Part 4

Sector-Level Impacts

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A. Sector-Level Economic Impacts

This part of the chapter looks at impacts of the mining sector on the economy in Myanmar, i.e. how is the mining sector supporting economic development, how is it contributing to employment etc. These impacts can result from government action – policies, laws, actions by its institutions – that require, or at least support, responsible business approaches. Alternatively, government action can actively undermine or even prohibit responsible business conduct. Impacts can also result from company action, including where companies act together.

Considering the economic impacts of mining at the sector-level includes looking at: the role of mining in the economy; the types of contracts and agreements used to grant mining rights; taxation; benefit and revenue sharing between the Union- and state/region-levels; local content; and formalisation of the mining sector. How these aspects are dealt with in combination has important implications for the potential of the mining sector to contribute positively to poverty reduction and development, or not. Each theme is discussed in further detail below.
Revenues and the role of mining in the economy

Myanmar’s first three EITI reports for 2013-2014, 2014-2015 and 2015-2016, indicate that natural resource revenues account for around USD 3 billion annually. However, this is predominantly from oil and gas. Gems and jade account for around 11-21% of this revenue, while Other Minerals only 2-4% less than USD 75 million (see Table 5). The Central Statistical Organisation calculates that the Gross Domestic Product (GDP) contribution from the extractives sector for 2015-2016 amounted to approximately MMK 4,447,498 million or 6% of the Country’s GDP, but ‘Other Minerals’ is likely to be a correspondingly small fraction of that.

Table 5: Myanmar Extractives Revenue

<table>
<thead>
<tr>
<th>EITI Report</th>
<th>Total Revenue (Million MMK)</th>
<th>MMK per USD</th>
<th>Total Revenue (Billion USD)</th>
<th>Of which Jade and Gemstones</th>
<th>Of which Other Minerals</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 13/14</td>
<td>3,011,283</td>
<td>963</td>
<td>3.13</td>
<td>13%</td>
<td>2%</td>
</tr>
<tr>
<td>FY 14/15</td>
<td>3,408,193</td>
<td>1032</td>
<td>3.30</td>
<td>11%</td>
<td>4%</td>
</tr>
<tr>
<td>FY 15/16</td>
<td>3,404,469</td>
<td>1203</td>
<td>2.83</td>
<td>21%</td>
<td>3%</td>
</tr>
</tbody>
</table>

As such, it can be said that the mining sector’s contribution to Myanmar’s economy remains underwhelming. It should be noted, however, that the role of mining in the economy may be more significant than indicated by official figures. Studies on revenues generated by jade exports have pointed to material discrepancies between information published by different government sources and a need for consistency of definition and presentation, greater detail and clarity. Official figures estimated the total sales of jade and gemstones at around USD 3.5 billion in 2013/2014, whereas United Nations trade data indicated the value of exports to China at USD 12.3 billion in 2014 alone, and Global Witness calculated the value of total jade production in 2014 at more than USD 30 billion.

While the other areas of the mining sector have not received the same level of scrutiny, it is highly likely that in the minerals sector there are discrepancies between official data and actual revenues generated by the sector. Research undertaken for this SWIA indicates that similar issues may be present with regard to limestone, gold and tin. The fact that payments, royalties and fees collected by national-level line ministries and state/regional representatives of these entities are not all uniformly recorded and published adds to the

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158 MEITI, Myanmar First EITI Report, December 2015
160 NRGI, Mineral and Gemstone Licensing in Myanmar, April 2016, p. 1
161 See, e.g., ASH Center for Democratic Governance and Innovation, Creating a Future: Using Natural Resources for New Federalism and Unity, July 2013; Global Witness, Jade: Myanmar’s “Big State Secret”, October 2015, p. 36
162 Global Witness, Myanmar’s “Big State Secret”, October 2015
confusion, although EITI should improve this. Currently, the extractive industries financial data available to the Ministry of Planning and Finance is aggregated at the level of the relevant line ministry’s total contribution to the budget.\textsuperscript{163} This means that oil, gas, mining and hydropower revenues are all consolidated, with Union-level income, and not disaggregated by project. SOE revenues from loss-making and profit-making enterprises are similarly aggregated at the level of the supervising ministry, obscuring whether, and to what extent, the individual enterprise is making a profit.\textsuperscript{164}

Lack of geological data, the absence of a mining cadaster, and limited publicly available financial data (and potential inaccuracies of this data), make it difficult to assess the role that mineral extraction does and could play in Myanmar’s economy. If a more accurate picture of the mining sector’s actual and potential contribution to the Myanmar economy is to be generated, collecting and analysing such data will be essential.

**Production sharing contracts (PSCs) and investment agreements**

Mineral investments are mainly managed using PSCs. Globally, PSCs are common in the oil and gas sector, but not in mining. There are a number of reasons why fiscal arrangements based on production sharing are unsuitable in the mining context, including:\textsuperscript{165}

- PSCs tend to set annual limits on the amount of production that can be allocated to recover costs. However, the costs of mining projects are more front-loaded and higher than those in the oil & gas sector. This means that the assumption in PSCs that there is a sufficient margin for allocation between the company and the government does not hold in the context of mining;
- Mining requires capital investments throughout the mine lifecycle, as resources become less accessible and more difficult to extract; and
- Production sharing requires that governments can easily sell products (domestically or internationally). For mineral products marketing is more difficult.

Production sharing arrangements also lead to reduced investor interest, particularly when commodity prices are low, compared to profit sharing or other types of fiscal arrangement. For example, despite significant upfront investment it may take many years for a company to earn a profit. Under a profit sharing arrangement, on the other hand, a mining company would be taxed on their income, rather than production. It has also been noted that production sharing can introduce false incentives and inefficiency such as ‘high-grading’ deposits. This means that minerals which are not profitable to extract if they must be shared 30/70 with the State are left in the ground, and only the easiest/highest quality are mined.\textsuperscript{166}

This accelerates the reduction of reserves and mine life, while leaving more costly-to-mine minerals in the ground, and potentially unmined. Profit sharing, rather than production sharing, can favour more sustained mining, as well as being more profitable for the operator. In other countries, the granting of rights for mining is usually governed via investment agreements or licensing. Jurisdictions favouring investment agreements are also called

\textsuperscript{163} NRGI, *Myanmar and the Natural Resource Charter*, January 2016
\textsuperscript{164} NRGI, *Gilded Gatekeepers: Myanmar’s State-Owned Oil, Gas and Mining Enterprises*, January 2016
\textsuperscript{165} ICMM, *Minerals Taxation Regimes*, February 2009, p. 31
‘contractual regimes’, as the rights granted to investors for mining activities are determined and granted through individually negotiated contracts. In ‘licensing regimes’, on the other hand, mineral extraction rights are granted through a uniform licensing process and governed by the generally applicable law. Some countries use a combination of these two approaches.

Globally, there is a trend towards favouring stricter or pure licensing regimes over contractual regimes. It is argued that licensing regimes are favourable because:

- Governance and institutional checks are stronger and political risk is lower as the process for granting of mining rights is uniform, publicly available, and subject to the checks and balances of the general law;
- Information asymmetries between negotiating companies and governments are avoided as less is subject to individual negotiations, which are highly dependent on the skills and knowledge of negotiators; gaps between companies and host countries are common;
- Greater consistency in the terms and conditions for different mines makes it easier to monitor their compliance; and
- There is a greater level of transparency of licensing agreements (as opposed to investment agreements/contracts), again contributing to public oversight and facilitating engagement with transparency initiatives such as EITI.

This being said, contracts continue to be used in countries particularly where the general law and regulation, and/or mining specific law and regulation, are not yet comprehensively developed. Because they are individually negotiated, contracts make it possible to take into account specific geographical and project contexts (e.g. development of mega-projects that require more detailed arrangements than what is stipulated in generally applicable law and licensing requirements). A number of jurisdictions that use contracts have developed ‘model contracts’ as a step towards creating a more uniform system, or as a transition phase while working towards a licensing regime. Model mining agreements establish a general structure and limit which terms can be negotiated. Burkina Faso, Mongolia and Mozambique are among the countries that are either developing model agreements or have recently completed this. The International Bar Association developed a ‘Model Mine Development Agreement’, through a multi-stakeholder process, that provides a useful overview of good practice clauses for such agreements.

**Taxation**

The 2008 Constitution grants the vast majority of mineral taxation rights to the Union-Government. Mining taxes and revenues are collected by the Internal Revenue Department (IRD), under the Ministry of Planning and Finance, and by the relevant SOE. Myanmar’s states and regions are not presently allowed to raise significant tax revenues within their territories (e.g. they can collect crop tax but not commercial tax). In the mining sector, states and regions are only allowed to tax gravel and sand producers. On more
valuable mineral extraction they may only levy excises and land taxes. While regional authorities are tasked with tax collection, they are not always incentivised to do so efficiently, as they do not retain tax revenues at the state/region-level. Nor are there other transfers from the Union Government to state/region-level budgets that correspond proportionally to subnational mineral production volumes. The state/region-level authorities are therefore reliant on fiscal transfers from the Union Government to finance most public expenditure incurred locally, mining-related or otherwise (see below).

Revenues from the mining sector have the potential to make a significant contribution to economic development, as well as to the realisation of human rights, if properly managed. However, there are a number of factors relating to the current taxation system which need to be addressed. Firstly, Myanmar’s tax administration is fragmented and lacking capacity. For example, at least seven different ministries are collecting taxes and fees, taxpayer identification numbers do not yet exist, data management systems are outdated, and IRD is understaffed. Lack of adequate resourcing of IRD is particularly problematic, as this means the Department cannot conduct regular and effective audits of mining companies. According to figures from the International Monetary Fund, relative to agencies with similar functions in other countries, IRD has less than one-eighth of the budget that would be necessary for it to fulfil its function. Experts have predicted that if IRD were properly funded it could generate more than 1,000% return on investment for the Government. In combination, these factors have led to significant tax arrears, a high degree of tax avoidance, and an inability to properly account for all government revenues. According to a recent investigation of the jade sector, State revenues from the jade sector were estimated to be less than 2% of the total production whereas current taxation schemes and participation of SOEs as joint venture partners in jade mining should mean that the State collects the majority of the revenues.

Secondly, as the fiscal arrangements of particular licensing awards are currently not made public, it is difficult to assess the extent of tax breaks or tax exemptions that are granted in PSCs for mining activities, the basis on which such exemptions may be granted, and their duration. The issue of discretionary tax exemptions is complicated further as IRD is not able to closely control tax rates and exemptions set (as these are determined by MoNREC, and not necessarily available to their departments). IRD also has only limited political influence over MIC, which plays an important role in determining investment incentives. Despite the lack of clarity around discretionary tax exemptions, anecdotal evidence suggests that discretionary tax exemptions cost the Government billions of kyat annually and that the Government is therefore not receiving a fair share of profits generated from the mining sector.

176 MCRB interview, 2016
178 Ibid
182 Ibid
Thirdly, as a country with a still developing economy and important mineral deposits, Myanmar’s mining sector may face significant public financial management problems as foreign investment increases. Major mineral discoveries could lead to premature spending of the projected revenues by political elites. As the period between discovery and production does not yield any revenue flows beyond a possible signature bonus (and this period may lengthen if a significant deposit is found and as the sector is professionalised), increased public expenditure could be funded by borrowing against the prospect of future revenues. MoNREC requires private company partners to raise the necessary capital for investment, which means that such budgeting risks are much less acute. It is, however, a risk worth bearing in mind for when a significant deposit is discovered, or a large known, but underdeveloped, deposit, such as the Mawchi mine, re-enters commercial production as a unified project. In addition, a large segment of the mining sector in Myanmar is operating informally: meaning that there are currently no fiscal benefits from these operations for the State (see under Sector-Level Governance Impacts).

**Benefit sharing between the Union and state/region governments**

There are currently no legal or policy requirements for benefit sharing from minerals development between national-, state/region- and local-levels. However, the NLD, which leads the current Government, has stated a commitment to “work to ensure a fair distribution across the country of the profits from natural resource extraction, in accordance with the principles of a federal union.” Even prior to the election, leaders from several ethnic minority parties openly called for greater resource revenue sharing.

NRGI report that in terms of revenue sharing between the national- and state/region-levels, nearly all mining tax and non-tax revenues are collected directly by Union Government entities or SOEs, as is set out in the 2008 Constitution. Fiscal transfers from Union to state/region governments are made on an ad hoc basis for both resource-derived and other types of revenues. There are indications that states/regions with a greater development deficit are receiving a higher share of revenues, while transfers to conflict-prone areas are disproportionately larger on a per capita basis. Intergovernmental transfers to states and regions can be found in the Annual Budget. Resource revenue transfers are unspecified and public reports from local governments on revenue transfers are not available. There are currently no known resource-derived financial transfers from the Union Government to states and regions with ongoing mineral extraction within their territories. This means that fiscal benefits from natural resources are centrally collected and not subsequently redistributed subnationally. Given that the vast majority of adverse impacts on the environment and communities are experienced by those nearby to mining projects, there have been calls to recognise and respond to this through revenue sharing arrangements that seek to ensure that some financial benefits derived from mining are shared back with the regions in which mining occurs.

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183 Daniel Kaufmann et al, *Mining Contracts – How to Read and Understand them*, December 2013
184 Ibid
185 Gardiner et al, *ibid*, pp. 219-233
It is important to note that ‘benefit sharing’ and ‘revenue sharing’ are not equivalent. The benefits of natural resources development can be shared in a number of different ways, including through revenue sharing, prioritising public service and infrastructure development in regions with minerals development, or local content requirements. A critical component is subnational government involvement in governance and decision-making to determine what should be shared and how.

**Box 8: Example Models for Revenue Sharing**

1. **Natural resource revenues are treated in the same way as non-resource revenues:** In this model all fiscal revenues are pooled and collected centrally and then distributed to subnational governments as part of a general intergovernmental transfer system. Subregional authorities do not generally collect significant resource-specific taxes. The majority of countries in the world take this approach.

2. **Natural resources are treated differently from non-resource revenues and distributed based on derivation:** In this model some natural resource revenues are separated out and allocated subregionally using a derivation-based system (i.e. a portion of natural resource revenues is transferred back to its area of origin). This model includes jurisdictions where subnational jurisdictions collect substantial resource-specific taxes directly (also called fiscal decentralisation). The majority of natural resource-specific intergovernmental transfer systems are derivation-based.

3. **Natural resource revenues are treated differently from non-resource revenues and distributed based on indicators:** In this model natural resource revenues are transferred subnationally based on specific indicators, irrespective of where the natural resources are extracted. Indicators may include population, revenue generation, poverty level, geographic characteristics (e.g. remoteness), or other factors. Fewer countries use this model.

In practice, many countries have mixed systems, often applying both indicator and place of origin factors to determine subnational allocation.

There are numerous different models of how such revenue sharing might be structured to deliver local benefits for the Myanmar government to consider (see Box 8). The January 2018 NRGI report on Natural Resources Federalism explains this further. It notes that findings concerning the effectiveness of fiscal decentralisation and revenue sharing in other country contexts have been mixed in terms of the contribution that such strategies make in terms of delivering actual local benefits (e.g. spending on social services, mitigating local adverse impacts caused by mining). Natural resource revenues are notoriously volatile and poorly designed revenue sharing regimes can exacerbate regional inequalities.

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191 NRGI, *Natural Resource Federalism: Considerations for Myanmar*, January 2018
There have also been mixed results in terms of revenue sharing contributing to peace-building: in Indonesia special resource revenue sharing agreements with the regions of Aceh and West Papua helped to end years of violent conflict; in Peru, on the other hand, resource revenue sharing contributed to violent protests. Much depends on the capacity of the national and state/region governments. For instance, fiscal decentralisation complicates the tax system, which may cause problems in contexts where the general administrative capacity is low to start with. Therefore, any revenue sharing system must be designed to respond appropriately to the country context.

In Myanmar, CSOs, as well as government officials, have advocated for resource revenue related allocations from the Union- to state/region-level budgets. While at the time of writing, no plans to make such allocations had been announced, Parliament has discussed whether to institute a ‘formula-based’ revenue system. This would potentially mean that the Union Government would continue to collect all taxes but would be required to allocate a certain portion back to state/region governments. According to a report on natural resource benefit sharing written by a Kachin CSO, a formula-based system could complicate the peace process: ‘Since this system allows the central government to give or withhold money from the state governments, it can increase the political control by the central government. For this reason, formula-based revenue systems have been problematic in other peace processes, especially where natural resources have been a source of conflict’. Distribution of resource revenues to subnational authorities is likely to play a central role in any further decentralisation or federalisation process in Myanmar. Given the mixed experiences from other countries in terms of the effectiveness of fiscal decentralisation and revenue sharing for delivering local benefits, rather than deciding prematurely on any one particular model of revenue sharing, NRGI suggests establishing a process to apply in such decision-making, and has proposed an eight-step process for designing a revenue sharing system for Myanmar (see Box 9).

Local employment opportunities and supply chains (local content)

‘Local content’ includes employment opportunities for local communities with mining companies as well as opportunities to develop and grow local business opportunities that tie into mining supply chains (e.g. local businesses supplying goods and services to a mining company).

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192 Ibid
193 ICMM, Minerals Taxation Regimes, February 2009, p. 12 and 47; NRGI, Sharing the Wealth: A Roadmap for Distributing Myanmar’s Natural Resource Revenues, February 2016, p. 15
194 KDNG, Kachin State Natural Resources Development Discussion Paper, 17 June 2015
195 NRGI, Sharing the Wealth: A Roadmap for Distributing Myanmar’s Natural Resource Revenues, February 2016, p. 1
196 This Box is adapted from: NRGI, Sharing the Wealth: A Roadmap for Distributing Myanmar’s Natural Resource Revenues, February 2016, pp. 2-3; see also, NRGI and UNDP, Natural Resource Revenue Sharing, September 2016, pp. 10-11
197 This section draws heavily on NRGI, Local Content Initiatives: Enhancing the Subnational Benefits of the Oil, Gas and Mining Sectors, July 2013. See also Sustainable Mining: How good practices in the mining sector contribute to more and better jobs, ILO, 2017
Box 9: Eight Steps to Designing a Resource Revenue Sharing System

1) **Agree on revenue sharing objectives:** Achieving consensus on the objective(s) of the resource revenue sharing system will be essential for ensuring that the system meets these objective(s). Objectives might include: compensating local communities for adverse impacts of mining activities, mitigating natural resource-related conflicts, responding to local claims for benefits, based on ideas of local ownership; and promoting regional income inequality between resource rich and non-resource rich regions.

2) **Decide on vertical distribution:** Vertical distribution refers to the split in revenue shares between the national and state/region entities. There is no one-size fits all but a general principle should be that the transfer of revenues ought to match expenditures over the medium-term, to try to prevent any wasteful spending or poor service delivery.

3) **Decide on which revenue streams to share:** I.e. it needs to be considered whether to share all revenue streams or only some of them (e.g. royalties).

4) **Decide on horizontal distribution:** Resource revenues can be distributed between subnational entities in different ways (e.g. not treating mining revenues separately, or applying the derivation or indicator models, see Box 8). In the Myanmar context there is currently not enough state/region-level data to implement a derivation-based principle. Whether/how such data should be available in the future should therefore be part of any discussions regarding a potential revenue sharing system.

5) **Decide on recipients:** Region/state-level authorities might be the most obvious recipients. However, globally there are examples of transfers to traditional authorities, municipalities, landowners, and even directly to residents. All such options may be subject to consideration.

6) **Improve incentives for efficient spending (stabilisation and earmarking):** Resource revenues may be transferred in different ways, for example in a lump sum or earmarked for specific expenditures (e.g. education, healthcare). The approach taken will influence whether or not they contribute to development outcomes.

7) **Transparency and oversight mechanisms:** One challenge that many countries face is that local governments cannot verify whether they are receiving their resource revenue entitlements. Ensuring transparency and oversight mechanisms are in place from the outset can contribute to avoiding this, thereby also improving the chances that the revenue sharing arrangement contributes to reducing conflict, rather than exacerbating it.

8) **Negotiation process and venue for implementation:** Active and meaningful stakeholder participation in designing the revenue sharing system, as well as codification of the system in law, have proven essential in other countries’ experiences, for developing a fair, stable and efficient system.

Local content strategies also include skills and technology development and transfers. Internationally, local content is now increasingly recognised in the mining industry as a primary way through which local communities can share directly in the economic benefits.
of mining development. In a number of jurisdictions, governments and/or companies have implemented local content policies and targets that seek to improve opportunities for local individuals and companies along the mining value chain. Such requirements may be stipulated in legislation, company policies or production sharing agreements. Requirements may also be formulated to target specific rights-holders, such as Indigenous Peoples, as part of addressing systemic discrimination against such groups as well as seeking to ensure that mining contributes positively to the lives of those who are most directly impacted, local workers and communities.

Local content can yield significant benefits, particularly if framed to enable women’s economic empowerment or targeting other rights-holders who may be marginalised, discriminated against or otherwise at risk in communities impacted by mining activities. However, there are risks associated with local content requirements if these are used as mechanisms to perpetuate elite capture and rent-seeking. Local content requirements can also have inadvertent adverse impacts where strict requirements stipulated do not reflect the local context and realities. For example, a legislative requirement that a specific percentage of mining company supply must be from local companies in a context where this is not currently feasible may result in shadow companies being created that do not contribute to local skills development. In contrast, progressive improvement targets in such a context may allow the flexibility needed to facilitate continuous improvement over time based on real skills development of workers and local businesses. The modality/ies for local content requirements therefore need to be carefully developed in consultation with industry. For example, the role of incentives versus regulation should be considered, as well as the needs for specific skills training in order that individuals and companies can meaningfully participate in and benefit from local content requirements.

MCRB field research indicated that economic opportunities for people living in communities surrounding mine sites or processing plants are often limited. As an industry which is capital-intensive but requires limited labour inputs during most phases of the value chain, large mining projects may inspire grievances with local community members who expected mine development in their area to be accompanied by employment opportunities. As discussed further in Part 5.4: Labour, mining companies also failed to address skills training and professional development of workers, or consideration of environmental and social standards in supply chain management; all of which are important aspects of increasing local content. Whilst local content requirements and opportunities should by no means be restricted to large-scale operations, it is often the case that larger companies have more capacity to devote to systematic local content programmes and initiatives.

B. Sector-Wide Governance Impacts

Sector-wide governance impacts encompass those impacts associated with laws and regulations (and their implementation) that apply to limestone, gold and tin mining across the country and operations. Examining the capacity and willingness (or lack thereof) of government and business actors to implement relevant laws and regulations is key in the assessment of sector-wide governance impacts. However, the laws themselves have to be effective. This section considers functionality of the permitting/licensing regime; the governance of SOEs and the role of the military-affiliated companies; transparency and anti-corruption; mine inspections; and EAO-controlled areas and conflict minerals. Sector-wide
governance impacts also include those related to the informal sector, including the interplay between the formal and informal parts of the mining industry, and the challenges that are specific to the informal sector.

**Licensing regime**

The licensing regime was changed by the 2015 amendment to the Mines Law and 2018 Rules (see further, Part 3: Legal and Policy Framework). However, the licensing framework is a long way away from meeting international standards. The present situation is artificially complex, making cadastral management difficult, affecting the security of tenure and constraining the attractiveness of the country for investments. Unfortunately, the 2015 Law and 2018 Rules have not addressed the cause of these problems which have been highlighted in the preliminary report of the cadaster expert.198 These include:

- **Lack of clarity and transparency regarding the licensing process:** The Myanmar Mines Law and Rules set out the types of licences and some general requirements. However, the process for licensing including requirements for other permits or supporting letters have not been elaborated fully in the Rules or other guidance which is publicly available to investors, civil society and other actors.199 This means that investors are subject to a high degree of uncertainty when applying for a licence, as well as presenting significant corruption risks.

- **Long and unpredictable licensing process:** Field research and interviews with investors found that both small-scale licences at the state/region-level, as well as the process applied for foreign investors is lengthy.200 The experience of a foreign investor seeking an integrated permit was also described as onerous and unpredictable, with some steps required by state/region- or township-level administrations not appearing to have a basis in Union-level laws or regulations (Figure 1). MCRB field research found that the licensing process for a small-scale gold permit at the state/region-level involved over 25 steps (Figure 3). Nor were requirements logical or in accordance with international good practice, such as requiring the development of extensive environmental and social studies just for the prospecting stage.

- **Lack of clarity over government decision-making in the award of licences:** Evaluation criteria are not specified, giving a high level of discretion for the Government in this decision-making. There is not yet a Mineral Resources Policy which could provide guidance both on the types of factors to be considered in licensing awards, and also principles for the weighing and prioritisation of different factors (e.g. to balance the interests of mining development and environmental protection). This could include consistent minimum spend rules depending on size of concession as a minimum amount of dollars to be spent per year in each granted hectare.

- **Government capacity to analyse proposals is weak:** The 2015 amended Mines Law now requires the company to provide a feasibility study, including all technical and financial feasibility data201 as is usual in other jurisdictions. To make this requirement meaningful, the Government will need to ensure that it has the requisite technical expertise to analyse studies and make informed decisions.

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198 Submitted to the Ministry of Planning and Finance, under Contract No MEITI-CS 003/2017 by Enrique Ortega, November 2017 as amended January 2018
199 NRGI, Mineral and Gemstone Licensing in Myanmar, April 2016, p. 3 and 7
200 MCRB field research. See also, NRGI, Mineral and Gemstone Licensing in Myanmar, April 2016, p. 9
201 Daniel Kaufmann et al, Mining Contracts – How to Read and Understand them, December 2013
- **Licence length**: The 2015 amended Mines Law has increased the maximum tenure for some licence types as well as providing more specific criteria for determining the size of production permits. However, timeframes remain too short. This is the case both for prospecting and exploration, where 3 + 1 + 1 years for exploration increases risk. The global average maximum allowed validity period for exploration is 9-10 years. For production, licence lengths are also too short. This reduces the chances of commercially viable mining and discourages investors, incentivizes unsustainable rates of extraction, exacerbates health and safety risks for miners, and speeds up the pace of mineral depletion without guarantees of increased yield.

- **Licence sizes are not efficient and do not support sustainable mining**: For example, prospecting licences should cover a larger area, allowing the development of modern large-scale prospection based on high-tech technology such as airborne geophysics or remote sensing. The minimum size of the small-scale mining and gemstone licences should be increased to meet international standards. The EMP prepared for jade in Hpakan illustrated why licensing many small areas rather than one large one leads to unsafe mines with steep, inefficient mining practices, lack of transparency, and lack of environmental protection.

- **Lack of standard conditions for licences** (duration, exclusivity, fees, state participation etc.): This is necessary to avoid negotiations for agreements. International experience shows standard prefixed conditions are the best solution to avoid discretion, subjectivity and corruption, and increase transparency and security of tenure.

- **Lack of differentiation between licensing procedures for prospecting, exploration and mining**: These have very different requirements, needs and conditions (registration of priority, duration, receivability, risk of violation of confidentiality, etc). Specific cadastral procedures for creation of gemstone tracts and reserved zones could be established, preserving the rights of existing titleholders and previous applicants.

- **‘Integrated Permits’**: These permits have introduced a lack of clarity about what a company has permission to do. Rather than addressing the lack of security of tenure in the Mines Law by issuing ‘integrated permits’, the Law itself should be amended to fully address the identified problems.

- **Lack of cadaster**: Full EITI compliance requires a functioning public mining cadaster containing up-to-date information on deposits and licences (including the positioning on the maps). A Mineral Rights Cadaster needs to be established which brings together the licensing responsibilities which are currently ambiguous and split between several departments. It should have exclusive responsibilities for licensing, including the reception and registering of applications, the cadastral evaluation of the application and communication with applicants and holders in relation to any matter related to the mining rights.

- **Lack of online published information**: MoNREC occasionally published numbers of mineral licences on its website (Table 1), and a list of licences with named companies (but not beneficial owners) has been provided as an annex to EITI reports. However, these are not complete or disaggregated by commodity. Individual licensing

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202 NRGI, *Mineral and Gemstone Licensing in Myanmar*, April 2016, p. 4
agreements are not disclosed publicly. This lack of information, much of which would be addressed by having a Mineral Rights Cadaster, makes it difficult for all stakeholders to have an accurate overview of the licences awarded and their terms and conditions, which is essential for public oversight and monitoring of mining activities. It also makes the mining sector less competitive and less able to attract investors.

- **Lack of process alignment or clarity concerning mining licensing, MIC permit, and EIA requirements:** A requirement to obtain an MIC Permit is only meaningful once a mining company knows the location and nature of the resource i.e. at feasibility stage. This is now implicit in the 2016 Myanmar Investment Law, which also clarified previous confusion about whether a completed EIA was required before granting of an MIC Permit (it is not, but should be undertaken in parallel). There is still more that needs to be done to align these processes and establish a logical sequencing, ensure adequate transparency and disclosure according to the Investment Law and EIA Procedure, and clarify the role of Parliament for large projects, and the role of State/Region governments and local communities, particularly those who could be considered Indigenous Peoples.

- **Ambiguity about whether licences must be auctioned:** The 2018 Mines Rules are ambiguous about whether and when licences should be competitively tendered rather than granted on a first come, first served basis which is normal for prospecting and exploration licences globally. The situations in which there is to be competitive auction should be clearly specified, for example, in special cases for areas where the resources have been discovered by the State or where resource information is in the public domain. Regulations must also provide details about when and how to initiate auctioning, how to organise auctions, and the requirements which should be published in advance in order to guarantee transparency. In addition, as one of the standard licensing procedures, it should be the Mineral Rights Cadaster’s responsibility to initiate, develop, and grant the corresponding licence.

In combination, the above factors create uncertainty for investors and enable favouritism or corruption, arguably therefore disincentivising ‘good practice’ investors. The permitting regime has a critical role to play in determining who can participate in the mining sector and on what basis. Improving the governance of the licensing process is therefore critical for improving the economic and social outcomes of the sector and has to be a central part of any reform process.

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Figure 3: Small-Scale Gold Licensing Process
Informal and subsistence mining

As noted in Box 1, in this SWIA the term ‘informal’ sector is used to refer to mining operations and activities that are occurring without having been granted a minerals permit from the Government (or its regional representatives). This includes many subsistence mining activities, but also larger operations that do not have a mining licence from the Government but have, for example, been granted ‘permissions’ to mine by an EAO. Subsistence miners are frequently subjected to illegal taxes and other payments.

There is insufficient data about the informal mining sector in Myanmar, including for the commodities of limestone, gold and tin. MCRB field research indicates that subsistence mining is significant, in particular for gold and tin, and to a lesser extent, limestone. Many workers and communities rely on subsistence mining for their livelihoods, and the interaction between subsistence miners and formal mining operations are diverse and complex (see further Part 5: Cumulative and Project-level Impacts).

Informal subsistence mining activities occur in a number of different ways and in a number of different locations, including: on formal mine concessions (usually via an agreement between the mine permit-holder and the subsistence miners); on forest, mining (i.e. land owned by MoM); on private land (i.e. owned by companies or individuals); in areas under control of the Government; and in areas affected by ethnic conflict and under control of different EAOs. In addition, subsistence mining includes pit mining, underground mining and mining in creeks and waterways (illegal according to the law but numerous instances were noted during MCRB field research). This means that there are many players involved in governance of the informal subsistence mining sector, including government at national-and state/region-level, EAOs, mining companies, traders, and workers/communities involved in a variety of arrangements in subsistence mining. Subsistence mine sites visited by MCRB field researchers were all informal and miners were subject to informal taxation and illegal payments, and were often operating in an insecure environment.

Subsistence mining has some positive economic impacts. As highlighted by the field research, subsistence mining contributes to local economies, driving the demand for goods and services, and to the development of infrastructure. It is an important source of employment and livelihood for impoverished rural communities in Myanmar, including as a part-time or seasonal occupation in addition to farming. Artisanal mining is labour-intensive and does not require significant capital investment, which means that contrary to large-scale mining it can offer opportunities to a large segment of rural, largely unskilled, communities and can contribute to poverty alleviation. The subsistence mining sector involves many internal migrants, often moving to work in adjacent regions or states. MCRB field research also showed migratory flows from states with a long history of mining, such as Kachin, to mine in other parts of the country.

The high level of informality of the mining sector makes it difficult to assess the magnitude of the production originating from subsistence mining or the actual and potential macro-economic effects of the sector, including the potential foregone fiscal benefits. However, studies of subsistence mining in other countries show that in addition to employment creation and the development of local economies and entrepreneurship, subsistence mining enables the exploitation of small deposits that otherwise may be uneconomical to extract.
and can be seen as a mineral opportunity. There is growing recognition globally that artisanal mining is an activity that can make a significant contribution to poverty alleviation but it needs support to overcome associated social and environmental challenges.

However, the economic costs of informal mining in the form of environmental damage and adverse social and human rights impacts are also significant. Elsewhere some governments such as Peru have concluded that taking into account both the costs of environmental clean-up linked to informal mining, and future potential fiscal revenues deriving from formalisation, formalisation would bring a net economic benefit to the State.

In Myanmar, the economic importance and development potential of this sector is not yet recognised, although its legal status is now recognised through licensing provisions in the 2015 amended Mines Law and 2018 Rules. However, there is a lack of specific policies for subsistence mining. From an economic viewpoint, in addition to enabling the State to raise taxes, formalisation may encourage local supply chains in goods and services such as basic machinery. In Myanmar, much of this is currently imported from China, at least in the northern part of the country. The increased access to markets, finance and information and training, which a successful formalisation process could enable, would encourage more sustainable extraction by allowing subsistence miners to increase extraction yield by applying better knowledge and technology and command fair prices at market rate. Above-ground supply chains could limit the control of pre-production financiers who frequently charge rents of 30% or more of extraction yields.

The aim of formalisation should be to improve the situation of subsistence miners, government and the environment. Experiences from other countries show that, in order to be successful, formalisation processes need to combine a regulatory approach adapted to the realities of subsistence miners with instruments which generate economic incentives for changing behaviours and practices. The licensing process for artisanal mining will therefore need to be adapted and simplified, taxation levels and regimes adapted, and a series of accompanying measures for miners will need to be taken, including information, education and technical support, facilitating access to finance and markets.

In other countries, blanket bans or restrictions on subsistence mining have been ineffective in terms of addressing illegality and corruption. Monitoring and enforcement will need to be strengthened, but experiences of blanket bans or restrictions on artisanal mining without accompanying measures in other countries have often led artisanal miners into further illegality. They have also been found to do most harm to the poorest, including miners

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205 Alliance for Responsible Mining, Analysis for stakeholders on formalization in the artisanal and small-scale gold mining sector, based on experiences in Latin America, Africa, and Asia, September 2011
206 UNEP, Analysis of formalization approaches in the artisanal and small-scale gold mining sector based on experiences in Ecuador, Mongolia, Peru, Tanzania and Uganda, June 2012
207 Gestión, Gobierno prevé recaudar hasta s/.9,230 millones con formalización de mineros, 12 May 2014
208 UNEP, Analysis of formalization approaches in the artisanal and small-scale gold mining sector based on experiences in Ecuador, Mongolia, Peru, Tanzania and Uganda, June 2012
209 Ibid
210 Ibid; See also, IPIS, The formalisation of artisanal mining in the Democratic Republic of the Congo and Rwanda, Dec 2012; Aljazeera America, Grim Prospects for Sustainable Miners in Peru, 21 Sept 2015
and those in the local communities providing goods and services to miners.\textsuperscript{211} Steps which further criminalise the sector should therefore be avoided.

The 2015 amendments to the Mines Law with regard to subsistence mining sought to make it possible for subsistence miners to obtain a permit for their activities. They decentralise the permitting process, thereby bringing illegal mining activities within the ambit of the Law. However, the amendments also include strict penalties for non-compliance, i.e. subsistence mining without the requisite permit. While it will take some time and further research to be able to assess the precise implications of these regulatory changes, initial analysis from MCRB and other sources indicate that the subsistence mine permitting process still remains too complex, is not accessible enough for (including known enough by) subsistence miners, and that the increased penalties may result in unintended consequences of unduly penalising individuals who are already at risk. For example, obtaining a subsistence mine permit currently requires the completion of an eight-step application process involving authorities at three levels of government – township-, regional- and national-level.\textsuperscript{212}

If it further formalises subsistence mining, the Government will need to fully understand the specific challenges faced by subsistence miners. This includes understanding how the new legal provisions incentivise or disincentivise subsistence miners to obtain a licence. The licensing process may need to be further adapted and simplified, while making sure the activity of artisanal miners remains profitable\textsuperscript{213} and that adverse economic impacts of formalisation are mitigated. It is important to involve subsistence miners in designing and implementing measures to manage impacts of mining at the local-level in conjunction with a formalisation process.\textsuperscript{214} It is also necessary to take into account the various organisational arrangements that exist within the workforce and between the workforce and other stakeholders to make sure that it benefits those at the low end of the sector.\textsuperscript{215} A formalisation process should encourage the organisation of workers into associations and/or cooperatives.\textsuperscript{216} There will also need to be education programmes for subsistence miners on licensing requirements, as well as on reduction of adverse environmental and social impacts.

Action to formalise subsistence mining in EAO-controlled areas will require specific approaches that involve the EAO and other relevant actors. The formalisation of the mining sector in all states/regions is particularly hindered by continued ethnic conflict and the resulting limits to the scope of Government control of certain areas (see further, Part 5.6: Conflict and Security). As well as EAOs, steps to formalise the subsistence mining sector also need to target the role of mining companies, as many subsistence mining activities

\textsuperscript{212} MCRB interview, 2016
\textsuperscript{213} Formalisation approaches are detailed in: Alliance for Responsible Mining, \textit{Analysis for stakeholders on formalization in the artisanal and small-scale gold mining sector, based on experiences in Latin America, Africa, and Asia}, September 2011
\textsuperscript{214} Salo et al, \textit{Local Perspectives on the Formalization of Artisanal and Small-scale Mining in the Madre de Dios gold Fields, Peru} (2016) \textit{Natural Resources Institute Finland}
\textsuperscript{216} UNEP, \textit{Analysis of formalization approaches in the artisanal and small-scale gold mining sector based on experiences in Ecuador, Mongolia, Peru, Tanzania and Uganda}, June 2012
occur on concessions held by larger operators. The role and responsibilities of these companies with regard to granting subsistence mining ‘permissions’ on their concessions needs to be specifically addressed in any initiatives.

A process towards legalising and formalising artisanal mining if conducted properly, with the participation of interested stakeholders, has the potential to enable better government oversight, taxation and improved health, safety and environmental standards and security among subsistence miners. In 2017, the InterGovernmental Forum on Mining published Guidance for Governments on Managing Artisanal and Small-Scale Mining. This sets out a step-by-step process for governments on how to develop, implement and monitor an effective ASM Management Strategy which could be a useful guide for Myanmar.217

Governance of State-owned enterprises (SOEs) and military-affiliated companies

As outlined in Part 2: Legal and Policy Framework, in the current governance structure the SOEs are part of MoNREC and carry out both business and regulatory functions.218 Myanmar’s SOEs play a key role in the country’s mining industry as they account for a significant portion of the financial flows from mining activities. These enterprises are required by law to pay 45% of their net profits into the State Fund Account. SOEs may, however, deduct costs and the full remaining 55% of net profits from this sum. Loss-making SOEs can receive transfers of up to 20% of their working capital from the Government in any given year.219 The national budget also does not disaggregate revenues raised by, and transfers made to, individual SOEs, effectively obscuring which SOEs are profitable and all their financial flows.

More than USD 1 billion a year (equivalent to over 50% of total Government expenditure in fiscal years 2012/2013 and 2013/2014) is spent and retained by SOEs operating in Myanmar’s oil, gas and mining sectors, with only partial information available on production figures, licensing, revenues and expenditures, and participation in joint ventures. Almost no information is available on corporate leadership, assets held and other financials.220 Without transparent data on financial flows and leadership structures within the SOEs it is impossible to accurately scrutinise their activities, including risks and incidents of corruption and financial mismanagement.

Furthermore, there are flow-on effects with economic and social implications. Whatever profits the Government is making from SOE mining-related activities could be an important potential source of finance for the Government for delivering essential services. Lack of transparency around SOEs needs to be addressed as part of the Myanmar EITI programme.

The two military companies, Myanmar Economic Corporation (MEC) and Union of Myanmar Economic Holdings Limited (UMEHL) also play a critical role in the mining industry. MEC is a de facto military-owned enterprise or SOE equivalent. UMEHL is a company with shares held by military personnel. Research has indicated that UMEHL holds “significant

217  IGF Guidance for Governments: Artisanal and Small-Scale Mining, January 2017
218  NRGI, Gilded Gatekeepers: Myanmar’s State-Owned Oil, Gas and Mining Enterprises, January 2016
219  Ibid
220  NRGI, Myanmar and the Natural Resources Charter, January 2016
de facto licensing power via the ability to partner with private companies to develop mines over which UMEHL holds a formal license.”221 In addition to their influence through formal contracts, it notes that the tacit approval of these companies is often essential for other companies in order that they can do business in certain regions. Box 10 outlines six factors that have been identified as warranting particular attention regarding SOEs and military-affiliated companies in the current reform process.222

Box 10: Five Factors for Consideration in the Reform Process Regarding the Role of SOEs and Military-Affiliated Companies

1. **Transparency**: SOEs exert significant influence over public revenues, but been a  
   lack transparency in their management. Shortcomings include a lack of public  
   disclosure on SOE revenues, financial interests, activities and leadership structure.  
   Increasing the transparency around SOEs is important, particularly for Myanmar’s  
   EITI membership.

2. **Financial autonomy and growing accounts**: The Government has granted  
   SOEs significant financial autonomy. They can retain up to 55% of their net profits  
   in ‘Other Accounts’ that are not subject to the regular annual budget process.  
   Again, this needs greater transparency.

3. **Link between SOE activities and funds retained for spending**: Currently, there  
   does not appear to be a clear link between the activities that SOEs are expected to  
   perform and the finances entrusted to them. The size of revenues that SOEs are  
   allowed to retain and spend seems to be much larger than what is needed for them  
   to discharge their responsibilities. This balance needs to be reviewed.

4. **Roles and responsibilities of SOEs**: SOEs have both business and regulatory  
   functions. While non-commercial functions of mining SOEs’ are more limited than  
   for oil and gas, the precise non-commercial role of mining SOEs should be  
   evaluated to avoid any conflicts of interest. Clarity is needed for both government  
   and non-government stakeholders on the precise roles and responsibilities of these  
   entities.

5. **Military-affiliated companies**: MEC and UMEHL are separate from the MoNREC  
   SOEs involved in mining. However, research has indicated that these companies  
   occupy a central position in the mining industry and play important quasi-official  
   roles in determining who gets access to mining projects and in distributing the  
   benefits of extraction. As such, they also overlap the authority of SOEs in confusing  
   ways, thereby impeding public accountability. Clarifying the roles and activities of  
   these companies should therefore be a part of the reform process.

**Transparency and anti-corruption**

Myanmar ratified the United Nations Convention against Corruption in January 2013223 but  
has not signed the OECD Anti-Bribery Convention. While the country has made strides  
towards increasing openness since 2012, including by joining EITI, businesses report that  
irregular payments and bribes are frequently used in order to obtain favourable court  
decisions.224 On average, enforcing a contract takes 1,160 days and is more costly than

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221 NRGI, *Gilded Gatekeepers: Myanmar’s State-Owned Oil, Gas and Mining Enterprises*, Jan 2016, p. 20
222 This Box is adapted from: NRGI, *Gilded Gatekeepers: Myanmar’s State-Owned Oil, Gas and Mining Enterprises*, January 2016, pp. 1-3
223 UN Convention Against Corruption Signature and Ratification Status as of 21 September 2016
the South Asian average. Businesses report occasional informal payments and bribes in connection with public utilities. Recent statistics indicate that starting a business costs significantly more than the regional average. Irregular payments when importing and exporting goods are also reported. Companies face a high risk of corruption in the tax administration in Myanmar as irregular payments in connection with tax payments are commonly exchanged. All levels of the judicial system are plagued with a lack of resources, poor working conditions and low remunerations, contributing to corruption. Courts are neither independent nor impartial as the military and Government exert significant control and influence over them. The World Bank Enterprise Survey was conducted for the first time in 2014, and then repeated in 2016/2017 after the NLD government assumed power when ratings showed an improvement. The 2017 Transparency International Corruptions Perception Index also showed a slight improvement. Myanmar ranked 130th out of 180, the same level as Ukraine, and above Laos and Cambodia in the region.

Anti-Corruption Law

The 2013 Anti-Corruption Law covers most forms of bribery in the public sector, including criminalising active and passive bribery, extortion, attempted corruption and abuse of office. The maximum punishment for corruption is fifteen years imprisonment and a fine (Article 55). Maximum sentences for corruption offences are fifteen years for persons who hold political power, ten for civil servants and seven years for all others. (Myanmar's Penal Code covers some public sector bribery offences, however, it is unclear how much the Code will be invoked following the introduction of the Anti-Corruption Law).

The Law requires all officials in the executive, judicial and legislative branches of the Government to declare their assets, allowing penalties for those who do not comply. Facilitation payments (a payment made to a public or government official that acts as an incentive for the official to complete an action expeditiously) are not explicitly included in the Law, meaning they will likely remain common when doing business in Myanmar. The Law has undergone minor amendments since 2013, and is now the subject of a slightly more wide-ranging amendment to address some weaknesses.

The 2013 Law established an Anti-Corruption Commission to address graft and bribery whose mandate is to investigate corruption cases and decide whether to further pursue/prosecute a case or to dismiss a complaint. A new Commission took office in late 2017 and has already been more active than the 2013 Commission in reaching out to stakeholders including civil society, although it needs to do more to engage business.

225 WB and IFC, *Doing Business in 2016*  
227 WB and IFC, *Doing Business in 2016*  
229 ICJ, *Myanmar Must Follow Through on Promising Efforts to Improve the Independence and Accountability of its Legal System*, February 2015  
231 http://www.enterprisesurveys.org/data/exploreeconomies/2016/myanmar  
232 Anti-corruption scores have shown an improvement under the NLD Government, October 2017, MCRB  
233 Transparency International *Corruption Perception Index 2017*, February 2018  
234 2013 Anti-Corruption Law  
235 Business Anti-Corruption Portal, *Myanmar Legislation*
Responsibility for regulating mine safety and environmental impacts

Although requirements for EIA/EMP and the Mining Regulations should offer a framework for closer control of environmental and social impacts of mine operations, the institutions tasked with monitoring and enforcing the regulation lack sufficient human and financial resources, accountability and relative responsibilities of ECD and the Mines Inspectorate is confused. Coordination between ECD and DoM in MoNREC is weak, although in some cases they are undertaking joint inspections.

There is extensive potential for conflict of interest in the respective roles of the various licensing, permitting and inspection entities under the mining side of MoNREC, particularly in the regulation of SOEs and their joint ventures. Mining operations are subject to at least two different types of regular inspection visits by MoNREC. There are inspections by the respective SOEs, focusing on mineral production monitoring (see below), and inspections by DoM, focusing on mine permit granting and permit compliant operation. The SOEs and DoM elaborate inspection schedules for the coming calendar year, each with the aim of one visit per mine site per year. In practice, DoM finds itself unable to stick to the rigid schedule, as ad hoc inspections (e.g. accidents, grievances) and the inspections for new mine permit applications are prioritised. Besides the Union-level inspections, there may also be mine inspections by region/state-level authorities, both as follow-up measures of previous mine inspections and independently from Union-level. There is no known budget designated for mine inspections at the Union or the state/region-level. Staff are known to frequently rely on companies to cover the transportation and accommodation costs associated with mine site inspections, often in remote areas.

The roles played by government regulators observed by the SWIA team are set out below.

Mines Inspectorate

The 2015 amended Mines Law (Chapter VIII) designates the Director General of DoM as the Chief Inspector of Mines, who is mandated to inspect for compliance with the Mines Law, its Rules and Directives as well as health, safety, sanitation, accident prevention, welfare and disciplinary measures of workers in mines. The Director General may delegate his powers of inspection to “any suitable officer from the Department” (Section 27). This means that, in practice, all DoM officers may function as inspectors, including DoM officers at the state/region-level departments. Especially at the state/region-level there is scope for conflicts of interest as department officials have licensed the mining companies operating locally and have frequent contact with the companies as well as with the relevant SOE. A subsection was added to Section 26 in the 2015 amended Mines Law which further states that the inspector has the power also to inspect “the environmental impact assessment system and socioeconomic impact assessment system (sic) in prospecting, exploring and testing, production and processing operations of mineral, industrial mineral and gemstones.”

Chapters 34 of the Rules addresses the powers of the Mining Inspectorate in more detail. Where it is determined that a mine is operating in breach of regulation, mine permits may be cancelled or the operator may be fined. Section 32 of the Mines Law prescribes imprisonment of up to one year or a fine of up to MMK 1,000,000 for violation or infringement
of provisions under Section 13 of the Law which addresses worker’s rights, OSH, environmental conservation and submission to mine inspection. The 2015 amended Mines Law introduced an additional exact same penalty for a repeat offence, except for including a minimum MMK 200,000 fine. (The penalties prescribed in Section 29 for illegal mineral smuggling are two to three times more severe).

A technical assistance programme provided to DoM by the German Federal Institute for Geosciences and Natural Resources (BGR), is intended to improve the quality of mining supervision and operations with respect to safety, social and environmental aspects. Implementation includes the evaluation and improvement of supervision procedures, strengthening of staff capacity involved in mining and improved collaboration of relevant stakeholders in the mining sector on mining-supervision-related topics. Phase 2 will begin in 2018. In Phase 1, BGR worked with DoM to develop a number of best practice guidelines and draft rules related to mine safety, particularly for small-scale mining, and have been training inspectors. They note that these draft guidelines are a stop-gap measure until mandatory procedures and operation standards for the mining sector are defined by the Myanmar government. The Best Practice and Rules cover:

- Shaft construction and operation in underground small-scale mining;
- Gold amalgamation in small-scale mining;
- Mine ventilation planning and operation in small-scale mining;
- Ground control in underground small-scale mining; and
- Blasting operations in underground and surface small-scale mining.

BGR have also developed complementary checklists for mining inspectors on:

- General inspection procedure;
- Ground control in underground mines;
- Inspection of gold amalgamation operations;
- Mine ventilation;
- Tailings storage facility;
- Waste dumps; and
- Blasting.

**Mining Enterprise Observers**

In practice, the Mining Enterprise production monitors (‘ME observers’), who are stationed at large-scale mines to monitor daily, weekly and monthly production rates, function as a channel of information back into the SOEs and Ministry.

MCRB field research found examples of observers from SOEs making judgements on numerous issues beyond production, such as health and safety and compensation claims. In the case of ME-2 minerals, SOE production monitors are stationed at large-scale mines and rotated every three months to decrease the scope for corruption. ME-2 monitors file daily, weekly and monthly reports on mineral production and purity and the use of explosives and chemicals. As part of the weekly monitoring report, which is drafted by the company but verified by the ME-2 monitor, accident statistics are communicated to the Union-level. Fatalities are to be reported to the ministry within 24 hours. In practice, both

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236 Myanmar – Sustainable Development of the Mining Sector, BGR
minor and fatal accidents are often not reported and compensation is settled directly with those affected or their families, partly because Ministry involvement in compensation cases often means they take several years to settle.237

While no direct evidence of falsification of production records by ME-2 observers and/or mine operators was brought to the SWIA researchers' attention, one company included a MMK 50,000 (approximately USD 50) recurring monthly payment to the ME-2 production monitor stationed at the mine as a 'CSR expense'.

**Environmental Inspections**

Article 13 of the Environmental Conservation Law gives MoNREC the mandate to maintain a comprehensive monitoring system but does not explicitly give powers of impromptu inspection of mine sites to ECD. However the 2015 EIA Procedure gives powers to ECD to monitor EMPs (See Section C below). An EMP may include contractual commitments on environmental monitoring, conservation and protection, measures in the case of an environmental emergency, strategies to prevent or mitigate environmental impacts caused by activities related to a project or the project or business activity as a whole. Failure to comply with EMP commitments may result in licences being revoked. Both nationally and subnationally, ECD/MoNREC has only weak capacity to monitor and enforce the commitments made in EMPs, and the system is yet to function effectively.

**Labour Inspectorate**

There were no reports of inspections by the Labour Inspectorate, who told the SWIA team that they have no responsibility for mines, although technically MoNREC inspectors are only meant to monitor the labour conditions of mine workers as per the Mines Law and Rules. This leaves uncertainty about the responsibility to inspect the conditions of support staff such as driver, cooks, cleaners or security personnel. The Director General of DoM and department officers designated by him are currently the only government staff legally entitled to conduct unannounced mine site inspections. If the draft Occupational Safety and Health Law is adopted, this could change.

**EAO-controlled areas and conflict minerals**

In addition to the specific governance challenges associated with the informal subsistence mining sector generally, informal mining activities in EAO-controlled areas, whether subsistence mining or larger scale, also pose specific governance challenges. These relate primarily to a lack of Government control and oversight in these areas across all aspects of mine operations, including land use, workers’ rights, and environmental protection. NRGI’s report on Natural Resource Federalism examines this issue, and considers models in other countries for setting and enforcing environmental and safety standards.238

MCRB field research indicated that the ‘governance’ arrangements around operations in EAO areas are complex and varied. They usually involve one or more EAOs, illegal traders (domestic and foreign), and sometimes local government actors and armed forces (police or Myanmar Army) and more. Mineral extraction and trading in EAO areas includes several

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237 MCRB SWIA Field research 2016
238 NRGI, Natural Resource Federalism: Considerations for Myanmar, January 2018
layers of payments and corruption (e.g. permissions to extract, permissions to on-sell, permissions to transport between locations and checkpoints). In addition, accurate data on production yields from mining activities in these areas is non-existent. This indicates that steps to formalise the sector will require specific actions targeting mining in EAO areas (see further, Part 5.6: Conflict and Security and Part 6: Region-Specific Governance and Conflict Analysis).

The specific commitments made as part of the Nationwide Ceasefire Agreement (NCA) should also play a critical role. According to the NCA, for example, EAOs acknowledge their responsibilities for development and security in their respective areas, including by committing to carrying out programmes and projects concerning: health and socio-economic development; environmental conservation; maintenance of the rule of law; and eradication of illicit drugs; amongst other things.239 Furthermore, there is an explicit commitment that the “[p]lanning of projects that may have a major impact on civilians living in ceasefire areas shall be undertaken in consultation with local communities in accordance with the Extractive Industries Transparency Initiative (EITI) Standard procedures (sic) and coordinated with relevant the Ethnic Armed Organizations for implementation.”

MCRB field research in conflict-affected regions, including Kachin, Bago, Kayin and Kayah, indicated several links between mineral extraction and sale, and armed conflict.240 EAOs were found to levy unofficial taxes on miners and pit owners and had in some regions established parallel licensing systems for mining activities. MCRB heard reports of military and EAO-ownership of mines and in several cases land had been seized for operations without adhering to due process.

Resource revenues are in general far less lucrative in south-east Myanmar compared to the north and east. In the south-east, many areas have already been logged, and with EAOs controlling little fixed territory, incomes are limited for most. There are gold deposits in some areas, but this provides nothing like the revenue potential in the north-east, where in addition to timber and gold, there is jade and rubies. According to Global Witness research, many jade mines are owned by senior figures from the previous military regime, large Myanmar conglomerates, the Myanmar military, and the UWSP and individuals linked to it.241 Whereas links between jade and conflict in Kachin State are now well documented, the ways in which revenues from limestone, gold, tin and tungsten influence conflict dynamics in Myanmar is less well-documented.

The OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas stipulates the need for minerals companies to exercise increased due diligence when operating in high risk areas.242 The Guidance sets out practical steps whereby a company may minimise its risk of contributing to or aggravating ongoing conflict. One key aspect of this process is the identification and

239 The Nationwide Ceasefire Agreement between the Government of the Republic of the Union of Myanmar and the Ethnic Armed Organizations, Chapter 6, Paragraph 25
240 MCRB field research 2016
241 Global Witness, Jade: Myanmar’s “Big State Secret”, October 2015
242 OECD, Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, November 2012
assessment of risks within the supply chain, which should result in the design and implementation of a strategy to respond to the risks identified.

MCRB has reviewed EIAs of several mines in different conflict-affected areas.\(^{243}\) While all of these discuss issues related socio-economic development in the area, they are uniformly silent on the impact on conflict dynamics and how potential adverse impacts might be mitigated by companies. It is therefore considered unlikely that many companies operating in Myanmar’s mining sector have undertaken conflict minerals due diligence or developed internal policies and practices to ensure responsible mining in conflict-affected areas. This indicates a need to pay particular attention to how the protection of and respect for the environment and human rights in these areas might be ensured, in the context of mining activities.

**National Mineral Resources Policy**

Myanmar does not yet have a Mineral Resources Policy but it is understood that, as of early 2018, the Department of Mines is working on one.\(^{244}\) Such a Policy could be used to address many of the above issues and establish economic, governance and development objectives in the development of the mining sector (see Box 11) and provide the basis for modern and fit-for-purpose laws and regulations that could be developed afresh, but based on global experience. The Policy could set out an overall vision concerning the mining sector, including sustainability and benefit sharing. It could clarify respective national, region/state, local and where relevant, EAO powers and responsibilities. It could also address many of the above problems identified concerning economic and political governance.

**Box 11: Mineral Resources Policies**

Countries with significant extractives industries often develop Mineral Resource policies. Their aim varies from country to country but generally they are used to address the challenges and opportunities that are being faced by the sector, to start a conversation with stakeholders, and to provide an explanation of the role of natural or mineral resources within the country and the legislative system. They are often written after an extensive consultation period, involving a wide range of stakeholders. The main topics that they cover include governance, business climate, rules/legislation, ownership, management, mine/mineral development and the environment. Country examples include the Minerals and Metals Policy of the Government of Canada,\(^{245}\) the Minerals and Mining Policy for South Africa\(^ {246}\) and more recently, the 2017 Solomon Islands National Minerals Policy.\(^{247}\)

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\(^{243}\) EIA reports, on file with MCRB
\(^{244}\) MCRB contacts with various stakeholders
\(^{245}\) A Mineral and Mining Policy for South Africa
\(^{246}\) The Minerals and Metals Policy of the Government of Canada
\(^{247}\) Draft available [here](#), Final version with MCRB
C. Sector-Wide Environmental, Social and Human Rights Impacts

The environmental, social and human rights impacts associated with limestone, gold and tin mining in Myanmar are outlined in detail in Part 5: Cumulative and Project-level Impacts. Such impacts are inextricably linked to economic and governance impacts at the sector-level as outlined above, for example, how revenue generation from mining and provision of essential services or formalisation of subsistence mining activities address the working conditions of subsistence miners. However, there are a number of topics with regard to environmental, social and human rights impacts that warrant attention at the sector-level. These include environmental and social impact assessment and management; OSH; community development and creating shared value; land and water management; mercury reduction; and site rehabilitation and mine closure. Each of these themes is outlined below, and cross-reference to the relevant cumulative and project-level impacts chapters.

Environmental and social impact assessment and management

The 2015 EIA Procedure (See Part 3: Legal and Policy Framework) is an important step towards improving environmental and social impact management in the mining sector. However, if the Procedure and EIA practices are to make a real contribution in terms of avoiding and addressing adverse impacts, current shortcomings need to be addressed, including:

- **Strengthening EIA and EMP focus on social and human rights issues:** Although social/socio-economic impacts are explicitly included in the EIA process, almost all EIAs and EMPs seen by MCRB ignore the EIA Procedure requirement to include a review of socio-economic impacts, including socio-economic and population baseline studies.\(^{248}\)

- **Backlog of unassessed reports with ECD:** The capacity of ECD to review and approve project IEEs and EIAs is limited. A system for issuing ECCs was still not in place as of end 2017, and there was a large backlog of unreviewed, and mostly substandard, EIAs and EMPs in ECD. Existing mine projects have also been instructed to submit an EMP. These accounted for 1693 of the 2341 EIA/IEE/EMP submitted to ECD as of 31 May 2017 (the number has since risen).\(^{249}\)

- **Non-compliance with legal requirements to make IEE/EIA publicly available:** There is also no digitalised or public database to enable both ECD and other stakeholders to track progress and obtain information and reports. ECD’s limited capacity means that it is non-compliant with its own legal requirements to ensure disclosure after submission of the draft EIA/IEE and it is not enforcing the requirement on project proponents to do so. To make public participation and scrutiny possible, it is essential that such non-compliances are addressed.

- **Unprofessional practices by EIA practitioners:** A survey of a sample of mining sector EIAs reveal that EIAs by both Myanmar and foreign consultants use unprofessional practices. This includes copy-pasting from reports clearly written for other jurisdictions, evident because they leave country and region names of other countries interspersed with reference to Myanmar’s geography, and instances of copy-pasting and sharing of ‘EIA reports’ among small-scale mine operators in certain

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\(^{248}\) MCRB field research, 2016

\(^{249}\) Presentation by ECD to the Environment Sector Working Group, June 2017, on file with MCRB
regions. ECD has yet to enforce any penalties for the submission of identical copies of reports.250

- **EIA requirements are misaligned with the licence types in the Mines Rules:** The current Annex I of the EIA Procedure (Table 4) sets out which mining projects require an IEE or EIA, although an EIA requirement can also be applied to a smaller project by virtue of it being located in an environmentally sensitive area (Art 25). The size thresholds for mining were hotly debated in 2015 by the respective Ministries (at that time, separate). Definitions of small, medium and large-scale in the 2018 Mines Rules (Table 2) are inconsistent with size thresholds and definitions in the EIA Procedure. The requirements for IEE/EMP/EIA in the 2018 Mines Rules are also inconsistent (Table 3).

- **Amendments are needed to ensure that the level of environmental and social due diligence required for different types and sizes of mines reflects their anticipated adverse impacts.** For example, an IEE/EIA process for subsistence or small-scale mining activities is not viable. The sizes and requirements need to be aligned, bearing in mind that the licence sizes in the Rules are themselves not in line with international standards and should be amended (see above).

- **The EIA Procedure is misaligned with the project cycle and anticipated impacts:** In its Annex I, it is not clear whether IEE or EIA are required for prospecting and exploration activities, unlike for oil and gas where separate requirements are identified for distinct activities (e.g. seismic). Again, amendments are needed to ensure that the level of environmental and social due diligence reflect the impacts of the phase. For example, prospecting is low impact, takes place over a wide area, and can be regulated for OSH, environmental and social impacts through directives issues under the Mines Law. These standard requirements should be agreed with relevant departments such as ECD/MoNREC and the Labour Ministry. State/region governments may wish to add additional standard requirements to reflect local context. A decision is needed from MoNREC on whether an IEE (or even EIA) is needed for the exploration phase.

Positive signs of remedial action by regulatory authorities for existing environmental harms emerged after the new Government came to power in 2016. Several mines were suspended for past cases of serious environmental damage and malpractice. It has been reported that ECD will evaluate whether mine permits should be renewed after considering the environmental track record of individual companies, although the thousands of EMPs which have been submitted for this will not provide adequate information without field visits.251 MCRB field research indicated that regional MoNREC representatives are collecting baseline environmental data in several states and regions. Once completed, this data may be used as a baseline for scrutiny of the project proponent’s EMP and related efforts, to feed into the mine permit renewal process.

More generally, the licence renewals process should consider the operator’s record of remediating historical impacts, including damages by previous permit-holders in cases where permit rights have been transferred to a new permit-holder.

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250 MCRB interviews, 2016; MCRB field research, 2016
251 Myanmar Times, Two controversial tin mines suspended in southern Myanmar, 21 July 2016
Occupational safety and health

As outlined in Part 5.4: Labour, there are significant health and safety concerns in both formal and informal parts of the sector. At most operations, there are no health and safety procedures or incident reporting systems in place, workers have inadequate personal protective equipment (PPE), and there is no health and safety training in place. It is important that OSH requirements, whether through the 2018 Mines Rules, Sectoral Regulations under the OSH Law or other requirements are consistent and coherent, and clearly communicated in writing to permit-holders, and enforced. As part of this it will also be important to further clarify the respective responsibilities of MoNREC and the Labour Department in monitoring OSH (see above).

As documented by MCRB field research (and elaborated in Part 5.4: Labour) the majority of workers in the Myanmar mining industry lack formal working arrangements and operate as casual and daily works. This has important implications for individuals and communities as it significantly reduces the ability of individuals to claim their labour rights. Formalisation of subsistence and small-scale mining may encourage the organisation of trade unions, workers associations or cooperatives which could enhance the protection of workers’ rights. It should also include education for workers about OSH and other labour issues, and could contribute to addressing child labour. However, experiences of formalisation elsewhere show that such a process does not necessarily lead to improved working conditions for informal workers in subsistence mining. It needs to take into account existing organisational arrangements so that those most at risk benefit from it.252

Community development and creating shared value

Contractual terms (e.g. in PSCs) may or may not require mining companies to make financial contributions to community development projects in the local areas in which their mining projects are located, or to spend a certain amount on ‘CSR’ (sic).253

Corporate social responsibility (CSR) is a constantly evolving term, with different meanings to different stakeholders. Because of this, many mining stakeholders are now choosing to use the term ‘creating shared value’ (CSV). Box 12 gives more background.254 MCRB has developed a training exercise for workshops with government, companies and communities to encourage analysis of whether company spending which loosely termed ‘CSR’ is in fact a cost to meet a legal obligation (e.g. safety or environmental protection), a philanthropic donation, a CSV-type investment with benefits for both the business and the local community, or a form of corruption (see Figure 4).

CSV goes beyond compliance with legal and regulatory requirements, as well as the traditional philanthropic and spending based models of CSR. Instead, the central premise behind CSV is that the competitiveness of a company and the prosperity of the communities around it are mutually dependent. Taking a CSV approach can help to ensure that any initiatives taken benefit both the community and the company – i.e. benefit sharing – by

responding directly to local needs and priorities. As such, they tend to be more sustained by the company, as they contribute to the bottom line.

MCRB fieldwork found some examples of mining companies making financial contributions to community development projects or activities (see further, Part 5.2: Community Impacts and Development). However, beyond ad hoc donations to schools or monasteries, there was little evidence of companies creating shared value by implementing significant community development projects, building shared infrastructure, developing local content, and so forth. Furthermore, companies were found in SWIA research to be using ‘CSR budgets’ to pay for local village head approval or other purposes.

**Figure 4: The Spectrum of Corporate Social Responsibility (CSR)**

**Community Development Agreements**

In many mining jurisdictions, CDAs between communities and companies are becoming more common as one way of facilitating CSV or benefit sharing. In some jurisdictions such agreements are even a legal requirement as part of granting mineral rights. Such agreements (sometimes also called ‘impact and benefit agreements’, or ‘land use agreements’ in the context of indigenous communities) constitute at least moral, and in some cases legal, agreements between companies and communities. They can govern issues such as community development projects and initiatives, shared infrastructure, land use and access, grievance resolution, and numerous other topics.

To date there are no formal CDAs in Myanmar, although a few companies in the oil and gas sector have taken a more consultative approach to their community investment. However, the Mines Rules contain requirements in Rule 51c (large-scale), 67c (medium-scale) and 85c (small-scale) for the company to submit at the time of its application for a Production Permit the evidence that it has negotiated with local communities about local social benefits, and obtained their agreement.

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Box 12: Corporate Social Responsibility (CSR) & Creating Shared Value (CSV)

The definition and understanding of CSR is evolving globally. There is an active debate about what CSR is, and its role in enhancing reputation, reducing stakeholder risk by building a ‘social licence to operate’, and delivering benefits to local stakeholders. There is also a discussion about whether and how CSR creates value for shareholders and other stakeholders.

Some – particularly in Asia – approach CSR as corporate philanthropy, often unconnected to core business. This can include the business establishing a grant-giving foundation, or employee volunteering. Some now characterise this as ‘CSR 1.0’, which has been described as “a vehicle for companies to establish relationships with communities, channel philanthropic contributions and manage their image.”

The concept has evolved in the last decade into what is sometimes referred to as ‘CSR 2.0’. The European Union in 2011 defined CSR as “the responsibility of enterprises for their impacts on society”. This positions CSR as a strategy integrated into all functions of a company, which can create and protect value for both the company and society. Under this wider approach, CSR can incorporate responsible business conduct (RBC), including legal compliance, as well as internal company policies and codes of conduct which go beyond the law. This model of CSR can include the development of business strategies and investments that contribute to ‘the bottom line’ as well as responding to social needs.

Because of the confusion surrounding the definition of CSR, many global mining companies now avoid the term. Instead, they use terms such as ‘responsible business’, ‘social performance’, ‘strategic community investment’, ‘corporate citizenship’, ‘sustainability’ or ‘creating shared value (CSV)’.

The CSV framework goes beyond legal compliance, and beyond traditional philanthropic and spending-based models of CSR. CSV strategies are tied to business activity and engage the scale and innovation of companies. They foster relationships between businesses, development organisations, philanthropists and governments to address societal problems.

Companies can create shared value by creating societal value in their value chain or products. Mining companies looking to create shared value particularly focus on developing smaller local businesses as suppliers (sometimes also called ‘developing business linkages’ or ‘local content’). This serves to keep jobs and investment and business relationships local to the community, and benefit those who may otherwise feel only the negative impacts of investment, particularly in the extractives sector.

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257 European Commission, *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee for the Region – A renewed EU Strategy 2011-2014 for Corporate Social Responsibility*, 2011, p. 3
This could provide a basis for a more formal CDA, particularly for large, long-term mines, although, as they tend to take a year or more to negotiate, it is not practical for small-scale mines to go down the CDA route. CDAs can provide a viable and direct avenue for communities to assert their needs. However, it is important that CDAs do not absolve the government of its duties to deliver essential services and development opportunities for local and remote communities impacted by mining activities. As such, the agreements and the structure of their terms should be carefully considered by all stakeholders to ensure that they facilitate genuine benefit sharing for local rights-holders. Also, any community development activities should be aligned with local and national development priorities and sustainable in the long-term.

Companies should above all focus on avoiding and addressing their own adverse impacts, and incorporating their commitments to do so in EIAs and EMPs. This is a legal compliance requirement under the Environmental Conservation Law. However, where they do ‘go beyond’ and contribute to community development projects and initiatives, it is important that they ‘do no harm’. Their community investment should respect the environment and human rights, respond to the actual needs of local communities, including those individuals who may be marginalised and at risk, and not contribute to corruption.

**Land and water management**

The regulatory framework governing land and water use for the mining industry in Myanmar is inadequate in scope, not consistently applied and undermined by a lack of Government oversight. There is no central land register or mineral rights cadaster, and many people do not hold formal deeds reflecting their land rights. MCRB field research found land related issues in almost all locations visited, ranging from land seizure, farmers being criminalised for land use adjacent to company concessions, mine waste polluting farm and grazing lands, and a lack of adequate compensation for company and government infringements on community land rights.258 See further, Part 5.3: Land.

Similarly, issues related to company water usage and pollution were observed by MCRB at the vast majority of mine sites visited. In addition, companies failing to pay what water tax they were obliged to pay emerged as a recurring problem. Communities living near mine sites in several locations experienced illness and decreasing crop yield, which was thought to be a result of water contamination caused by company activities. However, the provision of treatment, water purification and appropriate remedial action is complicated by the lack of clear data indicating the exact scale and nature of such issues. See further, Part 5.7: Environment and Ecosystem Services. These findings indicate a strong need for land and water management to be addressed at the sector-level, for example, through reforming land laws, developing stricter requirements regarding company water use and supply, and building government capacity for mine inspections and enforcement.

**Reducing and eliminating mercury use**

Based on MCRB field findings, subsistence gold mining and the use of mercury is largely driven by poverty and a lack of access to alternative livelihoods, but may also be undertaken

258 MCRB field research, 2016.
as a ‘lucrative entrepreneurial activity’ in some areas.  Miners in some regions visited were more aware of the environmental and health impacts related to the use of mercury than in others. However, in general, there was very limited knowledge about the impacts of mercury on people and the environment, on how to use mercury more safely, or on how to maximise gold yields, for example by the use of retorts.

Mercury is currently regulated as one of 29 Restricted Chemicals under section 5, subsection (h) of Prevention of Hazard from Chemical and Related Substances Law. There have been previous Notifications banning its usage, but even during those times, it remained readily available in subsistence mining communities. Industry sources interviewed by MCRB have speculated that the most recent ban on mercury was intended more to limit unlicensed subsistence gold mining than out of concern for the environmental and health impacts its use may cause.

The impacts of mercury use in gold mining observed during MCRB field research and by independent observers, such as Myanmar civil society researchers, are numerous and serious. Its effects on the natural environment and community access to ecosystem services are elaborated on in Part 5.7: Environment and Ecosystem Services. Part Chapter 5.4: Labour, deals further with the impacts of mercury use on the health of miners and community members. The release of mercury into the natural environment is cumulative and so the impact worsens exponentially, the longer mercury usage goes unchecked in the formal as well as informal sector. Mercury and cyanide-free gold processing methods are practiced by some miners in countries such as Mongolia, the Philippines and Colombia and such practices may provide guidance for Myanmar should it take steps to work towards reducing and eliminating mercury use.

Site rehabilitation and mine closure

Practices regarding site rehabilitation and mine closure were found to be particularly poor. MCRB field research found that authorities were confused about where the responsibility for site rehabilitation and mine closure lies, with industry stakeholders still often believing that they are not in practice legally and financially liable for sustainable mine closure.

The 2015 amendments to the Mines Law introduced a new requirement for the permit-holder to establish a Mine Closure Fund and these are elaborated on in the Rules. However, several influential industry stakeholders interviewed expressed the view that this was not necessary for their operations (and expressed similar views concerning community consent). MCRB field researchers did not find that mining companies have started to establish closure funds (although the Letpadaung copper mine which was not visited is apparently required to do so under its revised PSC).

259 Thin Zaw and Jenkins Hills, ibid, p. 17
260 MCRB field research, 2016
261 Ministry of Industry, Central Leading Board on Prevention of Hazard from Chemical and Related Substances Notification No: 2/2016 Issuing the List of Restricted Chemical, 30 June 2016
262 MCRB field research, 2016
263 MCRB interview, 2015
264 Thin Zaw and Jenkins Hill, ibid, p. 24
265 Ibid.
266 MCRB field research, 2016.
267 Myanmar Wanbao, Our CSR
The 2018 Mines Rules in Chapter 30 give more detail on obligations around mine closure and rehabilitation of the site to an optimum condition and to address safety issues. The last user of the large-scale mine has a five year monitoring and remediation period of contamination in the area (Rule 185c) with an identical Rule 185d for medium, small and subsistence mines. A contribution to a Mine Closure Fund to be established in a State-owned bank at the rate of at least 2% of the investment amount is required throughout the mine life, with a contribution of at least 2% of the value of metals mined during the mine’s operation (Rule 185e).

Rule 186 also requires large and medium-sized mines to undertake responsibility for mine clean-up and may only commence mining after they deposit a bond or guarantee. They must also provide a Mine Closure Plan within 90 days of commencement of operation, to be drawn up with the involvement of affected communities. This Closure Plan should be reviewed every five years, and approved by the Ministry a year before the end of commercial production, with monitoring reports every three months.

Small-scale and artisanal miners are also required to submit a bond before they can commence mining and have a Mine Closure Plan approved (Rule 187) the only difference being it does not have to be reviewed after five years (since this is longer than a mining licence). After mine closure, the rehabilitation of the area to a usable state will be monitored by a Committee which will include local authorities and local communities (Rule 188). It is too early to say whether these provisions will be implemented, but imposing such a requirement for Mine Closure Plan on subsistence miners appears to be another example of failing to consider formalisation measures that are appropriate to the subsistence sector.