How to Value Returns on Sustainability Investments in Emerging and Frontier Economies: Linking Community Outcomes and Business Value

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Executive Summary

Extractive industry companies often operate in emerging and frontier economies where local communities come face to face with foreign companies, sometimes without the presence of a strong government, local government, or governance structure. In order to be a good neighbor, manage high expectations of governments and host communities, access land and manage risks, many extractive industry companies invest millions of dollars in diverse local sustainability programs such as infrastructure development, vocational training, skills development and support to a variety of local institutions and stakeholder groups. These sustainability investments create both benefits to the local communities as well as significant business value to companies.

The long-time challenge is qualifying and quantifying the term value with sound metrics rooted in business language, e.g. financial value such as return on investment and rate of return that can capture all aspects of the sustainable effort both “soft” and “hard”. Value derived from sustainability programs has never been rigorously quantified, thus preventing managers from: a) maximizing the positive local impact of such investments; b) understanding the true business benefits of such investments to financially justify the spending of capital, c) being able to prioritize among those investments, d) communicate the value of these investments, and e) compare these investments to other investments the company can make. A lack of hard financial data on the financial return from social, environmental and other community investments has made it difficult for companies to assess their business benefits and hence to justify sustainability budgets that compete with other corporate priorities. The ability to articulate only the costs, and not the financial benefits, has biased the assessment of such investments as pure cost with little direct business value. This traditionally leaves sustainability initiatives outside the core operation planning process, impeding cross-functional alignment and understanding, setting shared operational goals and communicating the holistic value of such initiatives. Sound metrics can strengthen the business case for community investment, enhance local development outcomes through improved rigor of investments, help secure ongoing support from management and shareholders, and convey signals to the market about good environmental and social risk management.

This case study analyzes experience and learning from implementing the Financial Valuation Tool for Sustainability Investments (FV Tool) with two pilot projects: Newmont’s Ahafo gold mine in Ghana and Cairn’s oil pipeline in India. This study suggests that companies can develop metrics to guide their community investments and translate community program outcomes into company value, in terms that are understood by the market – risk reduction, productivity gains, savings, return on investment, and enhanced reputation. An additional

1 Acknowledgements: The authors would like to thank for providing valuable comments and support to Nick Cotts, Kojo Bedu-Addo, Walter Richards from Newmont Ghana; and Manu Kapoor and Deepak Arora from Cairn India.
incentive is that high-performing environmental and social programs are increasingly seen as a proxy for effective business management. According to Multilateral Investment Guarantee Agency (MIGA), a World Bank political risk insurer, they would reduce insurance premiums for an operation that demonstrates rigorous risk management.

The first section of the case study presents the key concepts and elements of the FV Tool. The second section analyzes the motivation of the two companies who decided to pilot the FV Tool. Finally, the third section evaluates key findings and challenges from the FV Tool pilot implementations.

The work of measuring return on corporate social responsibility is growing. Foundations, corporations, academics and multinational organizations are developing methodologies to measure return on sustainability initiatives in sectors beyond the extractive industry. There is a growing demand from investors, shareholders and corporate management to determine the value of corporate social responsibility initiatives. Measuring return on these types of investments requires a multidisciplinary approach bringing experience from financial valuation, political risk and environmental and social impact assessment.²

What makes the FV Tool method unique is the process which brings together a cross functional team to assess how sustainability/community investments yield a reduction in costly risk events in other business areas, such as land access and community health & safety. In addition the model, supported by the operation’s existing cash flow forecasts and assumptions, uses Monte Carlo simulation (probability) to refine user inputs, given the inherent uncertainty of predicting future events. The final output of the FV Tool, financial return expressed as the net present value (NPV) over the lifespan of the asset/operation, communicates the corporate value of corporate social responsibility (CSR) in the language of the financial world.

Financial Valuation Tool for Sustainability Investments

Over the past three years, a partnership, including the International Finance Corporation’s Oil, Gas and Mining Sustainable Community Development Fund (IFC CommDev), Rio Tinto, Deloitte and the Multilateral Investment Guarantee Agency (MIGA), with the support from the Government of Norway, has developed the Financial Valuation Tool for Sustainability Investments for the extractive industry. This tool calculates a probable range for the net present value (NPV) return to the company from a portfolio of sustainability investments, including value protected through risks mitigated and value created through productivity gains. The FV Tool is grounded

in the assumption that a company’s site-level sustainability investments\(^3\) can improve relationships between a company and community, which should reduce the likelihood of risks materializing, and/or improve productivity, and as a result provides value to the company that can also be expressed in financial terms. The tool is designed to supplement a company’s traditional discounted cash flow valuation model. It can compare two different sustainability investment scenarios based on risks and opportunities faced by an asset/operation, such as a mine or pipeline, to help managers decide which scenario is likely to yield the most value for the company via creating a positive impact for surrounding communities.

The tool estimates the difference between the financial values of two user-defined scenarios (investment portfolios) based on what comparisons the company wants to understand. For example: Scenario A, which may be defined as the “base case” – perhaps basic compliance with national regulation or project financiers standards (ex. IFC’s Performance Standards); and Scenario B, which may be defined as the “base case plus additional sustainability programs”. Initiatives in the Scenario B portfolio, may go above and beyond the minimum regulation requirements. By comparing the financial values of two different investment portfolios, the tool helps determine what the value of making additional sustainability investments is, i.e. going above and beyond what a business is externally required to do.

The FV Tool and the implementation process provide a common platform and language (financial value) for many business units, such as finance, risk, CSR, procurement and human resources, to holistically assess the returns from investing in sustainability. The process encourages the communication and coordination between business functions that traditionally and naturally do not work in alignment to mitigate risks.

As mentioned earlier, the FV Tool articulates reasonable NPV ranges on the return on future or actual sustainability investments. This value can take the form of either indirect value protection or direct value creation. These are two sides of the same coin. Direct value creation is direct cost-benefit calculation of sustainability investments, i.e. positive cash flow. It can be value from input savings or productivity gains, for example, local workforce training enabling the substitution of expensive expatriates with local hires. The other side of the coin, indirect value protection, is the value saved by mitigating risks through sustainability investments. It is defined as the value of avoiding risks such as costly delays in planning, construction, operations, lawsuits or other unforeseen added costs, project cancellation or appropriation. Unlike value creation, value protection is not readily calculated. It requires working through a scenario of risks and opportunities to calculate a value of the investments that contribute to social risk mitigation and increased trust, social cohesion, reputation, and good will, among other things. This process is what makes this tool unique among other complementary tools available in the market.

\(^3\) Sustainability investment any kind of voluntary spending by companies—e.g., basic infrastructure development, improved access to health and education services, job creation, microfinance, livelihoods development, skills transfer—that aims to improve the relationships with local stakeholders.
The methodology underpinning the FV Tool includes several components. Stakeholder analysis and engagement are central to understanding site-level risks and opportunities to positively impact communities when deciding on an optimal portfolio of sustainability interventions. Assessing the quality of sustainability investment programs is also an important input to the overall methodology and related calculations. In addition, the methodology takes into account related project and country specific risks. MIGA and other sources of country and project level risk data ground the tool’s database that provides input on the probability and frequency of political and industry specific project risks.

Key Components of the Financial Valuation Tool

Lessons Learned from Newmont’s Ahafo Gold Mine and Cairn Energy India Pilots

The early development and application of the FV Tool was co-sponsored by Rio Tinto Alcan, one of the world’s largest mining companies, which designed the tool to plan its sustainability portfolio for a greenfield investment in Sub-Saharan Africa. Building on that experience, IFC and Deloitte partnered with Newmont Mining Corporation (Newmont) and Cairn Energy India (Cairn) to field test, refine and demonstrate a proof of concept for the FV Tool in diverse contexts.

Newmont and Cairn are extractive companies that invested in emerging and frontier markets that subscribe to the ‘doing well by doing good’ philosophy. Newmont is one of the largest gold producers in the world and has operating mines in developed countries as well as Peru,
Indonesia, Ghana, and Mexico. Cairn is one of the largest oil and gas exploration and production companies in India. Through their company standards on social responsibility, both companies are committed to the importance of sustainability investments as a risk mitigation function through building better relationships with local stakeholders. Newmont and Cairn wanted to better prioritize their resources, align CSR investments with their business objectives, and demonstrate financial value of these investments. Their common hunch was that more strategic and rigorous local investing would yield more positive impact for the communities and subsequently a more stable, less risky and lower cost operating environment for the company. They were also interested in determining the value of CSR in financial terms and critically evaluating their existing social and environmental portfolios.

IFC and Deloitte worked with Newmont and Cairn over several months to help them assess their community investment strategies based on international best practice. A key element of this process was the application of the FV Tool to ascertain the value of their existing community investment portfolio in terms of both indirect value protection and direct value creation. The process of piloting the FV Tool with Newmont and Cairn revealed several lessons. This section of the case study focuses on the key success factors and challenges that emerged from the experience of field testing the FV Tool.4

Both Newmont and Cairn applied the FV Tool at their brownfield operations, i.e. assets that were beyond feasibility stage and in production. They used the FV Tool to evaluate the financial value add of their sustainability investments that go above and beyond national regulation and project financier requirements. This process revealed new perspectives to review and evaluate the drivers for value creation and value protection potential of spending on social and sustainability programs.

Newmont realized its community relations team had contributed to substantial value gains, calculated using the FV Tool, through its Land Access and Acquisition program improvements. In an effort to expand their operations, they enhanced their approach to land negotiations and conducted a more inclusive stakeholder engagement process. Newmont also dedicated stakeholder engagement/community specialists to the project engineering team negotiating land access and compensation rates. All this led to lower expenses for land compensation. As a result of effective efforts of the community relations team to be a good neighbour and build trust with communities in Newmont’s first site, and a reputation of being a fair land access and compensation negotiator, Newmont saved time and money in its second area negotiations giving access to the land earlier than planned for the project. These savings were quantified through the FV Tool pilot implementation. The financial benefits were not clearly understood and quantified prior to this exercise.5

4 Quantitative data and NPV outputs are not included in this paper to maintain the confidentiality of company data.

5 “The Financial Valuation Tool can be used to assist non-finance functions to improve understanding of community investment connection to financial drivers. It may assist company in communicating in more concrete
Cairn realized a return on investment with a SMS text program for farmers. The pilot program, in partnership with Reuters, reached 10,000 farmer families along the longest heated pipeline in the world, enabled farmers to obtain information via mobile phones about market crop prices becoming more informed when selling to tradesmen or local markets. The program was developed in direct response to pipeline related concerns expressed by farmers, such as soil restoration, agricultural assistance and information on improved farming techniques. During the process of assessing the value creation and value protection potential of the SMS program, Cairn discovered that improved access to mobile phone technology enabled farmers to inform the company about cases of pipeline sabotage, leaks or maintenance issues. The SMS text program led to increased revenues for farmers, and early warning notification of pipeline security issues. Consequently, Cairn was able to react and avoid pipeline damage, which saved reparation costs to the company. Additionally, Cairn was able to utilize mobile technology for direct communication with farmers via text messaging, hence increasing the speed of communication and reducing costs and logistical challenges around convening rural communities along a 600 km plus pipeline.6

Both cases predicted a financial return far greater than the cost of local investments and provide examples which illustrate the value of applying the valuation process using the FV Tool. Data collection from various departments and creative thinking about value creation and value protection potential of a sustainability investment revealed hidden value drivers. The FV Tool enables cross-functional alignment and serves as a platform that brings together various business functions such as CSR, finance and risk management. For example, the process starts with linking stakeholder analysis to identified risks for the specific asset/project, followed by identification of opportunities for the company to address those risks through local investments. This exercise usually brings together community relations and risk management business units. The next step – costing and determining the probability of identified risks – involves finance in the process. Finally, the FV Tool platform integrates community perception surveys, conducted by the company, to determine the quality and effectiveness of programs being implemented, thus ensuring that financial calculations take into consideration local community perceived benefits as well.

The FV Tool encourages engagement and increased interaction between CSR and finance functions to discuss CSR in terms of concrete financial value to the company. Sustainability investments are evaluated using financial valuation methods that finance and management understands. It provides CSR managers financial value metrics to speak the same language as

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6 “The FV Tool implementation helped us realized that each program has both value creation and value protection potential.” –Deepak Arora, former Corporate Social Responsibility Manager, Cairn Energy India

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other business units and helps justify social spending. Consequently, CSR can speak the language of the financial world, and finance understand and supports the added value of CSR.

**Key Findings**

Several challenges with the FV Tool came to light with the Newmont and Cairn India pilot implementations, and associated key findings are provided to illustrate the value of the FV Tool.

1) **Leadership**

Senior management support is crucial for successful FV Tool implementation. The process requires a FV Tool champion, a senior manager endorsing and owning the process, with authority to convene various functions as cross functional participation and involvement is a must.

2) **Cross-Functional Engagement**

As stressed earlier, by bringing together various functions, the FV Tool implementation encourages a certain level of change management within the organization. For successful data collection and value drivers analysis, internal management processes may need to be adjusted. Increased communication between various departments such as community relations, health and safety, local procurement, finance, human resources and risk management, and support from a multidisciplinary team will enhance the FV Tool utilization. For example, the platform brings together health and safety and environment departments, which often manages a company’s risk register, and CSR, which strategically invest dollars in sustainability programs with the aim of managing identified social risks. Application of the FV Tool process engaged other functions to understand how community relations contributes to creating and protecting value. The process also encouraged multidisciplinary thinking on value protection of sustainability investments. The FV Tool process revealed that community investment cost sits with CSR function, but that the benefits are spread across various business functions like HR, security, land acquisition, etc.

3) **Skill Set**

At this stage, the FV Tool implementation requires technical assistance and capacity building of the employees. Specific skills such as value drivers analysis and quantification, costing of risks and opportunities and financial analysis, are necessary for the proper utilization of the FV Tool. Capacity building of CSR staff as well as other departments is necessary to perform rigorous value driver analysis and collect data that support value creation and value protection assumptions. Additionally, CSR staff can be emotionally attached to its programs and therefore not be objective. It is useful to have an independent neutral objective facilitator of the process to ensure objective value drivers analysis, quantification of value protection potential of programs, and assessment of the quality and effectiveness of programs.
Conclusion

Pilots with Rio Tinto, Newmont Mining Corporation and Cairn Energy demonstrated the proof of concept of the FV Tool. As of June 30th, 2011, the tool is publically available at www.fvtool.com.

The lessons learned from implementing this project indicate that the FV Tool answers critical business questions using terminology that is understood by all decision makers:

1. What is the optimal portfolio of sustainability investments for a given operation?
2. How large a financial return for the company can be expected from such a portfolio?
3. When is the ideal timeframe for making specific sustainability investments?

The output of the tool enables managers to critically approach the portfolio of sustainability investments and to prioritize those that will yield most value to the company and to communities. The NPV output is not only driven by cost – benefit cash flow analysis, but also includes stakeholders’ perceptions and risk mitigation potential of sustainability programs.

The FV Tool reinforces cross-functional alignment within a company and improves decision-making for sustainability investments at the asset/project level based on robust financial and risk analysis, stakeholder engagement and social development program design. This effective measurement tool should provide companies with an understanding of the impact their investments are having in financial terms; whether this impact is viewed positively or negatively by local communities; and how this translates into tangible business value.