"The Dignity of Work…on a Massive Scale"
The Case of Newmont Mining's investment in Ghana, 2002-2016

"The Lord God took the man and put him in the Garden of Eden to work it and take care of it." GENESIS 2:15

The communities of Ghana's Brong-Ahafo region would not have seen the improvements in their lives and livelihoods over the last decade were it not for the employment opportunities provided by the Newmont Ghana Gold Limited (NGGL) investment in mining operations. The shareholders of Newmont Mining Corporation headquartered in Denver, Colorado would not have earned the returns they have over the same decade were it not for the same investment. Both labor and business have risked much in fostering such a partnership around this Ghana gold mine. Yet both sides have discovered common ground, from which each has benefited greatly. This paper seeks to describe their journey. It acknowledges that business, and particularly extractive industries, may have many negative consequences that must be mitigated. Nevertheless, it illustrates how investments in well-founded businesses can create avenues for sustainable economic development. Harnessing the energy, dynamism, and creativity of business should be part of the thoughtful jigsaw puzzle that helps people lift themselves out of poverty. And for all, but particularly those who have faced poverty, hopelessness, and conflict, one should never underestimate the dignity in a good day's work.

The perspective of the mining company

Mining in general, and gold mining in particular, is not for the faint of heart. Mining exploration licenses are frequently for vast territories, many found in politically unstable, and at times unsavory, regions of the world. Miners must overcome limited infrastructure, communication, and electricity to gain access to the rich veins of ore and then excavate enormous mines and build ever larger processing mills. The necessary upfront capital investments are rarely estimated both in less than hundreds of millions of dollars and in years before the first gold pour from a mine. The miners' challenge is to limit upfront capital expenditures and hold down the operating costs over the 15 to 30 year lifetime of the mine. The mines must earn a return acceptable to shareholders given the prevailing price of gold – all the while avoiding natural catastrophe and national government expropriation of the mine. Should international gold prices drop significantly, the capital expenditures become sunk costs and mines are shuttered.

Colonel William Boyce Thompson founded the Newmont Mining Company in 1916. Newmont grew rapidly into the exploration and mining of gold, silver, copper, lead, zinc, lithium, uranium, coal and nickel. Expanding beyond Montana and Nevada, Newmont developed enormous mines as far afield as Yanacocha, Peru and Batu Hijau, Sumbawa, Indonesia. As one of the world's leading gold mines, Newmont employs over 28,000 in operations across five continents. Newmont's aggressive expansion led it to acquisitions overseas, including controlling interests in mines in Africa. However, given the challenges – civil wars, *coup d'tats*, dictatorships, repression, poverty, famine, natural disasters, civil unrest – Newmont executives decided to sell off their assets and exit Africa in 1987. Newmont's team had judged that the risks associated with mining in Africa far exceeded the potential returns.

In 2002, through a series of acquisitions in Canadian and Australia, Newmont once again gained a foothold in Africa with a stake in mining exploration licenses in Ghana. Further geological and environmental impact studies revealed that the Ghana license may represent substantial gold reserves at reasonable extraction costs. Yet the decision to develop a gold mine in Ghana remained a difficult one.

On the plus side, the geologists presented their analysis that led them to estimate that a possible gold mine in Brong-Ahafo region may add over 7 million gold ounces to Newmont's overall reserves. Ghana had a long gold mining tradition with a reasonably skilled workforce. Newmont would ultimately need to hire hundreds, perhaps thousands, of skilled workers directly for its mines, construction projects, processing plants, but would also need entire teams of local sub-contractors and suppliers to keep its mines going. Newmont would likely be able to find such employees within Ghana, and not need to employ expensive ex-patriots.

On the other hand, the gold deposits sat below land used for subsistence farming and several villages, requiring the initial relocation of perhaps 1700 households. The potential leased areas themselves would cover vast stretches of land—perhaps nearly 500 square miles. At the time, the Brong-Ahafo region possessed very few access roads, limited electricity and almost no telecommunication. Once the mining operations had ceased, reforestation would be needed, yet the potential reforestation of such a large area had never been attempted. Finally, and perhaps most importantly, the Government of Ghana had not passed legislation to specify the legal and regulatory framework that would govern foreign direct investment in its mining industry. International mining companies had no way of knowing what rate of taxes, duties and royalties they would pay on foreign direct investment to build operations.

The ultimate decision to invest in Brong-Ahafo rested on a few critical factors, including the upfront capital expenditures of $350 million to build the processing mill, leaching facility, and tailings management facility. Further, given the best estimates at the time of operational costs including labor and power combined with ore quality, the costs to extract the gold would need to remain below the current international price for gold per ounce, established within global markets balancing demand with supply.

Within twelve months of the original investment decision, almost every aspect of the original project had changed, thereby drastically altering the economics of the project. To begin with, by 2005, the unexpectedly difficult nature of the ore increased processing costs. Moreover, the discovery of oil in Ghana in 2007 meant that the costs for skilled labor increased as multi-national oil companies hired Newmont's skilled workforce. Further, rising global fuel costs combined with higher costs for steel and other inputs further eroded the returns on investment. Perhaps most unforeseen by Newmont planners was the onset of a drought cycle in Ghana in 2005 and 2006. The drought directly impacted Newmont's mining operations through the increased price and even rationing of electricity generated by hydroelectric power. More specifically, contained behind the Akosombo Dam on Volta River, Lake Volta is the largest reservoir by surface area in the world. Its massive hydroelectric plants generate the power that drives the Ghanaian economy. The drought forced unexpected power shortages and unprecedented electricity rationing. Newmont cobbled together temporary solutions to keep its processing mill running by purchasing diesel generators, but these solutions proved unsustainably expensive.

This drought impacted Newmont's investment in Ghana in multiple ways – delaying investment in a second mine and driving its inability to run the processing mill at capacity, thereby further increasing costs. The ultimate solution to power shortages was a creative one, if a complicated one. In 2006-2007 Newmont created and then led a consortium of four other multi-national mining companies which invested an additional $100 million to build additional thermal generation capacity near the capital city of Accra that would provide power not only to the mining operations, but also the people of Ghana.

By 2016, the projected cumulative capital expenditures in Ahafo stand at approximately $1.5 billion. Further, outside economists, by extrapolating from the first gold pour through the first years of operation, estimated the breakeven of Newmont's investment in Ahafo as thirteen years, from initial investment in 2003 to 2016. (Source: *The Socio-Economic Impact of Newmont Ghana Gold Limited).* As mentioned earlier, mining is not an industry for the faint of heart.

The perspective of labor and the broader society

The impact of one mining company on an entire country of 24 million people can be staggering. In *The Socio-Economic Impact of Newmont Ghana Gold Limited*, a team of outside economists estimated that not only is Newmont a major contributor to the Ghanaian economy, but also generates nearly 10% of its exports, nearly 5% of its total foreign direct investment and 1.3% of the Gross Domestic Product (GDP). The mine is estimated to generate over 8% of Brong-Ahafo's GDP (Source: *National and Regional Economic Impact of Newmont's Ahafo Mine in Ghana*). Employing over 1,700 directly and a further 5,100 through suppliers, Newmont's operations are estimated to create another 40,400 jobs through indirect effects in the economy.

Nevertheless, in interviews with individual Newmont employees at the Brong-Ahafo mine (March 2014), what stands out most is the value they themselves place on their employer, their work, and the training it provides. Most employees interviewed had worked at the mine since Newmont's first days in Ghana, thereby creating a stable workforce with a remarkably low turnover. Further the vocational training in the trades – for example, welding, surveying, truck driving combined with its apprenticeship program enabled Newmont employees to earn the valuable London City and Guilds Training Certificate. Should family or other considerations force them to move, these employees could use this internationally recognized accreditation to find work in other industries in Ghana or elsewhere.

Further interviews with Newmont employees (March 2014) indicate how much their work environment at Newmont meant for them, given the paucity of their employment alternatives. Unlike many parts of West Africa where trash is strewn indiscriminately, the Newmont property is clean, tidy and well maintained. Billboards focus on initiatives safeguarding the environment. Ghanaian management staff and miners themselves boast about the number of days since a safety incident. Workers are paid a good and living wage.

Beyond direct employment, Newmont has invested heavily in building up local suppliers for goods and services demanded by the Ahafo mine. Contracting with local suppliers helps create further jobs and raise household incomes, improving skills and developing a more diverse local economy. Providing training to local suppliers on responsible business practices helps ensure a safe and responsible supply chain. For example, in 2015, Newmont's Ahafo mine held a workshop for about 130 local businesses, which discussed business opportunities and covered topics related to operating a successful sub-contracting firm to Newmont, such as compliance with statutory obligations, paying taxes and contributing to pension schemes; respecting human rights; and following strong principles of governance to avoid corruption.

For the surrounding communities, Newmont has created multiple support and economic development programs. Having successfully relocated 1,700 households, Newmont instituted a program to assist in raising yields and introducing new techniques in agriculture. Through its environmental stewardship program, it has committed itself to the reforestation of hundreds of square miles of disturbed areas and waste rock disposal pits. The signing of the Ahafo Social Responsibility Agreements in 2008 launched the Newmont Ahafo Development Foundation which makes community investments from its receipt of $1 per gold ounce sold and 1% of NGGL net profits. No mining operation is free of controversy, and thus, Newmont established a grievance management system in which company liaisons meet with local, regional, and national leaders monthly or bimonthly to address issued as they arise. To further illustrate, in 2015, the Foundation launched a five-year project aimed at transforming basic education in the mine's 10 host communities. This initiative funds grants, infrastructure, teacher training, and other programs aimed at improving the standard of education.

As a consequence of these and many ongoing initiatives, the Ghanaian government recognized Newmont as its "Most Outstanding Corporate Income Taxpayer in 2011" for compliance. Internal corporate documents estimate that Newmont paid over $60 million in payments to the Ghana government in 2015 and more than $300 million since the first gold pour in Ahafo in 2006. These tax payments represent a substantial portion of Ghana's overall tax receipts. Indeed, Newmont's commitment to

Ghanaian society extends beyond tax payments to helping extend educational and healthcare infrastructure. In a major collaboration with the Ghana Ministry of Health, Newmont, through its Foundation, helped build a new national nursing college – the first and only such school in this district of Brong-Ahafo - by contributing dormitories, classrooms, dining hall, assembly area, and administrative offices. With the opening of the school in 2014, its enrollment has quickly grown from 250 to 500 students. The Ministry of Health operates the nursing college and draws aspiring nurses from across Ghana.

Closing reflections

Mining, like most extractive industries, has had a poor record over the years of addressing concerns regarding safety, the environment, and the communities surrounding the mines. In the late 1990s, many business leaders recognized that their industry had to change. Newmont and other mining companies launched a broadly participatory process to engage a wide range of stakeholders including governments, labor, and non-governmental organizations to determine industry best practices in addressing difficult issues such as environmental protection, worker safety, human rights, corruption, relocation, indigenous people's rights and the overall sustainability of business practices. From this process emerged the International Council of Mining and Metals (ICMM), created in 2001 and which continues the global multi-sector engagement process to enhance mining's contribution to sustainable development. As a founding member of ICMM, Newmont has benefited from the development and publication of ICCM's leading practices. The story of the Brong-Ahafo mine bears witness to Newmont's application of these best practices focused on sustainability.

The list of factors that affect the viability and sustainability of gold mining is certainly long. It includes geologist expertise, grade of ore, ore tonnage, power, fuel, labor, government regulatory structure, environment, social impact to name but a few. Unforeseen challenges, such as the drought in Ghana massively increased the operational expenses for the Ghana mine. However, given that its shareholders invest in Newmont to gain exposure to possible gold upsides, the Ahafo project fulfilled those needs, as they substantively increased Newmont's overall gold reserves. Ghana has become Newmont's re-entry platform for investment across Africa.

Tens of thousands of Ghanaians are now directly and indirectly employed by a business that respects their contributions and compensates them accordingly. Many have gained vocational training and apprenticeships, earning accreditation for skills that they can take far beyond Newmont. The Ghana national government would not have been able to fund its multiple education, healthcare and infrastructure initiatives over the last ten years were it not for Newmont's income tax and royalty payments.

Corporations are not inanimate objects, but consist of individual women and men, who have made business their vocation in life. When done well, business can represent a force for good in society, consistent with Catholic social teaching. We should continue to ask more of business, and ourselves. In *Laudato Si*, Pope Francis challenges us to do so.

Viva Ona Bartkus
Associate Professor, University of Notre Dame
Business on the Frontlines, a program exploring the impact of business in rebuilding post-conflict societies

Wayne W. Murdy
Retired Chairman and CEO of Newmont Mining Corporation

May 1, 2016