Puzzled: Navigating extractives policy information jigsaws for best practice and transparency.

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Abstract

This viewpoint article was written in response to our attempt to explore mechanisms that promote financial 'transparency' in the minerals and energy extractives. We controversially forward our opinion that the trajectory of existing transparency mechanisms is likely to generate an obfuscating mass of disclosed information - not 'transparency'. Using a jigsaw analogy, we make a distinction between 'disclosure' and achieving the more challenging 'transparency': it is both being able to have the pieces (disclosure), and put them together to see the big picture. It is just as important to identify missing pieces of the puzzle to prevent selective disclosure. We critically analyse extractives financial policy, and provide an example where a 'best practice' mining securities policy has markedly advanced transparency in a major mining state. The policy substantially reduces government financial risk of a mining company default at no additional cost; reduces costs to industry around ten-fold; incentivises ongoing site rehabilitation; creates a fund for historical abandonments; and; sustains an impressive publically available information instrument of disturbed footprints and associated rehabilitation for every tenement at high precision on an annual basis. Yet, it still remains deficient in terms of transparency in particular aspects, of which we clarify and discuss.

"A lot of people never use their initiative because no-one told them to." – Banksy

Keywords: mining securities; rehabilitation liability; financial transparency; disclosure

1. Introduction

The effectiveness of environmental mining securities is a multifaceted issue across the world, and we are aware of many jurisdictions experiencing failings within their policies. Here our interest is primarily on disclosure of mining securities more than the effectiveness of the mechanisms themselves. Maintaining 'best practice' administrative and financial mechanisms to achieve transparency and compliance to legal frameworks related to mine operation and closure is a major ongoing policy challenge. Ensuring the appropriate level of disclosure,

transparency, and accountability of all compliant and non-compliant parties, and accessibility of this information to external interested parties is a cornerstone of achieving a well-governed minerals sector. For example, the Mining, Minerals and Sustainable Development's (2002, p194) discussion of 'transparency in the management of mineral wealth' states that governments and companies should openly publish information about how much wealth is generated from mining and how it is distributed or spent, that industry organisations should at least consider establishing an international and public register of all payments by mining companies to governments, and further that NGO watchdog organisations (e.g. such as Transparency International) could bring pressure to ensure that open publication regarding mineral wealth does occur. Similarly, the International Council on Mining and Metals, (Miller, 2005; International Council on Mining & Metals (ICMM), 2008) highlights the importance of transparency and assurances in virtually all aspects of mine closure planning and management for industry and governments alike, including projected expenditures for closure costs, distribution of mining revenues, and systems of accreditation or certification of financial assurances.

In terms of forwarding the adoption and evolution of 'best practice' and good governance in the extractive industries, in theory true 'transparency' should enable all relatively well-educated interested or affected parties to access information about an operation, be able to understand it, and put together the greater picture of where the finance flows and also the environmental and social consequences. Our approach builds upon the thinking of Fox (2007) who noted that transparency and accountability are not synonymous, although there is some overlap of the concepts. Tying financial flows together with environmental disturbance and associated rehabilitation, and including direct and indirect values (negative and positive, and internal and external), and where/to whom these values are passed is complex in policy and is a lofty goal for policy makers. However, to at least aim to develop such a mechanism, we propose that policy makers aim to put themselves in the position of an interested individual who wants to understand the consequences or outcomes of mining at a particular site: What would they want to know? What would be the simplest and most useful way to capture or represent that information? How would the information be best maintained at minimum cost and maximum value? How would such maintenance be incorporated into existing compliance mechanisms to lower the burden on operators, and also incentivise compliance to the law?

Taking stock of the existing literature, reform of legislative frameworks is only a starting point for changing actual practice, and the capacity and resources (human and capital) of the responsible governing agencies to uphold appropriate legislation to extract maximum benefit for the various forms of mining is a key consideration (Botham, 2012; Hilson and McQuilken, 2014; Thornton, 2014). Similarly, the effective and active participation of civil society organisations and freedom of information (media, opinion, etc.) is expected to empower a citizenry to hold governments and extractive entities accountable. However, many developing nations can be characterised as having a weak and/or often persecuted civil society, with an ineffective communication with the citizenry (Aaronson, 2011; Acosta, 2013), and lack of capacity to monitor even transparency and accountability initiatives. Within such contexts, conflicting agendas over resource developments and the distribution of impacts and benefits are becoming increasingly relevant socially and politically (Solomon *et al.*, 2008; Labonne, 2014).

Progressive extractive companies believe that adhering to 'best practice' principles of compliance with the law and auditable financial accounting processes strengthen a commercial extractive operations' local and international 'social licence' to operate and reinforce positive governance to their advantage (Deegan and Blomquist, 2006; Holm and Rikhardsson, 2006; Clarkson *et al.*, 2008; Holm and Rikhardsson, 2008; Simnett *et al.*,

2009; de Villiers and van Staden, 2010, 2011; Iatridis, 2012, 2013). Indeed a commitment by a mining company to 'best practice' principals is critical to maintain a 'social licence to operate' from development to closure, and in some jurisdictions a 'social licence' can be as important as a regulatory licence (Solomon *et al.*, 2008; Department of Industry Tourism and Resources and 2009). Many large mining operations believe that disclosures about their activities, productivity, regulatory compliance, and positive environmental credentials are important to their investors (Iatridis, 2013). It is widely assumed that companies disclosing voluntary environmental information tend to employ less environmentally harmful practices (Al-Tuwaijri *et al.*, 2004; Clarkson *et al.*, 2008). Yet, and as Iatridis (2013) points out voluntary disclosure would not necessarily reflect improved environmental stewardship, and more likely result in selective disclosure practices. Crucially, while a 'social licence' is often narrowly interpreted as a responsibility to a particular local community (Solomon *et al.*, 2008), there are numerous other interested and affected parties. These may include mine management, mine employees, neighbouring landowners, mining regulators, local authorities, business and service providers, community groups and other non-government organisations, financial institutions and the media, all of which can influence decisions (Swart, 2003; Department of Industry Tourism and Resources and 2009). In practice, most companies in a competitive global market are often unable to adopt higher standards voluntarily unless there is a clear commercial imperative (Kivuiti *et al.*, 2005). In some cases more 'ethical' business operators are at a competitive disadvantage, particularly when widespread corruption exists.

Despite some specific policy provisions for long-term environmental consequences of mining, the equivalent for economic or social consequences is either largely non-existent or underemphasised (Rao and Pathak, 2009; Marais and Cloete, 2013). Mining company management practices in relation to social issues are often around 10 years behind environmental management (Solomon *et al.*, 2008). Similarly, research into the social and community aspects of mining and mine closure remains poor, in large part because of a lack of systematic, high quality, creative data on community networks, human capital, and developmental possibilities (Stacey *et al.*, 2010; Botham, 2012). In this context, the generation of consistent and reliable information regarding financial, environmental, economic and social characteristics of extractive activities is clearly needed. Indeed, in jurisdictions with largely unimplemented legal and regulatory frameworks, labour and commercial laws, and when corruption remains a significant issue the availability of transparency of information is imperative (Meeuws, 2004).

2. Publish What You Pay and Extractive Industry Transparency Initiative as examples

As a global response, Publish What You Pay (PWYP) was launched in 2002 by a coalition of large NGOs with the aim of pressuring extractive resource companies to disclose their payments to governments and promote improved management of natural resource revenues. In the same year, the Extractive Industry Transparency Initiative (EITI) - a partnership of governments, industry, civil society and investors - was launched as a global transparency standard (EITI, 2011). The aim of the EITI is to facilitiate improved sustainable development and allocation of resource revenues and public finances (Haufler, 2010). By early 2014, the EITI had integrated 89 extractive corporations, 94 institutional investors, 21 partner organisations, 8 members of international civil society, 27 compliant countries, and 17 candidate countries (EITI, 2014). Similarly, PWYP has grown into a global network of more than 800 member organisations in over 40 countries, including coalitions that collaborate at the regional level (PYWP, 2014). The high administrative burden and lack of capacity for ongoing effective involvement transparency mechanisms was implicitly recognised when EITI++ was launched, a multi-donor trust fund managed

by the World Bank providing a full suite of governance and technical support to EITI implementing countries and civil society (World Bank, 2013). Despite the growth of these mechanisms they have been criticised for having limited effectivenss and not being able to collect data consistently (Hilson and Maconachie, 2008; Ölcer, 2009; Brynildsen *et al.*, 2013).

But the main limitation of the EITI at present is that it misses the opportunity to mandate the inclusion of legislated mine rehabilitation and closure information and company compliance, and has little experience with disclosure of environmental payments. From the EITI reconciliation reports review's available, only Mongolia and Zambia have presented disclosure information on environmental payments (Moore Stephens LLP and Dalaivan Audit LLC, 2013; Moore Stephens LLP, 2014). Crucially, financial security payments cannot be considered as revenues, and therefore fall outside the scope of EITI. Nevertheless, their inclusion stress the evolving dynamics of EITI's standards, the innovations and diversity proposed by the national multi-stakeholders group from each compliant country. We believe that while EITI compliance may improve financial disclosure by mining companies, the detail and specificity of the voluntarily disclosed information is insufficiently transparent to third parties investigating whether governments and companies are compliant with the law in terms of environmental and governance considerations. We would like to see linkage of aggregated international voluntary initiatives (akin to the EITI and PWYP) with mandatory jurisdiction-level reforms in mining financial securities and mine closure legislation accounted at the tenement level. For illustration, we provide the example of policy development in Western Australia to address a major financial liability arising from previous environmental mining security policy that generated uncertainty regarding actual mine site rehabilitation costs for a mine in a globally significant mining jurisdiction.

When environmental mining securities were introduced into Western Australia (WA) in the late 1980s, it was intended that the value of the unconditional performance bonds (UPB) for each mineral tenement fully covered the costs of environmental rehabilitation to ensure the State's financial risk for each site was almost negligible. By 2012, there were nearly 5,000 tenements with a form of UPB out of a total of more than 23,000 live mining tenements in WA. For a variety of reasons, including the workload required to review them, the value of UPBs for each tenement did not keep pace with the actual costs of mine site rehabilitation. By 2011 it was found that the State was exposed to significant financial risk from inadequate rehabilitation of mine sites after their closure with bonds covering less than 25 per cent of the predicted cost of rehabilitating any particular site (Office of the Auditor General Western Australia, 2014). A further limitation was that bonds could only be used to remediate the tenements for which they were raised. Mining companies were not required to report (either publicly or to the government) a transparent level of financial data to enable analysis of UPBs. This was a critical issue as one of the key drivers for the policy reform process. This issue faced by the WA Government was a significant contingent liability arising from environmental mining securities, and through the Department of Mines and Petroleum (DMP), adopted an innovative policy reform process. Without going into details of the process, the result was the Mining Rehabilitation Fund Act 2012 which established the Mining Rehabilitation Fund (MRF). The MRF is a pooled fund, with revenue into the fund generated by non-refundable payments levied upon tenement holders according to the environmental disturbance on a tenement at the annual reporting date (Department of Mines and Petroleum, 2014). It is a special purpose account vested under the control of the Chief Executive (CE) of the DMP. The interest generated is returned to the fund with the Act stipulating it can be used by the CE to pay for costs associated with

administering the MRF Act, and on any historical abandoned mine site. The principal in the fund can be used on any abandoned mine site covered by the fund; i.e. the pooled finances will enable full rehabilitation of a given site.

There are four major outcomes of the policy reform: 1) the financial risk to the WA Government has been substantially reduced by the annual revenue enabling any demands from mine site abandonment to be adequately addressed; 2) the costs to industry are substantially reduced, with modelling undertaken by the DMP indicating the direct and indirect costs of the MRF are approximately ten percent of that of full cost UPBs; 3) the existence of a perpetual fund in place to pay for and plan historical abandoned mine rehabilitation; and 4) the level of publicly available information related to the environmental footprint of mining has been drastically improved down to the level of each hectare disturbed and rehabilitated and it's detailed condition. This information instrument enables the DMP to publicly release the annual reported environmental footprint and reported areas under rehabilitation for all tenements in WA - the most comprehensive and up to date data reporting system ever achieved in the state, and possibly the world. It is the high-precision level of transparency generated by environmental securities regulation that provides confidence to both the government and the community that satisfactory rehabilitation and closure is achieved. As the amount paid into the fund for each tenement is based on the disturbed area and condition, there is an annual incentive to implement ongoing rehabilitation on a site. At the same time sufficient funds are available to government to rehabilitate mine sites in the event of operators not fulfilling their mine rehabilitation and closure obligations, thereby overcoming the key limitation of the former UPB approach.

3. Discussion

This leads us to further reflections on transparency of process and outcomes. A government can require a process (e.g. disclosure or consultation), but what is the outcome and who knows the outcome? For example, if a mining company negotiates with traditional owners, no one else knows the outcome. Testing a mining sector in terms of tangible transparency requires ease to put the pieces together, and must also be clear if any of the pieces are missing[1]. As the present levels of disclosure clearly fall short of what might be broadly considered to be 'transparent' to civil society, we suggest that better outcomes can be achieved by linking voluntary international transparency commitments from governments with mandatory monitoring, analysis, and enforcement of compliance with jurisdictional laws. Such mandatory measures must be clear and publically available, and ideally down to the precision of each tenement (akin to the MRF example). We believe that any associated financial security payments be designed to both incentivise innovation in mining operations towards international 'best practice' financially, environmentally, and socially, and improve the institutional capacity of governments and civil society to reinforce compliance with the law and keep governments accountable, respectively.

[1] For example, at this time the processes within the MRF mean that the public now knows what should have been paid on a tenement or mine-site basis, but it is only Auditor General who has access to information about individual payments. Therefore, the WA example of the information 'jigsaw puzzle' has the social pieces largely missing, with major elements privately negotiated between mining companies and certain sectors of the community. While the MRF Act goes some way to improving transparency of environmental payments and liabilities, there is some way to go before all pieces of the puzzle are available to interested parties wanting to understand if 'best practice' is being implemented.

Then we ask the question: What is ‘best practice’? In our opinion, the theoretical ‘Rolls Royce’ of mining transparency or of mine closure planning needs to be able to disclose five key aspects as follows:

1. What the activity is at the site (i.e. tenement, mine-site, downstream processing, infrastructure, pollution such as acid mine drainage, etc.) versus the company (e.g. EITI only considers company level, and the issue of transparency at the macro level, which makes it wholly insufficient for civil society to easily interrogate larger extractive operators with multiple sites on one jurisdiction);
2. The level of environmental disturbance matched to a detailed plan to correct/rehabilitate the disturbance over time, any incentives to minimise disturbance and/or promote effective rehabilitation, and how success of rehabilitation activities will be determined/measured;
3. Actual historical performance of correcting disturbance (i.e. disturbance and success of rehabilitation);
4. Social data - affected people are consulted and know of decisions, consultation about final post-mining land use and progression towards it, with the social data being available to interested third parties to enable the assessment of fairness (particularly for land owners and traditional custodians); and
5. Financial flows and transfer of money such as royalties, taxes, any other payments from mining companies (or affiliated subsidiaries or parent companies) to government or community on an individual mine site basis.

Overall transparency of a mining operation (i.e. environmental, social and financial), as represented in the five aspects above must be able to be understood by civil society as true ‘transparency’ creates the big picture’, whereas disclosure is just presenting the pieces of the puzzle. While the five aspects listed above might appear straightforward enough, in reality multiple sources of documentation might need to firstly be assembled before the relevant pieces of the puzzle relating to each of the five aspects can be determined, and these documents may be lengthy or complex in their own right, as the following example from Western Australia demonstrates.

3.1. Illustration 2: Boddington Gold Mine Extension, Western Australia

This case highlights the sources and complexity of documentation that a member of the public would have to track down and distil in order to understand this well established operation not far from the capital city of Perth in WA. The example is based solely on documentation known to be (theoretically) available within the public domain. To understand the mining activity at the site (aspect 1) relevant documentation to obtain might include the proponent's environmental impact statement (250pp), recommendations of the Environmental Protection Authority (65pp) and authorisation by the Minister for the Environment (15pp), as well as other information recorded by the DMP. In the Boddington gold mine case, a separate Environmental Management Plan (50pp) and a Mine Closure Plan (290pp) were submitted by the proponent with their environmental impact statement (i.e. upholding good practice principles for early mine closure planning). Government authorisations specify performance reporting requirements for the proponent to uphold, typically annually to begin with and then at less frequent intervals, so understanding the level of environmental disturbance (aspect 2) and the proponent's performance (aspect 3) requires piecing together successive reports from the proponent to the WA Environmental Protection Authority (EPA) along with any responses issued by the Office of the EPA, benchmarked against the Ministerial authorisation statement and the current Mine Closure Plan (i.e. these are periodically revised and updated as mining proceeds with greater level of detail provided on specific management measures as the life of mine draws closer). Furthermore, tenement holders

operating on Mining Act 1978 tenure will be required to report disturbance data and contribute annually to the MRF and this information should theoretically be accessible on the DMP website. Initial social data with respect to persons consulted (aspect 4) are recorded in the proponent's Environmental Impact Statement and original Mine Closure Plan, as well as in the EPA's report on the proposal, and in this case a separate document detailing the proponent's response to public submissions (100pp). Thereafter, the periodically updated mine closure plan must identify persons consulted including agreement reached about various matters such as final post-mining land use. So far, the documentation trail for this case study example mainly involves websites of the EPA and the DMP. It is less clear how the financial flows and transfer of money (aspect 5) are to be accessed. Released data showing ground disturbance as reported by the tenement holder are publically available on the DMP's website and the annual levy charged with respect to application of MRF can be searched by region, type of disturbances and type of lease. Unlike the other documentation discussed for the case study which is identifiable by the proponent's name, the spreadsheet of data is provided according to tenement number. Separate annual reporting by mining companies to the DMP is required regarding royalty payments (Department of Mines and Petroleum, 2014). The fundamental point of the WA example is where public disclosure and ready access to the internet is the norm, it remains an arduous task to see the 'big picture'. Even when the conditions for disclosure are fulfilled, solving 'the puzzle' remains challenging due to the forms of disclosure, leading to 'true transparency' being obfuscated.

4. Conclusions

In an ideal world comparative simplicity would prevail, and transparency and accountability alike would be delivered (Fox, 2007). To achieve 'best practice' transparency in the mining sector, one option may be visual mapping (instead of lengthy reports)[2] to provide an embodiment of the pieces of the puzzle through the timeless adage; 'a picture is worth a thousand words'. Similarly, financial flows might simply be included in a spreadsheet[3]. We propose the unit of the tenement and determine (either individually or aggregated) financial, social, and environmental impacts[4], with changes in the social impact incorporating royalties[5], and community/Indigenous elements[6].

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[2] We suggest exploration for the most practical and transparent means to visually represent data, including the mine site itself. For example, the 31 categories of MRF classification may be shown with various colour or contrasting patterns. Also at the community/regional level, attention should be paid to social and environmental activities on land or areas surrounding the mine site/tenement (e.g. schools, health clinics, jobs, local procurement, even potentially offsets, etc.).

[3] The simplest way to represent numeric financial data is with spreadsheets that include environmental expenditures and social expenditures. This will likely require qualitative clarification for the various elements that are difficult to simply quantify. Each spreadsheet may be prepared annually, with the ability to sum cumulative amounts over multiple years.

[4] The environmental impact is simply the annual disclosure of the level disturbance and associated rehab on a type of disturbance and area basis, consistent with a MRF-based system.

[5] The social impact incorporating royalties can be quantified to an extent by back-calculating production on a value basis.

[6] The social element enables creative elements with respect to legacy infrastructure. This can be in terms of minimising a company with a MRF (or similar) liability by using their mine closure plan to define their intent to negotiate with local governments and communities about transferring their assets (such as roads, power, and dams) at a predetermined state/condition, and the costs of the associated operation and maintenance. By allocating a commensurate portion/percentage of the funds that would have been paid to the government to meet a MRF liability over the life of the mine, the community will

An argument has been made that ‘best practice’ transparency in the mining sector enables stakeholders to readily understand the environmental, social, and financial outcomes of mining, extending beyond simple disclosure. Arguably, however, current mine closure and rehabilitation policy only extends to standards of disclosure. We have indicated some of the complexity of putting the pieces of the ‘mining puzzle’ together by illustrating the Western Australian cases where despite high levels of transparency, the number, size, and disparate location of documentation poses a challenge to understanding the practical outcomes of a mining activity. Ultimately it is desirable for comparative simplicity in transparency using simple means to convey information that enables the collation of the pieces of the puzzle. This provides a reasonable and balanced amount of disclosure appropriate to the mine site to enable stakeholders to easily see the ‘big picture’, and importantly to identify if pieces are missing.

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have sufficient budget to maintain the asset. The funds may be allocated to a trust fund, which will enable the local government/community to practically be able to inherit a positive legacy, aiming to avoid the transfer of expensive ‘assets/liabilities’ associated with inappropriately closed and unrehabilitated infrastructure, and also the ‘waste/removal’ of a valuable asset to a community when meeting rehabilitation requirements. In theory, the existence of a Mine Closure Plan at the outset of the mine provides an agreement that is transparent to the community, assurance that they will be responsible for the asset over time, and will allow the local community to plan for land use changes to extract the maximum benefit of the new asset.

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