiscal regimes. In four decades, meanwhile, the planet's current population of 7.1 billion stands to increase by 30%.

The U.N. is projecting India's population will surpass China's in 2028, when both will equal 1.45 billion; soon after, the South Asian nation will hit 1.6 billion. Nigeria, meanwhile, is expected to surpass the U.S. population by the century's end, as other populations exceeding 200 million will include Tanzania, Pakistan, the Democratic Republic of Congo (DRC), Ethiopia, Uganda and Niger.

These numbers mean many things to many people. Chinese meat consumption will jump by more than one-third, while in India, calorie intake will rise 20% in 20 years, with a global car fleet doubling to 1.7 billion by 2030, according to management consulting firm McKinsey & Co. Worldwide, another 1.3 billion lack basic electricity and 925 million are undernourished, according to the World Bank; in the past decade, 44 million have been pushed into poverty.

Miners will remain at the fore as primary resource demands continue soaring to between 600% and 2,000%, as commodity needs become more volatile—and intertwined—than ever in history. Tight supply and demand shocks mean Chinese copper stockpiles directly impact Zambian markets, where the ore represents 70% of exports—or Chile, the lead producer where taxi drivers can quote the red metal's daily price swings. Next door is Peru, No. 3 in copper and silver and sixth-biggest in gold, another metal China consumes endlessly that is connected by this sprawling web.

A Heavy Footprint

Overall, steel, water, agricultural and energy demands will require capital investments of $3 trillion annually in coming years—$1 trillion more than ever in recent history. Meanwhile, China consumes more coal than every other nation on the planet alongside India, propelling the fossil fuel to emerge as the No. 1 oil well within 15 years. Emerging markets alongside the BRICs (including Brazil and Russia) are nations such as South Africa, Indonesia, Colombia, Mexico and Turkey, which drive these markets through their minerals.

Sustainability echoes loudly among governments, environmentalists and scientists, many of whom worry about mining's irreversible results. Biodiversity impacts by humans, according to the Millennium Ecosystem Assessment, have been faster in the past 50 years than at any time in human history.

By 2011, the world collectively extracted more than 16 trillion metric tons (mt) of raw minerals from below the earth's crust, the World Mining Congress reported last year.

Headlines and initiatives worldwide are prevailing among public awareness: The International Finance Corp. (IFC), for instance, has raised

Shanghai by night. Despite an economic slowdown, China remains the world's greatest consumer of minerals and consumes more coal than every other nation on earth combined. The mainland is also currently home to 10 cities of 10 million and is forecast to host more than 20 cities exceeding 5 million by 2025.

$2.2 billion in "Green Bonds" for renewables in developing nations, while Stanford University students got media attention for protests prompting their university's $18.7 billion endowment to divest fully from coal.

Mining executives are in the spotlight, too. Ian Dunlop, ex-chair of Australia's Coal Association, for his part, said miners are failing to respond to climate change as he battles to join top miner BHP Billiton's boardroom against coal, which supplies more than 40% of global electricity. "The industry has a short-term focus; arguments are utter nonsense," Dunlop, now a member of Safe Climate Australia and the Club of Rome, an environmentally renowned think tank, told *The Guardian*. "We have a global problem and if we sit on our hands, we'll all commit suicide."

Ironically, many solutions—alternative energies or renewables—are extremely mineral and metal-dependent, including solar panels, wind turbine power generation, and fuel cells and hydropower, to name a few. Then there's North America's natural gas boom—championed for U.S. energy independence—where non-traditional horizontal drilling methods require four times the steel of conventional vertical drilling.

To meet such needs, modern-day technical prowess presents few limits. With its abundant gold, copper, zinc and rare earth elements, for instance, deep-sea mining is on the horizon. This year, Toronto's Nautilus Minerals Inc. waded in, finalizing a deal to extract high-grade copper and gold from seafloor deposits off Papua New Guinea; mining could begin by 2019—though Trans Tasman Resources Ltd. of New Zealand could also dive in first by iron-ore dredging off its west coast. In buying its own high-tech industry, the European Commission has begun funding a four-year "Blue Mining" consortium of 19 European research and industry entities; the emphasis will follow recovery through regulations.

Some ambitions seem heavenly: even asteroid mining is within view.

But in the end, most importantly, astride India, China will continue witnessing growth 200 times that of the U.K. Industrial Revolution's peak—amid predictions the mainland will host 23 cities of more than 5 million by 2025. In 2012, accordingly, nonferrous exploration hit a historic high of $20.53 billion—a 19% increase year-on-year, reported Ernst & Young.

The Song Remains the Same

But demands do have limits. Political gridlock in Washington, European Union debt crises and 3% global growth in 2013 have rippled worldwide as China's economy is slowing: Buoyed by rising living standards, its growth-based investment and export-driven engine is now more reliant on consumption and productivity as demands for energy, metals and other minerals wane. Growth is also curbed by the 80% of its working age population already employed as construction and private-sector spending is slackening, reflected in International Monetary Fund (IMF) 2018 growth forecasts of 6.6%—a far cry from the near double-digit growth in the past decade.

Amid this shift, the top 40 miners booked profits of $20 billion in 2013, their lowest in a decade, accounting firm PricewaterhouseCoopers (PwC) reported, as market values fell $280 billion in 2013, a 23% decline from 2012 to $958 billion in Q4. Gold bullion fell especially hard at 28%—its greatest decline in three decades; many junior miners simply gave up altogether, while exploration dropped 30%.

Accordingly, fleets are parked, head counts slashed and capital expenses shelved during record impairments as half of the top 40 CEOs left their boardrooms. Safety problems, lack of skills and an aging workforce are all in the mix. "This is not the first time the mining industry has faced recalibration, just the first time in recent memory," accounting firm Deloitte said.

And, despite its urgent need, mining sector sustainability is increasingly vulnerable. "If you're working in South Africa and you're worrying about your labor force, it's not just because it's a nice thing to do," said Gus MacFarlane, director of advisory services for U.K.-based risk advisory firm Maplecroft.

The Still Center

CSR momentum continues across the mainstream, "as companies consider perspectives of their providers of future capital," said another PwC report; the 2013 UNGC-Accenture study also polled more than 80% of the world's top 200 CEOs incorporating it as a "core strategy" since 2008.

Its failure or success can have across-the-board impacts—from labor relations and corruption to the environment and often-paralyzing community standoffs. Resource nationalism also looms large in the background.

Take Chile, with copper mines representing one-third of the world's total and half its new projects tagged having a high political risk. Royalties increased to 9% in 2013 and could hit 15% by 2018. The Center for Public Studies last year, meanwhile, reported 83% of Chileans supporting full nationalization of their mines. In an underdeveloped Bolivia next door, the diverse locations of mining and natural gas projects have allowed for confusion over taxes, royalties, and governance at the national, regional and municipal levels. Such dangers are not limited to the "Global South," of course: Australia and Canada have denied foreign miners access to deposits.

Mongolia, home to one of the world's largest mines deep in the South Gobi desert, is no stranger to such prevailing winds. In June, Rio Tinto's $6.2 billion Oyu Tolgoi copper-gold asset hit yet another in a series of snags with the Ulan Bataar government over tax authority claims; the No. 2 miner and its Turquoise Hill subsidiary have already renegotiated with financing banks, threatened legal action and reduced guidance.

Government intervention remains pronounced elsewhere. Mineral-reliant countries, according to the World Trade Organization (WTO), have imposed 30 export curbs on minerals since 2009. Countries worldwide further subsidize resource consumption up to $1.1 trillion, many of which dedicate up to 5% of GDP toward energy subsidies. Despite uncertainties, however, mining companies still witnessed production more than quadrupling since 2000, said London's Chatham House, a think tank—far above what the concessions were negotiated for previous decades.

Governments Proactive and Reactive

Other government actions fill the CSR space: Ahead of April elections, India became the first nation to impose a Companies Act, effective 2015, mandating that large companies dedicate 2% of earnings of three-year average annual net profit for CSR programs; the Supreme Court also ruled 10% of all mining lease sales go to a CSR fund. Donations to political parties and benefits to workers and families are expressly prohibited by the Ministry of Corporate Affairs, reported *The Indian Express*; perhaps fittingly, donations to political parties are banned as well.

Worldwide, governments and communities are also growing savvier about the value of local content concerning a company's employment of locals and its use of local goods and services. South Africa's 2002 Black Economic Empowerment Policy and Mineral and Petroleum Resources Act requiring mining rights holders to use local suppliers for 40% of capital goods, 50% of consumables and 30% of services is a prime example.

Transnational strategies are also emerging in African states where 80% of workers labor under low-value service jobs while earning less than $1.25 daily; one is outlined in a policy paper by the African Development Bank, the UNDP and the Organization for Economic Development and Cooperation (OECD) for extracted resources to "trigger structural transformation," noted U.N. Africa Director Abdoulaye mar Dieye.

Dieye argues the continent's 13 member states in the Extractive Industries Transparency Initiative (EITI) set the stage for financial accountability and management before a multilayered, multistakeholder cooperation, including market volatility accommodations.

"Improving lives of current and future generations investing in infrastructure, health, education and building human capacity, deliver these services," Dieye added; In 2011, Africa's GDP included $382 billion in oil, gas and mineral exports.

Lifting the Veil with Transparency

Corruption and accountability impact all aspects of a mining operation—especially in frontier states where it is most prevalent. The U.S. Justice Department, the U.K. Fraud Office and Australia's Federal Police are all now conducting major investigations into many of the world's top miners over graft allegations in poorly governed jurisdictions.

But while countries like the DRC, Ghana, Zambia and Mozambique are among more than 40 EITI "compliant" and "candidate" countries, resistance comes from other places like South Africa, with "a fiscal regime redistributive and systems of accountability for revenue generated and distributed," said Ayanda Shezi, a Mining Ministry spokesman. Like Dieye, analyst Mari-Lise du Preez of the Institute for International Affairs sees a national industry-wide need, but told Johannesburg's *Mail & Guardian* of a government bias against "northern" mandates.

Africa's top gold producer, naturally, is already steeped in corruption; examples include a Q1 OECD report condemning government officials of the continent's biggest economy for not prosecuting even one corruption case since becoming a signatory to the OECD's 2007 Anti-Bribery Convention. The report stressed the need for "urgent steps" amid "serious concern."

Last year, U.S. Acting Assistant Secretary for Democracy, Human Rights and Labor Uzra Zeya outlined participation in Voluntary Principle norms like the decade-old EITI in different terms. "Government participation signals to mining companies their commitment to the industry and communities success and to creating a positive business environment that will attract further investment," said Zeya.

The Oslo-based EITI, however, is not without critics, including Human Rights Watch (HRW), which strongly opposes the membership of many of its states.

But EITI standards have had their benefits. Groups in countries like Niger, the world's top uranium producer and No. 1 source for France, uses more nuclear power for its energy needs, at 75%, than any other nation, are a case in point. Through EITI data, Niger's Organization for Transparency and Budgetary Analysis (ROTAB) and its Publish What You Pay (PWYP) affiliate, a group of civil society organizations advocating for financial transparency in extractives, revealed inadequate government compensation by uranium-focused AREVA, the biggest French-government owned miner there, leading to renegotiation with the Francophone nation's government.

Indonesia, one of the world's most geologically rich countries, despite dire poverty and mining-related controversies—while permeated with corruption—is another example. With more than 250 million people scattered across 17,500 islands, the No. 1 Southeast Asian economy is also the second EITI nation (after East Timor) to demand more than 70 natural resource companies provide detailed payments to the government on a per-project basis. The statistics now allow Indonesia's 497 districts to better track income, while residents can understand how much revenue is generated locally.

Rumbles in the Jungle

Touching down at Conakry's Gbessia International Airport, it's said the dual sense of corruption and dread are as overpowering as the sweltering West African heat itself. So intense, according to visitors, it can be felt pooling into one's DNA while approaching a small phalanx of customs agents at the arrival gate, determined to extort bribes; it gets worse from there. But beyond being an EITI-compliant nation—while hosting

Events surrounding the development of Guinea's Simandou iron ore deposit, one of the world's largest, have demonstrated how a lack of transparency can negatively impact miners in frontier markets.

one the world's greatest iron ore deposits—it's also a backdrop to one of the industry's bitterest turf wars between miners, government officials and others.

After a decade of disputes, Guinea signed a $20 billion deal with Rio Tinto to develop the southern half of the high-grade ore of the Simandou concession, with estimates of 2.2 billion tons and the likelihood of generating more than 40,000 jobs while potentially doubling GDP. The No. 2 miner has already agreed to build a deepwater port and 400-mile railway, reportedly equaling 10 times the national budget.

Before his 2008 death, Conakry's then-dictator Lansana Conte sold the concession's northern half to controversial Israeli tycoon Benny Steinmetz and his company BSGR, before he sold a 51% share to Brazilian giant Vale S.A. for $2.5 billion. In Q2, President Alpha Conde stripped Vale and BSGR's concession rights; since then, accusations have swirled from NGOs and all sides as Steinmetz has sued Guinea in international court; Rio Tinto, meanwhile, has sued Steinmetz and Vale for conspiring to steal its rights.

But Conde is now optimistic his country will finally see benefits from its resources despite the legal battles. "It's a nationwide priority that goes beyond the mines and far beyond our generation," the democratically elected Conde told *The Economist*.

Rio Tinto CEO Sam Walsh is also optimistic, noting a multistakeholder approach including the government, state-owned Aluminum Corp. of China Ltd. (Chinalco), the IFC and Conservation International; the Guinean government, he added, has progressively engaged the EITI while playing a key role in 2013's G8 summit talks on trade, taxes and transparency.

"We can have the best geologists in the world to make great new discoveries, but if the owners of the resource won't let us dig it out of the ground and bring it to market, we won't be making a return," Walsh told *Executive Briefing*, a publication by advisory firm Critical Resource. "Shareholders are increasingly asking more questions about our ability to manage stakeholder risks."

A Clearing in Canada

With its miners operating in more than 4,300 sites in 100 countries, Canada has lobbied hard to prove sector-wide openness. Most recently, a newly formed Resource Revenue Transparency Working Group (RRTWG) has provided provincial governments, alongside securities commissions, a payment transparency reporting blueprint. Coordinated with Canada's Mining Association (MAC), the Prospectors and Developers Association of Canada (PDAC) and the nonprofit Revenue Watch Institute (RWI), the blueprint evolved after more than a year of multistakeholder meetings with substantial public input. The group, along with PWYP Canada, focuses particularly on ensuring its $3 trillion in revenues from mining, oil and gas help impacted communities.

Other Canadian interventions have been less above board. The Communications Security Establishment Canada (CSEC), Canada's spy agency, was reported as having conducted surveillance on Brazil's Mines Ministry, according to leaks from U.S. National Security Agency (NSA) whistleblower Edward Snowden. Another report said CSEC officials have been liaising with Canadian mining and energy companies; according to Ottawa statistics, more than 50 Canadian mining companies are active in Latin America's most populous nation, also the 12th largest recipient of Canadian Foreign Direct Investment (FDI).

Such intrigue is not without precedent. In Canada's own backyard, *The Dominion*, under an Access to Information Act request, reported in 2012 that Canadian intelligence and Royal Canadian Mounted Police (RCMP) officials also spied on environmentalists and First Nations peoples on behalf of businesses they had been criticizing.

Such news, with past violations by Canadian miners overseas, has drawn voices of condemnation toward other less ominous Canadian initiatives. These include the Canadian International Institute for Extractive Industries and Development (CIIEID), which launched an initiative, via a $24.6 million Department of Foreign Affairs, Trade and Development (DFATD) grant in Q1 with Simon Fraser University (SFU), the University of British Columbia (UBC) and Ecole Polytechnique de Montreal. Vancouver's SFU also hosts the Responsible Minerals Sector Initiative (RMSI), a multistakeholder collaboration of dialogues advancing mining sustainability.

SFU professor Carolyn Egri stressed its neutrality is paramount. "There's a strong principle of academic independence and integrity running throughout the project," she said. "If there's a problem, you solve it by including the people who are contributing to the problem—excluding them won't help at all." UBC President Stephen Toope added: "It is an independent academic center and not an instrument of the government."

But public interest groups, including Mining Watch Canada, as well as student unions, have vigorously protested. "While mining-affected communities, their representative organizations and governments could certainly benefit from independent academic expertise, the CIIEID will not provide independent advice," the nonprofit said in a statement, "nor will it have credibility given the government's vested interest, its stated goal of promoting and protecting the interests of Canadian extractive companies operating overseas and its poor track record."

"Building the Canadian Advantage," a five-year strategy to help the nation's extractive companies "by enhancing their ability to manage social and environmental risks" with CIDA funding has also taken some hits: World Vision, a U.S. Christian humanitarian organization, has said "it is likely that trade concerns will trump poverty alleviation."

Initiatives linking Canada's government to its mining sector, which represents between 50% and 70% of all Latin American mining, are indeed no strangers to controversy. In their wake, civil society organizations reporting to the Inter-American Commission on Human Rights (IAHCR) in Washington this year cited 22 large-scale projects across the region as having community conflicts—Peru meanwhile, was singled out as a country "that has abandoned its role of protecting peoples' rights, and instead assumed a role guaranteeing investment," testified Javier Jahncke representing the Red Muqui, an indigenous group.

The authors were unequivocal about the Canadian government's support for the companies. "The financial and political support that Canadian mining companies receive from the authorities of their home state, along with the absence of social institutions and adequate regulatory systems of the host states, are key elements of the current

South Africa's deeply troubled mining sector saw some of its worst labor unrest in 2014, costing mining companies and their employees billions while throwing the continent's biggest economy into turmoil.

patterns of human rights violations derived from this extractive industry in Latin America," said Daniel Cerqueria of the Due Process of Law Foundation (DPLF). "We're not talking just about the role of private corporations, but the international obligations binding their states of origin;" the Canadian Center for Resource Conflict, a think tank, has agreed that "Canadian companies have played a much more major role than their peers from Australia, the U.K. and the U.S.," in such incidents.

Works in Progress, Hand-in-Hand

Less contentious public-private initiatives are taking off in other parts of the world. In Q4 2013, with University of Queensland and University of Western Australia help and Australian government funding, the African Minerals Development Center was launched in Mozambique; the institution is part of a broader African Mining Vision (AMV) plan led by regional leaders. Further in line with the AMV has been the Q4 2013 establishment of an Information Center for the Extractive Sector in Nairobi, housed by the African Development Bank (ADB) in a nation where mineral exports have been projected to increase 10% in coming years; support comes from the UNDP, the U.S., Canada and Australia.

Meanwhile, the U.K.-headquartered International Institute for Environment and Development (IIED), a policy research center, is offering a program on artisanal mining, the problems it poses and its obstacles to good CSR implementation. Mining companies like Anglo Gold Ashanti, and Anglo American are partnering with consulting firms like the U.K.-based Synergy Global in developing community practice training programs at South Africa's University of Witwaterstrand.

In Ghana, the University of Western Australia Law Faculty is also collaborating with Canberra's Department of Foreign Affairs and Trade (DFAT) and University of Ghana professors to develop a Master of Laws program; it, too, is within the AMV and includes collaboration with International Mining for Development Center (IM4DC), an initiative including the University of Queensland.

NGOs, meanwhile, are also increasingly teaming up with miners to enhance best practices—including on projects they previously opposed. In 2011, HRW, for instance, was one of the first nonprofits to report on violent sexual assaults against local women by security forces near a Barrick Gold Corp. operation in Papua New Guinea; HRW is is now working with the world's largest gold miner to remedy the issues with active participation by female police officers.

"We may disagree with the companies, but it's impossible to have a fully informed perspective on issues linked to their operations without soliciting their perspective," Chris Albin-Lackey, a senior HRW researcher, told *BC Business*, a Canadian publication. "We've also found that we are most often successful in pushing companies to take action to address past abuses before our reports are ever published."

Moreover, "companies tend to react badly to being ambushed by findings they were unaware of and had no chance to have their say about," Albin-Lackey added, "and that gets us nowhere;" Toronto-based Barrick has also been joined by World Vision with a $530,000 CIDA grant to create further dispute mechanisms in countries at the local and national levels for addressing sustainability and conflict issues.

Through such cooperation emanates an ability to understand CSR in a far broader context, experts like Wayne Dunn, professor of practice in CSR at McGill University and president and founder of the CSR Training Institute, have noted, in a phenomenon he termed "beyond beads and trinkets."

Resources Available and Lives at Stake

This need was underscored when U.N. Special Rapporteur James Anaya took the stage in New York to address the world body's July International Expert Group Meeting addressing sexual health and reproductive rights among indigenous people worldwide. Mining, with its influx of personnel, he said, adds severe urgency to sometimes quaint concepts of health care clinics providing basic human rights near disruptive mines.

The new workers, moreover, bring sexual violence and pregnancies with them, he said. "I have heard compelling stories from indigenous people who do not have resources to travel to faraway facilities or have been denied care or expelled from hospitals because they were unable to pay for services," noted Anaya. "Mothers who have just given birth are routinely forced out of hospital facilities the same day they gave birth because they cannot afford the hospital fees."

Alongside an open window to increased infant and maternal mortality, "there is a lack of health care professionals who speak or understand indigenous languages," according to Anaya, "which can result in improper diagnoses," with contamination from extractive activities "having contributed in many cases to birth defects, delayed child development and disease among community members."

Volunteering for Change

Michael Torrance, an associate at law firm Norton Rose Fulbright, noted that as such mining human rights issues gain momentum, so, too, are some of the voluntary principles established to guide them. "One of the biggest areas of new development we're seeing are a lot of interest in what the U.N. guiding principles on Human Rights and Business are," he said, "regardless of what companies or local governments say or do."

One good example emerged in wake of a damning report by Pax, a Dutch human rights NGO, about a Colombian unit of Glencore. In *The Dark Side of Coal*, Pax examined Prodeco's role in paramilitary violence across northern Cesar between 1996 and 2006, which claimed more than 3,000 lives and displaced 60,000. In 2014, the Swiss-headquartered multinational mining and commodities major also received a Public Eye award over NGO claims of poor sustainability records.

A Glencore spokesman, for his part, called the accusations "distorted and unbalanced," and based mostly on information from Jose del Carmen Gelvez, a former Prodeco security guard serving 40 years in a Colombian prison for murder while pending extradition to the U.S. on terrorism charges.

But from a CSR standpoint, Glencore had something else more intriguing to add. "You are aware your report is issued in the midst of our application of being a plenary member of the Voluntary Principles on Security and Human Rights," a company release responding to Pax said. "This assessment also caused us to revisit around the El Prado land and we did not identify any indication of misconduct on the part of Prodeco."

Elsewhere in Colombia's coal sector, Glencore, along with top miner BHP Billiton and Alabama-based Drummond Co., engaged in a far more subdued agreement in Q1 2014 following land theft and charges in which more than 170 Cesar state families were relocated. "It is rare that such a cordial outcome is achieved," said CSR 21 Land Citizenship.

Gare Smith, the chair of CSR practice at Foley Hoag LLP in Washington, said the advent of sustainability advisory boards within companies and externally is having a global impact. "You have cross-pollination of best practices," he said. "With new members coming in, you have baseline standards, not only for the big guys, but for the smaller companies too."

Craig Ford, a former vice president for corporate responsibility at Inmet and an adviser and founder of Ontario-based NPB Consulting, put it differently. "Do we have a long way to go? Absolutely," he said as quoted by *The Toronto Star* in June. "But that doesn't mean there aren't leaders out there that are trying to make a difference."