

Constructive mining: Innovation from Central and Eastern Europe

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KEYWORDS

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co-design,
responsible investment,
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ABSTRACT

In an age of more aware and informed stakeholders, the extraction of natural resources needs to be justified locally with empowered community input. With advanced information flow, international agreements and companies' public commitments to sustainability, fewer and fewer communities give a social license to operate without a clear demonstration of the short, medium and long term benefits of a project for them and their surroundings. Benefits must be proven over time. For investors to secure a reliable and attractive return on investment, natural resource developments must proactively adopt appropriate environmental, social and economic measures in line with local development and conservation needs.

In this context, "destructive/neutral mining", mining with neutral or negative impacts on the local environmental and socio-economic wellbeing, needs to be acknowledged as such where it exists. It needs to be replaced by "constructive mining": an engine for sustainable projects that uses the mining machine as a value creator and value protector, on all three pillars of sustainability. The mining industry ("the industry") is boldly faced with a reality that demands clear answers for some basic questions that go beyond "we meet best international practice". These questions include: "Who is the real client of the mining industry? The buyers of the metals produced, the inhabitants of the neighboring communities, the State?"; "Is the industry working to simply extract or to construct?", and "If it wishes to undertake economically, socially and environmentally constructive mining, what relationships and partnerships are required?"

This paper examines "destructive/neutral" versus "constructive" mining, and the central roles that local empowerment and respect for decision ownership play in successful natural resource projects.

Case studies will be referred to from over 10-years natural resources-project experience in central and Eastern Europe and will highlight the importance of multi-stakeholder platforms to co-create the required dialogue environment.

INTRODUCTION

Natural resource companies and community relationships have evolved rapidly over the last 20 years, and the goal posts are still moving. Companies invest considerable sums on technical experts and programs to establish what resources lie beneath the ground and how to extract them; an important task. Yet, geology generally does not talk back; nor does it have its own constantly evolving and intricately woven cultural norms and relationship history. Like geological exploration, a reliable “community model” often needs to be developed *before* project development is even talked about. This model needs to address the community complexities that, more and more, compete with or exceed the complexity of the exploitation of the natural resource. Only after there is sufficient mutual understanding between the project investors, local communities and other stakeholders can a successful win-win natural resource based project be developed.

A strong motivation to share the decision-making table with communities before any decision is made is provided by the communities themselves: communities that are disempowered or feel their voice is not adequately represented provide ample examples of what happens when investors get it wrong. In Central and Eastern Europe opposition to mining projects has rarely been so strong. In 2013 protesters in Greece objecting to the opening of a mine set fire to company buildings, (Australian Mining, 2013) attacked police and travelled to company headquarters in Canada to make their voices heard (Gwiazda, 2013). Also this year, in Kyrgyzstan, protesters threw stones, blocked access to an operating gold mine for several days and cut off its power supply, causing US\$4 million of damage (Associated Press, 2013).

In both cases protesters believed that the actions of the mining company were compromising their livelihoods; in the Greek case, due to a feared environmental and economic conflict of interest (mining vs. tourism), in Kyrgyzstan due to local desire for nationalization of the mine and increased social benefits (Associated Press, 2013).

It is the author’s experience that, through a genuine community-based multi-stakeholder forum where the company does not dominate, it is possible to build a local solution that sustainably provides win-win benefits for all parties. Key to this process is the recognition of decision ownership and building genuine mutual respect. This requires a human approach that is structured, dynamic and strategic, where everyone involved understands the pressures experienced by each other. It is further the author’s experience that this level of understanding requires much more time and focus than the mining industry (“the industry”) currently invests.

Literature about social responsibility in the mining industry has been trying for over a decade to build a case for the sustainability of the mining industry. Arguments often included that the depletion of the natural resources could be compensated by generating new wealth to benefit the present and future generations of the affected communities (Sanchez, 1998), for example in the form of investment of a percentage from the generated revenues (Epps, 1996). Little emphasis was placed though on the engagement and empowerment mechanism behind these decisions.

More recently, and most likely as a consequence of the growing opposition to mining among affected communities, research shows a tighter connection between responsible mining and the practice of structured community relations, as a separate practice from public relations. Kemp (2010) conceptualizes community relations management as a multi-stage process including: understanding local community perspectives; bridging community and company perspectives to generate dialogue; and facilitating necessary organizational change to improve social performance.

To further the community involvement in mining projects to a more formal level, last year The World Bank proposed a framework for developing and implementing community development

agreements (World Bank, 2012); these would help manage stakeholder expectations, and ensure a stable base for local support for projects and a fair contribution to local development.

This paper argues that it is time to move the responsibility agenda forward. Much value can be added by putting the stakeholders at the heart of the creation of strategy, project design and management. This entails to stop focusing only on how to minimize damage by mining and to start focusing on using mining as a “construction method”, to construct something that has greater benefits locally than existed before mining started.

To do this requires much dialogue and the creation of a genuine will to co-create a mutually beneficial project. Building enough trust and capacity is a pre-requisite to this approach. The process may be initiated by any of the players but ultimately the community needs to take the lead for issues that concern them; they lived in the area before the project and they are the ones who will be left with what the project created.

This paper lays a foundation to move towards constructive mining based on some initial data from ongoing projects.

DATA

Table 1 Two mining projects that were following the ‘neutral’ or ‘destructive’ route

	Rosia Montana, Romania	Kremnica, Slovakia
Reference	<ul style="list-style-type: none"> http://en.rmgc.ro/ 	<ul style="list-style-type: none"> www.sturecland.sk.
Exploration started	<ul style="list-style-type: none"> 1998 	<ul style="list-style-type: none"> 1998
Proven reserves	<ul style="list-style-type: none"> Circa 10 million ounces gold equivalent 	<ul style="list-style-type: none"> Circa 1million ounces gold equivalent
Feasibility studies.	<ul style="list-style-type: none"> Four open pits plus one tailings dam plus a responsible plan for mine rehabilitation were presented in 2000. 	<ul style="list-style-type: none"> One open pit and tailings dam were proposed in 2006 and were rejected by the local community.
Status June 2013	<ul style="list-style-type: none"> Circa US\$ 650 million spent to date and no environmental permit yet obtained. Many meetings continue to be held and the company is currently hoping for a law that would enable the project to be developed. 	<ul style="list-style-type: none"> Circa US\$ 15 million spent to date. Project changed hands in 2009 and the company is now looking at how it can undertake “constructive mining”.
Has extensive public consultation been undertaken?	<ul style="list-style-type: none"> Many individual meetings with householders took place from as far back as 2000. Public meetings followed on both resettlement and environmental issues. This has resulted in new houses being built and some of the acquired ones knocked down. A number of TV advertisement campaigns and debates presenting the proposed benefits of the project were undertaken. Meetings concerning cultural heritage have resulted in a number of historical buildings 	<ul style="list-style-type: none"> The engagement of the new company is still in the stage of building enough trust and capacity to enable open dialogue and project co-design. An initial project proposal based on stakeholder interactions (incl. those with the anti-mining activists) over the last two years – a green energy tourism development – was shared with the community. The process is now waiting for a request from the

	Rosia Montana, Romania	Kremnica, Slovakia
	already being restored.	community to examine more closely the proposal.
Main obstacle	<ul style="list-style-type: none"> National outrage that “even the nation’s gold” was privatized before a transparent debate was undertaken. Lack of trust that a foreign company could work in the nation’s interest. 	<ul style="list-style-type: none"> Local outrage around the previous license owner – “a foreign company that wants to build a large industrial mine that would destroy our town and livelihoods”. The new company had initially continued with the plans of the previous owner.
Apparent strategy adopted	<ul style="list-style-type: none"> Market the project nationally and wait until the politicians deem that the jobs and money is needed. The project proponent is confident that the essential components of the project are designed to best practice and beyond; therefore the approach to engagement is consult and defend. 	<ul style="list-style-type: none"> Apologize for the secrecy of the past and build local partnerships to examine if the gold and silver can be transformed into something useful locally. Go back to the drawing board and co-design in public.

Table 1 presents data from two case studies that inform the conclusions drawn in this paper. Two key questions emerged during both projects: “Do we really need mining in our community; and if yes – what is the mining going to create?”. These questions led onto others asked away from the public eye, such as: “Will the mining result in a steady drain of natural wealth from our community or will it be a tool to transform the resources into something sustainably useful for all interested parties”? And, of course, one of the ultimate questions: “Anyway, how can we trust them?”.

Both projects are currently in a sensitive stage of development, and this paper draws the conclusions from them without being more specific on their current status.

DISCUSSION

Historically, natural resource companies have employed a “below ground” dominated approach to project design, where decision making has been driven by the company’s focus on how to extract the resource buried beneath the ground rather than pro-actively interacting with the societal needs and expectations above the ground. This existing (“old methodology”) project life cycle usually follows the steps:

1. obtain an exploration license
2. conduct geological research, make a geological model, confirm it by drilling
3. announce the results
4. do various feasibility studies
5. do an environmental and social impact assessment (ESIA) with its associated public consultation
6. obtain permits and land access
7. construct and operate a mine
8. rehabilitate for post-closure usage.

Under this approach, public consultation as required both by law (Aarhus Convention, 1998) and by funding bodies ((Equator Principles (2006), International Finance Corporation (2006), European

Bank for Restructuring and Development (2008)) is largely a sideshow to the main event. It comes after many of the decisions in the feasibility study have already been taken and the project has been designed. This model may be referred to as Decide and Defend (DAD). In central and eastern Europe it is the author’s experience that DAD is dead; potentially feasible projects are stalled.

The public rejection of potentially good projects is often a mystery to many in the industry. From the author’s experience on the ground it is not so much of a mystery to the impacted communities. People inherently have forms of “fair-play equations” in their culture; equations that look at projects from the perspective of “what is in it for me, my children and other aspects of life that are important to me?”. There are perhaps many ways to express these equations. In our experience the work done by the Forum of the Future (Forum for the Future, n.d) and others sum it up quite well. This says that in order for any given activity to genuinely contribute to the future of a local community then the sum of the local sustainability capitals need to be greater than or equal to zero over time.

Sum of local capitals (natural + financial + social + manufactured + human) => 0
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Figure 1 and Table 2 present a summary of what these capitals are, how they interlink and what is important to be engaged upon at every stage of a project development.

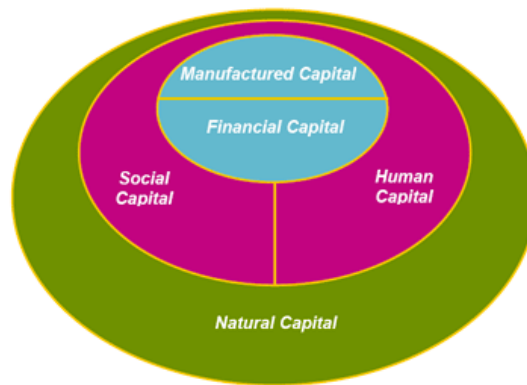


Figure 1 The five capitals of sustainability (taken from (Forum for the Future, n.d))

These capitals are also linked to the typical Triple Bottom Line approach in that the blue areas represent the economy, pink the society and green the environment. Trust, intellectual, etc., capitals are also contained within the pink area. The reality is that in order to achieve the level of constructive dialogue that would lead to constructive mining, substantial trust is required. Therefore, the pink zone needs to be an equal player.

Table 2 Examples of sustainability capitals and key questions to be engaged on

The Triple Bottom Line	Examples of capitals	Key aspects to be engaged on
Environment	<p>Natural:</p> <ul style="list-style-type: none"> • the (mineral) resources that the industry extracts as its core business • wood for heating, pasture for grazing, food for eating, water for drinking, etc. • recreation areas, biodiversity and ecological systems for quality of life and health • the physical environment in which all other capitals are built, eroded or exchanged 	<ul style="list-style-type: none"> • What natural capitals exist and what would the impact of a proposed project be on them?
Social	<p>Social:</p> <ul style="list-style-type: none"> • the ability for stakeholders, including investors and authorities to resolve their differences and build around common ground in a team effort • the ability of a community to have pro-active discussions about the strengths, weaknesses opportunities and threats of a given potential investment, project, or resource • the ability to become an entrepreneur and mobilize others around a good business idea – and get sustainable results <p>Human:</p> <ul style="list-style-type: none"> • the skill sets to run a business successfully • the ability to interact effectively with others. • the ability to articulate clearly risks, fears, opportunities, etc. • the education, experience, etc., that each or us assemble over time • health 	<ul style="list-style-type: none"> • What social capitals exist and what would the impact of a proposed project be on them? • What decisions need to be made and who are the decision owners? • What capacity building is required in order to come to a point where the decision owners trust each other enough to enter into dialogue to examine what win-win possibilities may exist? • What human capitals exist and what would the impact of a proposed project be on them? • What skills and expertise will be developed locally if the proposed project were to go ahead? • What training would be needed, and when, to ensure that local people can have a genuine chance of accessing all levels of jobs?
Economy	<ul style="list-style-type: none"> • Manufactured – the physical tools made by humans to undertake our activities, these include project infrastructure, community infrastructure, environmental protection works, houses, cars, computers, telecommunication, easily accessible information, etc. • Financial – the new kid on the block – what we use to postpone bartering the other capitals or allow us to mobilize the other capitals in a highly effective way 	<ul style="list-style-type: none"> • What manufactured capitals exist and what would the impact of a proposed project be on them? • What financial capital exists and what would the impact of a proposed project be on it?

If the sum of local capitals following mine closure is zero, or less than zero, the project can be classified as “neutral” or “destructive” mining. If the sum is positive then it can be classified as “constructive” mining. It is, therefore, clear that it is no easy task to create constructive mining.

Traditionally, natural resource projects have an inherent community boom and bust cycle built into their make up. A challenge is, therefore, not to design mining projects; but rather to be part of the design of a regional sustainability project with mining as part of its capital costs.

In project design using the “old methodology”, the focus has concentrated on the blue and green zones (economic and environmental) and, to a large extent, ignored the pink zone (social and human). Stalled projects today show that the focus needs to be on all the capitals or too much business risk is built in. This was demonstrated in Greece and can also be seen to a lesser extent in the two case studies presented in this paper.

The basic permission to undertake any form of business, the social license to operate, in reality comes from this area. Given that so many mining companies widely publicize nowadays how wonderful and responsible they are, a social license to operate should be a no-brainer. If the company is doing something truly beneficial for community members and their families in their back yard – then they will want them there, no? Sandman (2012) has a simple way to explain some of what the missing puzzle is all about and he efficiently differentiates the efforts companies deploy to manage hazards versus the efforts they do to understand and manage outrage. Sandman argues that companies are not balancing their investments correctly and so are coming up against the problems they do.

If the key to success for creating a sound basis for mutually beneficial projects lies in the recognition of decision ownership and the establishment of quality engagement around material issues then recognized methodologies are needed to get there. One recognized methodology that goes some way to achieve this is available in the international Stakeholder Engagement Standard AA1000SES (2011) (AA1000SES Technical Committee, 2011). This goes beyond the idea of public consultation, to stakeholder engagement. This may mean that it would be the company who is consulted while various interested parties in the community make the decisions. Translating this into a possible new constructive mining methodology involves the following stages for a constructive mining project initiator – whether it be a mining company, a government agency, or a community interested in attracting a mining company to exploit the resources on their behalf:

1. spend a number of months observing mismatches and common ground between the community and the company;
2. conduct awareness exercises so all potentially interested parties become aware of the mismatches;
3. conduct organizational change as required;
4. capacity building, capacity build, capacity build so that interested parties become open and ready for engagement with each other;
5. identify together the key questions that need to be asked;
6. identify who owns the answers to these questions, and work together to get the answers;
7. co-create the win-win solution: be it a project or not.

It is finally at the co-creation stage - number 7 - that the “old methodology” outlined at the beginning of this discussion can be re-integrated, provided the amendment “examine with stakeholders appropriate ways to...” is placed in front of its eight steps.

CONCLUSION

Is this a new approach? Some will argue yes, others no. The reality, however, is that the industry's design processes are currently focused on projects whose lives are started by exploration and finished by mine closure. By being innovative and changing this focus to a constructive mining approach it would appear that much new business wealth and optimization of the vast resources the mining industry mobilizes could be unearthed; and the risks that are growing daily within the mining industry could be significantly reduced.

Do investors have a motivation to test it out? It would seem that the millions of dollars spent on trying to push square projects into round holes without too much success could provide that motivation. What would then be the implications for business? For most, this would be a new approach, and the change process towards it can be easier and cheaper if pro-actively pursued, rather than as the result of a project crisis. In either case, it will probably require:

- increased awareness and business clarity to enable the switch in the mentality from “mining” to “construction”;
- updating project management and design processes and systems to effectively engage stakeholders;
- mobilizing skill sets that are often few and far between; this can include resuscitating soft skills many of us had at some point in life and maybe forgot due to being “professionalized”: being open and honest to people, genuinely interacting on material issues, asking questions and listening, using simple language, exercising integrity, fully respecting our neighbors and hosts and not taking other peoples decisions.
- a (relatively minor?) adjustment to the industry's financial model. It may be that this “new” methodology results in considerable savings over time (from avoiding project delays, advertisement campaigns, legal fees, to name but a few), and this before considering what businesses constructive mining could be used to build.

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