



Sector Wide Impact Assessment of Limestone, Gold and Tin Mining in Myanmar

Myanmar Centre for Responsible Business



Myanmar Centre for
Responsible Business

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All findings and recommendations in this SWIA are the sole responsibility of the partner organisations.

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List of Abbreviations

ADB	Asian Development Bank
ARDS	Acute Respiratory Distress Syndrome
ASEAN	Association of Southeast Asian Nations
ASM	Artisanal and Small-scale Mining
CCCMC	China Chamber of Commerce of Metals Minerals & Chemicals Importers & Exporters
CDA	Community Development Agreement
CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women
CPB	Communist Party of Burma
CRC	Convention on the Rights of the Child
CSO	Civil Society Organisation
CSR	Corporate Social Responsibility
DGSME	Department of Geological Survey and Mineral Exploration
DIHR	Danish Institute for Human Rights
DoM	Department of Mines
EAO	Ethnic Armed Organisation
ECC	Environmental Compliance Certificate
ECD	Environmental Conservation Department
EHS	Environment, Health and Safety
EIA	Environmental Impact Assessment
	Note: This SWIA reflects the preference of ECD by using 'EIA' to refer to what may elsewhere be referred to as ESIA or ESHIA.
EMP	Environmental Management Plan
ESIA	Environmental and Social Impact Assessment
ESHIA	Environmental, Social and Health Impact Assessment
EITI	Extractive Industries Transparency Initiative
ESMP	Environmental and Social Management Plan
EU	European Union
FDI	Foreign Direct Investment
FPIC	Free, Prior, and Informed Consent
GAD	General Administration Department
HRIA	Human Rights Impact Assessment
HSE	Health, Safety and Environment
ICJ	International Commission of Jurists
ICMM	International Council on Mining and Metals
IHRB	Institute for Human Rights and Business
IFC	International Finance Corporation
IEE	Initial Environmental Examination
ILO	International Labour Organisation
KIO	Kachin Independence Organisation
KNSO	Karenni National Solidarity Organisation
KNU	Karen National Union
LGBT	Lesbian, Gay, Bisexual and Trans-gender people
MCRB	Myanmar Centre for Responsible Business
ME-1	Mining Enterprise No.1
ME-2	Mining Enterprise No.2
MEC	Myanmar Economic Corporation
MEITI	Myanmar Extractives Industries Transparency Initiative
ME Observers	Mining Enterprise Production Monitors

MFMA	Myanmar Federation of Mining Associations
MGE	Myanmar Gem Enterprise
MIC	Myanmar Investment Commission
MoD	Ministry of Defence
MoECAF	Ministry of Environmental Conservation and Forestry
MoLIP	Ministry of Labour, Immigration and Population
MoM	Ministry of Mines
MoNREC	Ministry of Natural Resources and Environmental Conservation
MPE	Myanmar Pearl Enterprise
NCA	Nationwide Ceasefire Agreement
NDA-K	New Democratic Army-Kachin
NGO	Non-government organisation
NLD	National League for Democracy
NLUP	National Land Use Policy
OECD	Organisation for Economic Cooperation and Development
OSH	Occupational Safety and Health
PNO	Pa-O National Organisation
PPE	Personal Protective Equipment
PSC	Production Sharing Contract
RBC	Responsible Business Conduct
SOE	State-owned Economic Enterprise
SWIA	Sector Wide Impact Assessment
TB	Tuberculosis
UMEHL	Union of Myanmar Economic Holdings
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNGPs	United Nations Guiding Principles on Business and Human Rights
UWSP	United Wa State Party
VFV	Vacant, Fallow and Virgin Lands
VPSHR	Voluntary Principles on Security and Human Rights
WHO	World Health Organisation
3Ts	Tin, Tantalum and Tungsten

Box 1: Terms used in the report

Formal mining sector

- **Formal operations:** Mines that have been granted a minerals permit from the central Union Government or its representatives will be referred to as **permitted or licensed operations**. According to the Myanmar Mines Law and Rules, permits can be granted for a range of mining activities, including **large-scale, medium-scale** (category introduced in the 2015 Amended Law but not yet defined), **small-scale** or **subsistence** mines.
- **Large-scale mine:** A large-scale mine, permitted according to the Myanmar Mines Law and Rules, is an operation of industrial mineral production with substantial investment, using sophisticated technology and know-how. A **large-scale mine site** connotes the area surrounding a permitted, large-scale industrial mine, including ancillary infrastructure, such as processing facilities or factories, that are on the site. On a large-scale mine site, there might also be several subcontracted, smaller operations. These operations are not licensed for independent mineral production by the central authorities.
- **Small-scale mine:** A small-scale mine, permitted according to the Myanmar Mines Law and Rules, is an operation involving the commercial extraction of minerals, requiring small investments and a comparatively lower possibility of mineral productivity. In practice, some permitted small-scale mines are larger, as sites may consist of several, adjacent small-scale concessions. A 'small-scale mine site' may therefore be larger than the size specified by the above regulations. As with large-scale mine sites, there might also be several subcontracted, smaller operations on a small-scale mine site. These are not permitted for mineral production by the central authorities.

Informal mining sector

- **Informal operations:** Mines which have been granted permissions by an ethnic armed organisation (EAO), or mining activities that take place on land leased by a company but for which the company does not hold a government-issued minerals production permit, are referred to in the SWIA as **informal operations**.
- **Subsistence mine:** According to the 2015 Amended Myanmar Mines Law, a permitted subsistence operation carries out mineral production by using either hand tools or machinery equipment of limited horse power. However, all subsistence mines encountered during SWIA field research operated without a permit and periodically relied on machinery which exceeded the specification. Therefore, subsistence mines are included in the report as part of the informal mining sector.
- **Artisanal and Small-scale Mining (ASM)** is a term frequently used to refer to mining that relies on simple techniques and physical labour, which is often performed without formal mining permits, has a low productivity, lacks safety measures, health or environmental protections, may be practiced seasonally, and is characterised by economic insecurity.
- **Subcontracted mine operation:** On a licensed large- or small-scale mine site, the operation of an adit (an entrance to an underground mine, which is horizontal or nearly horizontal, for the purpose of entering, draining water and ventilating the mine) or pit may be subcontracted out to individuals or smaller companies, called

subcontracted mine operators in this report. Such arrangements most frequently function on the basis of production sharing between the permit-holder and the subcontractor. The subcontractor has to respect the rules set by the permit-holder.

- **Subsistence mining area:** Where many very small mines operating at subsistence-level with limited investment are clustered close together geographically, it is referred to in this report as a **subsistence mining area**. Such areas were frequently found to include informal small-scale and subsistence mines, miners working on waste piles, cooperatives of panners and, in some areas, small-scale mines that had been granted permissions to mine by a local EAO. An alluvial or hard rock **subsistence mine site** is usually structured around a '**pit owner**' who has established control of a small area, often by having raised the capital to invest in machinery.

Workers

- **Workers:** Workers in the **formal mining sector** include **employees** who are directly employed by the licensed operator. These workers usually, but not always, have a formal, written employment contract and a fixed monthly wage. Such operations may also employ **contract labour**, workers contracted by a third-party to work for the main company, as well as **daily workers or casual workers** who are employed on a day-by-day basis, subject to availability of work. Such workers are paid only for the days they work and the pay may vary according to the type of work carried out on a particular day. Subcontracted mine operations also employ daily workers. Individuals and groups, sometimes family units, may also pay a fee to a permit-holder to pan or sort through mine waste on the permit-holder's concession and usually have to share their production with the permit-holder. These workers are referred to as **subsistence miners**.
- On subsistence mine sites, usually the pit owner operates the pit helped by workers employed on a daily basis or a production sharing basis. On gold mine sites, there may also be panners. **Panners** are more often self-employed and many adult gold panners work in groups of three to five, splitting their production evenly.

NB: The definitions and examples given above are based on practices observed during field research carried out by MCRB from December 2015 to May 2016 and as they relate to the production of limestone, gold and tin. It is to be expected that there are several other operational arrangements used in Myanmar's mining industry, not least in the large informal sector.

Executive Summary

This sector-wide impact assessment (SWIA) on limestone, gold and tin mining in Myanmar analyses the impacts of mining of these commodities on the environment, local communities and workers. It covers sector-wide, cumulative and project-level impacts, looking at both the formal and informal parts of the sector. Recommendations are made to the Myanmar Government, businesses, civil society, ethnic armed organisations and other governments on how adverse impacts of the mining sector can be avoided and addressed, and how positive impacts can be maximised. By outlining key findings from the extensive fieldwork undertaken for the assessment and making concrete recommendations, the assessment seeks to contribute to building a platform for dialogue about how Myanmar's mining sector can be shaped to contribute to poverty reduction and development.

Myanmar's national territory contains extensive mineral wealth with proven reserves spanning industrial minerals and stones, heavy metals, jade and gemstones, and energy sources such as coal and uranium. Although minerals have long been exploited in Myanmar, much of the country's geology remains unknown. The sector is characterised by limited access to modern technology and financial investment, with most investment being by Myanmar companies, some in collaboration with cross-border investors, and much of it informal and unlicensed.

Overall, the SWIA research found few environmental, social and human rights protections in the mining sector and widespread poor practices. Even at larger established mines, very few good practice examples could be identified. Extensive adverse impacts on the environment and human rights were documented throughout the country and across different types of mining activities. This reality has led to the poor public perception of mining in Myanmar. It means that if the mining sector in Myanmar is to be developed to make a positive contribution to the country's development, significant steps will need to be taken by the Government, businesses and civil society, to address current adverse impacts and work towards the implementation of good practices. Five main challenges that need addressing are identified below.

The SWIA focuses on limestone, gold and tin in the exploration and exploitation phases of the mineral value chain. These commodities were selected because, whilst the majority of Myanmar's mining revenue continues to come from jade and gemstone extraction, other commodities are increasingly being developed. Furthermore, the environmental and human rights impacts of jade and gemstone mining have received significant attention, both nationally and internationally, whereas the impacts of other mineral commodities have not been subject to the same level of scrutiny.

For all three commodities, the SWIA considers impacts associated with the formal (including formally permitted large- and small-scale mines) as well as informal (including informal subsistence mining) parts of the sector, as well as the interaction between these. While there is no reliable data on the scale of the informal sector, MCRB field research and other sources indicate that the informal sector comprises a large component of the mining sector

for these three commodities. The role of the informal sector, as well as the potential for its increased formalisation, therefore comprise important discussion points in the SWIA and future dialogue and action on the Myanmar mining industry.

A SWIA goes beyond a particular project to assess the impacts of a sector at three-levels: **project-level, cumulative and sector-wide**. This means that the mining SWIA addresses the impacts of mining operations and activities on workers and communities, as well as the impacts of the sector as a whole, on the enjoyment of human rights in Myanmar. The methodology draws on established environmental and social impact assessment (ESIA) methodologies, international human rights and labour standards, and key international frameworks such as the United Nations Guiding Principles on Business and Human Rights. The research conducted for the SWIA was both desk- and field-based, carried out over a 12 month period and including interviews with 1378 persons at 41 sites in 8 areas, and two public consultations in Yangon. The field-based research included interviews with the full range of relevant stakeholders, including Government, businesses, employees and casual workers, local communities, civil society and others.

Five main challenges for achieving responsible mining in Myanmar

1. Policies, laws and regulations relevant to mining activities lack clarity and inhibit responsible investment

In the current process of regulatory reform, the legal landscape is changing rapidly, including for mining. This has created a number of associated uncertainties. New laws and regulations are not always consistent: there is a lack of alignment between different applicable laws, and sometimes even contradictions or conflicting requirements. For example, the fieldwork found inconsistencies between the Union-level requirements outlined in the 2012 Environmental Conservation Law and permissions issued at state/region-level regarding permissible distance of mining activities from water sources. There is also lack of consistency between the Mining Rules and the EIA Procedure.

Furthermore, current laws and regulation are unclear regarding the attribution of responsibilities for oversight of mining projects. For example, it is unclear which government authorities are responsible for monitoring and oversight of environmental, health and safety and labour conditions in mining operations. Such gaps and inconsistencies are problematic for government oversight bodies. They are also problematic for companies, which may be undertaking activities in a manner that is legal according to one set of rules or regulations but not another.

The field research also found that there is a lack of guidance from the Ministry of Natural Resources and Environmental Conservation (MoNREC) on what precisely is required of mine operators. In the absence of clear guidance it is difficult, if not impossible, for state/region-level and township-level administrators, as well as companies, to have certainty regarding the standards to be applied in mining operations. A number of – apparently unnecessary – township-level requirements applied to mining companies, particularly at the exploration stage – were identified during the field research that seemed to have no basis in Union-level law or regulation. High level officials in some sub-national

states and regions are blocking permitting without either the formal powers or a clear reason for doing so. In some cases this appears to be attributed to a fear of allowing any mining, given the experiences of the past, or taking responsibility for permitting.

While somewhat understandable in view of the extensive negative impacts of mining in Myanmar documented in this report, this creates uncertainty for operators. That includes foreign companies who previously avoided Myanmar and whom the sector needs to import best practices and raise standards in the sector. Mining companies need clarity and certainty regarding the legal and regulatory requirements to be able to implement operations in a manner that is environmentally and socially sound, and financially viable. The lack of clarity about government policy and approval procedures creates high levels of inconsistency between different states/regions and townships as well as administrative costs, and corruption risk. Permitting processes cannot be planned for by companies or effectively tracked by Union-level mine administrators.

Overall, legal and regulatory uncertainties deter responsible investment and sustainable mining practices, and this is clearly happening in Myanmar. In view of the fundamental weakness of the 2015 Law, which then flow through to the Rules, a fundamental rethink is needed, starting from the adoption of a national Mineral Resources Policy. This should lead to the drafting of new Mining Law that leaves behind the approach of the 1994 and 2015 versions, based on modern model laws which already exist. This is necessary if Myanmar wants to attract responsible mining investment and address past problems.

In the meantime, the Government needs to take urgent steps towards aligning the laws and regulations applicable to mining operations, and clearly communicate requirements to state/region- and township-level authorities, as well as mine operators, including prospective investors.

2. The capacity of government and business actors to monitor and address environmental, social and human rights impacts of mining is limited

Both the Government and companies were found to lack the technical capacity and human resources to effectively monitor and address the adverse impacts of mining projects and activities. This included:

- capacity gaps in terms of technical knowledge of Government and company staff responsible for monitoring and addressing impacts;
- under-staffing of these functions;
- lack of necessary equipment to conduct effective monitoring; and
- lack of effective management systems in place for recording, tracking and responding to information.

For example, none of the companies visited as part of the SWIA field research had a community relations function, systematic management systems for health and safety incident reporting, or environmental monitoring strategies and practices. At government level, capacity limitations in terms of monitoring mining operations and impacts were exacerbated by the lack of clarity around responsibilities for monitoring of specific aspects (i.e. environmental, health and safety, labour standards). Absence of effective monitoring was found to be exacerbated in the informal parts of the mining sector, where such

monitoring was essentially completely absent; as well as in those operations and mining areas in locations controlled by ethnic armed organisations (EAOs). While EAOs were found to be extensively involved in mining operations and activities in terms of exercising control over production and associated financial arrangements, only very limited examples were identified where EAO involvement also encompassed setting environmental, social and human rights standards for mining activities and subsequent monitoring of their implementation and impacts.

The EIA process and the limited capacity of EIA providers was also identified as a critical issue. Both the EIA reports reviewed as part of the SWIA as well as the field research on the processes carried out to generate such reports found significant shortcomings by local EIA consultants. In particular, the coverage of 'social' aspects in EIAs, as opposed to 'environmental' aspects, was extremely weak, despite the inclusion of social impacts being a clear requirement in the 2015 EIA Procedure. The consultation and engagement processes carried out as part of EIAs to date evidenced several limitations, such as information being provided being too technical for participants to understand and/or consultations not being carried out in local language(s). If EIAs and associated management plans are to make a meaningful contribution to addressing the adverse impacts of mining activities, the current weakness of EIAs, particularly by local providers, must be addressed. Building the capacity of local EIA providers and government officials in charge of assessing EIAs and associated management plans is a priority area for development partner support.

3. The environmental, social and human rights costs of mining are externalised on local communities

There is a cost to mitigating the inevitable adverse environmental and social impacts of mining. However even in the formal parts of the limestone, gold and tin mining sector in Myanmar, these costs are not currently borne by mine operators but by local communities and the environment. Nonetheless, formal mining in Myanmar is not particularly profitable particularly when commodity prices are low. Other costs are high such as licence fees, taxes, and dead rent, and administrative costs associated with the bureaucratic and unpredictable licensing process. This is further exacerbated by a multiplicity of informal payments and demands, including in EAO-controlled areas, unpredictable requirements to pay government security forces and one or more local EAOs.

If the Myanmar Government intends further development of the mining sector, it should reconsider how the costs fall on the investor. A rebalancing is needed. This should ensure that mine operators bear the costs for conducting operations in a manner that is environmentally and socially sound and sustainable, and that this requirement is enforced, while at the same time providing a more attractive investment climate by adjusting and streamlining licensing fees, taxes, and other fees. Such an approach may also include recognising that some current mining operations are not commercially viable if they were to be better regulated for their environmental and social impacts. It will also raise questions regarding the viability of the subsistence mining sector, including its potential formalisation (discussed further below). Developing a Mineral Resources Policy that addresses these factors and the wider sustainable development of the mining sector, including benefit sharing, could help rebalance these costs and benefits.

4. Governance of mining in conflict-affected areas is highly problematic

Mining operations and activities in areas controlled by ethnic armed organisations (EAOs), or with strong EAO presence, are poorly governed (see further, Part 5.6: Conflict and Security and Chapter 6). As noted above, operations in these areas are subject to a complex web of formal and informal payments, and corruption. Unsound environmental and human rights practices are common (e.g. use of mercury in subsistence gold mining without any safeguards). EAO governance of operations in these areas was primarily found to focus on production and fiscal arrangements, with little attention paid to environmental and social safeguards. This is despite there being an explicit acknowledgment in the Nationwide Ceasefire Agreement (NCA) that EAOs have responsibility for environmental and social protection in their respective areas.

One concern which has been raised by EAOs and others, but not yet resolved in the peace talks is revenue sharing. Since most impacts associated with mining projects and activities are experienced locally, there is a strong case for more benefits to go to local people. International experience shows mixed results from regional revenue sharing in terms of delivering actual benefits to local people, particularly in contexts where government actors have limited capacity. While arrangements for revenue sharing need to be carefully considered as part of any future federal state, there are other opportunities for benefit sharing and creating shared value which do not require constitutional or legal change. These include community development agreements (CDAs), shared infrastructure or local content and employment requirements. They may be more immediate measures of ensuring that workers and local communities can benefit from mining activities.

5. Extensive informality in the mining sector needs to be addressed

MCRB field research confirmed that much of Myanmar's mining sector operates informally. The informal sector includes subsistence mining activities as well as some larger mines operating in areas partially or entirely controlled by EAOs. Subsistence mining is a source of employment and livelihoods for many communities across Myanmar. However subsistence mining is associated with a range of adverse impacts for workers, communities and the environment, as well as links to conflict and informal payments (see Part 5). The informality also has implications for the Myanmar economy, such as inability to raise revenues and create sound employment opportunities, and has broader governance impacts e.g. lack of oversight, corruption, conflict.

To realise the development potential of the mining sector, efforts to progressively integrate subsistence mining into the overall economy and reduce harmful practices will be critical. While the 2015 amended Myanmar Mines Law acknowledges subsistence mining as a separate category, preliminary study of the proposed 2018 Rules suggests that these are currently burdensome - e.g. a requirement for subsistence miners to undertake an Initial Environmental Examination (IEE) - and it will not be economically viable for subsistence miners to formalise their activities. A separate set of Rules for subsistence mining is advisable.

In designing a vision, policy and rules for the subsistence sector in Myanmar, many stakeholders will need to be brought together, including government authorities at national-

and state/region-level, EAOs, mining companies, and, most importantly workers/communities. Further legalising, and formalising, subsistence mining has the potential to enable better government oversight and taxation; and improve health, safety, security and environmental performance for subsistence miners. But they need economic incentives to formalise. Introducing blanket restrictions on subsistence mining or making it too difficult economically or administratively for subsistence miners to integrate into the formal sector may push the sector into further illegality and harm those who are most vulnerable.

Overview of the SWIA report and main findings

This report starts with a **general overview of the mining sector in Myanmar (Part 2) and the legal and policy framework (Part 3)** that currently applies to the sector. Key legislative developments examined include the 2015 amendments to the Myanmar Mines Law and the proposed Mines Rules of February 2018. The need for further mining-specific legislative developments in the areas of environmental protection (as a supplement to the EIA Procedure) and health and safety are also discussed. In the context of the rapidly changing domestic governance structures, the role of the recently constituted MoNREC as well as other relevant government agencies at the national- and state/region-levels are explained.

Sector-level impacts, such as on **revenues, employment, conflict etc.** are then reviewed (**Part 4**). This includes sector-level **economic impacts** such as those associated with taxation and revenues, production sharing arrangements, benefit sharing between the Union- and state/region-levels, employment and economic opportunities and high level of informality of the mining sector. The SWIA highlights significant obstacles to mining contributing to economic development, linked to tax and revenue accounting, due to factors such as government capacity, conflict and illegal trading in commodities. It discusses the limitations associated with the use of production sharing contracts (PSCs) in the mining context, as opposed to the use of investment agreements and/or a greater reliance on the licensing process and general law. The economic potential of subsistence mining is hampered by the high level of informality. The problems caused by the lack of a modern mining cadaster are highlighted.

The complex topic of benefit sharing between the Union- and region/state-level is contextualised in this chapter. The SWIA field research found few examples of local communities benefiting from mining activities, whether opportunities for local employment and supply chain development (local content) or more formal benefit-sharing arrangements such as those offered through community development agreements (CDAs). The needs of local workers and communities need to be addressed, in terms of employment, infrastructure and service delivery, rather than the ad hoc approach of unclear requirements for 'CSR spending' which was found in some areas. This spending often created further governance problems. Instead, Myanmar should actively encourage companies to 'create shared value' through local content and benefit sharing. This would be in line with global trends in the minerals industry.

Sector-level governance impacts identified include challenges associated with the licensing regime, governance of the mining State-owned Enterprises (SOEs) and military-owned enterprises, and transparency. Whilst there have been some improvements in

recent legislation and regulation in this regard, MCRB research shows that there is still a lack of clarity in the permitting regime, and that the specific challenges faced by subsistence miners within the regime have not been fully addressed. Despite recent MEITI efforts, the role of SOEs in mining remains largely opaque, a challenge to be addressed in the current reform process, given the substantial role that these enterprises play in the mining industry and economy.

Gaps in legal enforcement and mine inspections are also discussed in this chapter. Of the many issues discussed in the SWIA, the absence of effective monitoring of environmental, social and human rights impacts of mining operations is one of the most significant shortcomings. Lack of effective monitoring is due to a range of factors, including:

- lack of clarity in terms of responsibilities for the monitoring of specific issues (e.g. environmental and labour standards)
- lack of coordination between the mining authorities and the environmental regulator
- limited government capacity and budget
- lack of knowledge on the part of companies with regard to new requirements (e.g. requirements for Environmental Management Plans and Mine Closure Plans, and
- Slow start-up of new government monitoring responsibilities (e.g. government committees charged with monitoring of Environmental Management Plans).

Addressing these challenges must be a first order priority for all involved stakeholders, including government, companies and civil society, if the adverse impacts of mining activities are to be avoided and effectively addressed. The chapter concludes with consideration of the specific governance challenges associated with mining activities in EAO-controlled areas.

Lastly, this section analyses **sector-level environmental, social and human rights impacts**. This includes the assessment and management of environmental, social and human rights impacts, community development and creating shared value and occupational health and safety (OSH). Overall, field research observed that companies currently have limited or inadequate systems in place for the systematic management of environmental and social impacts. Whilst impact assessments are increasingly being conducted, they often fall short of expected standards, in particular with regard to community consultation and engagement. Subsequent implementation of mitigation measures is haphazard and not effectively documented, monitored and followed-up. Similarly, spending on community development spending by companies is ad hoc. Priorities are determined by community elites, rather than considering potential alignment with national and local development needs and priorities to ensure sustainability. There is an urgent need to ensure comprehensive and aligned OSH laws and regulations. Lastly, environmental issues associated with land and water, reduction of mercury use, and site rehabilitation and mine closure planning are discussed, noting the need for further action and initiatives to be taken to address these issues at the sector-level.

Following the discussion on sector-level impacts, **cumulative and project-level impacts (Part 5)** are addressed under the seven subheadings: **(5.1) Community Engagement and Grievance Resolution; (5.2) Community Impacts and Development; (5.3) Land; (5.4) Labour; (5.5) Women and Children; (5.6) Conflict and Security; and (5.7) Environment**

and Ecosystem Services. For each of these topics an overview of key issues, legislation and regulation is provided, followed by detailed discussion of the field research findings. Relevant international standards, guidance and initiatives for each topic conclude each chapter.

With regard to **community engagement and grievance mechanisms (5.1)**, field research found that companies currently lack systematic stakeholder consultation and engagement plans and practices. Consultation and engagement undertaken as part of EIA processes often contains significant flaws from a human rights perspective (e.g. information provided is too technical for people to understand, consultation is not conducted in the relevant local languages). Nor is it clear how community views are taken into consideration in project planning and impact management, including consideration of project alternatives. Consultation and engagement beyond EIAs was found to be ad hoc, occurring primarily between community elites and companies on bespoke issues, effectively excluding women and other potentially at-risk stakeholders such as children, young people, the elderly, people with disabilities and ethnic minorities.

No companies visited had an operational-level grievance mechanism in place. Understanding of what grievance mechanisms are and the role they might play was very limited amongst both company and community stakeholders. This is unfortunate given that the field research demonstrated that there are significant grievances associated with current mining projects. These relate to environmental impacts (including flow-on socio-economic impacts on livelihoods, such as where crops and livestock are adversely impacted), impacts on water, and impacts associated with in-migration and migrant workers, and land. Grievances related to land were particularly frequent and severe.

The chapter on **community impacts and development (5.2)** addresses community health and safety, development and employment opportunities, essential services, and cultural heritage. Nearly all communities visited experienced adverse environmental impacts as a result of mining activities. These also had health consequences, for example, soil and water pollution, noise and smells, and fumes and dust from processing sites. A number of accidents (some involving children) were also reported, in particular road accidents or accidents associated with unannounced blasting. This again highlighted limited information sharing on the part of companies, as well as insufficient identification and mitigation of impacts. Public and community services were impacted in different ways. In some instances companies appeared to make positive contributions, for example, by building roads or installing electricity or water infrastructure. However, upon closer examination such actions had sometimes been undertaken as a result of the company overstressing the services in the first place, and were done without effective consultation of local communities. Coordination between companies and local government regarding the provision of particular services in specific locations was often haphazard. Stakeholders lacked clarity on who had responsibilities for providing or monitoring what. Few adverse impacts on tangible cultural heritage were identified. Companies were generally found to be respectful of religious sites and support local religious institutions.

Mining takes place in rural areas, where the majority of households rely on agriculture as their main source of income. Impacts on **land (5.3)** resulting from mining activities was

found to be a critical issue. Despite initial reforms, the legal and policy framework on land remains fragmented, internally inconsistent and incomplete. In the context of mining activities this means people frequently have limited legal ownership or usage rights over the land on which they live, farm or mine and correspondingly weak bargaining positions when confronted with land transfer and transactions. Whilst the 2016 National Land Use Policy is an important step towards addressing uncertainties and lack of clarity relating to land governance and management, it is yet to be comprehensively implemented into law in a manner that protects citizens' land and property rights.

Resettlement was found to be poorly conducted. People had often been given very short notice and to unsuitable sites e.g. land not suitable for similar or better habitation and crop cultivation or too far from essential services. Ad hoc compensation rates did not cover actual costs. The field research also found strong evidence of forced evictions in several instances. Numerous livelihood impacts associated with land were also found. For example, damage to land, crops and water sources essential for agricultural activities were reported at many of the sites visited, in some cases even resulting in people moving and/or becoming daily mine workers as a result of losing their land for livelihood-sustaining agricultural activities. Informal subsistence miners, often internal migrants, were found to be particularly at risk with regard to land-related impacts as they usually had no formal ownership or usage rights over the land on which they lived and mined.

At most sites visited, the **labour (5.4)** conditions of workers were not in line with international labour standards and the local labour laws. In both the formal and informal parts of the mining sector, significant issues were found regarding health and safety. For example, many companies had no, or substandard, health and safety procedures and practices in place, and no formal incident reporting systems or tracking of health and safety incidents and data. Personal protective equipment (PPE) was not provided or used, or was not suitable for the health and safety risks posed. Furthermore, health and safety training and government monitoring and oversight of health and safety standards in mines were found to be very poor. Frequently, employees at formal mine sites did not hold copies of their work contracts. Working terms and conditions in the informal sector were usually based on an oral agreement between the workers and subcontracted mine owners. Union representation was found at only one of the sites visited, with no alternative forms of worker representation or grievance mechanisms observed at the vast majority of sites. In terms of discrimination and harassment, it was observed that women were significantly under-represented in the formal mining sector workforce (which is not uncommon in the mining industry globally but nevertheless indicates systemic discrimination) and usually worked in job types that were remunerated at a lower rate. Child labour was observed in most informal mining areas, and was reported to have occurred at some of the formal mine sites as well.

Women and children (5.5) were found to experience specific adverse impacts related to mining activities, as well as bearing a disproportionate burden of adverse impacts in some cases. As flagged above, the field research found that women and men engaged in different types of mining activities, experiencing a difference in pay. Overall, women were more predominantly engaged in mine processing and ancillary roles that receive lower pay than work in ore extraction, which is predominantly carried out by men. Women were also over-represented in the informal sector and/or working as daily workers, rather than working in

formal employment in mines. In addition to the insecurity associated with working in these parts of the industry, the field research observed that the types of work women were engaged in experienced higher exposure to mercury and other processing chemicals. At one site panning and mercury use was described as ‘a woman’s job’, and mercury processing usually occurred inside homes. As noted above, child labour was a critical issue in subsistence mining, with children sometimes as young as six or seven years old involved. In addition, children were found particularly at risk where accidents on and near mine sites were concerned (e.g. a child reportedly drowned while swimming in the ponds created by topsoil removal). Education was adversely impacted by mining activities in different ways, for example, physical access to education being limited as a result of mining-related resettlement, or disturbances caused by noise and dust during school hours. In subsistence mining areas it was also reported that some parents deprioritised school attendance to have their children work with them in mining, as they perceived that there were no alternative future opportunities for their children.

Community insecurity near mine sites was one aspect examined under the topic of **conflict and security (5.6)**. According to MCRB field research, more than half of the sites visited were either entirely or partially controlled by ethnic armed organisations (EAOs) and/or had substantial military presence in the form of military-affiliated companies. This created fear amongst local communities and reinforced a culture of company-armed group alliances where villagers were hesitant to voice dissent for fear of reprisal. MCRB field research also included visits to several areas plagued by high levels of drug abuse (most prevalent in subsistence gold mining areas), which community members reported to be linked to elevated levels of insecurity and crime. Subsistence mining areas also faced specific issues relating to security and conflict. For example, subsistence miners were found to be subjected to unofficial taxes, charged by both government and EAO representatives, and raids confiscating their tools. Instances of conflict between subsistence miners and formal operations were also reported, often relating to the arrangements made between subsistence miners and formal miners regarding their production sharing arrangement in return for ‘permission’ for the subsistence miners to extract on the larger concession. Limited planning and professionalisation of the security function within formal and larger companies was consistently observed, both relating to the engagement of private security guards, as well as arrangements between companies and public security forces for security provision at mine sites.

Regarding **environment and ecosystem services (5.7)** inappropriate water and waste management, land degradation and lack of site rehabilitation and mine closure policies were critical issues identified through the field research. At numerous sites chemical waste and industrial effluents were discharged into waterways untreated, causing damage to rivers and groundwater systems and aquatic life. Both permitted and informal mining activities were also found to be operating in and near waterways, basins and rivers, some clearly in breach of the legally stipulated distance requirements. Subsistence mining activities were also found occurring directly in creeks and waterways. Waste management, including of tailings, was an issue at most sites, including accidents resulting from the malfunction of tailings storage facilities. Soil erosion and pollution was widespread causing adverse impacts on farmland with flow-on effects on livestock and people’s livelihoods. Topsoil management practices were essentially non-existent, with most companies stripping and

not saving topsoil and undertaking no activities to rehabilitate land. While some efforts were reported on behalf of local government agencies to compel companies to implement better practices, companies were of the view that site rehabilitation did not fall within their ambit of responsibility. None of the sites visited had adequate rehabilitation plans in place for mine closure, despite this being a new legal requirement.

A final chapter (**Part 6**) discusses **legacy and current conflicts and state-building** in Myanmar, with an emphasis on natural resources as a driver of conflicts. This section looks at armed group involvement in mineral extraction. It focusses on Kachin State, the Wa and Pa-O Self-Administered Areas in Shan State and the conflict dynamics and EAO involvement in the minerals sector in Southeast Myanmar, namely Kayah, Kayin, Mon and Tanintharyi states and region. MCRB field research carried out in 2016 visited all of these conflict-affected regions, with the exception of Mon State and the Wa SAR. This **region-specific governance and conflict analysis** aims to contextualise the specific field findings relating to conflict and insecurity by situating these within a wider historical and political perspective.

The report concludes with **Recommendations to Government, businesses, ethnic armed organisations (EAOs), civil society and other international actors (Part 7)**. These are summarised on the next page.

Recommendations to the Government of Myanmar

1. Adopt a National Mineral Resources Policy; use it as the basis for new mining legislation, and for ensuring Myanmar's mineral resources benefit local people and do not drive continued conflict
2. Simplify and align mining, investment, environmental and safety permitting, and the legislation which underpins it
3. Address gaps and inconsistencies in environmental and social safeguards for mining
4. Improve enforcement of laws and permit obligations
5. Strengthen processes for judicial and non-judicial remedy
6. Enhance public participation and transparency
7. Take steps towards formalising subsistence mining and reducing harmful practices

Recommendations to Companies in the Mining Sector

1. Commit to applying international standards of responsible business conduct
2. Implement human rights due diligence
3. Identify and mitigate adverse impacts
4. Implement heightened due diligence in conflict-affected areas
5. Establish an operational-level grievance mechanism for each mine
6. Engage with stakeholders, particularly workers and communities
7. Develop local content, supply chains and community capacity
8. Support the formalisation of informal and subsistence mining
9. Take collective action to improve responsible mining practices

Recommendations to Ethnic Armed Organisations

1. Develop EAO approaches to mining policy and permitting
2. Improve governance of, and standards at, EAO-permitted mining operations
3. Protect the rights of communities affected by mining

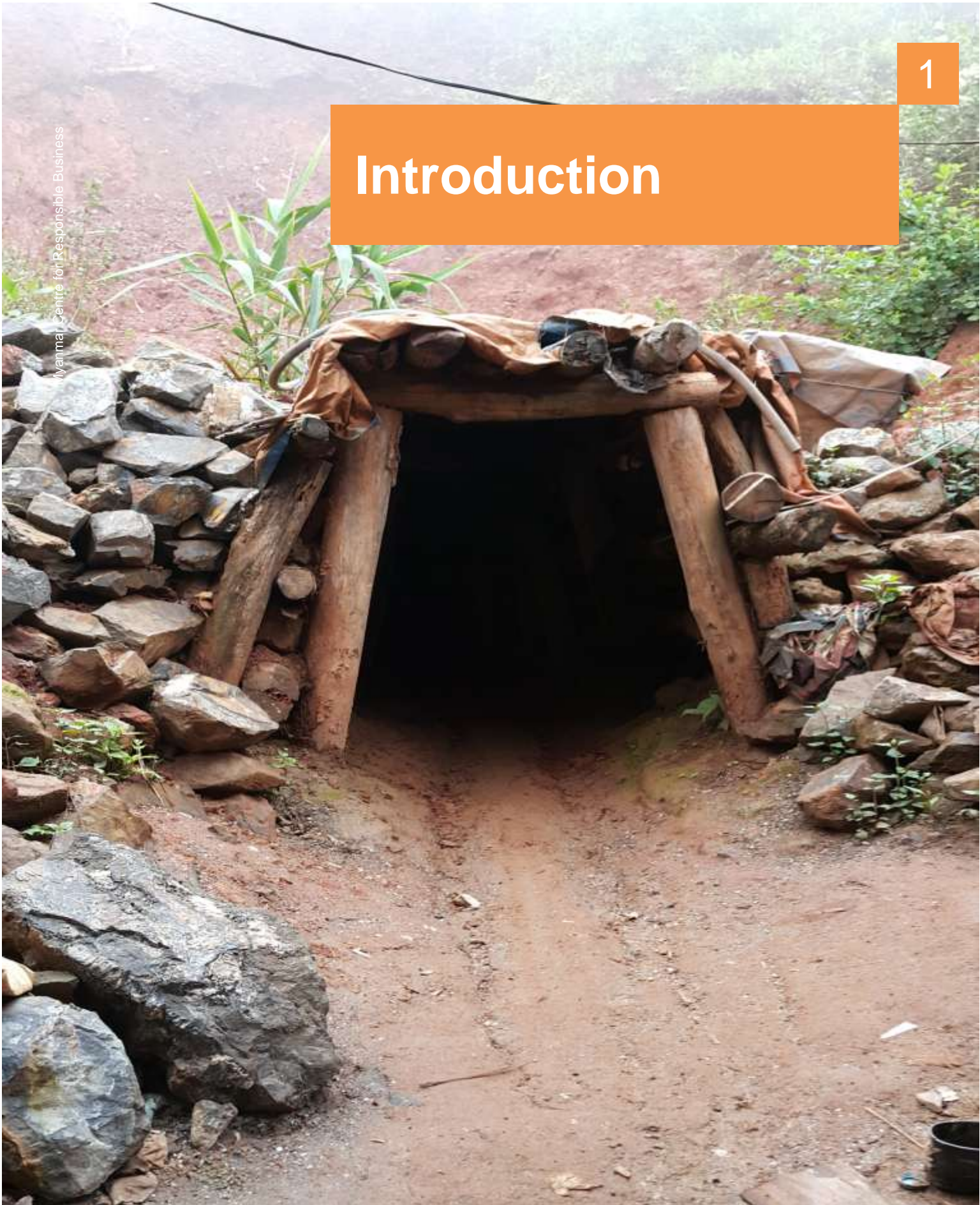
Recommendations to Civil Society Organisations

1. Support local communities impacted by mining so that negative impacts are prevented or mitigated, and they obtain remedy
2. Advocate for relevant legal and policy reforms
3. Participate in multi-stakeholder initiatives and make use of the data and dialogue opportunities they offer

Recommendations to Development Partners

1. Provide technical assistance to strengthen environmental and social safeguards in mining
2. Provide technical assistance to formalise subsistence mining
3. Support EAOs to address impacts of unsustainable mining in conflict-affected areas
4. Encourage foreign investors to invest responsibly in Myanmar

Introduction



Part 1

Introduction

In this section:

- A. Why a Sector-Wide Impact Assessment (SWIA) on Mining in Myanmar
- B. SWIA Objectives
- C. Target Audience
- D. The Reference Framework for the SWIA
- E. Expectations for Responsible Business Conduct in Myanmar
- F. SWIA Methodology
- G. Scope of Commodities: Limestone, Gold and Tin

A. Why a Sector-Wide Impact Assessment (SWIA) on Mining in Myanmar

Myanmar's national territory contains extensive mineral wealth with varied deposits throughout the country. Proven reserves span industrial minerals and stones, heavy metals, jade and gemstones, and energy sources such as coal.¹ However, the sector makes only a limited contribution to Myanmar's GDP. Although minerals have long been exploited in Myanmar, the country's overall geology remains largely unknown and its mining industry is underdeveloped. The sector is characterised by limited use of modern technology and financial investment, with local companies lacking the required capital and expertise. The Myanmar Union Government (the Government) is eager to attract foreign investors to develop this 'last mining frontier'. Myanmar has joined the EITI and is undertaking significant legal reform. In December 2015, the 1994 Myanmar Mines Law was amended² and after significant delay, in February 2018 revised Mining Rules were adopted.

Following Parliamentary elections in 2010 and the start of the reform process, economic sanctions against the country were eased and foreign investment increased. After an early surge, albeit from a very low base, economic growth has slowed to 6.3% but is predicted to stay at over 7% in the period 2018-2020.³ However, following decades of isolation, authoritarian rule, ethnic conflict and economic sanctions, Myanmar – and the mining sector in particular – remains a risky destination for foreign investors. Globally, the fall in mining commodity prices has put the mining industry under pressure and investors are less inclined to develop new projects. No new mining FDI was approved in FY 2016-2017⁴ and it was less than 1% of FDI in 2015-2016⁵. Even investment by Myanmar companies, as approved by Myanmar Investment Commission, has been only 1% of total investment in recent years⁶.

¹ Oxford Business Group, [Myanmar's holds a diverse mix of mineral resources](#), 2016

² Valentis Resources, [2015 amended Myanmar Mines Law \[unofficial translation/comparison\]](#), 27 Jan 2016.

³ www.tradingeconomics.com/myanmar/forecast

⁴ [Commit and act approach expected among investors](#), Myanmar Times, 28 April 2017

⁵ https://www.dica.gov.mm/sites/dica.gov.mm/files/document-files/fdi_yearly_by_sector.pdf

⁶ https://www.dica.gov.mm/sites/dica.gov.mm/files/document-files/mcil_0.pdf

Currently mining is not contributing significantly to the development of Myanmar. However, when appropriately regulated, it has the potential to do so, not least through job creation and the important revenues it can generate for the State. Foreign investments complying with internationally agreed standards for responsible business can also contribute to raising the standards of business conduct in the sector, particularly by requiring or encouraging local business partners to improve their practices.

Overview of the report

This report starts with a general overview of the mining sector in Myanmar (Part 2) and the legal and policy framework (Part 3) that currently applies to the sector. Sector-level impacts, such as those relating to revenues, employment, conflict etc. are then reviewed (Part 4). Cumulative and project-level impacts (Part 5) are addressed under the following seven subheadings, including discussion of the relevant field research findings for each topic: (5.1) Community Engagement and Grievance Resolution; (5.2) Community Impacts and Development; (5.3) Land; (5.4) Labour; (5.5) Women and Children; (5.6) Conflict and Security; and (5.7) Environment and Ecosystem Services. Relevant international standards, guidance and initiatives related to each of the topics are noted at the end of each section. The particular circumstances and challenges associated with conflict-affected areas are then discussed (Part 6). The report concludes with recommendations to Government, businesses, civil society and other actors (Part 7).

B. SWIA Objectives

A Sector-Wide Impact Assessment (SWIA) is intended to sensitise government decision-makers, businesses, investors and civil society to the human rights impacts of mining; to encourage appropriate steps to prevent and mitigate the negative human rights impacts associated with the sector and to amplify positive human rights impacts through changes in law, policy, contracts, operations or other measures.

A SWIA assesses the impacts of a sector at three levels: (i) project-level; (ii) cumulative; and (iii) sector-wide. This means that the mining SWIA addresses the impacts of specific mining operations and activities on the enjoyment of human rights by workers and communities, as well as the impacts of the sector as a whole.

To facilitate responsible business conduct (RBC) in a complex environment such as Myanmar and contribute to maximising the benefits for society of business activities, the Myanmar Centre for Responsible Business (MCRB), the Institute for Human Rights and Business (IHRB) and the Danish Institute for Human Rights (DIHR) have carried out a series of SWIAs of key sectors of the Myanmar economy. Three assessments have already been published, focusing on the Oil and Gas,⁷ Tourism,⁸ and Information and Communication Technology sectors.⁹

⁷ MCRB, [Sector-Wide Impact Assessment Oil and Gas](#), September 2014.

⁸ MCRB, [Sector-Wide Impact Assessment Tourism](#), February 2015.

⁹ MCRB, [Sector-Wide Impact Assessment ICT](#), September 2015.

C. Target Audience

This SWIA aims to:

- Provide the **Government** with analysis and targeted recommendations to shape a legal and policy framework that is conducive to protection of, and respect for, human rights in the mining sector in Myanmar, at a time of regulatory reform.
- **Inform domestic and international mining companies** currently operating in Myanmar, or looking at future investment opportunities, as well as companies involved in the global mining value chain, about the impacts of mining activities on the human rights enjoyment of workers and communities and the impacts of the mining sector on wider society; with a view to supporting companies in developing and implementing robust processes to identify, prevent and address adverse human rights impacts ('human rights due diligence').
- **Inform women and men in local communities, including subsistence miners and those working in the formal mining industry**, so that they have a better understanding of the respective duties and responsibilities of the Government and business actors. This should help them to engage in community consultation, raise grievances regarding the adverse impacts of mining activities, and share benefits through jobs and community development.
- **Enable international and local development partners to align their support** to the sector so that human rights are better protected and respected.
- **Build the capacity of ethnic armed organisations, civil society, the National Human Rights Commission, trade unions and the media** to: participate in law and policy development relevant to the impacts of the mining sector; engage with law- and policy-makers, companies and other actors to identify, understand and address the human rights impacts of the mining sector; and to leverage international standards and approaches in their interventions.
- **Build the capacity of Myanmar researchers** to better understand international standards relevant to mining and other business activities in Myanmar and to be able to conduct human rights impact assessments (HRIA).

D. The Reference Framework for the SWIA

The SWIA particularly refers to the following international standards:

- The 2011 [United Nations Guiding Principles on Business and Human Rights](#) which constitute the primary benchmark for the SWIA (see Box 2)
- The 2011 [Organisation for Economic Cooperation and Development \(OECD\) Guidelines for Multinational Enterprises](#) which apply to companies domiciled in an OECD country and operating in Myanmar. The human rights chapter of the Guidelines is aligned with the UN Guiding Principles.
- The 2012 [International Finance Corporation \(IFC\) Performance Standards 2007 Environmental, Health and Safety \(EHS\) Guidelines for Mining](#). The Performance Standards comprise detailed standards for many topics relevant to mining operations and the EHS Guidelines are mining specific. The IFC EHS framework is designed to be applied by the private sector.
- The 2013 [OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas](#) provides detailed

recommendations to help companies respect human rights and avoid contributing to conflict through their mineral purchasing decisions and practices.

- The 2015 [International Council on Mining and Metals \(ICMM\) Sustainable Development Framework](#).¹⁰

Box 2: The United Nations Guiding Principles on Business and Human Rights

The UNGPs were unanimously endorsed by the UN Human Rights Council in 2011 and are now an authoritative global reference point on business and human rights. They are applicable to all internationally recognised human rights. Businesses must ensure that their activities do not infringe the human rights set out in the [International Bill of Human Rights](#) (comprising the 1948 [Universal Declaration on Human Rights](#), 1966 [International Covenant on Civil and Political Rights](#), and 1966 [International Covenant on Economic, Social and Cultural Rights](#)) and the principles concerning fundamental rights set out in the 1998 ILO [Declaration on Fundamental Principles and Rights at Work](#), as well as other relevant human rights instruments.¹¹ The UNGPs are intended to provide operational guidance to States and businesses for the implementation of the [‘Protect, Respect and Remedy’ Framework](#), which clarifies and articulates the complementary but distinct roles of States and businesses in protecting and respecting human rights. The Framework and UNGPs are based on three pillars:

- **The State duty to protect** rights-holders against human rights abuses by third-parties, including businesses, through effective policies, legislation, regulation and adjudication. States must prevent, investigate, punish and redress human rights abuses that occur as a result of business operations.

The corporate responsibility to respect human rights, meaning that companies should avoid infringing on the human rights of others and address adverse impacts in which they are involved. To do so companies are expected to adopt a policy commitment to respect human rights and carry out ‘human rights due diligence’ (i.e. identify and assess impacts, act upon impacts identified, track and monitor performance and communicate the process and results of due diligence). Companies are also expected to provide for, or cooperate in, remediating any adverse impacts that they are involved with, including by setting up or participating in operational-level grievance mechanisms. Importantly, companies are expected to address human rights impacts that they cause or contribute to, as well as impacts related to their operations, products or services through business relationships, such as impacts caused by suppliers or business partners (

- Box 3).
- **Access to effective remedy** for victims of business-related human rights abuses, through both judicial and non-judicial means, should be provided. While the State should guarantee that victims have access to both judicial and non-judicial remedies, operational-level grievance mechanisms (OGMs) that meet the effectiveness criteria outlined in Guiding Principle 31 should also be available.

¹⁰ The ICMM brings together mining and metals companies, and national/regional mining associations. Member companies are required to implement and measure their performance against a set of standards.

¹¹ OHCHR, [Core International Human Rights Instruments and Their Monitoring Bodies](#)

Box 3: Impacts through Business Relationships

According to the UN Guiding Principles, businesses are required to consider actual and potential human rights impacts which are: *caused* by the business; impacts that the business *contributes* to; and impacts that are *directly linked* to a company's operations, products or services through business relationships, including both contractual and non-contractual relationships. This means that businesses need to identify and address adverse impacts of their local business partners or suppliers. Some examples of the different types of impacts are included below.

- A business may **cause** human rights impacts, e.g. if it discriminates in its hiring practices by not affording equal opportunity to indigenous applicants.
- A business may **contribute** to human rights impacts, e.g. if it discharges a permissible amount of pollution into the local environment which, together with discharges by other companies, causes cumulative adverse impacts on community use of ecosystem services such as water.
- A business may be **directly linked** to an impact, e.g. if it provides financial loans to a project that breaches agreed standards and causes environmental pollution, thereby impacting on the health of local communities.

E. Expectations for Responsible Business Conduct in Myanmar

Daw Aung San Suu Kyi, leader of the National League for Democracy (NLD), the current governing party, has called for 'responsible business' in Myanmar, as have Ministers. For example, U Myint Maung, Tanintharyi Region Minister for Natural Resources and Environmental Conservation, said "Our Chief Minister has said we will tackle all the mining issues before we give any new recommendations to applicants. If the companies already operating mines do not follow the laws, it will be difficult for new companies to get mining permits in the future."¹² The previous administration of President U Thein Sein conducted an investment policy review of the country with the OECD. The 300+ page report from 2014 starts with a chapter on responsible business, focused on human and labour rights and how international standards for RBC can be introduced in the country (see Box 4).¹³

International companies operating in Myanmar are expected to act as industry leaders on environmental and social performance. Governments of countries where multinational enterprises are domiciled or from which they operate ('home governments') also play a key role in expressing and incentivising expectations for responsible corporate behaviour and then following up to ensure that the standards are applied. On 7 October 2016, the US government removed most sanctions against Myanmar, including those relating to jade and gems and the State Department's Responsible Investment Reporting Requirement, which had been the only explicit home country reporting requirements on businesses investing in Myanmar¹⁴. The reporting requirements were intended to prompt US businesses entering the country to consider key risks upfront.

¹² Myanmar Times, [Two Controversial Tin Mines Suspended in Southern Myanmar](#), 21 July 2016.

¹³ OECD, [Investment Policy Reform in Myanmar](#), March 2014, pp. 49-60.

¹⁴ US Department of the Treasury, Burma,

Box 4: Recommendations made by the OECD as part of the Myanmar Investment Policy Review Chapter on Responsible Business Conduct (RBC)¹⁵

- Ratify major international human rights, labour and environmental conventions.
- Enact and enforce domestic legislation consistent with these standards.
- Strengthen the independence and expand the mandate of the National Human Rights Commission.
- Promote revenue transparency, such as through EITI.
- Ensure that domestic enterprises, including State-owned Enterprises (SOEs), conform to the new standards of behaviour and prosecute lawbreakers.
- Expand the role of civil society (labour unions, local community organisations) to help ensure that businesses obey the law.
- Prepare sectoral master plans that include RBC (e.g. tourism).
- Provide adequate protection of property rights, including for customary land.
- Free, prior and informed consent (FPIC) for land acquisitions, relocations, etc.
- Develop grievance mechanisms and provide redress to victims.
- Work with home governments to promote respect for the UN Guiding Principles and OECD Guidelines for Multinational Enterprises. Require foreign investors receiving a permit from the Myanmar Investment Commission (MIC) to commit to these principles.

Some home countries have introduced general responsible business expectations of their companies and non-financial reporting requirements, which are not Myanmar specific but would nevertheless apply. The 2015 [Declaration of the G7 Countries](#)¹⁶ included a strong commitment to responsible supply chains. An increasing number of countries have adopted, or are currently developing, National Action Plans on Business and Human Rights setting out clearly the expectations¹⁷.

Chinese mining companies are expected to follow 2013 Chinese government guidelines that refer to environmental protection¹⁸. These urge Chinese companies doing business abroad to respect host country environmental protection laws, religions, and customs, and ensure rights and interests of workers. They suggest that companies follow established principles and practices of international organisations and multilateral financial institutions. The China Chamber of Commerce of Metals Minerals and Chemicals Importers & Exporters (CCCMC) issued [Guidelines for Social Responsibility in Outbound Mining Investments](#) in 2014. The CCCMC is a subordinate unit of the Ministry of Commerce and represents over 6,000 company members, including the majority of Chinese mining companies investing abroad and trading mineral, metal and hydrocarbon products.

¹⁵ OECD, [Investment Policy Reform in Myanmar](#), March 2014, p. 32.

¹⁶ [Declaration of the G7 Countries](#), 7-8 June 2015.

¹⁷ A list of all national action plans is available on the [UNOHCHR website](#).

¹⁸ [Guidelines on Environmental Protection in Foreign Investment and Cooperation](#), Chinese Ministry of Commerce & Ministry of Environmental Protection, 4 March 2013. See also IHRB, [Going Out in Search of Oil and Gas: How should Chinese companies investing abroad tackle human rights challenges?](#) 24 March 2014.

F. SWIA Methodology

Types of impacts covered

The SWIA methodology builds on established processes and procedures for environmental impact assessment (EIA) and social impact assessment (SIA), often combined and referred to as an ESIA (but in Myanmar referred to as EIA), as well as emerging practices around human rights impact assessment (HRIA). The SWIA methodology was developed by DIHR and IHRB in cooperation with MCRB.¹⁹ It has also been adapted for use on for a SWIA of mining in Colombia by MCRB's sister organisation CREER, and IHRB²⁰.

This SWIA looks at impacts of the mining sector in terms of human rights. This can include impacts associated with working conditions, consultation and engagement, land and resettlement, the environment and water, etc., as well as impacts on wider governance issues, including transparency and corruption, and the accountability systems needed to address these impacts.

The scope of a SWIA encompasses a whole sector and involves assessing not only impacts on individuals and groups that may arise from specific business projects, but also cumulative impacts and sector-level impacts:

- **Project- or activity-level impacts:** The SWIA looks across a range of existing projects (i.e. formal mining operations) and activities (i.e. subsistence mining activities) in the mining sector in Myanmar. The findings represent common project-level impacts, recognising that impacts are often very context-specific and can be avoided or shaped by (good and bad) practices of companies and relevant local actors.
- **Cumulative impacts:** The presence of many mining projects and activities in one area may give rise to cumulative impacts on the surrounding society and the environment that are different and distinct from impacts of any single project or area of mining activity. Managing these impacts typically requires government authorities to take a leading role. The SWIA identifies activities that will likely lead to cumulative impacts and identifies options for Government as well as collective sectoral action to address these.
- **Sector-level impacts:** These are broader, country-wide impacts – positive and negative – of the sector itself on the national economy, governance and the environment and society. In order to be able to address the root cause of potential negative impacts, the SWIA includes an analysis of the relevant policy and legal frameworks that help shape business conduct and the national context that businesses and civil society need to address in order to achieve business respect for human rights. The SWIA also draws out recommendations on opportunities to improve human rights outcomes at the sector-level. A sectoral view should help stakeholders see the 'bigger picture' of potential negative impacts of projects in a whole sector, as well as potential opportunities for positive human rights outcomes, and to make choices based on a broader perspective.

Overview of SWIA research and fieldwork

The SWIA is based on extensive desk-top research and fieldwork. The fieldwork was carried out between October 2015 and June 2016. After a period of initial training, six

¹⁹ See [MCRB website](#) for more details.

²⁰ [Sector-Wide Impact Assessment of Mining in Colombia](#), 24 June 2016, CREER and IHRB

Myanmar field researchers investigated a total of 41 mine sites – including 11 large-scale permitted mine sites (of which one was in the exploration phase), 15 small-scale permitted mine sites, and 15 informal mining areas of various sizes – in Shan, Kayin, Kayah and Kachin States, and Bago, Sagaing, Mandalay and Tanintharyi Regions.

The data from the field research is anonymised. This is because the intention of the SWIA is to focus attention on trends in the mining sector, rather than the practices of particular companies. Anonymity is also intended to ensure the safety and security of those interviewed. The research findings should not be taken to apply to all situations, organisations, or companies interviewed. Further information on the areas visited and the number of stakeholders met with is provided in Annex A.

Bilateral meetings were also held in Yangon with various relevant stakeholders, including: representatives of Myanmar and international mining companies and mining services providers; international intergovernmental organisations; non-profit and civil society organisations (CSOs); and local and international experts on mining law and governance, mineral economics, mineral processing, subsistence mining, and environmental and health impacts relating to the SWIA commodities. Two public one-day consultations were held in Yangon in October 2016 (one in English language and one in Myanmar language) to receive stakeholder feedback on the consultation draft, which was also published on the internet.

An Advisory Group was set up to help with identifying research priorities, planning, analysis of findings, assisting with multi-stakeholder collaboration during and after the research process and publication, and to provide input on recommendations. The Advisory Group included environmental experts, civil society representatives, former government officials and mining experts.

G. Scope of Commodities: Limestone, Gold and Tin

The SWIA focuses on three commodities: **limestone**, **gold** and **tin**. The research conducted by MCRB maintained a particular focus on the mineral extraction phase, with the majority of field visits focusing on operational mine sites. A smaller number of processing sites, factories and post-closure mine sites were also visited (for a full overview of sites visited see Annex A). The criteria applied to select the three commodities included:

- Economic significance and prospects for development in the near future;
- Impacts on the enjoyment of human rights;
- Accessibility of mine sites, including security of field researchers;
- Body of existing research and possibility for MCRB to add value to existing research initiatives; and
- Ability of MCRB to influence actors in the sector to implement SWIA recommendations.

Other metals and minerals were considered but eventually not covered in the SWIA. Cathode copper makes up the largest export metal produced in Myanmar which, with nickel, supplies China's large manufacturing economy.²¹ However, copper mining, and in particular the Letpadaung copper mine,²² has been the subject of several reports and wide

²¹ 2012 PowerPoint Presentation from Mining Summit, on file with MCRB.

²² Amnesty International, [Open for business? Corporate crime and abuses at Myanmar copper mine](#), 10 February 2015.

national and international attention. Concerning coal, it is unclear whether the Government will proceed with coal-fired power plants. Furthermore, the thermal quality of the deposits in Myanmar is reportedly low and most coal used for power would probably be imported.²³ While there are notable deposits of lead, silver and antimony, with the Namtu and Bawdwin silver and lead mines in Shan State operative since the colonial period, these commodities are not as significant in the national economy as those chosen for the SWIA.²⁴

Myanmar is endowed with significant jade and gemstone deposits (rubies and spinels in particular). Global Witness has estimated the jade industry to be worth USD 31 billion in 2014 alone, and found the sector to be controlled by networks of military elites, drug lords and crony companies.²⁵ In view of this work, security risks, and MCRB's limited scope to engage with relevant businesses, MCRB chose not to focus on these sectors.

In contrast, there has been little research on quarrying of low-value minerals in Myanmar, most of which is undertaken for domestic consumption. Moreover, considering the construction boom in Myanmar, extraction of limestone for production of cement is likely to increase, much of it in ethnic areas. Military-affiliated companies Myanmar Economic Corporation (MEC) and Union of Myanmar Economic Holdings (UMEHL) have economic interests in the sector and provide inputs, e.g. gypsum, to the cement production process.

Gold is one of the most important mineral commodities for Myanmar and is being mined in many different locations, by subsistence miners and large companies, through a variety of techniques.²⁶ There are important alluvial as well as hard rock gold deposits throughout Myanmar, with extensive deposits still relatively easily extracted by subsistence miners.

Tin – along with tungsten, tantalum and gold – is considered to be a 'conflict mineral', for which the OECD recommends heightened due diligence. Myanmar has recently and rapidly become a leading global tin producer and a major exporter, second only to Indonesia in terms of global net exports. Most of Myanmar's tin is exported to China, an important trading partner and operator in Myanmar's mining industry.²⁷

To encompass the diversity of mining activities in these three commodities, the SWIA team selected mine sites of different sizes (from subsistence mining to large-scale industrial operations), ownership structures (State-owned, privately-owned, foreign-owned), different legal settings (formal and informal), different regional contexts (central regions of Myanmar, ethnic regions including areas partly or fully controlled by ethnic armed organisations), and different mining techniques (shaft mining, open-pit, etc.).

²³ MCRB interviews, 2016.

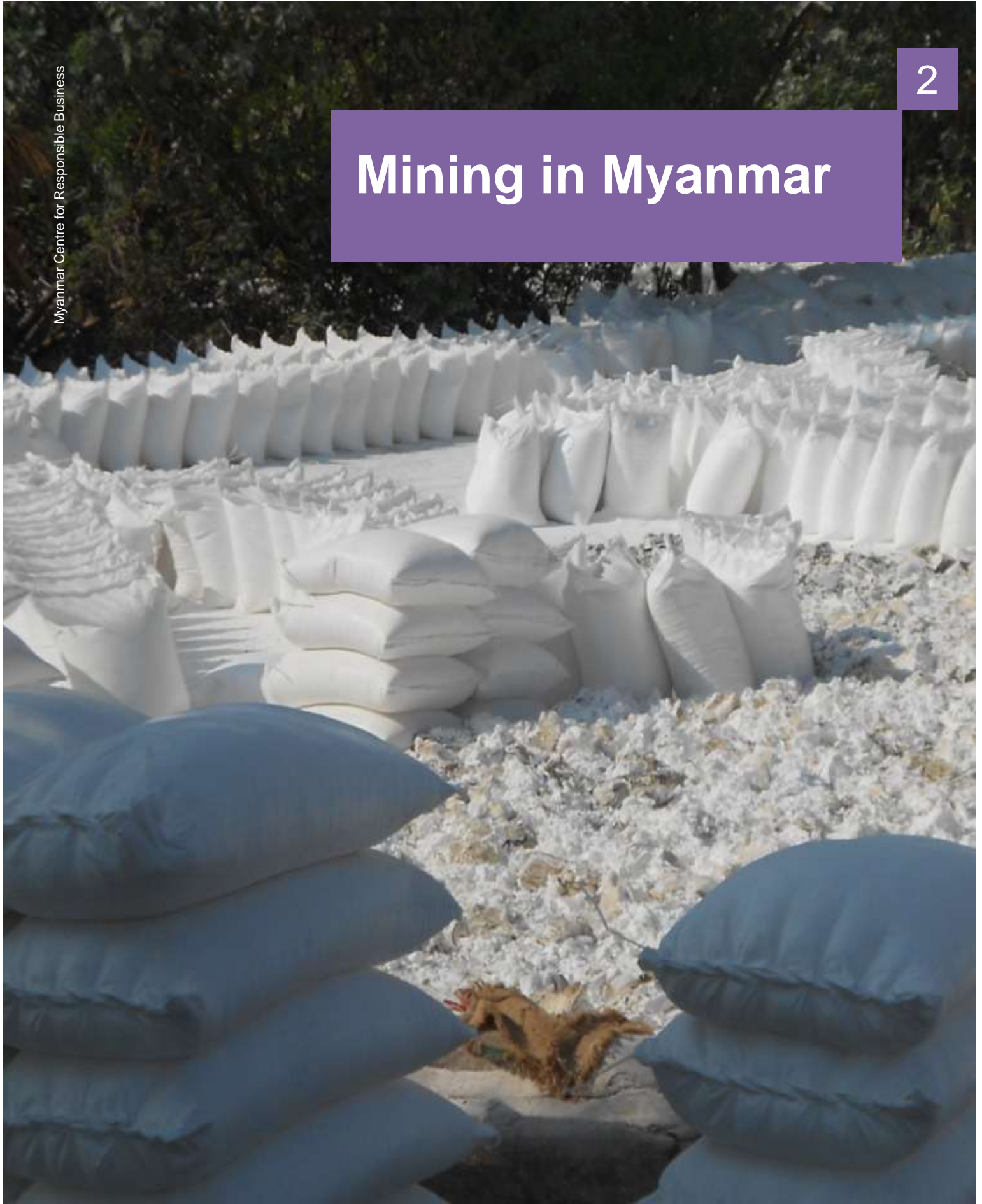
²⁴ MEITI, [Myanmar First EITI Report](#), December 2015.

²⁵ Global Witness, [Jade: Myanmar's "Big State Secret"](#), 23 October 2015, pp. 6-7.

²⁶ MEITI, [Myanmar First EITI Report](#), December 2015.

²⁷ Nicholas J. Gardiner et al, [Tin mining in Myanmar: Production and Potential](#) (2015)46:2 *Resources Policy* pp. 219-233, p. 224.

Mining in Myanmar



Part 2

Mining in Myanmar

In this section:

- A. Myanmar's Mineral Geology
- B. The Mining Sector's Significance in the Economy
- C. Business Actors
- D. Overview of the limestone, gold and tin sectors
- E. Subsistence/Artisanal and Small-scale Mining (ASM)
- F. The Mining Value Chain

A. Myanmar's Mineral Geology

Myanmar's territory contains extensive mineral wealth, with deposits present throughout the country. Proven reserves span industrial minerals and stones, heavy metals, jade and gem stones, and energy sources such as coal.²⁸ As measured by reserves, Myanmar hosts at least three mineral deposits of global significance: the Bawdwin lead-zinc-silver deposits; the Monywa copper deposits; and the Mawchi tin and tungsten mine.²⁹ In 2014, Myanmar produced 10% of the world's mined tin supply (as opposed to scrap tin), emerging as the world's third largest producer as production increased by 4900% from 2009 volumes.³⁰

There is some recent history of mineral exploration in Myanmar but the country's overall geology and mineral reserves remain poorly understood. Available geological data is limited (the latest geological survey took place in 2008) but publicised survey findings have indicated deposits of silver, lead, tin, tungsten and antimony to be widely spread across the country's territory, while gold, manganese, copper and coal reserves were all deemed to be substantive.³¹ Geological maps and data are not generally obtainable for those states or regions over which the Union-level Government does not hold full control.

There are significant gold, jade, gems and tin deposits in Kachin, Shan and Karen States, all of which remain under partial control of ethnic armed organisations (EAOs). There are also significant gold deposits in Mandalay Region and Sagaing Region. Sagaing Region, which is home to the largest number of small-scale mining operations in the country, also holds large copper, coal, gold, tungsten and scheelite deposits. Officially, gold ore is restricted under Section 83A of the Foreign Exchange Management Law and also the restricted exports list of the Ministry of Commerce. Gold is therefore – alongside iron, steel, limestone and industrial minerals and barites – produced primarily for domestic consumption.³²

²⁸ Oxford Business Group, [Myanmar's holds a diverse mix of mineral resources](#), 2016

²⁹ Gardiner et al, [Tin mining in Myanmar: Production and Potential](#) (2015)46:2 *Resources Policy* pp. 219-233

³⁰ Nicholas J. Gardiner *ibid*, p. 220.

³¹ Stratfor, Myanmar: [A Risky Mineral extraction Market](#), *Stratfor Global Intelligence*, 24 October 2013.

³² MCRB interviews, 2016.

Limestone deposits are present throughout several states and regions, with a deposit of especially high quality running from the north to the south of Kayin State in a broad and continuous band.³³ Mandalay Region holds important reserves of rubies, sapphires, iron and barite. Shan State also has significant ruby and sapphire mines.³⁴

There are valuable tin, tungsten, scheelite and alluvial diamonds in Tanintharyi Region. A tin belt runs from the east of Yangon southwards along the Myeik Archipelago passing through Dawei where tin production has been concentrated and more than one hundred primary tin deposits have been identified. Other significant tin occurrences include the Mawchi Mine in Kayah State, once one of the largest global producers of tungsten and tin, and deposits within the Shan State in the Wa Self-Administrative Region³⁵. Rakhine State is a source of sandstone³⁶.

B. The Mining Sector's Significance in the Economy

Myanmar's mining sector remains underdeveloped, characterised by small-scale operations. The Myanmar Government cannot provide a value for current national reserves. There is a lack of skills and technology needed for concentration and beneficiation. One constraint for large-scale, professionalised mining operations is lack of reliable energy sources and poor infrastructure. For international investors, other barriers to entry have included past economic sanctions as well as numerous sources of political risk, such as weak regulation and enforcement capacity, risk of complicity in human rights violations related to land and security of the person, political uncertainty and persistent armed conflict. To date, these factors, and high costs and unattractive economic terms, have resulted in little formal foreign investment in the sector. Indeed foreign interest is waning. Two Australian companies who had sought prospecting/exploration licences have announced their withdrawal from Myanmar³⁷.

According to Myanmar's first EITI report, extractives contribute 6% to GDP, 24% of government revenues and 38% of exports. But the mining sector represents only 15% of total government extractives revenues. Of this 15%, jade and gems producers account for 88% of the mining revenue stream (see Table 5: Myanmar Extractives Revenue).

The competitiveness of the Myanmar mining sector lags behind other countries due to lack of capital, poor quality equipment, low skills, and weak institutional support. For example, new exploration is disincentivised by the current lack of an accessible mining cadaster. Creation of an electronic mining cadaster is part of Myanmar's action plan and required by the EITI Standard under the MEITI process, supported by the World Bank³⁸.

Figures from the Myanmar Investment Commission (MIC) show that mining accounted for around 4% of FDI between 2010-2011 and 2016-2017, but less than 1% in the years after

³³ International Cement Review, *The Global Cement Report*, Sixth Edition, 2005, p. 215.

³⁴ Dr James Shigley, [Historical Reading: Ruby Mines of Burma](#), Geological Institute of America

³⁵ Gardiner et al, [Tin mining in Myanmar: Production and Potential](#) (2015)46:2 *Resources Policy* pp. 219-233.

³⁶ Tin T. Naing et al, [Provenance study on Eocene–Miocene sandstones of the Rakhine Coastal Belt, Indo-Burman Ranges of Myanmar: geodynamic implications](#) (2014) 386:1 *Geological Society, London, Special Publications* pp. 195-216.

³⁷ [Australian mining company to back out of Myanmar Investment](#), Frontier magazine, 17 March 2017

³⁸ EITI, [The EITI Standard 2016](#), February 2016.

2010-2011 when a large investment was made in Letpadaung copper mine. Monthly MIC figures for 'citizen' (i.e. Myanmar-owned) investment in 2017 show mining also accounting for around 1% only³⁹. However these figures should be treated with caution as they represent only commitments to invest, and not actual investment, but do not include local investments which did not seek MIC approval.

Table 1: Mining Licences issued by State and Type as of 31 January 2018⁴⁰

(Figures in brackets show the 31 March 2017 figure)

State or Region	Large Scale	Small Scale	Exploration	Feasibility	Subsistence	Small Scale Processing	Total
Kachin	4 (4)	66 (80)	53 (53)	-	-	-	123 (137)
Kayah	1 (1)	15 (16)	9 (11)	-	-	-	25 (28)
Kayin	6 (6)	34 (34)	17 (14)	1	6 (6)	-	60 (71)
Chin	-	-	7 (7)		-	-	7
Sagaing	24 (24)	142 (201)	42 (51)	9	2 (2)	2 (2)	221 (280)
Tanintharyi	19 (19)	34 (36)	50 (53)	3	-	-	106 (108)
Naypyitaw	3 (3)	-	-		-	-	3 (3)
Bago	-	2 (2)	1 (1)		-	-	3 (3)
Magway	3	40 (37)	22 (25)		-	-	65 (65)
Mandalay	43 (43)	245 (269)	60 (70)	2	13 (7)	89 (3)	452 (392)
Mon	5 (5)	14 (18)	1 (3)	1	4 (8)	-	25 (34)
Rakhine	1 (1)	-	3 (3)		-	-	4 (4)
Shan (S)	16 (16)	86 (94)	49 (60)	3	2 (2)	- (-)	156 (172)
Shan (N)	21 (21)	47 (49)	18 (18)	2	10 (10)	- (-)	98 (98)
Shan (E)	2 (2)	68 (76)	26 (27)	3	- (-)	- (-)	99 (108)
Ayeyarwaddy	2 (2)	-	-		-	-	2 (2)
Yangon	-	-	-	-	-	1	1
TOTAL 31 Jan 18 (31 Mar 17)	150 (150)	793 (915)	358 (396)	24	37 (35)	92 (5)	1454 (1498)

Licenses for mining exploration have been issued for almost every region or state, with the majority of exploration licences issued for Shan State (Table 1). Since the NLD government came to power in 2016, there has been a significant decline in license issuing with a 6%

³⁹ <http://www.dica.gov.mm/en/topic/myanmar-citizen-investment-sector>

⁴⁰ Source: http://www.mining.gov.mm/DM_mm/1.DM_mm/Details.asp?submenuID=8&sid=1189

decline between October 2016 and March 2017, and a further 3% between March 2017 and January 2018. This is due to expiring licenses not being renewed, and a de facto pause since 2016 on issuing mining licences due to environmental concerns and uncertainty about new Mining Rules. This has mainly affected small-scale mines. However a permits have been issued. In particular 24 of a new form of ‘integrated’ permit, which covers the three phases from Prospecting to Feasibility have been issued for the first time in 2017, mostly in Sagaing Region and Shan State. The introduction of this ‘integrated permit’ has been done in response to the concerns of foreign companies concerned that the Mining Law fails to guarantee ‘conjunctive tenure’ i.e. certainty of licence retention on progress into the next phase. There has also been a significant increase in small-scale processing permit issuance in Mandalay Region.

Informal mines, generally small or artisanal in scale, also operate throughout the country. In addition to informal mining activities, it is reportedly common for mining companies holding a formal exploration licence to be actively extracting, processing, and marketing ore and value-added mineral products.⁴¹ While some try to pass this off as ‘exploratory mining’, it is in fact a breach of permit conditions. According to several mining industry stakeholders, it is also not uncommon for larger-scale operations to occur on small-scale concessions. For example small-scale permit-holders may operate machinery that is only allowed on large-scale concessions.

C. Business Actors

Local and international companies

Following the adoption of the State-Owned Enterprises Law in 1989, Myanmar began to gradually open up to private investment in the minerals sector, via its State-owned Enterprises (SOEs). These SOEs, each focusing on different commodities, operate through JVs with Myanmar or foreign private companies, including military-affiliated companies.

There are restrictions on foreign investment in the sector (see Part 3, Investment Law) and small-scale Myanmar mining companies form the majority of the sector. However many small-scale ‘Myanmar’ operations, particularly in border areas, are backed informally by Chinese capital.⁴² Foreign-owned mining companies must operate in joint venture agreements with Myanmar companies or nationals (see Part 3: Legal and Policy Framework). Relatively few foreign-owned mining companies currently operate in Myanmar. In 2016, a total of 71 foreign firms had registered to work in Myanmar's mining sector, although many were not active.⁴³ Other than Chinese, most foreign mining companies showing interest are Thai, Korean, and Australian.⁴⁴

As is typical of an emerging mineral province, foreign company interest is primarily from small exploration companies, who will enter to test out exploration possibilities but lack the technical capacity or the finances to go to production stage. These companies hope to

⁴¹ MCRB field research, 2016.

⁴² MCRB interviews, 2016.

⁴³ DICA, [Foreign Investment of Permitted Enterprises](#), 31 July 2016.

⁴⁴ Gardiner et al, pp. 219-233.

transfer their exploration licences to a larger company if a viable deposit is found. The Amended 2015 Mines Law permits licence transfer, subject to the Ministry's approval.

Military-affiliated companies

The two military-affiliated enterprises, Union of Myanmar Economic Holdings Limited (UMEHL), sometimes called 'oo-bine' (meaning 'holdings'), and Myanmar Economic Corporation (MEC), both have interests in Myanmar's mining industry. These companies are both owned and managed by military officials but have different ownership and reporting structures, the former being a company, the latter a state (military) owned enterprise.⁴⁵ There is limited public information about their activities. UMEHL's subsidiaries include Myanmar Imperial Jade Company and Myanmar Ruby Enterprise. Military personnel and their families are also reportedly among the largest licence-holders for mining jade and other precious stones.⁴⁶ MEC was founded in 1997 to establish profitable heavy industries capable of providing the armed forces with important supplies, including cement.⁴⁷ It is involved in limestone, marble, coal and gypsum operations in the Kayin and Shan State, and Mandalay and Tanintharyi Region. During SWIA research, many stakeholders including former MoNREC officials, mining companies and civil society representatives, raised concerns about the accountability of the military-affiliated companies. The authority of the mining sector SOEs and MONREC to regulate these military companies is unclear.

Ethnic Armed Organisations (EAOs)

Many EAOs are involved in the mining sector, and operate a parallel permitting and taxation system which is not recognised under the current constitution. Barriers for central government agencies in ensuring environmental and social compliance and co-option of local branches of government in corrupt practices were observed in EAO-controlled areas (see Part 5.6: Conflict and Security and Part 6: Region-Specific Governance and Conflict Analysis). Company representatives interviewed said that foreign investors (mostly Chinese and Thai) were able to invest in mining in areas controlled by EAOs by operating through local partner companies. Such practices were found to occur in exploration, extraction, processing and waste 'mining' and refining, especially in the gold and industrial minerals.

Myanmar Federation of Mining Associations

The Myanmar Federation of Mining Associations (MFMA) is the national industry association for Myanmar miners and retailers of mineral commodities.⁴⁸ It federates the regional mining industry associations present in certain states and regions, such as the Mining Federation of Eastern Shan States. The vision and mission of MFMA include:

- promoting the growth of the mining sector and developing it so that it is an important economic industry;
- promoting foreign and local investment and technology for the development of mining;
- conducting research to improve mining and processing procedures; and
- forming an association in each state and division.

⁴⁵ NRGI, [Gilded Gatekeepers: Myanmar's State-Owned Oil, Gas and Mining Enterprises](#), January 2016, p. 3.

⁴⁶ *Ibid.*, p. 49.

⁴⁷ MEITI, [Myanmar First EITI Report](#), December 2015, p. 48.

⁴⁸ MCRB interview, 2016.

The MFMA represents private sector investment in the mining industry. It includes a number of implementation and management committees, such as the Financing Committee, International Relations Committee, Environmental Conservation Committee, and the Research and Development Committee.

While the MFMA encompasses some members from the gems sector, the jade and gems sector is primarily organised separately, through the Myanmar Gems and Jewellery Entrepreneurs Association (MGJEA).

International Investors for Mineral Development Association (IIMDA)

On 15 December 2017, the newly former IIMDA, representing around 23 mostly Australian, British, Canadian and US mining companies and their Myanmar JV partners met State Counsellor Daw Aung San Suu Kyi to discuss mining transparency and the need for the sector to adopt international best practice⁴⁹.

D. Overview of the limestone, gold and tin sectors

This Mining SWIA focusses on the production of limestone, gold and tin in Myanmar.

Limestone extraction and cement production

The key stages of limestone extraction include clearing extraction sites, often using a bulldozer, and stripping of topsoil, trees and vegetation using excavators. The subsequent stages include drilling and blasting to expose and excavate the desired rock, before loading excavated rock onto front-end loaders. The limestone is then crushed and separated in stockpiles, which are ultimately loaded onto trucks for transport to Yangon or other markets or storage places.

Myanmar's limestone production is split into two main types, depending on the physical properties of the stone. Stones with high calcium content are used as raw material for cement production. Limestone found to have a particularly beautiful colouring is used as dimension stone.⁵⁰ If the limestone is to be used for cement, it is very finely crushed and may be processed wet or dry. Wet processing entails purifying clay in a wash mill. The washed clay is then mixed with limestone which has been crushed into small pebbles, resulting in a raw slurry. The slurry is placed in a kiln in which high temperatures facilitate chemical reactions resulting in hard grey balls which are called clinker cement. As of 2016/2017, there is oversupply of clinker on Asian markets, much of it from China⁵¹. Clinker is ground to a fine powder which is mixed with gypsum to make cement. In the dry process, the same raw materials are mixed, but the mixture is dried, then pulverised. Cement mix may be produced as ready-mix or requiring additional clay before use. Myanmar is increasingly producing ready-to-use cement mixes, which usually fetch a higher value than less processed kinds.

Myanmar's dependency on cement imports is decreasing as the construction of domestic plants increases national levels of cement production, something the government is

⁴⁹ [Daw Suu stresses transparency, accountability in the mining sector](#), Frontier magazine, 22 December 2017

⁵⁰ International Cement Review, The Global Cement Report, Sixth Edition, 2005, p. 216.

⁵¹ [Asian Cement 2017: Looking to the Future](#) LEK Consulting, Tradeship Publications, March 2017

encouraging. As of 2014, there were two state-owned and 12 privately-owned cement factories in Myanmar. This number has since increased. In 2014, the Myanmar Investment Commission (MIC) gave permission for nine additional factories to be constructed. Local investors are seeking to build cement factories in Mandalay Region and Mon, Kayin and Shan States, but in some cases face local opposition.⁵²

The industry trend appears to be for domestic producers to predominantly sell their cement for government-sponsored projects, while the private construction industry is supplied to a much greater extent by imports, most frequently from Thailand. Some of the domestic cement production is also traded through local traders. Local traders typically organise for the cement to be transported by truck from the processing plants to the central storage depots in larger towns.

Common environmental and human rights impacts associated with limestone extraction and cement production include deforestation and damage to biodiversity, dust creation, with associated health impacts, as well as noise and vibration. Given the high energy demands of cement plants, often using coal, there are environmental and human rights impacts associated with the fuel and power source.

Gold extraction, recovery and processing

Broadly speaking, there are two main types of gold deposits present in Myanmar's geology: placer and hard rock ore. In alluvial or placer deposits, a concentration of the mineral is present amongst loosely packed sedimentary material. Hard rock deposits include quartz veins present inside rock mass, sometimes buried deep underground.

Placer deposits are typically much easier to access and excavate, so subsistence miners generally extract alluvial gold.⁵³ Gold in placer deposits can be extracted using simple methods such as gold panning and sluicing, which result in the direct recovery of small pieces and flakes of gold. Alluvial deposits may also be broken down with high-pressure jets of water, called hydraulic mining or hydraulicking. Panning, suction dredging, hydraulic mining and riverbank mining are the primary artisanal and small-scale (ASM) mining methods for recovering gold from alluvial sediments in Myanmar.

Quartz veins, on the other hand, may be many metres underground, covered by many metres of rock mass and so may require more sophisticated exploration techniques and mining equipment both to discover and to extract. Non-quartz, hard rock deposits are extracted by both ASM miners (to a lesser extent than placer deposits) and large-scale industrial mining companies, both using both open pit and sub-surface mining techniques such as shaft mining.⁵⁴

Once excavated, the gold ore will be crushed and/or sluiced prior to cyanidation and/or mercury amalgamation - a process where the gold ore and mercury are mixed to form an alloy which is burnt by miners, causing the mercury to evaporate -in order to separate the gold from waste rock, soil and other sediments. Cyanidation is nominally banned in

⁵² [Over 2,500 villagers protest against MCL's power plant](#), Irrawaddy, 21 February 2017

⁵³ Images Asia and Pan Kachin Development Society, [At What Price](#), November 2004, pp. 23-30.

⁵⁴ Images Asia *ibid*, p. 25.

Myanmar, except for exemptions at a few key, large-scale gold projects. If cyanidation is controlled, it is a safer process which produces a higher gold yield than the mercury amalgamation more frequently undertaken by ASM miners.⁵⁵ If mercury is added at this stage in the process, the mercury amalgam is squeezed, often by hand, then burned by the miner who can see the process occurring as it happens. This is important, as even where ASM miners may be leased access to cyanidation facilities of some officially permitted large-scale mines, many are frequently reluctant to use cyanidation as they are unable to observe what happens inside the facility of that large-scale mine and therefore do not trust that they will recover the full yield of their gold from the facility.⁵⁶

Common environmental and human rights impacts associated with gold extraction and production are covered below (see Artisanal and Small-scale Mining).

Tin extraction and concentration

Myanmar has many primary deposits and placer tin deposits (where weathering has caused deposits to mix with sediments over time), and high alluvial concentrations of cassiterite (tin ore) in the gravel in streams and on riverbeds.⁵⁷ As with gold, alluvial deposits are especially advantageous and accessible for artisanal miners as there is no primary ore to crush. Excavation is easily achieved using basic tools such as shovels or smaller diggers.⁵⁸ Following excavation, the tin is concentrated through gravity separation by using a sluice or shaking table, which allows for the recovery of varying grades of tin.

Unlike many types of processing for gold, the gravity separation method used for winning tin concentrates do not rely on chemicals. Instead, water is used as the separation medium in the process in which the difference in specific gravity is utilised to separate tin and associated gangue (the commercially valueless material in which ore is found). This means that the process is not hazardous to human health. However, when tin is associated with tungsten in veins, sulphide minerals are commonly included in the gangue. This poses health problems as some flotation methods use chemicals in the separation process. The grade of tin mineral is also significantly lowered depending on the tungsten content. Magnetic separators are normally used to separate tungsten from tin as a clean-up process prior to export.

At present, there are limited smelting facilities in Myanmar. Most tin concentrate is exported to Thailand, Malaysia or China for smelting, legally or illegally.⁵⁹ The one government-owned smelter, near Yangon, run by Mining Enterprise No. 2 (ME-2), appears to be only intermittently operative, and ME-2 is currently looking for private investors to upgrade the facility and expand production capacity.

Common environmental impacts associated with tin extraction and production include water strain and scarcity⁶⁰. Processing is water-intensive and produces large amounts of

⁵⁵ Images Asia *ibid*, pp. 27-30.

⁵⁶ MCRB interview, 2015.

⁵⁷ Nicholas J Gardiner et al, [Tin mining in Myanmar: Production and Potential](#) (2015) 46:2 *Resources Policy* pp. 219-233.

⁵⁸ MCRB field research, 2016.

⁵⁹ MCRB interviews, 2016.

⁶⁰ Gardiner et al, [Tin mining in Myanmar: Production and Potential](#) (2015) 46:2 *Resources Policy* pp. 219-233.

wastewater containing leftover dust and silt. This may cause significant environmental impacts if not properly managed, including siltation of rivers and waterways with impacts on aquatic life, and wastewater flooding of community land.⁶¹ However, given that no chemicals are needed to refine or concentrate tin, the environmental impacts observed in Myanmar were found to be less pronounced than the pollution caused by gold production. Globally, tin extraction has been linked to conflict and related human rights violations, especially in the Democratic Republic of the Congo and the surrounding Great Lakes regions (see Conflict Minerals, Chapter 3).⁶²

E. Subsistence/Artisanal and Small-scale Mining (ASM)

Overview of ASM and subsistence mining

ASM is characterised by the use of rudimentary, labour-intensive techniques for mineral extraction, often under hazardous conditions. ASM miners generally lack capital, access to support services, health and safety protection, and occupational expertise.⁶³ ‘Illegal mining’ generally refers to activities that defy applicable legal frameworks. However, there is often no applicable legal framework for ASM workers to operate under, leading them to work without formal or legal permits. A key driver for ASM is poverty; small-scale or artisanal mining often provides the main source of livelihood for many poor communities. Globally, it is estimated that artisanal mining employs over 20 million people and that 80 to 100 million people’s livelihoods are dependent on it. ASM is responsible for 15-20% of global metals and minerals production, particularly for gold, sapphire and diamonds.⁶⁴

ASM provides considerable economic opportunity for many poor communities. In some country contexts it can generate around five times the income of other rural-based poverty driven activities, such as small-scale fishing and forestry, and therefore represents a divergence from more traditional livelihoods and an escape from rural agrarian poverty.⁶⁵ For some, it can lead to income diversification. For others it is a primary livelihood activity that provides greater financial returns than income from other sectors.⁶⁶ ASM represents an important component of the livelihood of women in mineral-rich regions.⁶⁷ The higher income from mining relative to farming was also mentioned by artisanal gold miners in Myanmar interviewed by MCRB.⁶⁸ Many farmers may also depend on ASM during off-peak months of harvesting or in years when crop yields are poor. MCRB research indicated that a loss of land may also lead communities who previously farmed to turn to mining, either during the whole year or parts of it. This loss of land may be due to mining activity, including through land seizure by ASM miners, or pollution which had rendered land previously leased out to ASM miners unfit for crop cultivation.

⁶¹ MCRB interviews; MCRB field research 2015-2016.

⁶² Global Witness, [Briefing: Conflict Minerals in Eastern Congo](#), 2 March 2015.

⁶³ IIED, [Responding to the Challenge of Artisanal and Small Scale Mining](#), 2013.

⁶⁴ World Bank, [Artisanal and Small-Scale Mining](#), 21 November 2013.

⁶⁵ IIED, [Responding to the Challenge of Artisanal and Small Scale Mining](#), 2013.

⁶⁶ MCRB field research, 2016.

⁶⁷ World Bank, [Artisanal and Small-Scale Mining](#), November 2013.

⁶⁸ MCRB field research, 2016.

Common environmental and human rights impacts associated with ASM

A common practice for gold refinement in ASM is the use of **mercury amalgamation** which creates toxic mercury vapour.⁶⁹ ASM gold mining is the world's largest anthropogenic source of mercury emissions worldwide, releasing 727 tons of mercury into the environment every year, approximately 35% of total global emissions.⁷⁰ This is directly harmful to humans. Mercury emitted into the atmosphere enters the food chain and bio-accumulates in harmful quantities. In Myanmar there are no official statistics regarding mercury emissions, but the abundance of ASM activity and widespread malpractice in purifying gold suggest high levels of mercury emissions into the environment. Fish sampling in the Ayeyarwady River, one of the main water sources in Myanmar, found almost half of the fish tested to contain higher concentrations of mercury than the limit for human consumption set by the US Environmental Protection Agency.⁷¹ (See Section 4, Sector Level Impacts).

Another environmental challenge affecting the human right to health is the use of **cyanide** in gold ASM processing. Using cyanide in a chemical leaching process can yield extremely high recovery rates for gold concentrate. Cyanide is a degradable compound when managed properly, making it a sustainable alternative to mercury in large- and small-scale mining.⁷² However, cyanide waste is frequently dumped into water sources by ASM operations, creating potential for poisoning and other adverse health effects.

Other adverse environmental impacts associated with ASM include **siltation and soil erosion, deforestation, loss of biodiversity**, and the creation of 'moonscapes' through the **lack of site rehabilitation**.⁷³

Preventing adverse health impacts from ASM is challenging, in view of the nature of the activity. Workers often operate in hazardous conditions, handling chemicals without proper equipment. Overexertion, inappropriate workspaces, and frequent workplace accidents are common.⁷⁴ Without improved occupational education and access to equipment, regulatory reform will not be effective. ASM by its nature also occurs in remote, resource-rich areas where there is little access to clean water and healthcare. Workers often form temporary settlements in these remote areas, which are unlikely to have basic public health facilities and infrastructure necessary to support the temporary inhabitants. The settlements often attract sex work and drug use, leading to increased rates of sexually transmitted infections, tropical diseases, and HIV. Furthermore, the effects of pollutants such as mercury and cyanide can cause irreparable damage and health effects.

Women and children are often victims of human rights abuses due to ASM. Women and girls face unique challenges associated with ASM, as they are involved in many stages of the processes but do not always experience the same benefits as men. While women and girls living and working in ASM communities may not be involved in the physically intensive aspects of mining, they more often handle the chemical operations, sometimes burning

⁶⁹ Images Asia and Pan Kachin Development Society, [At What Price](#), November 2004, p. 27.

⁷⁰ UNEP, [Global Mercury Assessment](#), 2013, p. ii.

⁷¹ WCS, [Status and Conservation of Freshwater Populations of Irrawaddy Dolphins](#), May 2007, p. 22.

⁷² UNEP, [Guide to Reducing Mercury Use](#), 2012, p. 54.

⁷³ May Zin Thaw and Jack Jenkins Hill, *Artisanal and Small-Scale Mining and Mercury Use in Myanmar: Current Issues and Ways Forward*, 2015, on file with MCRB.

⁷⁴ IIED, [Responding to the Challenge of Artisanal and Small Scale Mining](#), 2013, p. 7-9.

amalgam indoors over an open flame with no proper equipment, risking extended exposure to toxic fumes for them and their babies. They also experience lower salaries for similar tasks, additional domestic responsibilities, and hazardous work during pregnancy, and prostitution. As for children, child labour is prevalent in ASM. It is considered one of the worst forms of child labour by the ILO because of the serious health and occupational risks.⁷⁵ The physical strain of mining, time away from school, exposure to harmful chemicals, and clear violation of international frameworks make child labour in ASM a serious threat to children's health, safety, and other human rights.⁷⁶

ASM often comes into conflict with large-scale mining operations. Since most ASM workers operate without permits, they generally do not have recognised land rights, leading to disputes between ASM workers, governments, and mining companies. Conflicts and long-term disagreements often arise, particularly when ASM competes for the same resources as large-scale industries. In many cases, police and law enforcement have to mediate clashes. Where governments allocate land in favour of large-scale mining, many ASM workers face involuntary resettlement and violation of their rights to housing and property.⁷⁷ Without formalisation of the ASM sector and possibilities for people to obtain land permits, these problems are likely to persist.

ASM practices, and the legal and regulatory framework in Myanmar

Artisanal mining is prevalent in all the commodities covered by the SWIA, particularly gold. There are extensive primary and placer gold deposits found throughout the Kachin, Kayin, Mon, Shan, and Kayah States, as well as the Bago, Sagaing, Mandalay, and Tanintharyi Regions.⁷⁸ ASM for tin was observed on and around formally permitted mine sites, with companies authorising and even organising this type of extraction. Artisanal mining of limestone was also observed during MCRB field research.

Artisanal or subsistence mining in Myanmar is almost entirely informal. In principle, the legal framework to regulate it is the 2015 Amended Myanmar Mines Law⁷⁹. This attempts to formalise the sector by defining subsistence mining as mineral production using either ordinary hand tools or machinery equipment of limited horsepower. The Amended Law decentralises the application process, to facilitate access to permits.⁸⁰ To obtain a licence for subsistence production, miners previously had to make an application to the SOE overseeing production of the mineral the subsistence miner wished to extract. Under the amended Law prospective miners may apply for subsistence, small- and medium-scale permits, to the State or Region Plot Scrutinizing and Permit Granting Board once these are formed by the Union Government.⁸¹

⁷⁵ ILO, [Eliminating Child Labour in Mining and Quarrying](#), 2005.

⁷⁶ IIED, [Responding to the Challenge of Artisanal and Small Scale Mining](#), 2013, p. 8.

⁷⁷ Ibid. p. 8-9.

⁷⁸ May Zin Thaw and Jack Jenkins Hill, *Artisanal and Small-Scale Mining and Mercury Use in Myanmar: Current Issues and Ways Forward*, 2015, on file with MCRB.

⁷⁹ Valentis Resources, [2015 amended Myanmar Mines Law \[unofficial translation\]](#), 27 January 2016.

⁸⁰ May Zin Thaw and Jack Jenkins Hill, *Artisanal and Small-Scale Mining and Mercury Use in Myanmar: Current Issues and Ways Forward*, 2015, on file with MCRB.

⁸¹ May Zin Thaw and Jack Jenkins Hill, *ibid.*

Subsistence mining permits have a one year duration under the Law. Under Rule 97 of the proposed 2018 Mining Rules⁸², subsistence mining plot size is defined as:

- < 1 acre for gold and other valuable metals (and for gold plots, only 1 plot may be granted per household)
- < 3 acres for other metals
- < 5 acres for industrial raw minerals or stones.

While a welcome step towards recognition and formalisation of subsistence mining, neither the Law nor the proposed Rules reflect its reality. Nor do they encourage efficiency through use of mechanised tools. Furthermore since Rule 97c says that subsistence mines will have to fulfil the requirements of the EIA Procedure, which under its Annex 1 (Table 4) requires all gold mines of less than 20 acres to undertake an Initial Environment Examination (IEE). This means that an IEE will be a requirement for individual subsistence gold mining permit holders, unless Annex 1 is amended (which it is understood is under consideration by ECD/MONREC)⁸³. This, and the requirement for Mine Closure Plan, clearly bears no relationship to the reality of subsistence mining and underlines the need for separate Rules for subsistence mining.

Furthermore, if small-, medium or large-scale operations are given rights to, or express interest in, an area, subsistence permits immediately expire. The resulting economic displacement of subsistence miners has been seen to push miners into illegal extraction of forestry products in Kachin State.⁸⁴ During MCRB field research this was also found to have caused violent clashes between dispossessed subsistence mining communities and in-coming companies. Finally, the 2015 Amended Myanmar Mines Law also introduces harsh penalties for those found mining without a permit, including fines and jail time.

Subsistence miners are also exposed to the risk of fines for use of mercury. While mercury is technically a controlled substance under 2013 Prevention from Danger of Chemical and Associated Materials Law, punishable by up to seven years jail, controls are not enforced. It is readily and cheaply available in mining areas and appears primarily to be imported illegally from India and China.⁸⁵

It is understood that no subsistence permits were awarded during the consideration of the amendments to the Law, and very few subsistence permits have been issued since (Table 1 shows 37 permits exist countrywide as of 31 January 2018, most of them in Mandalay Region). Through payment of rents, informal taxes to local militias, companies, EAOs and government authorities, subsistence miners therefore operate outside of the Mining Law. Many ASM workers depend on mining for supplementary income and only mine a few months of the year. This also reduces the incentive to obtain a permit. As a result subsistence miners are generally operating illegally without permit, oversight, or

⁸² Approved by Cabinet and issued under MONREC Order 13/2018 of 13 February 2018 and sent to Parliament. Copy on file with MCRB

⁸³ Similarly unrealistic requirements have been adopted in the 2017 Law 15/2017 on Artisanal Oil Mining. See [MCRB comments](#) submitted in June 2017 on the weaknesses of the draft law, which was adopted almost unchanged in July 2017.

⁸⁴ Images Asia and Pan Kachin Development Society, [At What Price](#), November 2004, p. 8.

⁸⁵ MCRB interviews, 2015.

government revenue collection while risking fines that could plunge them further into poverty.^{86 87} (See also Part 4 on sector-level impacts).

F. The Mining Value Chain

This SWIA focuses on certain segments of the mining industry value chain, namely permitting, extraction and initial processing. MCRB field visits were undertaken to sites in the exploration, operations (extraction and processing) and post-mine closure phases of the mine lifecycle. Mineral concentration and beneficiation processes were also included in the scope of the research. Segments such as financial services, import and export, transportation, sales and specialised mining subcontractors were not considered.

The majority of mining operations in Myanmar are small-scale projects. This means that the specifics of their value and supply chains may look very different to the way in which value accrual is organised in industrial, large-scale mining. Mining workforces frequently consist of untrained staff and many operations are in the informal economy. Such skill gaps constrain foreign investment in the sector. According to foreign mining companies operating in Myanmar, access to skilled labour, such as local contractor support for drilling, was very limited. Accredited sampling labs (where drill samples are analysed during mineral exploration activities) were said to be non-existent in the country. Some companies used government testing labs for testing drill cores during the exploration phase.⁸⁸

Myanmar's small-scale miners rely less on external services, investment capital and utilities than large-scale operations. For example, if exploratory drilling and sampling is actually undertaken, small-scale Myanmar companies do not rely on external, technical service providers.⁸⁹ Small-scale prospectors frequently buy simple equipment and provide only basic, internal training for workers in how to operate it. Such practices create issues of efficiency and safety in core drilling and mining, in both exploration and production phases. Many inputs to the extraction process are imported from China including excavators, crushers, grinders, as well as chemicals for processing or unlicensed gunpowder. The SWIA team heard complaints about quality.⁹⁰

⁸⁶ May Zin Thaw and Jack Jenkins Hill, *ibid.*

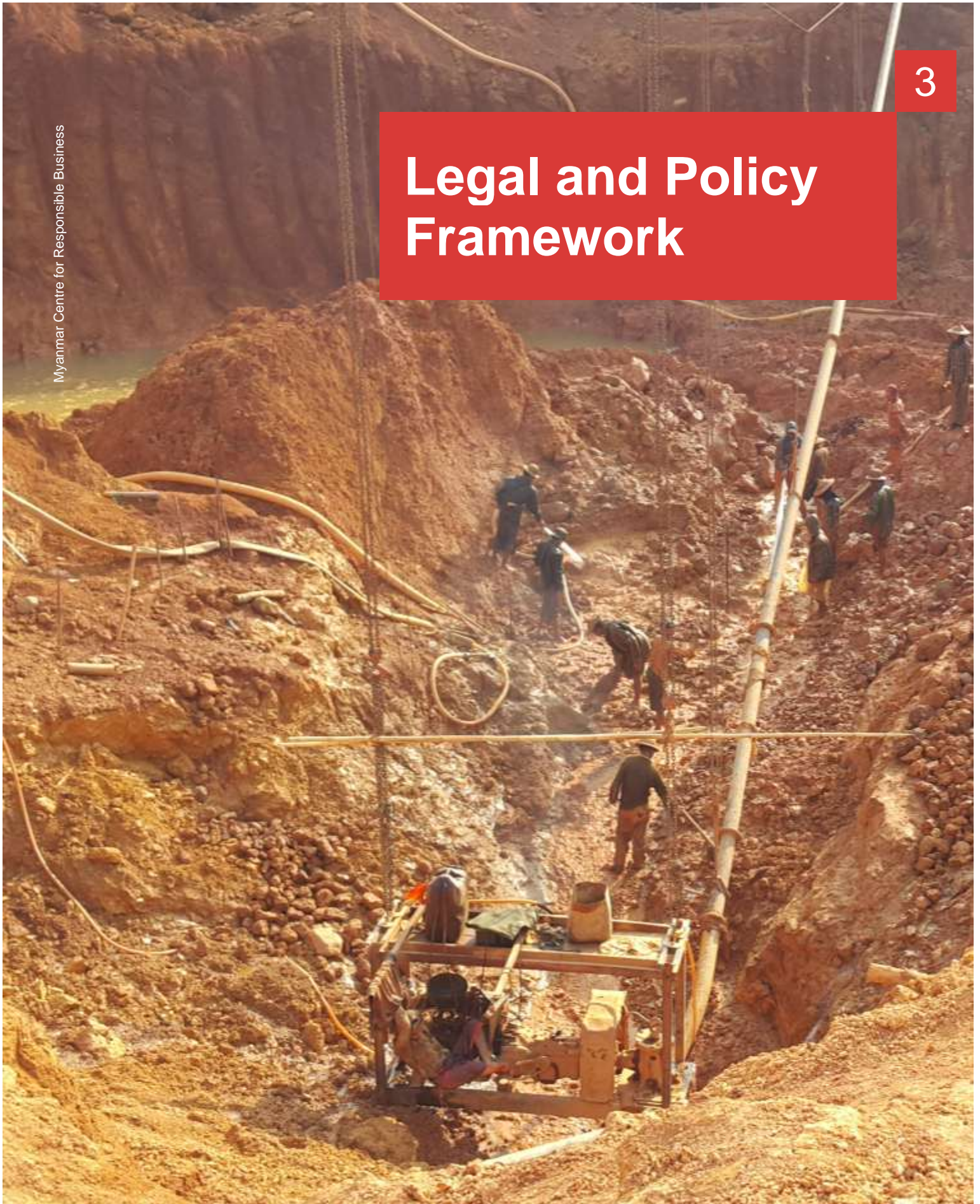
⁸⁷ International Growth Centre, [Natural Resources and Subnational Governments in Myanmar](#), 2014, p. 9.

⁸⁸ MCRB interviews, 2015.

⁸⁹ MCRB field research, 2016.

⁹⁰ MCRB interviews, 2015.

Legal and Policy Framework



Part 3

Legal and Policy Framework

In this section:

A. National Framework

- Myanmar Government policy and institutional framework relating to mining
- Ministry of Natural Resources and Environmental Conservation (MoNREC)
- The Role of State and Regional Governments
- Role of Parliament

B. Myanmar Legislation

- Myanmar Mining Law (2015), proposed Mining Rules (2018), and Production Sharing Contracts
- Occupational Safety and Health
- Protection of the Rights of National Races (2015)
- Environmental Conservation Law and Rules and Environmental Impact Assessment (EIA) Procedure
- Myanmar Investment Law

C. International Frameworks

- Extractive Industries Transparency Initiative (EITI)
- International Council on Mining and Metals (ICMM) Sustainable Development Framework
- Voluntary Principles on Security and Human Rights (VPSHR)
- China Chamber of Commerce of Metals Minerals & Chemicals Importers and Exporters (CCCMC) Guidelines for Social Responsibility in Outbound Mining Investments
- OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas
- European Union Regulation on Conflict Minerals

The following sections outline some of the legal and institutional frameworks relevant to the protection of human rights in the mining sector. In Myanmar, these issues are closely related to conflict, and question of control over natural resources and federalism. A January 2018 report by Natural Resources Governance Institute (NRGI)⁹¹ on natural resources federalism analyses the Myanmar legal framework for sharing resource governance powers and responsibilities on a number of issues, including licencing, cadaster⁹² and land management, fiscal frameworks and revenue collection, environmental management, occupational safety and health, local content and artisanal and small scale mining. It also identifies examples from other federal, unitary and mixed/decentralised mineral provinces in the Asia-Pacific region.

⁹¹ [Natural Resource Federalism: Considerations for Myanmar](#), NRGI, January 2018

⁹² The Burmese language does not have a word for 'cadaster' (which is generally defined as all activities linked with licensing, including the applications, registry, granting, issuing, management, mapping, and field delimitation of mineral rights. The concept is not included in Myanmar Mining Law.

A. National Framework

Myanmar Government policy and institutional framework relating to mining

Section 27 of Myanmar's 2008 Constitution grants the Union Government ultimate ownership of all land and all natural resources within the country's national territory, whether located above-ground, sub-soil or underwater and the ability to legislate for extraction of natural resources.⁹³ Ownership has not been delegated to state/regions, self-administered areas, or ethnic armed organisations, but there is some limited delegation of legislative and taxation power, including, since 2015, for small-scale and artisanal mining. This increased delegation of power is included in Law 45/2015 Amending the Constitution⁹⁴ (adopted July 2015) and specifically in amendments to Schedules 2 (relating to devolved powers for legislation) and Schedule 5 (for devolved taxation powers).

Concerning the mining sector, Schedule 2 Section 4 (which deals with delegated powers for environment and natural resources) was amended to the state/regional right to legislate *'in accordance with the Laws enacted by the Union'* on (g) small scale and artisanal mining extraction, (h) mine safety, environmental conservation and restoration, (i) small-scale jewellery business and individual operators and (k) environmental conservation, covering wild life protection, plants and land. Law 45/2015 also adds a clause (f) to Schedule 2 Section 4 concerning 'the ratio (sic) of natural resources production in states and regions' (the meaning is equally unclear in the original Burmese). Schedule 5 was amended to allow for collection of revenue from mining managed by State or Region, and tax levied on jewellery business managed by State or Region, both *'in accordance with the law enacted by the Union'*.

To date, it is not clear how far, if at all, these increased powers have been used. It is also unclear whether laws are required at Union level to trigger the legislative powers of states/regions in these areas. The 2015 Amendments to the Mining Law (see below) included some delegation of licencing for small-scale and artisanal/subsistence mining.

Myanmar does not yet have a stand-alone Mineral Resources Policy or other framework outlining the development priorities for the sector in detail (see Part 4, Sector-Level Impacts and Recommendations).

Myanmar became an Extractive Industries Transparency Initiative (EITI) Candidate country in July 2014 (see International Frameworks, below). MoNREC has also reconfirmed its plans to develop a mining cadaster and mineral licence registry which will make mining data publicly available, in line with EITI requirements.⁹⁵ The Ministry has announced plans to strengthen public-private partnerships in the sector and for the Mines Departments to carry out surveying and research of Myanmar's geology and mineral resources in collaboration with the Coordinating Committee for Geoscience Programmes in East and Southeast Asia and the Japanese International Cooperation Agency (JICA).⁹⁶

⁹³ [2008 Myanmar Constitution](#).

⁹⁴ [Law Amending the Union of Myanmar Constitution Law 45/2015](#) (Burmese only)

⁹⁵ Berwin Leighton Paisner, [100-day plans of various Myanmar ministries](#), May 2016

⁹⁶ Ibid.

The previous government also took steps to include and strengthen environmental and social safeguards including the promulgation of the first Environmental Conservation Law (2012) and Environmental Impact Assessment Procedure (2015). Under the NLD government the ministries responsible for environment and mining were merged, indicating a desire to strengthen the environmental management of the mining sector. An amended Environment Policy is expected in 2018, replacing the 1994 Policy.

The economic policies of the NLD government have not been fully communicated. However 'Priority Sectors' for income tax benefits adopted in MIC Notification 13/2017 of 1 April under the new Myanmar Investment Law⁹⁷ did not include mining. This suggests that the new government is cautious about promoting the sector. A similar caution has been seen in the unofficial suspension of new mining licences since 2016 (see Table 1), and the reluctance of State/Region Ministers to approve new licences or the continuation of old ones.

Ministry of Natural Resources and Environmental Conservation (MoNREC)

Myanmar's mining sector is overseen and regulated by two departments within MoNREC and four mining SOEs, each with a specific mineral focus (The SWIA's focus relates predominantly to ME-2, which oversees the production and marketing of both gold and tin. ME-2 maintains offices at the state and region-level in several states/regions. In those states/regions that are particularly rich in the minerals for which it is responsible, ME-2 has offices at the township-level in most townships. The production of limestone, the third commodity researched as part of the SWIA, was until 2015 managed under Mining Enterprise No. 3 (ME-3), which dealt principally with industrial minerals and aggregates. Since 2015, the mineral commodities overseen by ME-3 have been subsumed under the jurisdiction of other Mining Enterprises and limestone now sits within the remit of Mining Enterprise No. 1 (ME-1). The 1994 Myanmar Mines Law assigned the mining, production and marketing of antimony, lead and zinc and several other mineral ores to ME-1. The 2015 Amended Myanmar Mines Law no longer specifies the commodities governed by each SOE.

Box 5) and all reporting to the Union Minister of Natural Resources and Environmental Conservation.

- The Department of Geological Survey and Mineral Exploration (DGSME) licences prospecting and exploration stages of mine development and maintains three state/region offices but all licencing activity takes place in Naypyidaw.⁹⁸
- The Department of Mines (DoM) issues mining exploitation licences. It is also tasked with promoting investment in the sector, ensuring mine safety through inspections and regulation and enforcing mining laws and regulations.⁹⁹ It has five divisions:
 - Inspection
 - Conservation (Mineral and Environment).
 - Salt Division
 - Planning and Management Division
 - Development Division (issues licences and collects royalties)

⁹⁷ Myanmar Investment Commission Notification 13/2017, [Classification of Promoted Sector](#), 1 April 2017

⁹⁸ International Growth Centre, [Natural Resources and Subnational Governments in Myanmar](#), 2014.

⁹⁹ MEITI, [Myanmar First EITI Report](#), December 2015.

- Each of the four mining SOEs are responsible for the production and marketing of different commodities. They also carry out regulatory functions, such as the enforcement of laws and contracts and in the case of MGE licence allocation.¹⁰⁰

The SWIA's focus relates predominantly to ME-2, which oversees the production and marketing of both gold and tin. ME-2 maintains offices at the state and region-level in several states/regions. In those states/regions that are particularly rich in the minerals for which it is responsible, ME-2 has offices at the township-level in most townships.¹⁰¹ The production of limestone, the third commodity researched as part of the SWIA, was until 2015 managed under Mining Enterprise No. 3 (ME-3), which dealt principally with industrial minerals and aggregates.¹⁰² Since 2015, the mineral commodities overseen by ME-3 have been subsumed under the jurisdiction of other Mining Enterprises and limestone now sits within the remit of Mining Enterprise No. 1 (ME-1).¹⁰³ The 1994 Myanmar Mines Law assigned the mining, production and marketing of antimony, lead and zinc and several other mineral ores to ME-1.¹⁰⁴ The 2015 Amended Myanmar Mines Law no longer specifies the commodities governed by each SOE.¹⁰⁵

Box 5: Overview of State-owned Enterprises (SOEs) and their Responsibilities

Mining Enterprise (SOE)	Area of responsibility
No. 1 Mining Enterprise (ME-1)	Responsible for mining, production and marketing of antimony, lead, zinc, silver, iron, nickel and copper ores. Since the merger of ME-3 and ME-1 in early 2015 ME-1 is now also responsible for limestone.
No. 2 Mining Enterprise (ME-2)	Responsible for mining, production and marketing of gold, platinum, tin, tungsten, molybdenum, niobium, columbium, heavy mineral and gold ores.
Myanmar Gem Enterprise (MGE)	Responsible for mining and marketing of various precious gemstones and jade; and for licencing.
Myanmar Pearl Enterprise (MPE)	Breeding and cultivation of mother of pearl and pearl production.

The 1989 State-Owned Enterprises Law grants the Union Government the 'sole right' to carry out business in certain sectors. This includes all exploration, extraction and export of minerals, metals, pearl, jade and precious stones.¹⁰⁶ Private operators and investors may, however, participate in the mining sector through contracts with the Government or by entering joint venture agreements with the relevant SOE. Such joint ventures operate on a

¹⁰⁰ NRGI, [Gilded Gatekeepers: Myanmar's State-Owned Oil, Gas and Mining Enterprises](#), January 2016.

¹⁰¹ MCRB field research, 2016.

¹⁰² Adam Smith International, [Institutional and Regulatory Assessment of the Extractive Industries in Myanmar](#), May 2015, p. 19.

¹⁰³ MCRB interviews, 2016; Yangon SWIA consultation

¹⁰⁴ Adam Smith International, [Institutional and Regulatory Assessment of the Extractive Industries in Myanmar](#), May 2015, p. 19.

¹⁰⁵ Valentis Resources, [2015 amended Myanmar Mines Law \[unofficial translation and comparison\]](#), 27 January 2016.

¹⁰⁶ [1989 State-Owned Enterprises Law](#), Chapter II, Article 1(4) and (8).

production sharing basis, whereby the private partner is responsible for raising all capital for investment and production is shared with the relevant SOE in accordance with the terms and conditions set out in a negotiated Production Sharing Contract (PSC).¹⁰⁷ While both production sharing split and other taxes and royalty payments vary depending on several factors, including the mineral and whether the operator is a foreign or Myanmar citizen investor, the ratio is typically in the range of a 70%/30% split to the private company and the mining SOE, respectively.¹⁰⁸ According to government officials, all mines today have been either privatised or are operating in a public-private joint venture, with no mining projects run solely by an SOE.¹⁰⁹

The Preliminary Diagnostic Report on the Myanmar Mineral and Gemstones Cadaster System Conceptual Design¹¹⁰ identifies serious weaknesses with the present institutional organization of MONREC with implications for transparency and oversight of safe and sustainable mining practices. It notes that in relation to licensing mineral rights, the Ministry does not fulfil the international standards of separation between monitoring the activities and granting the mineral rights. As consequence, there are potential conflicts of interest and it is not possible to guarantee the objectivity, transparency, equity and fairness in decisions affecting the granting of mineral rights. This comment is applicable to the entire mining sector, but it is specially indicated to the gemstones, where the MGE commercial interests and responsibilities are intermixed with licensing and regulatory responsibilities.

The cadaster expert's preliminary diagnostic recommends that the only solution to correct these problems is to modify the present organization of MONREC so as to create a new unit named Mineral Rights Cadaster with exclusive responsibilities for licensing, including the reception and registration of applications, the verification of eligibility, checking the overlapping, evaluating for granting or submission to granting authority and maintenance of the mineral rights (renewal, transfer, extension, expiration, etc.). This would involve removing licensing activities from their present institutional position in DGSME, DOM and MGE, and transferring them to the new Mineral Rights Cadaster. Different procedures for the licencing of each mineral rights, as well as for exploration and mining rights would still be applied, within a unified Mineral Rights Cadaster.

The role of State and Regional Governments

Delegated approval of small-scale and subsistence mining

Under the 2015 Amended Mining Law (Section 10), issuance of small-scale and subsistence permits is delegated to regional governments. To facilitate this, Mines Plot Scrutinizing and Permit Granting Boards at the state/region-level were introduced by the 2015 Amended Law. These Boards exist to review permit applications and may, after obtaining comments from the Union Ministry, grant permits for prospecting, exploration, feasibility studies and small- or subsistence-scale production and processing, buying and selling within the region or state. It is not clear whether State/Regional Boards are yet in place. The DGSME/Mining Department has expanded and established regional offices in

¹⁰⁷ MEITI, [Myanmar First EITI Report](#), December 2015.

¹⁰⁸ MCRB field research, 2016; MCRB desk review of mining sector PSCs, August 2016.

¹⁰⁹ MCRB Interviews, 2016.

¹¹⁰ Submitted to the Ministry of Planning and Finance, under Contract No MEITI-CS 003/2017 by Enrique Ortega, November 2017 as amended January 2018. Copy held on file by MCRB

Kachin, Karen, and Shan State (North and South), as well as Sagaing, Mandalay and Yangon Regions. These branch offices would support the establishment of the regional Scrutinising Boards¹¹¹.

In current practice, small-scale companies may choose to apply for mining licenses directly with DoM in MoNREC, Nay Pyi Taw, or to go through the state or regional government in which their desired concession is located. If the second approach is chosen, prior to issuing a permit, current practice is that DoM requires 'recommendations' from the state/regional government, recommendations from respective Township GAD, Township Land Records Department, Township Forestry Department, Village Administrator and villagers who would be affected by the project.¹¹² During MCRB field research it was also observed that in some states/regions there was a township-level requirement for the project proponent to be able to document 'consent' of the local community. Often acting through the village administrator, or GAD, the project proponent may meet this requirement by collecting 10 signatures of 'village respected persons'. Some field research observed that costs associated with obtaining these signatures were charged to the companies' 'CSR' budget.

The consequence of delegating permitting of small-scale and subsistence mining, particularly in the absence of an online cadaster, is that, although regional Mines Plot Scrutinizing and Permit Granting Boards are required to seek the Union Ministry's views on applications, there is no complete and updated register of all mine permits awarded at the state/region and national level (i.e. a unified cadaster). This could be a source of conflict between large and small-scale/subsistence operators with overlapping tenements.

Role of state/regional government in large and medium-scale mining

It is clear that states/regions currently have no legal power to approve large/medium-scale mining projects without reference to Naypyidaw. However state/region governments, parliamentarians and civil society groups, as well as local stakeholders, are all important, and in some cases newly created, stakeholders for a mining company in Myanmar.

Current practice is that mining companies are expected to obtain a recommendation letter from the State/Region Government, even at the early prospecting and exploration stage. It is not clear where this requirement arises from, and it is not explicit in the Mining Law or draft Mining Regulations. Nor is it clear whether a state/regional government has the legal power to block a licence by withholding such a letter¹¹³. The actual process for obtaining a recommendation is also unclear. Local practice differs, including between townships in the same state. This lack of regularity clarity raises major concerns for companies, including increased corruption risk.

Figure 1 shows the experience of a foreign company applying for a so-called 'integrated permit' (covering Prospecting to Feasibility phases). The company was seeking at this point to undertake Prospecting to narrow down options for Exploration, and consequently was seeking a permit to prospect in a wide area. The complexity of the permission process the

¹¹¹ Communication from DoM to MCRB, November 2016

¹¹² Ibid.

¹¹³ See [Natural Resource Federalism: Considerations for Myanmar](#), NRG, Jan 2018 for an analysis of how subnational permissions, consents and veto powers can be arranged under difference governance systems

company was required to follow at this stage may arise from a reading of the requirement to obtain permission from landowners and a variety of authorities for use of different types of land at Feasibility/Production stage (see Part 5.3, Land).

The processes and documentation required at each level (region/state, township and village) appeared to be ad hoc depending on the official concerned, and in all cases far more extensive than was required at this stage of the mining cycle. In one case they were required - in writing - to pay a 'production tax' to a township tax office, even though no specific legal basis for this could be demonstrated.

In some areas, the company was required to obtain significant amounts of about tree girth, presence of monasteries etc township by township and village by village data¹¹⁴. Each such request, in addition to the direct cost incurred to both government and company, raises the risk of demands for facilitation payments ('tea money').

Given that the prospecting and exploration phases of the mining cycle involves the progressive narrowing down of a large area to one or more smaller targets, it is important that the baseline data and community engagement required in each stage is proportionate. There is a probability of 0.001 or less that prospecting in an area will ever lead to an actual mine. The gathering of significant amounts of data from a wide area at this stage is therefore disproportionate. It is more appropriate for the feasibility stage, when the resource location is identified, and the area of survey significantly narrowed down.

Since the election, some new Chief Ministers have taken a close interest in the sector particularly in Sagaing and Tanintharyi Regions, where civil society is opposed to mining due to a long history of negative impacts. In July 2016 the Tanintharyi Chief Minister suspended two large tin mines over non-compliance with environmental regulation and causing environmental damage.¹¹⁵ The Regional Government appears to have decided to not support renewal of existing permits or issue new mine permits until environmental issues have been addressed in operational mines.¹¹⁶ It has formed a mines scrutinising group led by the Tanintharyi Region Minister for Natural Resources and Environmental Conservation.

As mentioned previously Myanmar does not yet have a National Mineral Resources Policy. If adopted, the National Mineral Resources Policy could be complemented by Region/State Mineral Resources Strategies which could set out local objectives, including the local appetite to receive mining investment, and any incentives or additional restrictions such as no-go areas that the state/region imposes.

¹¹⁴ MCRB SWIA consultation and interviews, 2016

¹¹⁵ Myanmar Times, [Two controversial tin mines suspended in southern Myanmar](#), 21 July 2016.

¹¹⁶ Myanmar Times, [Tanintharyi tightens mining oversight](#), 17 August 2016.

Company Case Study: Integrated Permit for Prospecting, Exploration, and Feasibility (Valid for 5 years, with possibility of an additional extension of 4 + 2 years)

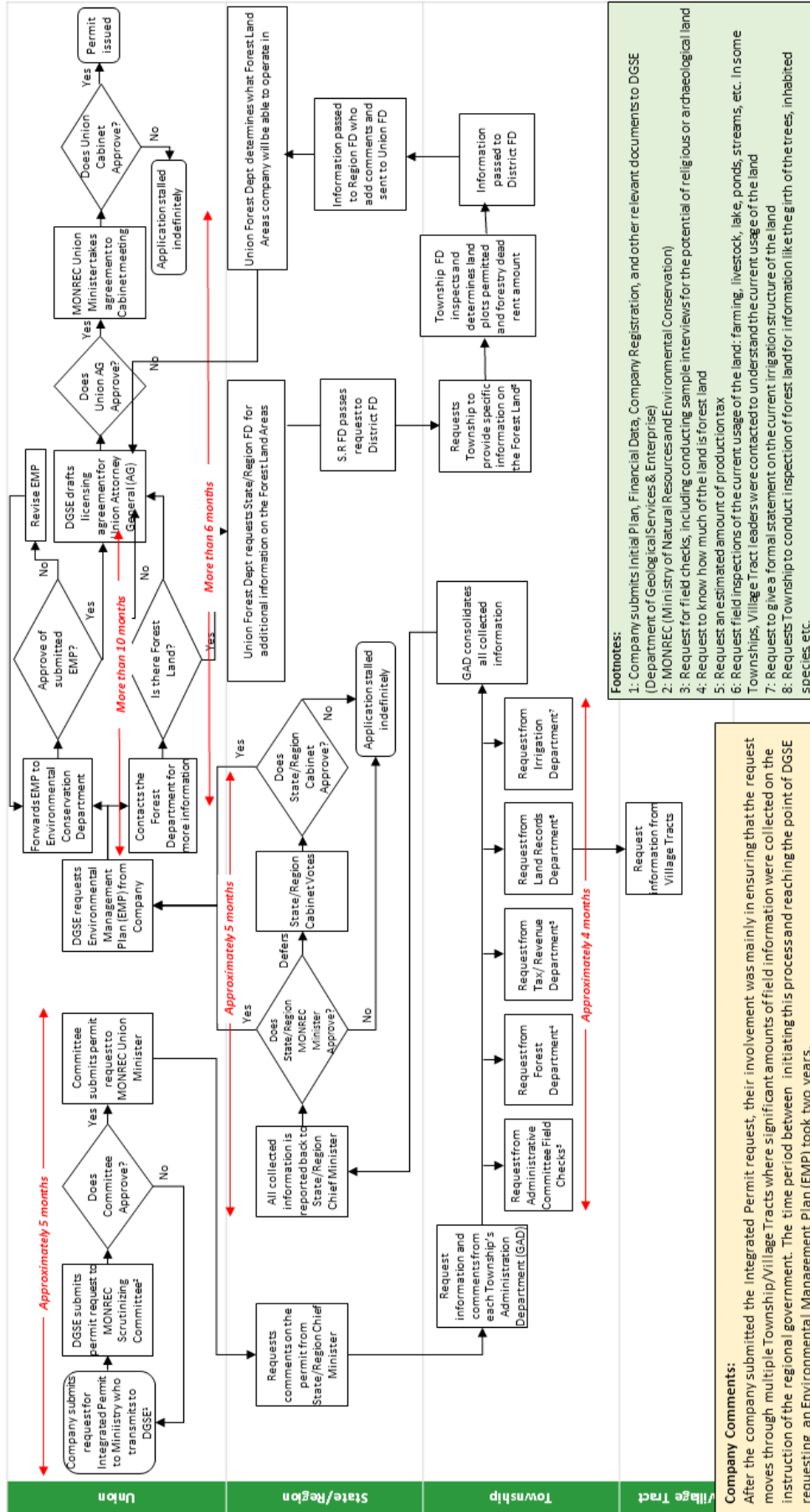


Figure 1: Company experience of applying for an integrated permit

Local administrative oversight functions

In addition to local Mining Department branch offices, there are also subnational branches of the Forestry Department as well as the Environmental Conservation Department, all under MoNREC, operating at the state and region level. The opening of ECD branch offices appears to be aimed at localising certain activities such as inspections. Many mining-related government functions at local levels are carried out by the General Administration Department (GAD), a department under the Ministry of Home Affairs, which operates at both the region/state level and at the township level. Officials from GAD will often work collaboratively with the local Forestry Department and the village administration, typically the village tract or village leader, and sometimes a group of respected village elders. In areas where branch offices of a mining SOE exist, these often have a dual commercial and regulatory function, sometimes even collaborating with township-level law enforcement agencies to curb illegal mining.¹¹⁷ Regardless of permitting authority, formal income currently accrues to central bodies. Thus, while state and region government level officials must exercise oversight, they do not receive income from mining to pay for them to do so.

Role of Parliament

Parliament at both Union and State/Region level has shown a strong interest in mining. A Mineral, Natural Resources and Environmental Conservation Committee was formed by the Amyotha Hluttaw, the Upper House of Parliament, superseding the Minerals and Natural Resources Management Committee of the out-going Government. The Committee has announced its intention to attempt to limit illegal mining activities and the environmental damage.¹¹⁸ The Lower House Pyithu Hluttaw has a Natural Resources and Environmental Conservation Committee.

B. Myanmar Legislation

Myanmar Mining Law (2015), proposed Mining Rules (2018), and Production Sharing Contracts

The 2015 Amended Myanmar Mining Law is the main piece of legislation governing the mining and minerals sector in the country¹¹⁹. It sets out the mining licensing framework, the respective roles and responsibilities of MoNREC officials at the Union- and state/region-levels, the fiscal regime and royalty rates for minerals, as well as the objectives of mine inspections and penalties for non-compliance with the Mines Law. The 2015 Amendments to the Law were adopted following three years of Parliamentary debate, much of it led by MPs with mining business interests. While the amended Law includes some improvements, it maintains many of the weaknesses in the 1994 Law, including its structure, scope and approach. It has been criticised by various stakeholders, including business and civil society.¹²⁰ Inter alia, it lacks basic requirements for effective mining regulation found in other countries' Mining Laws, such as a Mineral Cadaster.

¹¹⁷ MCRB field research, 2016.

¹¹⁸ Myanmar Times, [Amyotha committee takes aim at resource extraction](#), 22 February 2016.

¹¹⁹ [Law Amending the Mining Law](#) (Burmese only), Pyidaungsu Hluttaw law 72/2015 of 24 December 2015

¹²⁰ Stephenson Harwood, [Myanmar Mines Law Amendments](#), 14 March 2016

According to the Constitution, bye-laws should be passed within 90 days of the law to which they are an auxiliary. Although the Amended Mining Law was enacted in December 2015, Rules were only adopted by Cabinet in February 2018. At the time of SWIA publication, they were with Parliament for consideration. In the meantime, the 1996 Myanmar Mining Rules remained in force.¹²¹ Industry stakeholders as well as CSOs working to improve the fiscal, social and environmental management of Myanmar's mining sector had hoped that there would be transparent public consultation on the draft Rules, something which was lacking in the adoption of the Mines Law.¹²² In February 2016, the Ministry, with encouragement from its technical advisers, sought initial public input, and received submissions inter alia from MCRB.¹²³ However no text of the draft Rules was subsequently released for consultation, and the 100-page Rules were adopted in February 2018.

The following is an overview of the 2015 Amended Myanmar Mining Law, and proposed 2018 Mining Rules. (Details of provisions for subsistence mining are in Chapter 2).

Commodity Scope

- The 2015 Law separates the legislation on gemstones from other minerals and makes reference to the 2016 Gemstone Law. The scope of the 2016 Gemstone Law (currently under further revision) covers jadeite as well as rubies, sapphires, diamonds and other coloured gems present in Myanmar. The Myanmar Gemstone Law is also complemented by a distinct set of regulations for the gemstone sector, the Gems Rules (in July 2016 still in draft form and under Parliamentary review). These are institutionally managed separately by the state-owned Myanmar Gem Enterprise (MGE). In other jurisdiction, gems are rarely regulated entirely separately from other types of minerals and the rationale for keeping them separate has been questioned in view of governance problems in the sector¹²⁴.
- The Amended Mining Law sets the legal framework for all other minerals, including precious and heavy metals as well as industrial minerals.
- Pearls, though not considered a mineral, are also within the scope of MoNREC regulatory oversight. Like gemstones they are regulated separately by the 2014 amended Myanmar Pearl Law.¹²⁵

Licensing and Ownership

The 2015 Amended Myanmar Mining Law maintains the restrictions on foreign investment, which is only permitted in large-scale mining of minerals. This is also reflected in the 2016 Investment Law in which small- and medium-scale mining are 'restricted activities' open only to Myanmar companies, not foreign investors (see below) and only with Ministry permission. The 2015 Amending Law also:

¹²¹ [Myanmar Mines Law, 1994](#)

¹²² MCRB interviews, 2016.

¹²³ MCRB, [Submission on the drafting of Rules implementing the Myanmar Mines Law](#), 7 March 2016.

¹²⁴ [Does Myanmar need a gemstones law?](#) Paul Shortell, NRGi in Myanmar Times, 25 January 2017; [Governing the Gemstones Sector: Lessons from Global Experience](#), NRGi, May 2017; and [Governing the Gemstones Sector: Considerations for Myanmar](#), NRGi, May 2017

¹²⁵ [The Law Amending the Myanmar Pearl Law](#), 2014

- Introduced amendments to permitting types and procedures.
- Introduces a 'Medium-scale' Mineral Production Permit.
- Does not include sizes for the different types of large, medium, small-scale and subsistence mine in the Law; this is left for the Rules. The proposed 2018 Mining Rules retain the complicated arrangements for different types of licence in the 1996 Rules. Types of permit – large, medium, small scale or subsistence - are defined by a combination of permit length, size, commodity and type of ownership (foreign or Myanmar). Compared to the 1996 Rules, some sizes of permits have been reduced and lengths of permits have been changed.
- Distinguishes between foreign and citizen (Myanmar) investment for the purposes of licensing and royalty payments, providing greater flexibility for local investors than foreign investor with regard to royalty payment arrangements (Chapter III). (According to MCRB field research in 2016, the PSC terms for domestic investors allowed them to meet their production sharing requirements by submitting mineral of a lower purity grade than that required of foreign investors).
- Introduces the possibility for Myanmar citizen investment under medium or small-scale permits to be converted into large-scale extraction involving foreign investment, subject to geographical and surveying reports and the quality and volume of the mineral deposit in question (Chapter III, Art7c). Transfer of a mineral licence is subject to review and approval of MoNREC.
- Updates the definition of Large-scale Mineral Production Permits
- Extends the maximum validity of the large-scale licence, from 25 to 50 years. This was an issue which both Myanmar and prospective foreign investors advocated for.¹²⁶ They argued that increased security of tenure could attract increased foreign investment. Furthermore, longer timeframes for operation will encourage more sustainable mining practices as operators will not rush to extract as much mineral as possible before their production permits expire.
- Increased penalties for violations such as informal mining

Table 2 seeks to provide an overview of the different types of minerals licences believed to exist following the adoption of the 2015 Law and outlined in the proposed 2018 Rules, other than gemstones licences which are not covered by this SWIA and Subsistence Mining (covered separately).

Permits are all issued by 'the Ministry' i.e. MoNREC, after the approval of the Ministry's Administrative Committee, with the exception of small-scale production permits. According to Rule 87(a), these can be issued by a State/Region Plot Scrutiny and Issuing team, after submitting a report and obtaining the opinion of the Ministry (which may be a mechanism to avoid overlapping tenure).

¹²⁶ MCRB interview, 2016.

Table 2: Types of Mineral Exploration and Production Permits

Permit type	Maximum Size (Rule 12)	License Length (years including max extensions)
Large Scale	1 to 2100 km ²	Prospecting (Rule 10 + 17b) 1+1 Exploration (Rule 26 + 32b) 3+1+1 Feasibility (Rule 38 + 44 a,b) 1+1+1 Production (Rule 52 + 58) 15 to 50, + 5
Medium Scale	Up to 1 km ²	Prospecting (Rule 10 + 17b) 1 +1 Exploration (Rule 26a,b + 32) 3+1+1 Feasibility (Rules 38, 44 a,b) 1+1+1 Production (Rule 68 + 74) 10 to 15, + 2
Small Scale		
Industrial raw mineral or stone	< 0.08 km ² (20 acres)	Prospecting (Rule 11 + 17c) 1+1 Exploration (Rule 27 + 32c) 1+1+1 Production (Rule 86 + 92) 5 to 10, + 2
Metals other than gold and other precious metals	< 0.04 km ² (10 acres)	
Gold	< 0.016 km ² (4 acres)	

Permitted activities for different stages are not included in the February 2018 version of the Mining Rules (previous versions contained a list of permitted Exploration activities) although aerial survey under Prospecting is permitted.

In all cases, and regardless of the stage of the mining cycle and type of licence (i.e. Prospecting, Exploration, Feasibility or Production), the maximum size of the area allowed is set out in Rule 12 by commodity and permit type (Large, Medium or Small). This approach of maintaining potentially the same tenement area throughout the project cycle needs to be reviewed, as it could result in a Production Permit being issued for a maximum area of 2,100 km², which is larger than the island of Mauritius.

The steps of the licensing process itself, including the basis on which licence applications are evaluated by MoNREC, are not clear from either the Law or Rules (see Chapter 4). MoNREC makes some forms available online that give some insight into the type of information that applicants are required to provide as part of applying for a mineral licence.¹²⁷ But apart from this, there is no information publicly available that clearly explains the process that MoNREC applies for receiving and evaluating licence applications.

MCRB research indicated that in practice, mineral licences are reviewed and approved by a committee from MoNREC, with input from the DGSME and ECD, as well as the relevant SOE. However, the respective roles of these different stakeholders in decision-making is not elaborated in the Law, Rules, or other publicly available documentation. As outlined above, pursuant to the 2015 Amended Mining Law, the permit application process for subsistence and small-scale permits has – at least in theory - been devolved to the region/state-level.

Myanmar's first EITI report indicates a number of factors that are taken into account by MoNREC in the evaluation of licence applications. However, how these different factors are weighed is unclear. This leads to a high level of discretion on the part of the Government, as well as uncertainties for investors. The complexities and complications of the current licensing regime and its interaction with other laws such as the Investment Law and EIA process are discussed further in Part 4.

Integrated Prospecting, Exploration and Feasibility Permit

One problem with the 2015 Amended Mining Law (and 2018 proposed Rules) is that, like the 1994 Mining Law, it does not provide mining companies with reassurance on the question of 'conjunctive tenure'. This is the legal guarantee that the resource which a company identifies through investment in prospecting and exploration will not be taken away from them prior to production and handed to another company. Without this guarantee, few major companies will take the risk of market entry.

To address this uncertainty, potential investors in large scale mines have, at prospecting stage, sought 'integrated' mining permits for 'at least three stages' of the mining project cycle, typically prospecting, exploration and feasibility. These are valid for a period of five years, extendable up to nine. Some integrated permits have been issued in 2016 and 2017 under section 9(d) of the Amended Mining Law. However such 'integrated permits' are confusing for stakeholders. They also must not override the need to assess and permit companies at each stage-gate or the project cycle, in particular concerning management of environmental and social impacts.

Mineral Processing Permit and Trading Permit

A new type of Permit for Mineral Processing was introduced as Article 10 of the Amended Mining Law (2015), which permits, according to Chapter 10 of the Rules, Large-scale processing permits for 15-50 years with a 5 year extension, Medium-scale permits for 10-15 years with a 2 year extension, and Small-Scale for 5-10 years with 2 year extension.

¹²⁷ NRGI, [Mineral and Gemstone Licensing in Myanmar](#), April 2016, p. 8.

What constitutes large, medium and small-scale is unclear. Chapter 11 of the Rules sets out Rules for a Mineral Trading Permit.

Artisanal/subsistence miners

Subsistence mining is addressed in the proposed 2018 Mining Rules, with plot size defined under Rule 97 as < 1 acre for gold and other valuable metals (and for gold plots, only 1 plot may be granted per household); < 3 acres for other metals; and < 5 acres for industrial raw minerals or stones. Various requirements concerning operations and closure are defined in other parts of the Rules (See also Part 2). However, the inclusion of subsistence mining in the 100+ pages Mining Rules is not a user-friendly way to regulate subsistence miners. Moving the provisions into a separate set of Rules would be more practical and allow for the flexibility needed to address its specific nature.

Fiscal regime: production sharing terms, taxes and royalties

The 1994 Mining Law required foreign investors to operate in a joint venture with a Myanmar company and the relevant mining SOE, either on a production sharing basis or profit sharing basis. Production Sharing Contracts (PSCs) are the most common royalty arrangement in Myanmar but globally, they are rarely used in the mining industry. There are a number of reasons why investment agreements or pure licensing regimes are preferable to PSCs in the mining sector (see Part 4). Their continued use in Myanmar has been a further factor discouraging foreign investment.

According to the 2015 amended Myanmar Mining Law, the holder of a permit for mineral production must pay a royalty on the value of the sale of minerals. According to the 1994 Myanmar Mines Law, this rate was determined by the former MoM (now MoNREC). This arrangement was reflected in the terms of the handful of PSCs obtained by MCRB as part of the SWIA research. However, the 2015 Amended Myanmar Mining Law sets fixed royalties for specific mineral groups (Box 6).

This specifies that the mineral tax is to be calculated based on the percentage of pure metallic mineral which the traded commodity contains, and the prevailing international price of the mineral(s) in question at the time of the sale (Chapter 19). The 'prevailing international price' appears to be determined in a fairly inconsistent manner, with limited detail provided in the Law or PSCs reviewed by MCRB as to how this figure is determined. Where the actual sales price of a mineral is less than the 'international price' set, the royalty rate paid by a company risks being higher than what is indicated by the Law.

The 2015 amendments introduce the opportunity for Myanmar companies to pay royalties in minerals. Previously, royalties were legally required to be paid in cash. Companies operating in joint ventures with foreign investors may, however, only pay royalties in cash and only in Myanmar kyat, at the exchange rate set by the Central Bank of Myanmar. Field data collected by MCRB has indicated that some joint ventures including foreign investors and ME-2 pay the production share portion in kind, despite the requirement to pay in cash (i.e. they pay the production share for a gold contract in gold, rather than in monetary currency). For tin and tungsten producers, foreign joint venture operators are expected to contribute mineral concentrate at a higher level of purity than their Myanmar counterparts,

72% and 65% purity respectively, according to MCRB field data. It should be noted that all of these discriminatory provisions could risk challenge under Myanmar's Investment Protection Agreements, particularly if they are changed in future to make them even less favourable to foreign investors.

Box 6: Royalty Rates for Minerals, Amended Myanmar Mining Law (2015) S.18

Minerals	Royalty rate on sales price
Gold, platinum, uranium. May include other precious metallic minerals subject to Ministerial decision and Union Government approval. Such additions will be announced by ministerial notification.	5%
Silver, copper, lead, tungsten, nickel, heavy sands and others. May include other precious metallic minerals subject to Ministerial decision and Union Government approval. Such additions will be announced by ministerial notification.	4%
Iron, zinc, lead, tin, tungsten, aluminium, arsenic, manganese, cobalt and others. May include other metallic minerals subject to Ministerial decision and Union Government approval. Such additions will be announced by ministerial notification.	3%
Raw industrial minerals or stones	2%

As part of the SWIA research, MCRB reviewed several PSCs, which were shared confidentially by companies. A typical selection of the terms contained in one of these agreements with ME-2 is provided in Box 7. However the terms in each PSC are negotiable and can therefore be assumed to vary.

Social and environmental provisions in the Mining Law and Rules

Several subsections were added by the 2015 amendments to Mining Law which are intended to increase the scope of environmental and social responsibility of the mine operator.

- An addition to Section 13e (1) requiring mines to minimise environmental damage and negative impacts on local communities, and to make an annual contribution to a fund for environmental conservation.
- An additional requirement (Section 13e (2) to contribute to a Mine Closure Fund for environmental rehabilitation and reforestation.

The proposed Mining Rules contain (identical) 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 undertaken negotiations with local communities about local social responsibility, and obtained their agreement.

Box 7: Overview of Terms Contained in a sample Production Sharing Contract

- PSC entered into by ME-2 Managing Director, who represents Ministry, and head of the private company.
- Specifies in MMK the minimum investment to be made and that this amount must be invested solely by the private partner in the joint venture.
- Profit sharing: an initial minerals tax is required whereby 50% of the production is taxed at 4% during the first 12 months of production.
- After this initial period, the production is split between the two JV partners at 30% to the SOE and 70% to the mine operator.
- In allocating fiscal value to the JV's monthly mineral production, PSC sets out a process whereby price is calculated on the basis of the average price 'on the global market value' of the mineral in question, as available online.
- Mining SOE may choose to receive its share of production as mineral or cash, as determined by the market price set by the above procedure. Not clear from the PSCs reviewed whether this choice may be made on a monthly or yearly basis, or at another interval. Flexibility to choose mineral or cash allows mining SOE to stockpile while mineral prices are low and receive cash when prices are higher
- After the deduction of mineral tax, the 'remaining minerals' shared by the mining SOE and private company according to the formula: Production in metric tons \times 100% = ME-2 (30%) \times metric tons \times operator (70%) \times metric tons.
- Project-related costs such as transportation and production are to be assumed by the private partner
- Operations must proceed in accordance with plan approved by SOE.
- Operator must compile a monthly report on production, storage and sales according to a mutually agreed-upon format. Copy must be submitted to SOE partner on a monthly basis.
- SOE partner agrees to provide support to the private partner with mineral exports, if needed, as well as support the operator in setting up a foreign currency bank account to allow the company to save export revenue.
- SOE partner assumes responsibility for preventing other parties from entering the concession area by cooperating with regional authorities.
- Operator must take out insurance as stipulated in 1993 Myanmar Insurance Law.
- Sets out terms for dispute arbitration between the company and mining SOE, stating that dispute resolution steps must meet the standards set out in the 1944 Myanmar Arbitration Act. Arbitration must take place in Nay Pyi Taw.
- States that if minerals are found within the permit area other than that or those for which the operator holds a permit, this must be reported to the mining SOE. One PSC reviewed (wherein ME-2 is the public JV partner) notes that if diamonds or coloured gems are found, these will be owned by ME-2, not the Gems Enterprise.
- Indicates that prior permission must be obtained from the Ministry of Forestry if any trees are to be felled, including within the concession area.
- Land on the mined concession must be reforested by the private partner after mine operations end, or the private partner must pay compensation.
- Where homes, farms or land have been damaged by operations the private partner must pay compensation to affected parties.

The proposed Mining Rules also cross-reference in multiple places the need to abide by the Environmental Conservation Law, Rules and EIA Procedure (see Table 3). However they also appear to be pre-determining the type of process (EMP, IEE, EIA etc) to apply, even though this is not consistent with sizes and thresholds in the EIA Procedure Annex 1 (see extract in Table 4) which 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 e.g. located in an environmentally sensitive area (Art 25). The size thresholds for mining were hotly debated in 2015 between the two then Ministries. Requirements in the draft 2018 Mining Rules are therefore inconsistent with the EIA Procedure which will lead to legal uncertainty.

The Law states that where an EIA is required, costs are to be shared with the JV partners (Section 35a) (see Environmental Impact Assessment (EIA) Procedure below).

Table 3 Requirements for EIA, IEE or EMP in the draft Mining Rules

Stage	Rule	Apparent EMP/IEE/EIA requirement according to 2018 Mining Rules
Prospecting	8 e	Screening ('shall submit a project proposal')
Exploration	24 f	Environmental Management Plan (EMP)
Feasibility	37 e	Environmental Management Plan (EMP)
Large-scale Production	48 f	Environmental Impact Assessment (EIA)
Medium-scale Production	64 g	IEE or EIA
Small-Scale Production	82 f	Initial Environmental Examination (IEE)
Subsistence	97 c	Initial Environmental Examination (IEE)

Feasibility Study

The 2015 Amended Law introduced the concept of Feasibility Study defined in amended Section 2(i) (a) as *'the examination of a mineral deposit following Exploration to ensure whether it can be mined commercially or not. This includes consideration of mining, processing and marketing, as well as analysis of the environment and social impacts.'* Establishing the requirement for a Feasibility Study has the potential to enable the Myanmar Government and its agencies to better and more holistically review and compare the projected fiscal benefits of a proposed project relative to its negative impacts. However, it is unclear that MoNREC DoM will have the capacity to accurately assess Feasibility Studies, including reviewing the accuracy of projection models, plans and budgets submitted by the company or their representatives. Industry sources told MCRB that the government mineral sampling lab lags far behind international industry standards. Technical studies based on

specialist sampling methods may therefore be inaccessible to the officials reviewing a company feasibility study in Myanmar. This may place DoM in the position of having to trust company-generated geological data and financial projections, which may affect the outcome of company-Government mine negotiations.

Cost and revenue estimates at the feasibility stage are key to deciding on revenue splits and tax breaks. The feasibility stage is also when the need for community investment and infrastructure development is determined. Expert input to government at this stage would therefore be beneficial. For this reason, in some jurisdictions, feasibility studies have to be either performed or approved by independent experts external to the company, typically mining engineers and economists specialised in financial modelling. While project-level EIAs have to be undertaken by qualified third parties registered with ECD, there is currently no such stipulation for feasibility study experts in the 2015 amended Myanmar Mining Law, and the proposed Rules do not provide clarity.

Occupational Safety and Health

MCRB field research identified health and safety to be a major issue in both the formal and informal parts of the mining sector (see Part 4: Sector-level impacts and Part 5.4: Labour). There is a pressing need for regulatory oversight and enforcement. In particular, it is important that health and safety requirements in different laws and regulations are aligned, accountabilities are clear, and resources are committed to enforcement.

Currently Myanmar lacks a complete legal framework for occupational safety and health (OSH). OSH is partially covered by sectoral laws including the Factories Act, and the 1996 Mines Rules contain some provisions on health and safety (see Part 5.4: Labour). A draft Mines Safety Law was elaborated by the former Mines Ministry and submitted to the previous Parliament. It covered OSH in the mining industry and some environmental impacts. It is unclear whether its provisions are now incorporated in Chapters 28 and 29 the proposed 2018 Mining Rules.¹²⁸

The question of accountability for OSH in the Mining Sector is also further complicated by the introduction of the EIA process, which is overseen by the Environmental Conservation Department (ECD), MONREC. The overlapping and unclear responsibilities for OSH and its implications for decentralisation and federalism are further explored in NRGi's report¹²⁹.

Draft Occupational Safety and Health (OSH) Law

A draft Occupational Safety and Health Law which was prepared for several years within the Ministry of Labour, Immigration and Population (MOLIP) was sent to Parliament in 2017¹³⁰. The timetable for its passage is uncertain. The scope of the Bill (Article 4) covers all sectors, public and private, including 'mining and gems exploration and any modification process related to them'. It also reflects a change of approach advocating a bipartite system where both employers and employees take ownership of occupational safety and health systems, while the government oversees the implementation of this process.

¹²⁸ MCRB interviews, 2016; MCRB has seen a partial early draft.

¹²⁹ [Natural Resource Federalism: Considerations for Myanmar](#), NRGi, January 2018

¹³⁰ [Occupational Safety and Health Bill](#) as presented to Parliament, 2017 (Burmese)

The Bill contains three key provisions:

- Creation of a national OSH Council to facilitate tripartite discussions, after which decisions can be adopted at a national level.
- Formation of workplace safety and health committees with equal numbers of employer and employee representatives. Such committees will be directly responsible for the implementation of national OSH policies at the workplace.
- Appointment of a qualified workplace safety and health officer to provide technical support to employer and employee representatives.

However the Bill could be improved. In particular:

- the proposed requirement for approvals from the Director-General prior to establishing a business or undertaking various steps such as constructing a new building or installing a machine, creates additional administrative burden and may duplicate other approval processes such as EIA
- there is an ambiguous reporting relationship between Health and Safety Officers and the Ministry which appears to undermine the need to reinforce that the highest levels of company management must be directly responsible for establishing a safety culture and must be held accountable for it
- the Draft OSH Law could adopt more of a risk-based approach, in which organisations, relevant authorities and workers identify, assess and understand occupational health and safety risks to which they are exposed to, take mitigation measures in accordance with the level of risk and are held accountable for the outcome¹³¹.

The OSH Law provides for the option of introducing sector-specific OSH Rules. To ensure consistency between the Mining Law and Rules safety provisions, it could be advisable to extract the OSH provisions from the proposed 2018 Mining Rules, and adopt them as sector-specific Rules which could also be brought in line with the cross-sectoral OSH Law, once adopted. The guidelines produced by BGR (see Part 4 below) could also be incorporated into a separate set of Mining OSH Rules, or detailed Notifications.

Protection of the Rights of National Races (2015)

Article 5 of the 2015 Law Protecting the Rights of National Races is relevant to the mining sector. It states that '*hta-nay tain-yin-tha* [the usual phrase for Indigenous People] should receive complete and precise information about extractive industry projects and other business activities in their areas before project implementation so that negotiations between the groups and the Government/companies can take place.'¹³² However a definition for '*hta-nay tain-yin-tha*' was not included in the Law, and this and other issues need to be addressed in bye-laws which, as of February 2018, were still being prepared.

Environmental Conservation Law and Rules and Environmental Impact Assessment (EIA) Procedure

¹³¹ [MCRB and Australian Chamber submit comments on new OSH Law](#), 3 November 2017

¹³² [Indigenous Peoples' Rights and Business in Myanmar](#), Myanmar Centre for Responsible Business briefing Paper, February 2016

Environmental protection in Myanmar's mining sector is regulated by a combination of regulations under the Mining Law, a number of cross-sectoral laws on issues like water, land, forestry and hazardous substances, and the 2012 Environmental Conservation Law (ECL)¹³³. The ECL established a requirement for EIA (referring to it as 'EIA and SIA'). The supplementary 2014 Environmental Conservation Rules¹³⁴ re-iterated a requirement for 'ESIA' (sic), is elaborated in the 2015 EIA Procedure¹³⁵ where it is referred to as 'EIA'¹³⁶.

Article 2(g) of the EIA Procedure clarifies that 'environmental impact' includes social impacts. These in turn include Involuntary Resettlement and those relating to Indigenous People. Article 2(h) defines 'Adverse Impact' as '*any adverse environmental, social, socio-economic, health, cultural, occupational safety or health, and community health and safety effect suffered or borne by any entity, natural person, ecosystem, or natural resource, including, but not limited to, the environment, flora and fauna, where such effect is attributable in any degree or extent to, or arises in any manner from, any action or omission on the part of the Project Proponent, or from the design, development, construction, implementation, maintenance, operation, or decommissioning of the Project or any activities related thereto*'. The Procedure also requires cumulative impacts to be addressed.

Where a Project requires it, one of two types of assessment should be done: either a full EIA using a qualified consultant registered with ECD; or, in the case of a lower impact activity, an Initial Environmental Examination (IEE). An IEE lacks the initial Scoping Phase of the EIA but is otherwise similar. In either case, an Environmental Management Plan (EMP) should be established to mitigate impacts. This should be approved by MONREC to become a contractual commitment by the Project Proponent (company). This leads to the issuance of an Environmental Compliance Certificate (ECC) by ECD, which then monitors the Project for compliance (see Part 5.7: Environment and Ecosystem Services).

Annex 1 of the EIA Procedure (extract in **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 e.g. located in an environmentally sensitive area (Art 25). The size thresholds for mining were hotly debated in 2015 between the two then Ministries. Requirements in the draft 2018 Mining Rules (Table 3) are inconsistent with the EIA Procedure.

¹³³ [2012 Environmental Conservation Law](#).

¹³⁴ [2014 Environmental Conservation Rules](#).

¹³⁵ [2015 Environmental Impact Assessment Procedure](#).

¹³⁶ Myanmar legislation uses a variety of terms e.g. EIA EIA/SIA, or ESIA. However the MONREC has clarified to MCRB that they prefer to use the term 'EIA' and to stress the scoped defined in the EIA procedure i.e. that this also includes social and health impacts. This SWIA therefore uses the term 'EIA' unless there is a particular reason not to.

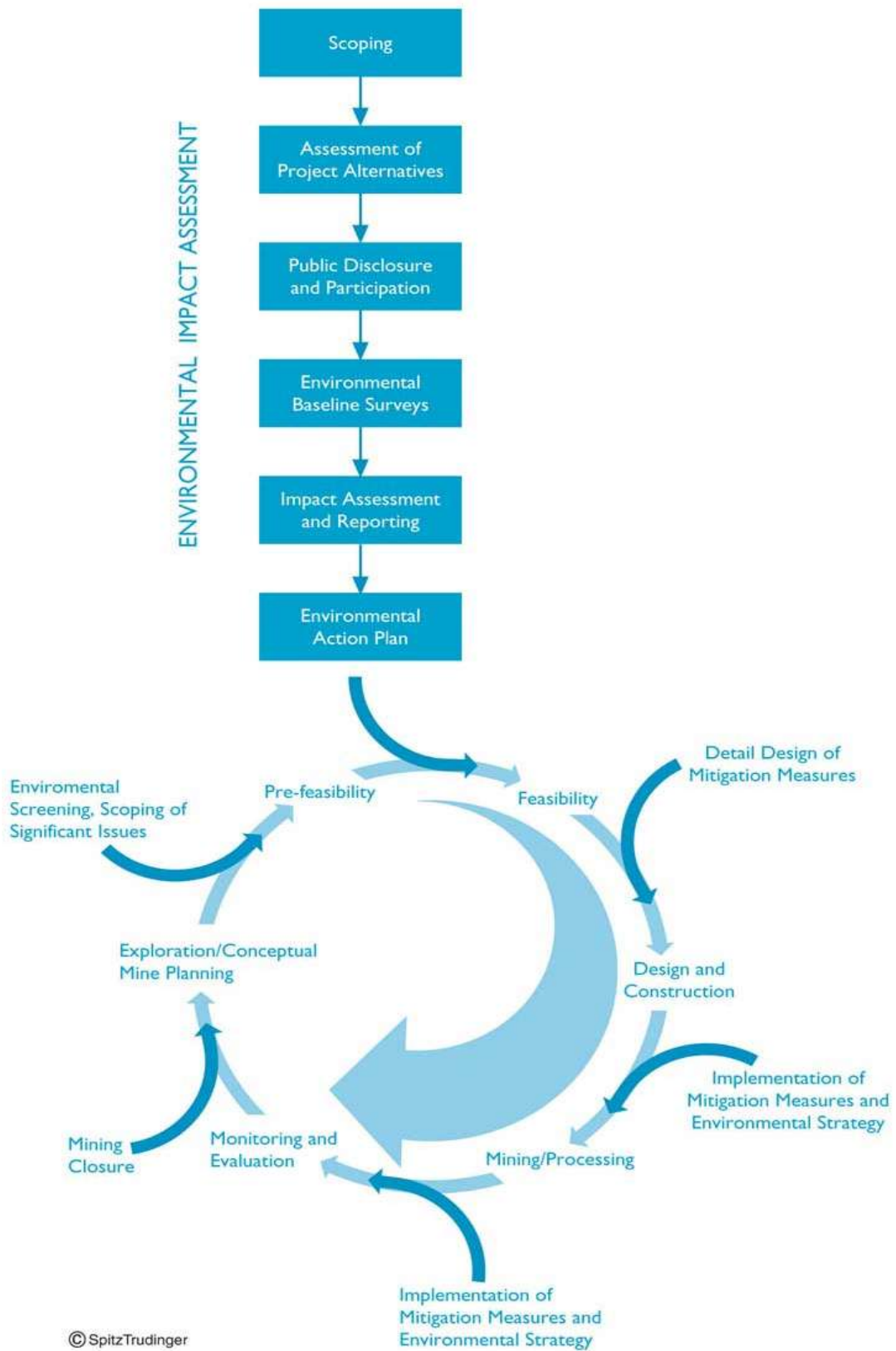


Figure 2 Environmental and Social Impact Assessment in the Mine Lifecycle¹³⁷

¹³⁷ Adapted from Mining and the Environment ed. Spitz and Trudinger (2009)

Table 4: Annex 1 of EIA Procedure (extract): Categorization of Mining Activities

	Type of Economic Activity	Criteria for IEE Type Economic Activities	Criteria for EIA Type Economic Activities
132	Extraction of Rock, Gravel or Sand from a River or Marine Waters	≥ 1,000 m ³ /a but < 50,000 m ³ /a	≥ 50,000 m ³ /a
133	Construction, Building and Ceramic Minerals Extraction (aggregates, limestone, slates, clay, gypsum, feldspar, silica sands, granite, kaolin, bentonite, marble, and quartzite)	< 200 acre and < 100,000 t/a	≥ 200 acre or ≥ 100,000 t/a
134	Extraction and Refining of Industrial Minerals (barite, fluorite, phosphate, potash, salt, soda ash, asbestos)	< 200 acre and < 100,000 t/a ore	≥ 200 acre or ≥ 100,000 t/a ore
135	Extraction of Ferrous, Non-Ferrous Metal and Precious Metal Ore Except Gold (iron, manganese, silver, copper, tin, antimony, lead, nickel, zinc, chromium, bauxite), and Precious Stone	< 50 acre and < 50,000 t/a	≥ 200 acre or ≥ 50,000 t/a
136	Refining of Metal Mineral Ore (without using hazardous chemicals)	< 50,000 t/a	≥ 50,000 t/a
137	Refining of Metal Mineral Ore (using hazardous chemicals)	< 25,000 t/a	≥ 25,000 t/a
138	Extraction and Refining of Gold Ore (without using hazardous chemicals)	< 20 acre	≥ 20 acre
139	Extraction and Refining of Gold Ore (using hazardous chemicals)	< 20 acre and < 25,000 t/a	≥ 20 acre or ≥ 25,000 t/a
140	Coal Mining (underground and surface)	< 100,000 t/a coal	≥ 100,000 t/a coal
141	Mining, including Dredging of Heavy Mineral Sands (tungsten, ilmenite, rutile, zircon, titanium, monazite)	≥ 1,000 m ³ /a but < 50,000 m ³ /a	≥ 50,000 m ³ /a

Annex 1 of the EIA Procedure needs revision to:

- Distinguish between phases in the mining cycles (as is done for oil and gas), as different phases of the mining cycle have different impacts, and do not all require a full EIA which is generally only undertaken at Pre-Feasibility/Feasibility stage (Figure 2).
- Address illogical requirements such as the need for all gold mines of < 20 acres to conduct an IEE as this creates an IEE requirement for even subsistence miners
- Correct errors relating to project sizes.

Furthermore, greater consistency between tenement sizes in EIA Annex 1 and the Mining Rules would be useful.

Existing Mining Projects

The 2015 EIA Procedure also applies to existing projects. It requires them to undertake environmental compliance audits, including on-site assessments, to identify concerns related to the project's impacts and to determine whether a retroactive IEE or EIA are necessary (Article 8). Table 1 shows that around 1450 mining operations are currently licenced by MONREC. As of 31 May 2017, ECD had received 39 EIA, 316 IEE and 1693 EMP (total 2048 documents) relating to the mining sector¹³⁸. Most of these were commissioned by DoM using its own template for EMPs which is not consistent with that in the EIA Procedure. The MONREC Minister who has responsibility for both mining and environment is understood to have issued a requirement for mines of > 50 acres to first undertake an environmental audit, in accordance with Article 8 of the Procedure¹³⁹.

Public Participation and Disclosure

The Procedure (Article 38 for IEE, Article 65 for EIA) requires project proponents, whether companies or public agencies, to publish the EIA report no later than 15 days after its submission to ECD; ensuring that it is available to civil society, project-affected people, local communities and other concerned stakeholders by: (i) posting the EIA on the project or project proponent's website(s); (ii) communicating by means of local media (i.e. newspapers); (iii) at public meeting places (e.g. libraries, community halls); and (iv) at the offices of the project proponent. The EIA Procedure also requires ECD to make the report publicly available upon receipt.

The issuing of the EIA Procedure has been an important step towards improving the environmental and social accountability of businesses in Myanmar. However, a number of obstacles to the successful implementation and enforcement of the EIA Procedure in Myanmar's mining sector remain (see Part 4: Sector-Level Impacts and Part 5.7: Environment and Ecosystem Services). It is intended that the EIA Procedure will also be complemented by a set of sector-specific Mining EIA Guidelines to assist project proponents and their consultants.

The Procedure was issued at the same time as a first set of National Environmental Quality Guidelines, focused on emissions.¹⁴⁰ The Guidelines are based on the IFC Environmental Health and Safety Guidelines and contain mining sector specific guidance on allowable emissions. The Guidelines prescribe specific principles to control noise and vibration, air emissions and effluent discharges at reasonable costs to the operator and with existing technology.¹⁴¹ Further details on environmental regulation are given in Part 5.7.

Myanmar Investment Law

In October 2016, the Government passed a new Myanmar Investment Law,¹⁴² which supersedes the previous 2012 Foreign Investment Law¹⁴³ and the 2013 Myanmar Citizens

¹³⁸ Presentation by ECD to the Environmental Working Group 12 June 2017, held on file with MCRB

¹³⁹ Communication with ECD, March 2017

¹⁴⁰ [2016 National Environmental Quality Guidelines](#).

¹⁴¹ VDB, [Client Alert – Emission Guidelines Issued](#)

¹⁴² VDB, [Client Briefing Note: What Changes in Practice under the New Investment Law?](#), 8 October 2016.

¹⁴³ [2012 Foreign Investment Law](#).

Investment Law¹⁴⁴ to create a single law for both foreign and domestic/citizen investors. In March 2017, the Myanmar Investment Rules (MIR) were adopted¹⁴⁵. The new Law and Rules introduces a number of changes to the previous 2012 Foreign Investment Law, including:

- **The introduction of an ‘endorsement’ process, instead of a full MIC Permit**
There are now types of permit possible, one being a ‘full’ MIC Permit, and the other an approval or ‘Endorsement’ for permission to use land; the second process supposedly being a faster process. Full MIC Permits will be necessary for strategic, large or environmentally or socially impactful projects (Section 36 MIL, defined further in Article 3-11 of the MIR)
- **The Law applies to all investors:** The previous 2012 Foreign Investment Law applied only to those foreign investors holding an MIC permit. Under the new Law, everyone who invests in Myanmar is an investor subject to the 2016 Investment Law, irrespective of whether they hold an MIC permit or not.
- **Tax incentives have changed:** The 5-year tax holiday which was previously automatically granted to foreign investors receiving an MIC permit has been removed. The granting of tax holidays is now at the discretion of MIC. A number of other tax incentives have also changed.
- **Myanmar law has been brought in sync with international investment laws:** The new law includes common international standards of protection for investors found in many bilateral investment treaties, including national treatment, most favoured nation, and fair and equitable treatment. This is in line with Myanmar’s obligations in some of its existing bilateral investment treaties.
- **New protections for workers:** The law includes a new set of employer obligations regarding workers: investors can only cease or close their business after compensating workers; workers need to be paid during a temporary closure; and investors must pay compensation for workplace injury, sickness, death or loss of limbs.
- **New transparency provisions including a requirement (Rule 45) for MIC to publish the Proposal Summary within 10 days of receiving the Proposal and before it is considered by MIC and a requirement (Rules 196/199) for holders of an MIC Permit to publish an annual report including details of how it has invested responsibly and sustainably.**

How these new provisions will play out in practice remains to be seen and there are a number of aspects that warrant further clarification/elaboration in subsequent regulation or notifications to the Law, including:

- Defining what types of project will fall under Article 36, i.e. be classified as types of projects that will require a full MIC Permit because they inter alia have a large potential impact on the environment and the local community.
- Defining how the provisions and definitions of the new Law relate to connected legal requirements; for example, how community consultation and consent provisions pursuant to Article 5 of the 2015 Law on Protection of the Rights of Ethnic Nationalities and EIA requirements outlined in the 2012 Environmental Conservation Law and 2015 EIA Procedure are reflected in MIC decision-making processes regarding the granting of permits and approvals.

¹⁴⁴ [2013 Myanmar Citizens Investment Law](#).

¹⁴⁵ [Myanmar Investment Rules](#), MIC Notification 35/2017, 31 March 2017

- Clarifying what types of projects will trigger the Article 46 requirement for national parliamentary approval for projects.
- Elaborating the role of state/region governments in permitting decision-making, including provisions for consultation with the local communities who are potentially impacted by a project early in the permitting decision-making, e.g. through a requirement that MIC must seek comments from regional/state governments who in turn are obliged to consult with the relevant local communities.

In April 2017, MIC issued an updated list of Restricted Investment Activities¹⁴⁶ under Chapter 10, which restated the previous approach and that in the 2015 Amended Mining Law. Only the Union Government may undertake '*Feasibility study and production of radioactive metals such as uranium and thorium*'. Foreign Investors are not allowed to do prospecting, exploration, feasibility study and small and medium scale mineral production or refining, or prospecting, exploration and production of jade/gem stones. MONREC approval is needed for foreign investment in large scale mineral production and small, medium and large scale production using citizen (i.e. Myanmar) investment. Under the 2017 Myanmar Companies Act, 'Myanmar companies' can have up to a 35% equity share from foreign investors.

C. International Frameworks

In addition to the national laws and regulations outlined above, a number of international frameworks that address the human rights impacts of mining activities are relevant in the Myanmar context. Some apply to foreign mining investors operating or looking to operate in Myanmar. In other cases the Myanmar Government and other in-country stakeholders are taking part in the initiative.

Extractive Industries Transparency Initiative (EITI)

EITI is a global initiative to promote the open and accountable management of natural resources.¹⁴⁷ The EITI seeks to address governance of the oil, gas and mining sectors, in particular transparency surrounding how a country's natural resources are governed. This includes looking at how extraction rights are issued, how the resources are monetised, and how they benefit the people and the economy.

The 2016 EITI Standard¹⁴⁸ has two parts. Part 1 deals with the implementation of the Standard, and Part 2 with the governance and management of the international EITI. The Standard is overseen by a multi-stakeholder board, including representatives from governments, extractive industries companies, CSOs, institutional investors and international organisations. Having submitted their progress reports and annual reports on revenue paid by companies and received by government, countries are validated against the Standard and rated as having made Satisfactory Progress, Meaningful Progress, Inadequate Progress, or No Progress.

¹⁴⁶ MIC Notification 15/2017, [List of Restricted Investment Activities](#), 10 April 2017

¹⁴⁷ [Extractive Industries Transparency Initiative](#).

¹⁴⁸ The [2016 EITI Standard](#)

Myanmar's current status in EITI is that it is 'Yet to be Assessed' under the 2016 standard. It issued its first EITI report on 2013/2014 FY data in December 2015.¹⁴⁹ Its second report was delayed, following the change of government. It is now committed to submitting reports for two financial years in March 2018. These will be assessed against the 2016 Standard after July 2018. MEITI has also released its Beneficial Ownership Roadmap to compliance by 2020¹⁵⁰. Under EITI, technical assistance is being provided on establishing a cadaster system, as well as to develop a pilot for disclosing beneficial ownership.

International Council on Minerals and Metals (ICMM) Sustainable Development Framework

The ICMM is an industry organisation dedicated to improving the social and environmental performance of the mining and metals industry while contributing to sustainable development. The ICMM brings together 23 mining and metals companies as well as 34 national and regional mining associations and global commodity associations to maximise the contribution of mining, minerals and metals to sustainable development. The values that guide the work of the ICMM include care, respect, integrity, accountability, and collaboration.¹⁵¹ The ICMM has created different standards and frameworks to guide companies in improving their performance standards. The [Water Stewardship Framework](#), for example, outlines a common industry approach based on finding solutions that work for business and water users. The ICMM's [Sustainable Development Framework](#) comprises 10 mandatory principles that serve as a best practice framework on sustainable development for the mining and metals industry and against which ICMM members have to report. ICMM members Freeport and MMG (as PanAust) have early stage prospecting/exploration interest in Myanmar.

Voluntary Principles on Security and Human Rights (VPSHR)

The [Voluntary Principles on Security and Human Rights](#) (VPSHR) is a multi-stakeholder effort by governments, businesses and civil society that seeks to minimise and address the risk of human rights abuses in communities adjacent to extraction sites that are associated with public and private security provision. The VPSHR is designed specifically for extractive industries. The Principles are endorsed by the ICMM, the International Committee of the Red Cross, IFC, and IPIECA (the global oil and gas industry association for environmental and social issues). The VPSHR is based on the recognition that communities residing near extractive industries operations may be at risk of human rights violations. It is designed to help extractive industries companies maintain the safety and security of their operations within an operating framework that ensures respect for human rights, fundamental freedoms, and international humanitarian law. The VPSHR includes Implementation Guidance Tools that are aimed at assisting companies, their employees, and contractors to apply the Principles.¹⁵² In 2016, Myanmar was identified by the VPSHR as one of three countries for the establishment of an 'In-country Implementation Pilot Group', and there have been some initial meetings and a scoping study to define an agenda.

¹⁴⁹ MEITI, [Myanmar First EITI Report](#), December 2015.

¹⁵⁰ [Myanmar Beneficial Ownership Roadmap](#), March 2017

¹⁵¹ ICMM, [Vision and Values](#)

¹⁵² ICMM, ICRC, IFC and IPIECA, [Voluntary Principles on Security and Human Rights Implementation Guidance Tools](#), 2012.

China Chamber of Commerce of Metals, Minerals & Chemicals Importers and Exporters (CCCMC) Guidelines

The CCMC Guidelines for Social Responsibility in Outbound Mining Investments were launched in 2014 by the CCCMC, a department under China's Chamber of Commerce which includes more than 6,000 company members. They call for Chinese companies investing overseas in the minerals and metals sectors to adhere to the UN Guiding Principles and to conduct risk-based supply chain due diligence.¹⁵³ The Guidelines provide guidance for mining companies on how to establish social responsibility management systems and disclose social responsibility information.¹⁵⁴

Companies looking to implement the Guidelines can also refer to the Chinese Due Diligence Guidelines for Responsible Mineral Supply Chains to operationalise the due diligence recommendations. These have been developed to be consistent with the OECD Due Diligence Guidance on Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas and so simultaneously ensure compliance with OECD member-state requirements for minerals supply chain due diligence. In addition to supply chain checks, the Guidelines also call on implementing companies to disclose payments made to governments in compliance with the EITI Standard and relevant stock exchange listing rules.¹⁵⁵ With support of GIZ, EMM Network and CCCMC developed a three-year Sustainable Mining Action Plan (SMAP) for 2016-2018) to globally establish the guidelines and to achieve a maximum impact in the mining sector, by ensuring a structured and coordinated implementation¹⁵⁶. An exploratory visit to Myanmar by GIZ took place in February 2018.

OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas

This [OECD Due Diligence Guidance](#) is a government-backed multi-stakeholder initiative on responsible supply chain management of minerals from conflict-affected areas. The Guidance is applicable to all minerals and global in scope; however, it has supplements focused in particular on tin, tantalum, tungsten, and gold. Its objective is to help companies respect human rights and avoid contributing to conflict through their mineral sourcing practices. Since its adoption in May 2011 the Guidance has become a leading industry standard; it is now referenced and used in binding regulations in the US and serves as the basis for the EU Regulation (below). The London Metal Exchange is also reported to be working on Principles for Responsible Sourcing, including child labour and conflict minerals¹⁵⁷. Human Rights Watch has used the Guidance as part of an assessment of how 13 leading jewellery and watch companies undertake human rights due diligence in their gold and diamond supply chains.¹⁵⁸

The OECD Guidance also served as an important base for the development of the [Chinese Due Diligence Guidelines for Responsible Mineral Supply Chains](#), developed by China's

¹⁵³ CCCMC, [Guidelines for Social Responsibility in Outbound Mining Investments](#), 2014.

¹⁵⁴ EMM Network, [CCCMC: Developing Guidelines for Social Responsibility in Mining Investment](#)

¹⁵⁵ Global Witness, [New Chinese Guidelines Offer Mineral Companies Chance to Reduce Conflict, Corruption Risks and Show Value to Host Communities](#), 23 October 2014.

¹⁵⁶ https://www.emm-network.org/case_study/sustainable-mining-in-china/

¹⁵⁷ [London Metal Exchange aims to ban metals sourced with child labour](#), Reuters, 13 February 2018

¹⁵⁸ [The Hidden Cost of Jewellery](#), Human Rights Watch, 8 February 2018

Chamber of Commerce in collaboration with the OECD. The Guidance is comprised of a 5-step framework: establishing strong company management systems; identifying and assessing risk in the supply chain; designing and implementing a strategy to respond to identified risks; carrying out independent third-party audits of supply chain due diligence; and reporting annually on supply chain due diligence. Conflict-affected and high-risk areas are identified in the Guidance as including armed conflict and violence of an international or non-international character, but also includes areas “of political instability or repression, institutional weakness, insecurity, collapse of civil infrastructure and widespread violence.” As such, the Guidance is highly relevant for companies operating in Myanmar, in particular conflict-affected regions, and for those sourcing the 3Ts and gold from these regions. The OECD has also signed a Memorandum of Understanding with CCCMC to co-operate on the development of Chinese industry guidelines for responsible mineral supply chains.

European Union Regulation on Conflict Minerals

On 3 April 2017, the Council of the EU adopted a [Regulation](#) aimed at stopping the financing of armed groups through trade in conflict minerals¹⁵⁹. This obliges EU companies to source their imports of tin, tantalum, tungsten (3Ts) and gold responsibly and to ensure that their supply chains do not contribute to funding armed conflict. These 'due diligence' rules will become binding from 1 January 2021, though importers are encouraged to apply them as soon as possible. The Regulation carries obligations to source responsibly for the 'upstream' part of the production process, which involves the extraction and refining of these minerals. At least 95% of all EU imports of those metals and minerals will be covered, while small volume importers will be exempt. The competent authorities in EU member states will carry out checks to ensure that EU importers of minerals and metals comply with their due diligence obligations. In addition, the Commission will carry out a number of other measures to further boost due diligence by both large and small EU 'downstream' companies, which are those that use these minerals as components to produce goods. The Commission will also draft a handbook including non-binding guidelines to help companies, and especially SMEs, with an indicative list of conflict-affected and high-risk areas.

The Regulation builds upon the 2011 OECD guidelines (above) which set the international benchmark for supply chain due diligence¹⁶⁰. The text adopted by the Council results from an agreement reached with the European Parliament in November 2016, subsequently approved by the Parliament in a plenary vote on 16 March 2017 following several years of debate and public consultation. Unlike the Dodd Frank Act Section 1502 provisions in the US (currently under threat of repeal from the Trump Administration),¹⁶¹ the EU rules will apply to all conflict-affected and high-risk areas in the world without geographical limitations, thereby encompassing Myanmar's states and regions still engaged in ethnic armed conflict¹⁶². As it currently stands it is expected to include most gold, tin and tungsten exported from Myanmar, including tin and tungsten producing areas such as the Wa region, Kayah State, and Tanintharyi Region.

¹⁵⁹ [Conflict Minerals: Council adopts new rules to reduce financing of armed groups](#), Council of the European Union, Press release 181/17, 3 April 2017

¹⁶⁰ European Parliament press release, [Conflict minerals: MEPs secure mandatory due diligence for importers](#), 16 June 2016.

¹⁶¹ US Government, [Dodd-Frank Wall Street Reform and Consumer Protection Act, Public Law No. 111-203](#), especially Section 1502. See also [Global Witness briefing](#) of November 2017.

¹⁶² See [Conflict Minerals Regulation explained](#), European Commission

Sector-Level Impacts



Part 4

Sector-Level Impacts

In this section:

- A. Sector-Level Economic Impacts
 - Revenues and the role of mining in the economy
 - Production sharing contracts (PSCs) and investment agreements
 - Taxation
 - Benefit sharing between the Union and state/region governments
 - Local employment opportunities and supply chains (local content)
- B. Sector-Wide Governance Impacts
 - Licensing regime
 - Informal and subsistence mining
 - Governance of State-owned enterprises (SOEs) and military-affiliated companies
 - Transparency and anti-corruption
 - Responsibility for regulating mine safety and environmental impacts
 - EAO-controlled areas and conflict minerals
 - National Mineral Resources Policy
- C. Sector-Wide Environmental, Social and Human Rights Impacts
 - Environmental and social impact assessment and management
 - Occupational safety and health
 - Community development and creating shared value
 - Land and water management
 - Reducing and eliminating mercury use
 - Site rehabilitation and mine-closure

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 Extractive Industries Transparency Initiative (EITI) report for 2013/2014, and the two draft EITI reports for 2014-2015 and 2015-2016 indicated that natural resource revenues account for around USD 3 billion annually¹⁶³. However this is predominantly from oil and gas. Gems and jade account for around 12-13% of this revenue, while Other Minerals only 2-3% less than USD 75 million (see Table 5). The Central Statistical Organisation (CSO) 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 GDP¹⁶⁴, but 'Other Minerals' is likely to be a correspondingly small fraction of that.

Table 5: Myanmar Extractives Revenue

EITI Report	Total Revenue (Million MMK)	MMK per USD	Total Revenue (Billion USD)	Of which Jade and Gemstones	Of which Other Minerals
FY 13/14 (Final)	3,011,283	963	3.13	13%	2%
FY 14/15 (Draft)	3,310,607	1032	3.21	11%	3%
FY 15/16 (Draft)	3,033,216	1203	2.52	13%	3%

As such, it can be said that the mining sector's contribution to Myanmar's economy remains underwhelming.¹⁶⁵ 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.¹⁶⁶ 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.¹⁶⁷

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,

¹⁶³ MEITI, [Myanmar First EITI Report](#), December 2015.

¹⁶⁴ 2015/2016 draft EITI report

¹⁶⁵ NRGI, [Mineral and Gemstone Licensing in Myanmar](#), April 2016, p. 1.

¹⁶⁶ 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.

¹⁶⁷ Global Witness, [Myanmar's "Big State Secret"](#), October 2015.

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 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.¹⁶⁸ 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.¹⁶⁹

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:¹⁷⁰

- 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.¹⁷¹ 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.

¹⁶⁸ NRG, [Myanmar and the Natural Resource Charter](#), January 2016.

¹⁶⁹ NRG, [Gilded Gatekeepers: Myanmar's State-Owned Oil, Gas and Mining Enterprises](#), January 2016.

¹⁷⁰ ICMM, [Minerals Taxation Regimes](#), February 2009, p. 31.

¹⁷¹ Australia-Myanmar Chambers of Commerce (AMCC), Proposed Mines Law and Rules Amendments Discussion Paper, December 2014, on file with MCRB.

In other countries, the granting of rights for mining is usually governed via investment agreements or licensing. Jurisdictions favouring investment agreements are also called 'contractual regimes', as the rights granted to investors for mining activities are determined and granted through individually negotiated contracts.¹⁷² In 'licensing regimes', on the other hand, mineral extraction rights are granted through a uniform licensing process and governed by the generally applicable law.¹⁷³ 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 EITI¹⁷⁴.

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).¹⁷⁵ 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.¹⁷⁶ 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.¹⁷⁷

Taxation

The 2008 Constitution grants the vast majority of mineral taxation rights to the Union-Government.¹⁷⁸ 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

¹⁷² BMZ, [Natural Resource Contracts as a Tool for Managing the Mining Sector](#), June 2015.

¹⁷³ Ibid.

¹⁷⁴ ICMM, [Minerals Taxation Regimes](#), February 2009, p. 33.

¹⁷⁵ ICMM *ibid*.

¹⁷⁶ BMZ, [Natural Resource Contracts as a Tool for Managing the Mining Sector](#), June 2015.

¹⁷⁷ International Bar Association, [Model Mining Development Agreement](#), 2011.

¹⁷⁸ [2008 Myanmar Constitution](#).

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.¹⁷⁹ 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.¹⁸⁰ 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.¹⁸¹ 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.¹⁸² Experts have predicted that if IRD were properly funded it could generate more than 1,000% return on investment for the Government.¹⁸³ 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.¹⁸⁴ 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.¹⁸⁵

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.¹⁸⁶ 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

¹⁷⁹ NRGI, [Sharing the Wealth: A Roadmap for Distributing Myanmar's Natural Resource Revenues](#), February 2016, p. 16.

¹⁸⁰ Adam Smith International, [Institutional and regulatory assessment of the extractive industries in Myanmar \(Vol. 2\)](#), 12 May 2015.

¹⁸¹ MCRB interview, 2016.

¹⁸² Andrew Bauer and Matthieu Salomon, [Natural Resources Can Pay for Myanmar's Needs](#), 16 June 2016

¹⁸³ Ibid.

¹⁸⁴ NRGI, [Sharing the Wealth: A Roadmap for Distributing Myanmar's Natural Resource Revenues](#), February 2016, p. 16.

¹⁸⁵ Global Witness, [Jade: Myanmar's "Big State Secret"](#), October 2015, p. 27.

¹⁸⁶ Andrew Bauer and Matthieu Salomon, [Natural Resources Can Pay for Myanmar's Needs](#), 16 June 2016

and that the Government is therefore not receiving a fair share of profits generated from the mining sector.¹⁸⁷

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.¹⁸⁸ 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.¹⁸⁹ 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.¹⁹⁰

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.”¹⁹¹ 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.¹⁹² 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

¹⁸⁷ Ibid.

¹⁸⁸ Daniel Kaufmann et al, [Mining Contracts – How to Read and Understand them](#), December 2013.

¹⁸⁹ Ibid.

¹⁹⁰ Nicholas J. Gardiner et al, [Tin mining in Myanmar: Production and Potential](#) (2015) 46 *Resources Policy* pp. 219-233.

¹⁹¹ NRGI, [Sharing the Wealth: A Roadmap for Distributing Myanmar's Natural Resource Revenues](#), Feb 2016.

¹⁹² NRGI, [Myanmar and the Natural Resources Charter](#), January 2016.

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.¹⁹³

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.¹⁹⁴ 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 Sharing¹⁹⁵

- 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 (Box 8). The Jan 2018 NRGI report on Natural Resources Federalism explains this further.¹⁹⁶ 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

¹⁹³ ICM, [Minerals Taxation Regimes](#), February 2009, p. 44; NRGI and UNDP, [Natural Resource Revenue Sharing](#), September 2016, pp. 24-25.

¹⁹⁴ NRGI, [Sharing the Wealth: A Roadmap for Distributing Myanmar's Natural Resource Revenues](#), February 2016, p. 7.

¹⁹⁵ This Box is based on: ICM, [Minerals Taxation Regimes](#), February 2009, pp. 48-53; NRGI and UNDP, [Natural Resource Revenue Sharing](#), September 2016, pp. 29-33.

¹⁹⁶ [Natural Resource Federalism: Considerations for Myanmar](#), NRGI, January 2018

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.

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.¹⁹⁷ 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.¹⁹⁸ 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.¹⁹⁹ 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.²⁰⁰ 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 Myanmar²⁰¹ (Box 9).

Local employment opportunities and supply chains (local content)

'Local content'²⁰² includes employment opportunities for local communities with mining companies as well as opportunities to develop and grow local business opportunities that

¹⁹⁷ Ibid.

¹⁹⁸ 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.

¹⁹⁹ KDNG, Kachin State Natural Resources Development Discussion Paper, 17 June 2015.

²⁰⁰ NRGi, [Sharing the Wealth: A Roadmap for Distributing Myanmar's Natural Resource Revenues](#), February 2016, p. 1.

²⁰¹ 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.

²⁰² 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

tie into mining supply chains (e.g. local businesses supplying goods and services to a mining company).

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.
- 4. 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.
- 5. 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).
- 6. 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.
- 7. 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.
- 8. 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.
- 9. 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.
- 10. 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 a 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 proposed 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 Laws and proposed 2018 Rules have not addressed the cause of these problems which have been highlighted in the preliminary report of the cadaster expert²⁰³. 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. But the process for licensing including requirements for other permits or supporting letters not been elaborated fully in the Rules or other guidance which is publicly available to investors, civil society and other actors.²⁰⁴ 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.²⁰⁵ 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 some 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 Amended Mines Law now requires the company to provide a feasibility study, including all technical and financial

²⁰³ Submitted to the Ministry of Planning and Finance, under Contract No MEITI-CS 003/2017 by Enrique Ortega, November 2017 as amended January 2018

²⁰⁴ NRG, [Mineral and Gemstone Licensing in Myanmar](#), April 2016, p. 3 and 7.

²⁰⁵ MCRB field research. See also, NRG, [Mineral and Gemstone Licensing in Myanmar](#), April 2016, p. 9.

feasibility data²⁰⁶, 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.

- **Licence length:** The 2015 amended Myanmar 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.²⁰⁷ 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, incentivises 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 licenses should cover a larger area, allowing the development of modern large - scale prospection based on high - tech technology as airborne geophysics or remote sensing. The minimum size of the small scale mining and gemstone licenses should be increased to meet international standards. The Environmental Management Plan prepared for jade in Hpakan illustrated why licencing many small areas rather than one large one leads to unsafe mines with steep, inefficient mining practices, lack of transparency, and lack of environmental protection²⁰⁸.
- **Lack of standard conditions for licenses** (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’** have introduced a lack of clarity about what a company has permission to do. Rather than fixing the lack of security of tenure in the Mining Law by issuing ‘integrated permits’, the Law itself should be fixed.
- **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.

²⁰⁶ Daniel Kaufmann et al, [Mining Contracts – How to Read and Understand them](#), December 2013.

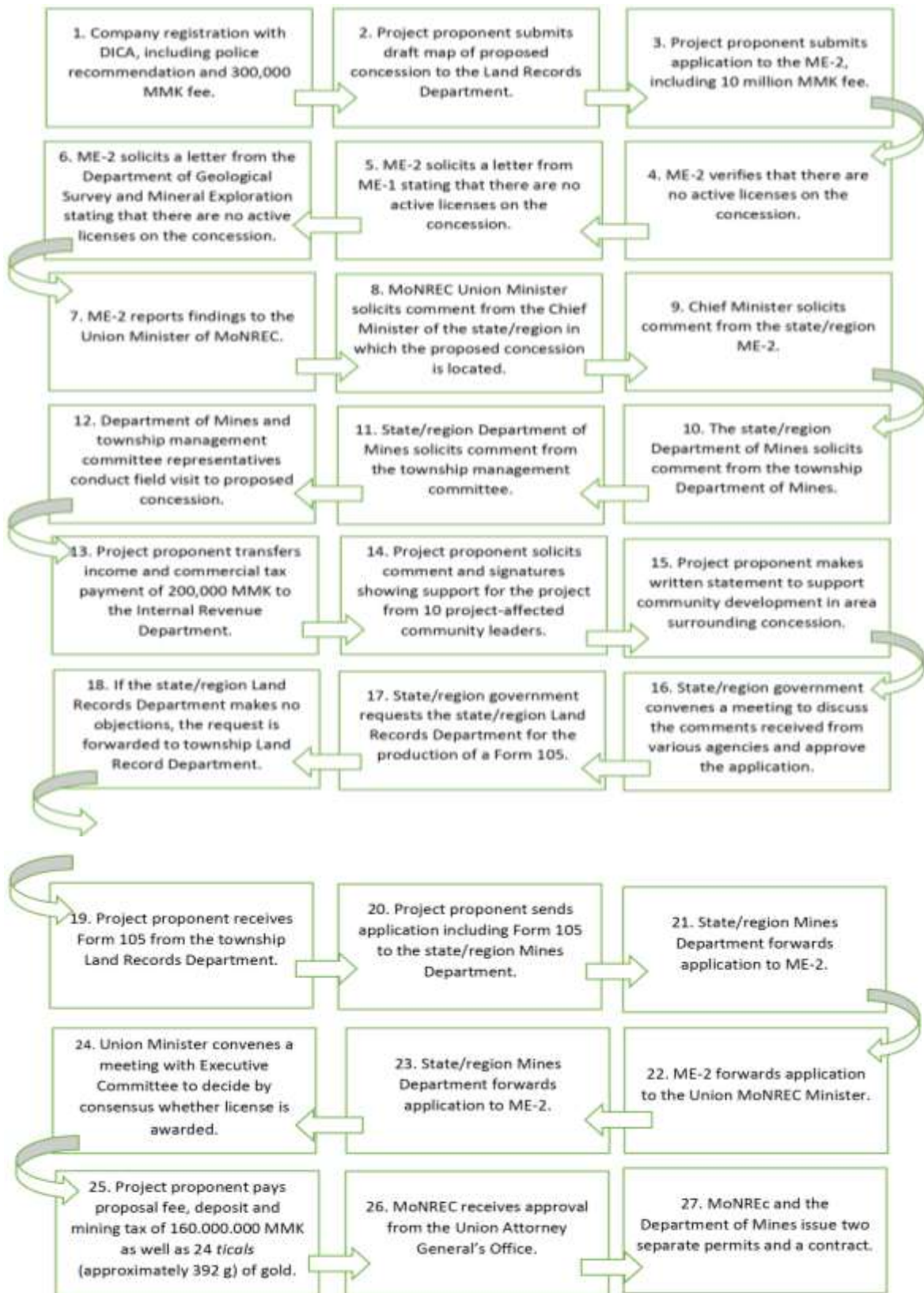
²⁰⁷ NRGi, [Mineral and Gemstone Licensing in Myanmar](#), April 2016, p. 4.

²⁰⁸ Hpakan/Lonkin Gems Tract Environmental Management Plan Advisory Paper, Coffey and Valentis, August 2017, on file with MCRB.

- **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 agreements are not disclosed publicly.²⁰⁹ 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 licencing, 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 proposed 2018 Rules are ambiguous about whether and when licenses 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 provide also details about when and how to initiate auctioning, how to organize auctions and the requirements which should be published in advance in order to guarantee the 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 license.

Figure 3: Small-scale gold mining licensing process

²⁰⁹ NRGI, [Mineral and Gemstone Licensing in Myanmar](#), April 2016, p. 12.



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.

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 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 uneconomic to extract and can be seen as a mineral opportunity.²¹⁰ 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.²¹¹

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.²¹²

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 Mining 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.²¹³ 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 corruption²¹⁴. Monitoring and enforcement will need to

²¹⁰ 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.

²¹¹ 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.

²¹² Gestión, [Gobierno prevé recaudar hasta s/.9,230 millones con formalización de mineros](#), 12 May 2014,

²¹³ 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.

²¹⁴ Ibid.

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 illegality²¹⁵ They have also been found to do most harm to the poorest, including miners and those in the local communities providing goods and services to miners.²¹⁶ 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.²¹⁷

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 profitable²¹⁸ 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.²¹⁹ 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.²²⁰ A formalisation process should encourage the organisation of workers into associations and/or cooperatives.²²¹ 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

²¹⁵ 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

²¹⁶ Sara Geenen, [A dangerous bet: the challenges of Formalizing Artisanal Mining in the Democratic Republic of Congo](#), September 2012. Boris Verbrugge and Beverly Besmanos, [Formalizing artisanal and small-scale mining: Whither the workforce](#) (2016) 47: *Resources Policy* pp. 134-141.

²¹⁷ MCRB interview, 2016.

²¹⁸ Formalisation approaches are detailed in: 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.

²¹⁹ Salo et al, [Local Perspectives on the Formalization of Artisanal and Small-scale Mining in the Madre de Dios gold Fields, Peru](#) (2016) *Natural Resources Institute Finland*.

²²⁰ Boris Verbrugge and Beverly Besmanos, [Formalizing artisanal and small-scale mining: Whither the workforce](#) (2016) 47: *CResource Policy* pp. 134-141.

²²¹ 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.

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 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 Myanmar²²².

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.²²³ 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.²²⁴ 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.²²⁵ 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

²²² [IGF Guidance for Governments: managing Artisanal and Small-Scale Mining](#), January 2017

²²³ NRGI, [Gilded Gatekeepers: Myanmar's State-Owned Oil, Gas and Mining Enterprises](#), January 2016.

²²⁴ Ibid.

²²⁵ NRGI, [Myanmar and the Natural Resources Charter](#), January 2016.

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 de facto licensing power via the ability to partner with private companies to develop mines over which UMEHL holds a formal license.”²²⁶ 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 process²²⁷.

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.

²²⁶ NRG, [Gilded Gatekeepers: Myanmar’s State-Owned Oil, Gas and Mining Enterprises](#), Jan 2016, p. 20.

²²⁷ This Box is adapted from: NRG, [Gilded Gatekeepers: Myanmar’s State-Owned Oil, Gas and Mining Enterprises](#), January 2016, pp. 1-3.

Transparency and anti-corruption

Myanmar ratified the United Nations Convention against Corruption in January 2013²²⁸ 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.²²⁹ On average, enforcing a contract takes 1,160 days and is more costly than the South Asian average.²³⁰ Businesses report occasional informal payments and bribes in connection with public utilities.²³¹ Recent statistics indicate that starting a business costs significantly more than the regional average²³². Irregular payments when importing and exporting goods are also reported.²³³ 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.²³⁴ Courts are neither independent nor impartial as the military and Government exert significant control and influence over them.²³⁵ The World Bank Enterprise Survey²³⁶ was conducted for the first time in 2014, and then repeated in 2016/2017 after the NLD government assumed power when ratings showed an improvement²³⁷. 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 region²³⁸.

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.²³⁹ 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.²⁴⁰ (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

²²⁸ [UN Convention Against Corruption Signature and Ratification Status as of 21 September 2016](#)

²²⁹ WEF, [The Global Competitiveness Report 2015-2016](#).

²³⁰ WB and IFC, [Doing Business in 2016](#).

²³¹ WEF, [The Global Competitiveness Report 2015-2016](#).

²³² WB and IFC, [Doing Business in 2016](#).

²³³ WEF, [The Global Competitiveness Report 2015-2016](#).

²³⁴ ICJ, [Myanmar Must Follow Through on Promising Efforts to Improve the Independence and Accountability of its Legal System](#), February 2015.

²³⁵ The Irrawaddy, [Burma's Judicial System Deeply Corrupt, Parliament Told](#), 9 December 2015.

²³⁶ <http://www.enterprisesurveys.org/data/exploreeconomies/2016/myanmar>.

²³⁷ [Anti-corruption scores have shown an improvement under the NLD Government](#), October 2017, MCRB

²³⁸ [Transparency International Corruption Perception Index 2017](#) February 2018

²³⁹ [2013 Anti-Corruption Law](#).

²⁴⁰ Business Anti-Corruption Portal, [Myanmar Legislation](#).

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.

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 Department of Mines 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 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 Mining 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 proposed 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 Mining Law which addresses worker’s rights, OSH, environmental conservation and submission to mine inspection. The 2015 Amended Law introduced an additional exact same penalty for a repeat offence, except for including a minimum 200,000 kyats fine. (The penalties prescribed in Section 29 for illegal mineral smuggling are two-three times more severe).

A technical assistance programme provided to the Department of Mines by the German Mining Inspectorate, BGR²⁴¹ 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 the Department of Mines 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
- 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
- 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.

²⁴¹ [Myanmar – Sustainable Development of the Mining Sector](#), BGR

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 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.²⁴²

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 the Environmental Management Plans (EMPs) (See Part 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 Mining 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 Health and Safety 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

²⁴² MCRB SWIA Field research 2016.

report on Natural Resource Federalism examines this issue, and considers models in other countries for setting and enforcing environmental and safety standards²⁴³.

MCRB field research indicated that the ‘governance’ arrangements around operations in EAO areas are complex and varied. They usually involving 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 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.²⁴⁴ 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.²⁴⁵ 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 it²⁴⁶. But 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.

²⁴³ [Natural Resource Federalism: Considerations for Myanmar](#), NRG, January 2018

²⁴⁴ [The Nationwide Ceasefire Agreement between the Government of the Republic of the Union of Myanmar and the Ethnic Armed Organizations](#), Chapter 6, Paragraph 25.

²⁴⁵ MCRB field research 2016.

²⁴⁶ Global Witness, [Jade: Myanmar's "Big State Secret"](#), October 2015.

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.²⁴⁷ The Guidance sets out practical steps whereby a company may minimize its risk of contributing to or aggravating ongoing conflict. One key aspect of this process, is the identification and assessment of risks within the supply chain, which should result in the design and implementation of strategy to respond to the risks identified.

MCRB has reviewed EIAs of several mines taking place in different conflict-affected areas.²⁴⁸ 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 one²⁴⁹. 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 (Box 11) and provide the basis for modern and fit-for-purpose Law 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, ethnic armed organisation powers and responsibilities. It could also address many of the above problems identified concerning economic and political governance.

²⁴⁷ OECD, [Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas](#), November 2012.

²⁴⁸ EIA reports, on file with MCRB.

²⁴⁹ MCRB contacts with various stakeholders

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 Canada²⁵⁰, the Minerals and Mining Policy for South Africa²⁵¹ and more recently, the 2017 Solomon Islands National Minerals Policy²⁵²

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 to 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) 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.²⁵³
- **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

²⁵⁰ [A Mineral and Mining Policy for South Africa](#)

²⁵¹ [The Minerals and Metals Policy of the Government of Canada](#),

²⁵² Draft available [here](#), Final version with MCRB

²⁵³ MCRB field research, 2016.

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)²⁵⁴

- **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 regions. ECD has yet to enforce any penalties for the submission of identical copies of reports.²⁵⁵
- **EIA requirements are misaligned with the license 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 draft 2018 Mining 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 license 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 the 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.

²⁵⁴ Presentation by ECD to the Environment Sector Working Group, June 2017 (on file with MCRB)

²⁵⁵ MCRB interviews, 2016; MCRB field research, 2016.

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.²⁵⁶ 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.

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 proposed 2018 Mining 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 the 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.²⁵⁷

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).²⁵⁸

²⁵⁶ Myanmar Times, [Two controversial tin mines suspended in southern Myanmar](#), 21 July 2016.

²⁵⁷ Boris Verbrugge and Beverly Besmanos, [Formalizing artisanal and small-scale mining: Whither the workforce](#) (2016) 47: CResource *Policy* pp. 134-141.

²⁵⁸ MEITI, [Myanmar First EITI Report](#), December 2015.

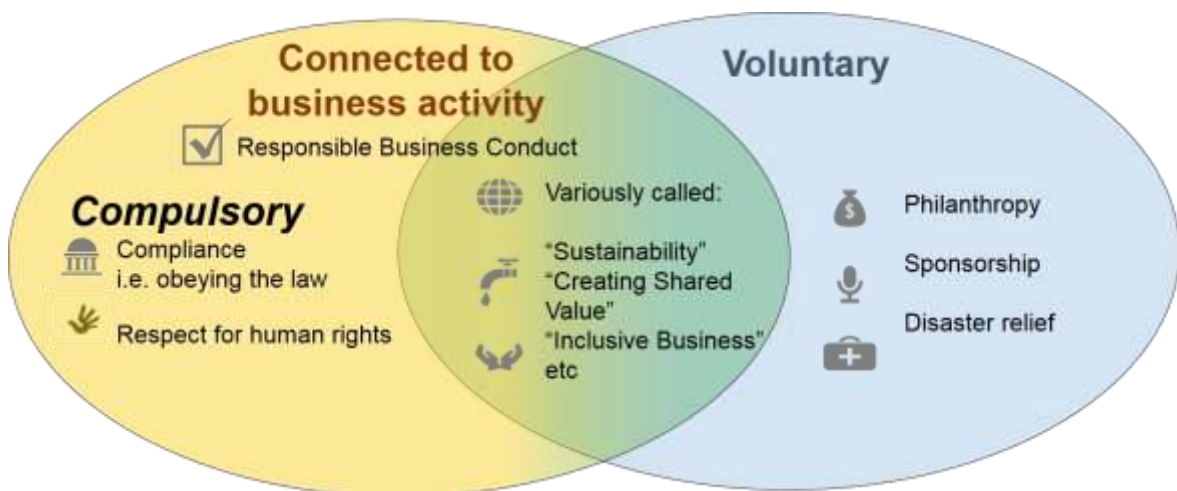
²⁵⁸ Myanmar Times, [Local mining applications delayed by new gemstones law](#), 17 February 20.

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 background²⁵⁹. 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)



²⁵⁹ See Australia-Myanmar Chamber of Commerce, [Position Paper: Incentivising Shared Value](#), Sept 2016.

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."²⁶⁰

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".²⁶¹ 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 connect (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.

²⁶⁰ Wayne Visser, [The Evolution and Revolution of Corporate Social Responsibility](#), in M. Pohl and N. Tolhurst (eds.), *Responsible Business and How to Manage a CSR Strategy Successfully* (Wiley, 2010).

²⁶¹ 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.

Community Development Agreements

In many mining jurisdictions, **community development agreements** (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.²⁶² 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 proposed Mining Rules contain (identical) 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. 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

²⁶² CCSI, [Emerging Practices in Community Development Agreements](#), February 2016.

lands, and a lack of adequate compensation for company and government infringements on community land rights.²⁶³ 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 as a 'lucrative entrepreneurial activity' in some areas.²⁶⁴ 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.²⁶⁵

Mercury is currently regulated as one of 29 Restricted Chemicals under section 5, sub-section (h) of Prevention of Hazard from Chemical and Related Substances Law²⁶⁶. There have been previous Notifications banning its usage, but even during those times, it remained readily available in subsistence mining communities.²⁶⁷ 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.²⁶⁸

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.²⁶⁹ 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

²⁶³ MCRB field research, 2016.

²⁶⁴ May Thin Zaw and Jack Jenkins Hills, *Artisanal and Small-Scale Mining and Mercury Use in Myanmar: Current Issues and Ways Forward*, 2016, on file with MCRB, p. 17.

²⁶⁵ MCRB field research, 2016.

²⁶⁶ 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

²⁶⁷ MCRB field research, 2016.

²⁶⁸ MCRB interview, 2015.

²⁶⁹ May Thin Zaw and Jack Jenkins Hills, *Artisanal and Small-Scale Mining and Mercury Use in Myanmar: Current Issues and Ways Forward*, p. 24, 2016

and so the impact worsens exponentially, the longer mercury usage goes unchecked in the formal as well as informal sector.²⁷⁰ 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.²⁷¹

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 proposed 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).²⁷²

The proposed 2018 Mining 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.

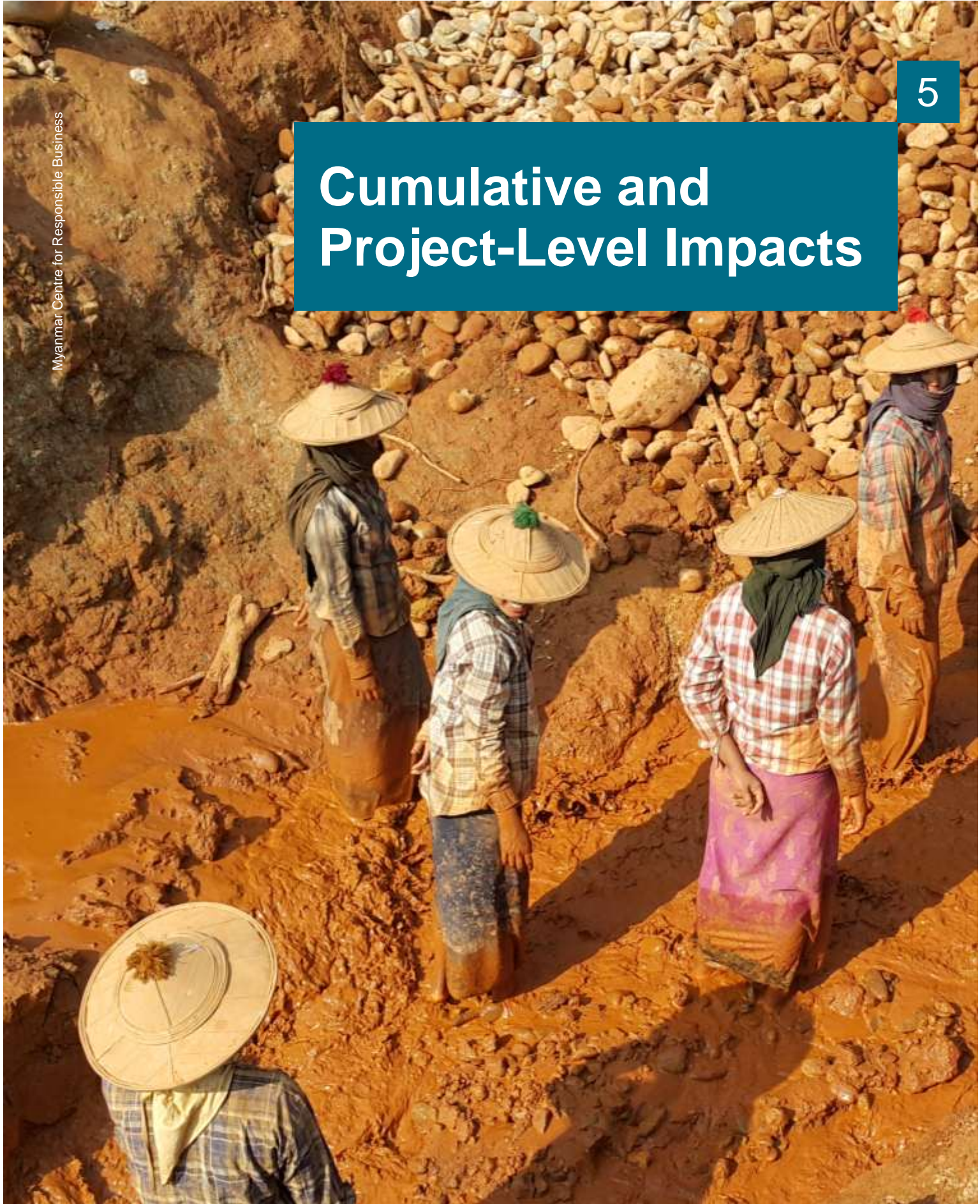
Small-scale and artisanal miners are also required to submit a bond before they can commence mining and have a Mine Closure Plan approved (Rule 187) the only difference being it does not have to be reviewed after 5 years (since this is longer than a mining licence). After mine closure, the rehabilitation 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.

²⁷⁰ Ibid.

²⁷¹ MCRB field research, 2016.

²⁷² Myanmar Wanbao, [Our CSR](#)

Cumulative and Project-Level Impacts



Part 5

Cumulative and Project-Level Impacts

Overview of Part 5

The following chapters present the findings and analysis from the field research carried out for the Mining SWIA Research teams visited large-scale, small-scale and subsistence mining projects and activities. For areas visited see Annex A. The data from the field research is anonymised. This is because the intention of the SWIA is to focus attention on trends in the mining sector, rather than the practices of particular companies. Anonymity is also intended to ensure the safety and security of those interviewed. The research findings should not be taken to apply to all situations, organisations, or companies interviewed.

Each chapter presents common cumulative and project-level impacts related to limestone, gold and tin mining, divided according to seven issue areas:

1. Community Engagement and Grievance Mechanisms
2. Community Impacts and Development
3. Land
4. Labour
5. Women and Children
6. Security and Conflict
7. Environment and Ecosystem Services

Each chapter follows the same structure, presenting:

- A. National Context
- B. Field Assessment Findings
- C. Relevant International Standards, Guidance & Initiatives

Cumulative impacts

Cumulative impacts are the successive, incremental and combined impacts from multiple projects or multiple activities located in the same region or affecting the same resource (e.g. a watershed or an airshed).²⁷³ Different projects or different phases of the same project contribute incremental impacts to other existing, planned, or reasonably predictable future projects and developments, leading to an accumulation of impacts.

Often, environmental and social impacts from one mining project alone may not necessarily be significant. Instead, it is the building up of smaller impacts over time or within the same physical footprint that have a cumulative effect. Sometimes a series of smaller events can

²⁷³ Daniel M. Franks, David Brereton and Chris J. Moran, 'Cumulative Social Impacts' in Frank Vanclay and Ana M. Esteves (eds.), *New Directions in Social Impact Assessment: Conceptual and Methodological Advances* (Cheltenham: Edwards Elgar, 2011) pp. 202-220. They are sometimes also referred to as collective impacts.

trigger a much bigger environmental or social response if a tipping point is reached, changing the situation abruptly. A response can also be triggered by poorly designed policies that prompt companies to repeat the same mistakes. The resilience of the environment or society to cumulative impacts depends upon the nature of the impacts and the vulnerability (or sensitivity) of the society or ecosystem. In other words, resilience is the degree to which the environment and society are susceptible to, and able to cope with, injury, damage, or harm.²⁷⁴

Cumulative impacts of the mining sector can be negative (e.g. multiple mines relying on the same water source, thereby reducing access to water for local communities) or positive (e.g. cumulative economic developments in a mining area justify opening a public healthcare clinic or a secondary school). In some cases, cumulative impacts can have both positive and negative effects. Cumulative impacts are particularly relevant to the mining sector as it involves localised mineral deposits that determine the location of mining activities, regardless of whether the local social and natural environment can support and benefit from such activities. Furthermore, the existence of a deposit may result in a number of operations in the same region, meaning that impacts may be substantial within a small area, often with the effect of creating additional, cumulative impacts.

If not managed with care, cumulative impacts can overwhelm environmental or social 'carrying capacity' to withstand or recover from the changes because:²⁷⁵

- **Institutionally** – the accumulated impacts overwhelm the local capacity to provide services, including protection or fulfilment of the population's human rights, provision of remedies, or managing or changing the course of events;
- **Socially** – the rapid onset and acceleration of the changes overwhelms societal structures and capacity to manage change, which may eventually lead to a rise in tensions or violence and a potential breakdown of law and order; and
- **Environmentally** – the biophysical impact surpasses the environment's carrying capacity.

Cumulative impacts are areas of concern from a **human rights point of view** for a number of reasons:

- Cumulative impacts are often much **harder to predict** than singular impacts from one project. Unless businesses and authorities previously sought to assess the potential for such impacts, it is also **harder to prevent** the consequent environmental and social changes. These often have long-term impacts on human rights, such as the rights to life and security of person, health, education, and an adequate standard of living.
- Cumulative impacts **can be severe**. This can be because of the type of impact (e.g. the cumulative burden on poor infrastructure causes it to collapse) or its widespread nature (e.g. cumulative water use due to mining development reduces the water table, resulting in drought with widespread effect on water and food security in local communities). It can also be because repetition increases the severity (e.g. a singularly-occurring, minor impact may not pose a risk to human rights, but a series of minor impacts may add up to a human rights impact).

²⁷⁴ IFC, [Good Practice Handbook on Cumulative Impact Assessment and Management: Guidance for the Private Sector in Emerging Markets](#), 2013, pp. 640-647.

²⁷⁵ Daniel M. Franks, David Brereton and Chris J. Moran, pp. 202-220.

- Even where a duty-bearer/responsible party can be identified in the case of a singular negative human rights impact, there are often **challenges in holding the duty-bearer/responsible party accountable**. Where cumulative impacts are involved, responsibility for impacts is even more dispersed, making it even harder to identify parties responsible for prevention, mitigation and remediation, and hold them accountable. Ultimately, the Government has the responsibility to protect against human rights violations. When it comes to cumulative impacts this is particularly relevant, given the difficulty of holding individual businesses to account.
- Companies **may not consider themselves responsible** for cumulative impacts as they make only a *contribution* to these impacts. This may especially be the case where their activities individually fit within acceptable regulatory limits, but the regulatory regime is not advanced enough to take account of accumulation of impacts over time or space.
- Populations **most at risk** are affected by cumulative impacts, as they are likely to have the least resilience to respond and the least capacity to demand a response from the authorities or businesses.
- Cumulative impacts are sometimes slow to develop and may build up incrementally over time. Accordingly, it may be more **difficult to draw attention** to the issues or to **obtain action** from responsible parties.

Project-level impacts

Project-level impacts are those impacts associated with a particular mining operation. This can include impacts such as working conditions of employees and contracted staff on the mine site, as well as impacts in local communities such as when mining operations cause adverse effects on the environment, land or community wellbeing.

For the purposes of the SWIA, the term project-level impacts includes impacts in the formal parts of the sector, such as those associated with large-scale and small-scale mining operations, as well as impacts caused by subsistence mines or mining activities.

It is important to remember that according to the UN Guiding Principles (Box 2), businesses are expected to take into consideration impacts that they cause and contribute to, as well as impacts that are directly linked to their operations, products or services through business relationships.

Cumulative & Project-Level Impacts

Community Engagement and Grievance Mechanisms



Part 5.1

Community Engagement and Grievance Mechanisms

In this section:

- A. National Context
 - Freedom of expression, assembly and association
 - Community consultation and the right to information
 - Access to remedy and operational-level grievance mechanisms
- B. Field Assessment Findings
 - Community consultation, engagement and information sharing
 - Consultation for environmental and social impact assessment (EIA)
 - Land-related conflicts and grievances
 - Operational-level grievance mechanisms
- C. Relevant International Standards, Guidance and Initiatives

A. National Context

Stakeholder engagement, consultation and grievance resolution are complex in Myanmar, given its recent history of repression by the Government and the military. While this is slowly changing, many communities may still be reluctant to voice their views regarding mining projects and activities. Furthermore, community consultation and engagement as part of mining operations is currently not generally practiced in the mining sector, meaning that both companies and communities are, by and large, unfamiliar with such processes. This applies to both participation in ESIA processes and ongoing community-company engagement.

Freedom of expression, assembly and association

Since the reforms began in 2011 there have been significant improvements regarding the right to freedom of expression, including loosening of restrictions on the media, and the right to peaceful assembly and the ability to stage peaceful protests.²⁷⁶ Article 354 of the 2008 Constitution guarantees the rights to freedom of expression, peaceful assembly and association, albeit with significant restrictions. Exercising such rights must not contravene “community peace and tranquillity,” which permits expansive interpretations. Laws which restrict these freedoms have not been repealed and remain available to the authorities to use them to arrest and imprison people for resistance activities.²⁷⁷ However, the

²⁷⁶ E.g., in January 2013 the President abolished Order No. 2/88 of 18 September 1988, which had banned gatherings of five people or more. See, The Republic of the Union of Myanmar President’s Office, [Order No. 3/2013](#), 28 January 2013, and [Order No 2/88](#), 18 September 1988.

²⁷⁷ These include but are not limited to the [1908 Unlawful Associations Law](#), the [1950 Emergency Provisions Act](#), and various articles of the [Penal Code](#), especially Article 505(b). For a discussion of these and other laws see, ICJ, [Myanmar: Briefing Paper on Criminal Defamation Laws](#), 2015.

Government elected in 2015, being made up of many of those who themselves were political prisoners, is less likely to make use of these provisions.

In December 2011, the Parliament enacted the Law Relating to Peaceful Assembly and Peaceful Procession, which permits peaceful assembly for the first time in several decades. However, prior permission from the Government (in this case the township police) is still required for an assembly/procession of more than one person and the requirements for seeking such permission are onerous. Article 18 of the current Law has often been used to target activists and human rights defenders, many of whom have been arrested and imprisoned under its provisions.²⁷⁸ Parliament amended the Law on 19 June 2014 and these amendments reportedly oblige the authorities to now grant permission for peaceful demonstrations unless there are 'valid reasons' not to do so. Punishment for failing to seek prior permission and holding a demonstration without such permission was reduced from one year to six months.²⁷⁹ However, the amended Law still provides for the arrest and imprisonment of peaceful protesters, a provision that has been met with calls for reform by NGOs such as Human Rights Watch²⁸⁰ and Amnesty International.²⁸¹

Furthermore, in 2016 the newly elected NLD-led Government initiated a reform to again amend the Peaceful Assembly and Peaceful Procession Bill. While this does illustrate the Government's positive intention to reform laws that may restrict human rights, concerns remain that the proposed reform is still too narrow and restrictive in scope.²⁸² For example, Amnesty International noted that "the proposed amendments fall far short of bringing the Act into line with international human rights law and standards."²⁸³

Protests against mining projects have been suppressed in the past, with participants arrested and subjected to ill-treatment in many cases.²⁸⁴ For example, during November 2012 the police violently broke up a peaceful protest against the Letpadaung Copper Mine near Monywa, Sagaing Region.²⁸⁵ Conflicts surrounding the same mine erupted again in 2014, resulting in a woman's death caused by either police forces or the mine's security personnel.²⁸⁶ In the same year, more than 50 gold miners were arrested during the police raid of a protest camp in Yamethin.²⁸⁷ The punishments that peaceful protestors received for publicly opposing or demonstrating against mining projects were raised with Government by civil society members of the EITI Multi-Stakeholder Group in 2014. This appeared to lead to a lessening of arrests.

²⁷⁸ [2011 Right to Peaceful Assembly and Peaceful Procession Act](#).

²⁷⁹ DVB, [Peaceful Assembly Bill passed, now awaits President's signature](#), 19 June 2014.

²⁸⁰ Human Rights Watch, [Burma: "Peaceful Assembly Law" Fails to End Repression](#).

²⁸¹ Amnesty International, [Myanmar: Open Letter on Amending the Peaceful Assembly and Peaceful Procession Act](#), 13 May 2016.

²⁸² Article 19, [Myanmar: Peaceful Assembly and Peaceful Procession Bill](#), 16 May 2016, p. 3.

²⁸³ Amnesty International, [Open Letter on Amending the Peaceful Assembly and Peaceful Procession Act in Line with International Human Rights Law and Standards](#), 12 May 2016, p. 1.

²⁸⁴ Norwegian Council on Ethics, Pension Fund Global, [Recommendation on the exclusion of Daewoo International Corporation, Oil and Natural Gas Corporation Ltd., GAIL India and Korea Gas Corporation from the investment universe of the Government Pension Fund Global](#), 2012. See also, the [2013 Recommendation](#) concerning the post-construction phase of the project.

²⁸⁵ Amnesty International, [Open for Business? Corporate Crime and Abuses at Myanmar Copper Mine](#), 2015; Human Rights Watch, [Burma: Investigate Violent Crackdown on Mine Protesters](#).

²⁸⁶ NPR, [1 Dead In Protest At Chinese-Backed Copper Mine In Myanmar](#).

²⁸⁷ Ricochet, [In Myanmar's Gold Rush, Not All That Glitters Is Gold](#).

In October 2016, President Htin Kyaw signed legislation abolishing the 1950 Emergency Provisions Act, which had allowed the Government to impose seven-year prison terms for simply reading foreign newspapers or listening to mass-media broadcasters.²⁸⁸ U Aung Kyi Nyunt, the chairman of a panel in Parliament's upper house that helped draft the legislation, stated "We have abolished the Emergency Provisions Act because it was the tool used by military regimes to suppress political dissidents, and the law does not fit with the current situation of democratization in the country."²⁸⁹

Community consultation and the right to information

Interactions between the Government and the people of Myanmar have been marked by a lack of transparency on the part of the authorities, including about business operations. There is currently no freedom of information law in Myanmar, although civil society is advocating for such legislation and there is a draft bill in place.²⁹⁰ Furthermore, the field research indicated that local government does not systematically or regularly provide information to communities about business operations in their areas.

Neither the 1996 Myanmar Mines Law nor its 2015 amendment contain provisions for consultation with local communities. Pursuant to the 2015 amended Myanmar Mines Law MoM (now MoNREC) is charged with granting mining permits based on information in a feasibility study. However, the exploration activities and feasibility study do not require consultation and engagement with local communities, or an IEE/EIA process, and there is no requirement on the Ministry to consider community and civil society views when making decisions on permits. There are no provisions for community appeal regarding permitting decisions, or requirements for operational-level grievance mechanisms for large projects. Lastly, the 2015 amended Myanmar Mines Law makes no mention of permit-holder responsibility in the event of land-related conflicts or complaints.

Article 5 of the 2015 Protection of the Rights of National Races Law states that *hta-nay tain-yin-tha* (the phrase used by civil society to refer to Indigenous Peoples although not defined in the Law) "should receive complete and precise information about extractive industry projects and other business activities in their areas before project implementation so that negotiations between the groups and the Government/companies can take place." While not a formal legal requirement or framework for FPIC, Indigenous Peoples and CSOs working with them are increasingly aware of the concept.²⁹¹

The 2015 EIA Procedure contains provisions for consultation and engagement, and requires application of international standards where resettlement and Indigenous Peoples are involved. Feedback suggests that few EIAs, even those conducted in 2016, are implementing this properly; and field research findings indicate significant challenges associated with consultation and engagement in mining EIA processes prior to 2016.

Access to remedy and operational-level grievance mechanisms

²⁸⁸ New York Times, [Myanmar Repeals 1950 Law Long Used to Silence Dissidents](#), 5 October 2016.

²⁸⁹ Ibid.

²⁹⁰ There is still currently no law. There is a draft bill – [unofficial English translation from the Commonwealth Human Rights Initiative here](#).

²⁹¹ MCRB, [Briefing Paper: Indigenous Peoples' Rights and Business in Myanmar](#), February 2016.

Overall, there is a clear lack of access to effective avenues for individuals and communities to express their grievances, engage with responsible parties in the Government or to seek redress if harms have occurred – especially at the local-level. In terms of access to judicial remedy, it is well documented that the Myanmar legal system does not reliably provide access to justice.²⁹² Myanmar has no publicly available legal databases, making it difficult to understand laws, regulations, and rights. Furthermore, there is no free, government-funded legal aid system for the poor, so many cannot find adequate legal representation to help voice their grievances.²⁹³ In addition to its lack of legal services, the Myanmar judiciary is plagued with high rates of corruption.²⁹⁴ The NLD-led Government has committed to improve the rule of law but it will take time.

In terms of access to non-judicial remedy, it is worth noting that currently none of the laws or rules applicable to mining projects require companies to have in place operational-level grievance mechanisms, although this may become formalised through the EIA/EMP process. Since the endorsement of the UN Guiding Principles, such mechanisms have become an integral part of company human rights due diligence, in particular for large-scale projects.²⁹⁵ Furthermore, there are currently no other types of third-party non-judicial grievance mechanisms in place that might deal with mining-related complaints, such as a national contact point or ombudsman, other than the Myanmar National Human Rights Commission which is yet to fully demonstrate its capacity to play this role. Lack of access to remedy is exacerbated even further in the informal mining sector, in particular in subsistence mining areas, where workers and communities are left essentially without recourse to any type of grievance resolution. The fact that informal and subsistence mining activities are often illegal is a further barrier to accessing remedy.

Land is one of the most common sources of conflict and grievances in Myanmar. As of April 2016 there were over 6,000 outstanding complaints to the Government regarding land conflicts.²⁹⁶ As outlined in Part 5.3: Land, most of the laws and regulation regarding land provide only limited and weak options for appeal of decisions or raising of grievances regarding land-related decisions. The former Parliament's Farmland Commission and the Land Utilisation Management Central Committee, the two regulatory bodies responsible for providing remedy in cases of land disputes, faced capacity issues in the face of the high volume of complaints.²⁹⁷ When regulations and organisations do offer protection theoretically, they often fail in reality due to lack of access to legal assistance, lack of confidence and corruption in the judiciary, and time constraints.²⁹⁸ In the event that an individual secures access to remedy, there is still no guarantee of adequate compensation because there are no detailed regulations defining compensation levels for land, assets, or cultivation.²⁹⁹

²⁹² See, e.g., The Jacob Blaustein Institute for the Advancement of Human Rights, [Myanmar Rule of Law Assessment](#), March 2013.

²⁹³ Ibid, p. 32.

²⁹⁴ Ibid, p. 31.

²⁹⁵ See, e.g., ICMC, [Human Rights in the Mining & Metals Sector: Handling and Resolving Local Level Concerns & Grievances](#), 2009.

²⁹⁶ Reliefweb, [Parliamentary committee: 6,000 land confiscation complaints yet to be addressed](#), 27 April 2016.

²⁹⁷ Displacement Solutions, [Land Acquisition Law and Practice in Myanmar](#), May 2015.

²⁹⁸ Ibid, p. 23.

²⁹⁹ MCRB, [Land Briefing Paper](#), March 2015, p.13.

B. Field Assessment Findings

The field research identified a number of issues associated with community consultation, engagement and grievance resolution. The following paragraphs provide an overview.

Community consultation, engagement and information sharing

Human Rights Implicated: Right to freedom of opinion and expression; right to participation

- **Limited or no community consultation and engagement by mining companies:** None of the formal mine sites visited had in place stakeholder engagement plans or formalised procedures or strategies for regular community engagement. The companies also did not have 'community relations' staff. There was no evidence of regular information sharing with communities about company activities. Overall, the field research teams observed that companies had a limited understanding of the role of community consultation and engagement. For example, at one large-scale mine site company management was of the view that there was no need to consult with the community as the company had taken over the permit/operations from a previous operator. Another company claimed that company representatives visited local communities to find out what community members wanted and what their needs were. However, there were no records kept of such engagement or meetings, and villagers reported that such meetings did not occur.
- **Ad hoc stakeholder engagement favours community leaders and elites:** Where consultation and engagement reportedly occurred, this was on an ad hoc basis and related primarily to social or philanthropic spending. Furthermore, such engagement occurred primarily through village leaders, rather than diverse community members. At one site, for example, the company reportedly consulted with the village administration and village elders on an informal basis. According to the community members interviewed at the site, the consultation by the company had taken place only with those village elders supportive of the mine project. At another site, where there had reportedly been a total of three community meetings over the last six years, these meetings had involved the village administrator, monks and the factory communications officer, but no other community members. At several other sites, it was reported that any communication between the company and communities was between company representatives and monks or village elders.
- **Stakeholder engagement requirements at the local-level are unclear and ad hoc stakeholder engagement focuses on obtaining signatures for approvals:** At several sites, it was noted that if stakeholder engagement occurred this was in the form of one-way information provision. It was often focused on obtaining the necessary signatures from villagers or village leaders for the approval of mining activities, rather than consultation and engagement of a broad spectrum of community members to genuinely obtain and respond to their views as part of the development and implementation of mining activities. Reportedly, ME-2 has a requirement in place at the state/region-level that companies must obtain signatures from village tract leaders and community leaders signalling consent to mining activities during the permitting

process.³⁰⁰ Company stakeholders reported that a requirement for consultation is sometimes also specified by township-level administrators, without clear reference to the legal or regulatory basis for such a requirement.³⁰¹ This indicates that stakeholder engagement requirements by the government at the local-level are inconsistent and not known by stakeholders, causing confusion for both communities and companies.

Consultation for environmental and social impact assessment (EIA)

Human Rights Implicated: Right to freedom of opinion and expression; right to participation; right to free, prior, and informed consent

- **Limited stakeholder consultation and engagement in EIA processes:** Some of the sites visited had recently undertaken EIAs. While this is a positive development, the field researchers observed several shortcomings concerning consultation and engagement. For example, in an area with one large-scale operation and two small-scale operations an EIA was conducted for the small-scale operations. However, because of complex ownership and operating structures of the large-scale mine, local community members were confused about whether the EIA consultation was intended to capture issues associated with the large-scale mine or not. These types of scenarios were further complicated by the unclear owner-operator structures at some sites. While operations – and therefore the EIA – might formally be the responsibility of one particular operator, the operations might in practice be carried out by another party, creating confusion and lack of clarity for local communities about which company and/or operator would even be responsible for the EIA process for a particular site. Field research found that some EIA processes had not involved any community consultation. For example, according to the operator at one site it was not necessary to consult with local communities as part of the EIA process as the operations were being conducted on designated mining land. At another site, both the company and local communities reported that the consultant carrying out the EIA had not visited local communities as part of the process.
- **Information provided as part of EIA consultations and engagement is too technical, not timely and not in the appropriate language(s):** Even at those sites that did include consultation and engagement as part of the EIA process, several issues remained. At one site where the EIA process included two public consultations, the EIA information was provided to participants only one day before the meeting, it was too technical for participants to understand, and the consultation meeting was in Burmese language with insufficient translation into relevant local languages. The additional interviews conducted by the consultants for the EIA focussed purely on environmental, and not social, issues. The consultants only spoke to the village leaders and heads of households. These examples illustrate that the process and purpose of meaningful consultation or consideration of social impacts as part of an EIA is not currently part of the mining operator mind-set or their operational practices; nor is it a part of the skillset of EIA practitioners carrying out assessments (all EIA consultancies who had carried out EIAs at the sites visited were Myanmar consultancies).

³⁰⁰ MCRB field research, 2016,

³⁰¹ Yangon consultations, October 2016.

Land-related conflicts and grievances

Human Rights Implicated: Right to freedom of opinion and expression; right to remedy

- **Land-related conflicts and grievances:** The field research identified a number of instances of land-related conflicts and grievances. Some of these were caused by the lack of clarity regarding land boundaries (see further, Part 5.3: Land). For instance, at several sites community members were charged for trespassing onto paddy land which was the subject of a dispute as to whether the land was within the mining concession or not. These cases also illustrated common issues with the legal system. At one site the villagers charged were only informed about the nature of the charges after they had already been indicted. At the same site, but in another case, a farmer who had been charged with trespassing onto paddy land was acquitted as he could prove land ownership registration. However, this was only after using extensive financial resources to attend the township court for a reportedly 20 times. Furthermore, throughout the process the farmer was reportedly subjected to police intimidation. Despite being found not guilty, the extensive expenses related to the trial were not reimbursed, leaving him destitute. At another site, the local community sent a letter to a parliamentary committee expressing grievances regarding land acquisition and compensation. Subsequently, the military invited them to a meeting to discuss their demands but the complaint was not resolved or taken further. Overall, the field research findings demonstrate that where there is some response to land-related grievances by companies or the Government, this is usually extremely slow. At several sites where grievances had been raised – regarding issues such as chemical waste in paddy fields or damage to land, crops and waterways – responses came only months or years later. At one site the company responded with a payment for such damage but did not refer to this as compensation but as a ‘donation’, thereby essentially denying accountability, to the community’s anger.

Operational-level grievance mechanisms

Human Rights Implicated: Right to remedy; right to freedom of opinion and expression

- **No operational-level grievance mechanisms in place:** None of the formal mine sites visited had a grievance mechanism in place. At one site there was a phone number provided for pit owners to contact the mine operator. However, this was not for local community members to contact the mine. The company did not keep a record of the number or types of complaints made by pit owners. Furthermore, this would not constitute a grievance mechanism according to the UNGPs, which outline eight effectiveness criteria for such mechanisms, including one on accessibility.³⁰² At another site there was reportedly a company communications officer whose role included receiving complaints from local community members. However, while the company claimed that all community members knew of this process, villagers reported that they did not know about this person or their role in grievance resolution. Furthermore, the communications officer was a member of a local EAG. At another site, the company said that was not necessary to have a formal grievance mechanism in place because

³⁰² [UN Guiding Principles on Business and Human Rights](#), June 2011, Principle 31.

there was an informal understanding with communities that the site was open to hearing complaints.

- **Low understanding of grievance mechanisms amongst stakeholders:** Overall, the field research teams noted that communities and companies were not aware of what a grievance mechanism is, or the role of such a mechanism in community-company relations.
- **Low responsiveness and effectiveness of response where grievances are raised:** Where communities had raised grievances with companies, the responses provided did not appear to be readily forthcoming or effective. In some cases, this was exacerbated further by conflicting and unclear roles between stakeholders. For example, one company responded to communities that it could not do anything about illegal logging in the area as this was the responsibility of the Forestry Department. At another site a village leader reportedly raised complaints associated with noise (interfering with children's schooling and sleep of people in communities) with the village tract administrator. This person, however, also worked as a security guard for the company and the complaint was not taken further or resolved.
- **Grievances are not raised:** At a number of sites, communities shared grievances with the field research teams that had not been raised with the relevant companies. This indicates a lack of trust between communities and companies and limited avenues to raise complaints. Such grievances related to a whole range of issues, including land, noise, dust and pollution, compensation and more.

C. Relevant International Standards, Guidance and Initiatives

Box 13: Relevant International Standards, Guidance and Initiatives on Community Engagement and Grievance Mechanisms

International Standards:

- [ICMM Sustainable Development Framework](#)
- IFC Performance Standards and Guidance Notes:
 - [PS 1 – Assessment and Management of Environmental and Social Risks and Impacts](#)
 - [PS 4 – Community Health, Safety and Security](#)
 - [PS 5 – Land Acquisition and Involuntary Resettlement](#)
- [UN Guiding Principles on Business and Human Rights](#) (Principles 29-31)
- [UN International Bill of Human Rights and Core Human Rights Instruments](#)

Guidance on Stakeholder Engagement:

- CommDev, [A Strategic Approach to Early Stakeholder Engagement: A Good Practice Handbook for Junior Companies in the Extractive Industries](#)
- ICMM, [Community Development Toolkit](#)
- ICMM, [Understanding Company-Community Relations Toolkit](#)
- IFC, [Stakeholder Engagement - Good Practice Handbook for Companies Doing Business in Emerging Markets](#)
- OECD, [Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractive Sector](#)
- Oxfam Australia, [Free, Prior and Informed Consent Guides](#) and [Strengthening Community Understanding of Free, Prior and Informed Consent, Trainer's Manuals](#). These two resources work together to provide practical resources for trainers to help them plan and deliver FPIC training programmes.
- Shift, [Conducting Meaningful Stakeholder Consultation in Myanmar](#)
- World Resources Institute, [Breaking Ground: Engaging Communities in Extractive and Infrastructure Projects](#)

Guidance on Grievance Mechanisms:

- CAO, [A Guide to Designing and Implementing Grievance Mechanisms for Development Projects](#)
- ICMM, [Handling and Resolving Local Level Concerns & Grievances](#)
- IFC, [Good Practice Note: Addressing Grievances from Project-Affected Communities](#)
- IIED, [Dispute or Dialogue? Community Perspectives on Company-led Grievance Mechanisms](#)
- World Bank, [Stakeholder Engagement and Grievance Mechanisms](#)

International Initiatives:

- [AccessFacility.org/mechanisms/all](https://www.accessfacility.org/mechanisms/all). This is a database that allows users to explore available non-judicial grievance mechanisms by using a search engine navigated through searching mechanism type, country or industry.

Cumulative & Project-Level Impacts

Community Impacts and Development



Part 5.2

Community Impacts and Development

In this section:

- A. National Context
 - Poverty, social services and social protection
 - Education
 - Health
 - Infrastructure
 - Cultural heritage
 - Social investment programmes
- B. Field Assessment Findings
 - Community health and safety
 - Community development, employment and economic opportunities
 - Public and community services
 - Cultural heritage
- C. Relevant International Standards, Guidance & Initiatives

A. National Context

While economic development has recently accelerated, the rural communities who make up about 70% of the Myanmar population rely essentially on subsistence agriculture and remain poor. Amongst ASEAN countries, Myanmar has the lowest life expectancy and the second-highest rate of infant and child mortality. Just one-third of the population has access to the electricity grid.

Poverty, social services and social protection

Detailed data on socio-economic indicators is lacking in Myanmar. The 2016 UN Human Development Index ranked Myanmar at 145 out of 188 countries surveyed, putting it in the 'low human development category', with an average life expectancy of just 66.1 years of age and 4.7 mean years of schooling.³⁰³ The ADB has reported that 25.6% of the population lives below the national poverty line, which is a higher rate than other Southeast Asian countries including the Philippines, Cambodia, Indonesia, Thailand and Vietnam.³⁰⁴ The 2015-16 Government budget was reported at 3.3% for health and 6.07% for education.³⁰⁵

Education

Official literacy rates are more than 90%, although a recent survey has indicated that 20% of households at the national level had no member of working age who could read or write

³⁰³ [UNDP Human Development Report](#), 2016

³⁰⁴ ADB, [Basic 2016 Statistics](#), p. 2.

³⁰⁵ Irrawaddy, [Government Proposes 20% Budget Rise Boosting Education, Defence and Health](#)

a simple message.³⁰⁶ Myanmar has a lower rate of expected schooling than other ASEAN countries, such as Cambodia and Laos. There are low secondary school enrolment rates, due to poverty and non-availability of schools. UNICEF indicates that between 2009 and 2013 only 46% of boys and 48% of girls enrolled in secondary school.³⁰⁷ There is also a clear need for increased vocational training.

Spending on the education sector has increased since 2011. The budget in 2015/2016 increased spending on education to USD 1.3 billion, up from USD 1 billion in the fiscal year 2014/2015.³⁰⁸ The latest increase is being harnessed to employ an additional 50,000 teachers, and will also be allocated to university stipends and scholarships, as well as supplementing fees at technical institutions. Furthermore, according to a report from UNICEF, newly introduced early childhood development services and improved teaching methodologies have expanded.³⁰⁹

Health

An estimated 75% of the population of Myanmar does not have access to good quality healthcare.³¹⁰ The private sector provides healthcare that is often inadequate and unaffordable for the poor. Public health facilities that do exist often do not have basic equipment and supplies or staff.³¹¹ The Ministry of Health has formulated a National Health Plan (2017-2021) within a 20 year National Comprehensive Development Plan.³¹²

Myanmar suffers from one of the highest tuberculosis (TB) rates in the world; a World Health Organisation (WHO) report identified a rate of 53 deaths per 100,000 people in 2014.³¹³ About 70% of the population is living in malaria-endemic areas.³¹⁴ The United Nations Development Programme (UNDP) reports that Myanmar malaria morbidity has decreased by 50% since 2007 and the TB incidence rate has been in decline since 1997.³¹⁵ The number of people living with HIV in Myanmar was 230,000 in 2016 according to UNAIDS³¹⁶, with a high level of transmission through injecting drug users, sex workers and their clients, and men who have sex with men.

Infrastructure

In 2013, studies indicated that on average, only 69.4% of the population had access to safe drinking water.³¹⁷ According to a report by the World Bank, 70% of the population lacked access to grid electricity in 2014.³¹⁸ The transport sector is considerably underdeveloped,

³⁰⁶ Ministry of Labour, Employment and Social Security and Central Statistical Organisation, [Myanmar labour force, child labour and school to work transition survey](#), 2015, p. 8.

³⁰⁷ UNICEF, [The State of the World's Children 2015 Country Statistics Table](#), November 2014, p. 62.

³⁰⁸ Oxford Business Group, [Changes to Myanmar's education sector needed](#)

³⁰⁹ UNICEF, [Annual Report 2014 Myanmar](#), 2015, p. 11.

³¹⁰ World Bank, [Power to People: Work Bank Group to invest US \\$2 billion in Myanmar, to support reforms, reduce poverty, increase energy and health access.](#)

³¹¹ WHO, [Health Action in Crises: Myanmar](#), August 2008.

³¹² [National Health Plan 2017-2021](#), Myanmar Ministry of Health and Sports

³¹³ WHO, [Global Tuberculosis Report 2015](#), 2015, p. xxvi.

³¹⁴ WHO, [World Malaria Report 2015](#), 2015, p.75

³¹⁵ UNDP, [About Myanmar](#).

³¹⁶ <http://www.unaids.org/en/regionscountries/countries/myanmar>

³¹⁷ OECD, [Multidimensional Review of Myanmar, Initial Observations](#), 2013, p. 168.

³¹⁸ World Bank, [Achieving Universal Access to Electricity by 2030: Myanmar Electricity Plan](#)

including roads and railways, impeding economic activity and hampering the movement of goods and rural people to markets, schools, and clinics; road fatality rates are also high.³¹⁹ A report by Mastercard, with support from Myanmar think tank MDRI-CESD, notes that formal banking penetration in urban areas is 10% and considerably less in rural areas because of reliance on cash and a lack of trust in the banking system.³²⁰

Cultural heritage

According to the definition offered by the United Nations Educational, Scientific and Cultural Organisation (UNESCO) in the context of the Universal Declaration on Cultural Diversity (2001), culture is “the set of distinctive spiritual, material, intellectual and emotional features of a society or a social group that encompasses art and literature, lifestyles, ways of living together, value systems, traditions and beliefs.”³²¹ Myanmar is a very culturally diverse country with many spiritual and cultural sites throughout the country. Communities often attach great importance to their local temples and shrines. There are therefore likely to be areas of cultural importance to the community in areas where mining takes place.

The Revised Protection and Preservation of Ancient Monuments Law was passed in August 2015³²² to increase protection of the country’s ancient buildings that are more than 100 years old and have cultural, historical, architectural and artistic value. It introduced tougher sanctions for anyone found to have damaged, removed or destroyed heritage buildings. Myanmar ratified the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage (2003), which entered into force in August 2014 and has now begun to inventory this. UNESCO is also working with the Ministry of Culture on the conservation and management of heritage sites, establishing cultural heritage information management systems using Geographic Information Systems (GIS), and assisting the Government to develop nominations for submissions to the World Heritage List including Bagan.³²³ However, this process does not effectively identify sites of local community importance.

Social investment programmes

Myanmar has a strong tradition of giving, including corporate philanthropy, driven at least in part by the dominant Buddhist faith. This is often understood by Myanmar companies as the responsibility to make donations or contribute to social development projects. The Myanmar Investment Commission under the Thein Sein government pushed investors (in particular foreign investors) to commit to spend a certain amount of their profits on CSR projects. However this approach - which as outlined in Part 4B can give rise to a number of governance problems - did not, fortunately, become a general legal requirement.³²⁴

The 2015 amended Myanmar Mines Law does not include any provisions relating to socio-economic development or employment of local communities. Nor does it make any

³¹⁹ ADB, [Myanmar in Transition: Opportunities and Challenges](#), August 2012, pp. 22-24.

³²⁰ Mastercard and MDRI-CESD, [Cash in Context: Uncovering Financial Services in Myanmar](#), January 2015, pp. 6-13.

³²¹ UNESCO, [Universal Declaration on Cultural Diversity](#), 2001.

³²² [2015 Protection and Preservation of Ancient Monuments Law](#),

³²³ Travel Impact Newswire, [UNESCO to Launch Project for Safeguarding Cultural Heritage in Myanmar](#), 30 March 2012.

³²⁴ Australia-Myanmar Chamber of Commerce Responsible Investment Working Group, [Position Paper: Incentivising Shared Value](#), September 2016.

provisions for benefit sharing or agreement making between local communities and companies. It only provides that the permit-holder shall ensure no socio-economic harm to local people.³²⁵ However, the proposed 2018 Rules contain (identical) 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 discussed with local communities on 'social responsibility', and obtained their agreement.

The 2016 Myanmar Investment Law does not contain requirements for local content or employment of Myanmar nationals.³²⁶ The previous 2012 Foreign Investment Law contained thresholds for minimum percentage appointments of Myanmar nationals and the requirement that foreign and Myanmar workers holding the same qualifications ought to be paid the same salary.

B. Field Assessment Findings

The field research identified a number of mining-related human rights impacts on communities. The following paragraphs provide an overview.

Community health and safety

Human Rights Implicated: Right to the highest attainable standard of physical and mental health; right to life and security of person; right to non-discrimination

- **Cracks in buildings:** Close to several mine sites where blasting occurred regularly, cracks could be observed in houses, monasteries, schools and other buildings. This included a culturally important limestone cave a few miles from one of the mine sites. While community members interviewed expressed certainty that this was linked to the blasting (as they reported to have felt the vibrations in the villages), companies did not acknowledge any association or responsibility. None of the companies had assessed whether such cracks in buildings and heritage sites were caused by their activities.
- **Safety on roads and around mine sites due to falling rocks:** Close to one large-scale limestone mine site, the old road used by the community had been closed and the community, in particular school children, had to use a new (dirt) road with a lot of traffic from the mine site to the associated processing facility. Villagers expressed concern about the safety of their children due to heavy traffic, rocks potentially falling from trucks, and exposure to dust. While one company was found to have a regular time for the blasting and to announce it with a megaphone, at other sites blasting hours were unknown to villagers and the township administrator.
- **In-migration causing changes to lifestyles and safety:** In many areas, communities felt that theft and crime had increased as a result of the presence of large numbers of mine migrant workers in the area. Women sometimes expressed that they felt unsafe due to the presence of a large male workforce in the area. Some cases of harassment and rape were reported. An increase in karaoke bars, suspected sex work, alcohol consumption and easy access to drugs, were concerns expressed by many community

³²⁵ Valentis Resources, [2015 amended Myanmar Mines Law \[unofficial translation and comparison\]](#), 27 January 2016, Article 16 (e) (1).

³²⁶ VDB, [What Changes in Practice Under the New Investment Law](#), 8 October 2016, p. 7.

members, in particular those living in small-scale and subsistence gold mining areas. In several subsistence gold mining areas, drug use was said to be widespread. Local community members interviewed linked the increase in drug use to the presence of mining, as this meant money was more readily available. Community members in these areas also expressed concerns about children starting to use drugs at an early age. The possibility for local communities to raise cash by selling plots of land to subsistence miners was reported as an issue, since the money was quickly spent and the farmers were then left without long-term livelihoods.

- **Accidents:** A number of community accidents associated with mining activities were reported, including relating to children (see further, Part 5.5: Women and Children). The field research also found that most subsistence mining areas and some of the small-scale mine sites were not physically demarcated and secured, for example through the use of fences and security personnel. This raised the risk of accidents.
- **Health impacts from factory fumes and dust from mine sites and roads:** The field research teams noted large amounts of dust from the dirt roads close to villages used by company trucks and cars around limestone mine sites, as well as fumes from the associated cement factories. Dust and fumes from cement factories were a major concern of communities living around these sites. In one community area close to a cement factory, the prevalence of tuberculosis-like symptoms was high and community members suspected that there was a link with the factory. However, no proper medical investigation had been conducted.
- **Impacts of soil and water pollution on community health:** In small-scale and subsistence gold mining areas, mercury and cyanide had been released into wastewater creating serious health risks for communities³²⁷. As a result of excavation, some heavy metals such as lead and arsenic that are naturally present in rocks may also be liberated into the environment causing damage to the environment and human health (see Part 5.7: Environment and Ecosystem Services).
- **Noise and smells:** Constant noise from cement factories was disturbing community members, especially at night. Noise was also said to be affecting livestock. Some communities also reported being disturbed by bad smells coming from mine sites (see Part 5.7: Environment and Ecosystem Services).

Community development, employment and economic opportunities

Human Rights Implicated: Right to work; right to education; right to the highest attainable standard of physical and mental health; right to take part in the cultural life of the community

- **Limited employment opportunities in mining for local communities:** Only one large-scale mine was found to have a practice in place for the employment of local community members. This company said that while it actually only needed 500 workers to run its operations, it had hired an additional 300 local people to maintain a positive relationship with local communities. In most of the large- and small-scale operations visited, only a few local community members were identified to be working for the companies as low-skilled workers (e.g. security guards, cooks), often on a casual daily

³²⁷ See also '[Dirty Water](#)', a short film about the negative impacts of a lead mine on a Danu community in Shan State, Yangon Film School, 2016

basis. In one village close to a cement factory, people complained that they had never been offered jobs with the company. Generally, both female and male community members said that they would like more, and more permanent, jobs at the factory because of the wages and accommodation. However, many community members at this site also resented the company for land grabbing and said that they would not want to work for the company. At another site, where local subsistence miners were in conflict with a company over land issues, the few local people employed by the company as unskilled labour were considered to be 'on the side of the company'. Company representatives in turn were found to not trust local community members whom they suspected of stealing ore from the company. No training programmes for local community members were found at any of the sites visited.

- **Employment as compensation for loss of land:** According to a worker at cement factory, around 10 people from the local community had received jobs as a form of compensation for the loss of their land. In another case, community members affected by a tailings dam incident reported that they had been promised one job at the company per affected household. These jobs had not materialised.
- **Community investment or development projects are ad hoc:** All of the large-scale companies financed projects to support communities. In one case, the company said that MoM (now MoNREC) required some spending for community development. One company reported that it would devote 2% of its profit to community development projects, another mentioned 7%. Generally, the projects and donations which were supported in the area of education, infrastructure and religious institutions seemed to result from ad hoc requests from important people in the villages, i.e. village leaders or the school headmaster, and never from a systematic plan or consultations with community members. In one case, priorities for social investment spending were said to have been determined during the EIA process when consultants had talked to village leaders. In another case, the CSR budget shown to the field research team also included compensation payments for damage caused by the collapse of a tailings dam. In one subsistence gold mining area, mining in the area was claimed to have contributed to the development of the community, as people had access to more money and electricity had been installed in some of the villages.
- **Limited local procurement:** Local communities sometimes had opportunities to sell products and services to mining companies but not on a wide scale. One large-scale company was found to purchase vegetables at the local market, and at several sites local and migrant workers were running small shops or restaurants around the mine site. However, the field research found that mining companies were not sourcing goods and services from neighboring communities to an extent that meaningfully contributed to local economies. In subsistence mining areas, local community members not directly engaged in mining were found to benefit economically from mining as they sold diesel, machinery, food etc. to the miners. In places where there were conflicts between communities and companies, it was found that there were also very few commercial relationships between them. For example, at one large-scale mine site local farmers did not want to sell their produce at the market within the company area, and at another site, the company was said to have instructed its workers not to buy anything from the local villagers.
- **Adverse impacts on agricultural and fishing activities:** In addition to livelihood impacts associated with the loss of land or damage to land (see Part 5.3: Land), farmers

expressed concerns about the impacts of environmental degradation on their livelihoods. For example, farmers near cement factories complained about dust on vegetables that they were unable to clean off and were sometimes afraid to eat, and also about their need to use more fertilizers. Some farmers were also concerned about possible health impacts of dust on their livestock. In a gold mining area, where subsistence miners were discharging wastewater into creeks used for fishing, communities reported fewer fish catches (see Part 5.7: Environment and Ecosystem Services).

- **Subsistence miners losing their livelihoods:** In several gold mining areas, the granting of a permit to a large-scale mining company meant that subsistence miners who used to mine in the area lost their source of income without receiving any compensation or alternative job opportunities. This also led to conflicts (see further, Part 5.6: Security and Conflict). In one case, the mine permit-holder assisted subsistence mine owners previously operating in the area to set up a company and obtain a small-scale permit, in another case a group of miners set up a cooperative and obtained a small-scale licence for another plot of (forest) land. One large-scale gold mining permit-holder was found to have allowed subsistence miners to become shareholders of the company and to operate shafts within the concession area.
- **Mining stimulation in-migration:** In most of the mining areas visited, a significant number of internal migrant workers had come to the area to work either at large-scale mine sites or as subsistence miners. While employees were usually accommodated in specific areas by the companies and did not have much contact with the local communities, daily workers and subsistence miners lived either in their own villages (created as a result of the in-migration) or in pre-existing villages alongside the local population. In one subsistence mining area, migrant workers from other regions were said to engage with local communities to buy land cheaply from local ethnic people and to try to register it in their own name to then lease it to gold miners. In one area where the local ethnic communities were mostly practicing Christians, the presence of migrant workers was said to disturb local religious practices, as they did not respect Sunday as a day of rest.

Public and community services

Human Rights Implicated: Right to an adequate standard of living; right to the highest attainable standard of physical and mental health; right to education; right to freedom of movement; right to life, liberty and security of person

- **Electricity and water:** Many of the communities visited did not have access to electricity. In several instances, large-scale companies had installed wires or were providing electricity to nearby communities. One company, for example, had installed electricity connections as a form of compensation to the community for using community water sources. At two sites at least, the communities paid more for electricity provided by a company than they would if they were connected to the national grid. In a few cases, in particular where water had become scarce or was allegedly polluted as a result of mining, companies were observed to be providing water to communities or supporting the construction of deeper wells. In one such case, where communities had to pay for the service, community members reported that there was not enough water provided by

the company for drinking and sanitation. In another case, communities expressed doubt about the quality of the water provided by the company.

- **Inflation and pressure on community services:** In one area where several small-scale and one large-scale mining projects were being run, increases in food prices linked to the increase of the population due to mining activities was noted by community members as an adverse impact. In the same area the local healthcare centre was reportedly overstretched, as only permanent employees of the company had access to the company's healthcare centre while the local population and most migrant workers had to access a single community hospital.
- **Roads damaged or closed down:** Local roads formerly used by communities were reported to have been closed down at two large-scale mine sites. One road was damaged as a result of heavy traffic by the company trucks and cars. At one site, the road used by local communities was closed during blasting at times which were not announced in advance to the local community, causing disturbance.
- **Education:** While in some cases large-scale mining companies as well as informal mine owners had contributed to building schools and/or accommodation for teachers, some negative effects were reported (see further, Part 5.5: Women and Children). In an ethnic area, it was reported that the local children going to the same school as children of Bamar factory workers were disadvantaged as they had less Burmese language skills.

Cultural heritage

Human Rights Implicated: Right to take part in the cultural life of the community; right to freedom of religion

- **Damage to religious buildings:** Close to quarrying sites where blasting occurs, cracks in pagodas and other culturally significant sites were observed. Close to a large-scale mine site, local community members complained about land surrounding a pagoda being damaged to the extent that the structure itself was threatened. To compensate, the company had provided construction materials to the local communities but they remained unsatisfied with the response. In general, however, companies were found to be respectful of religious sites and often made donations to the local monasteries or for religious festivals. As a result, in some mining areas communities had built pagodas on top of limestone karst mountains to deter future mining. In one subsistence mining area, the monastery land around three very old monasteries (one over 200 years old) was being mined at night for gold.
- **Deforestation threatening medicinal plants:** In several subsistence mining areas, local communities expressed concerns that miners coming from other regions did not respect the natural environment, as local people did. In particular, concerns were noted about ancient knowledge of ethnic groups regarding medicinal plants being threatened by deforestation.

C. Relevant International Standards, Guidance & Initiatives

Box 14: International Standards, Guidance & Initiatives on Communities & Mining

International Standards:

- [ICMM Sustainable Development Framework](#)
- IFC Performance Standards and Guidance Notes:
 - [PS 1 – Assessment and Management of Environmental and Social Risks and Impacts](#)
 - [PS 4 – Community Health, Safety and Security](#)
 - [PS 8 – Cultural Heritage](#)
- [UN Guiding Principles on Business and Human Rights](#)
- [UN International Bill of Human Rights and Core Human Rights Instruments](#)

Guidance on Community Investment, Development and Agreements:

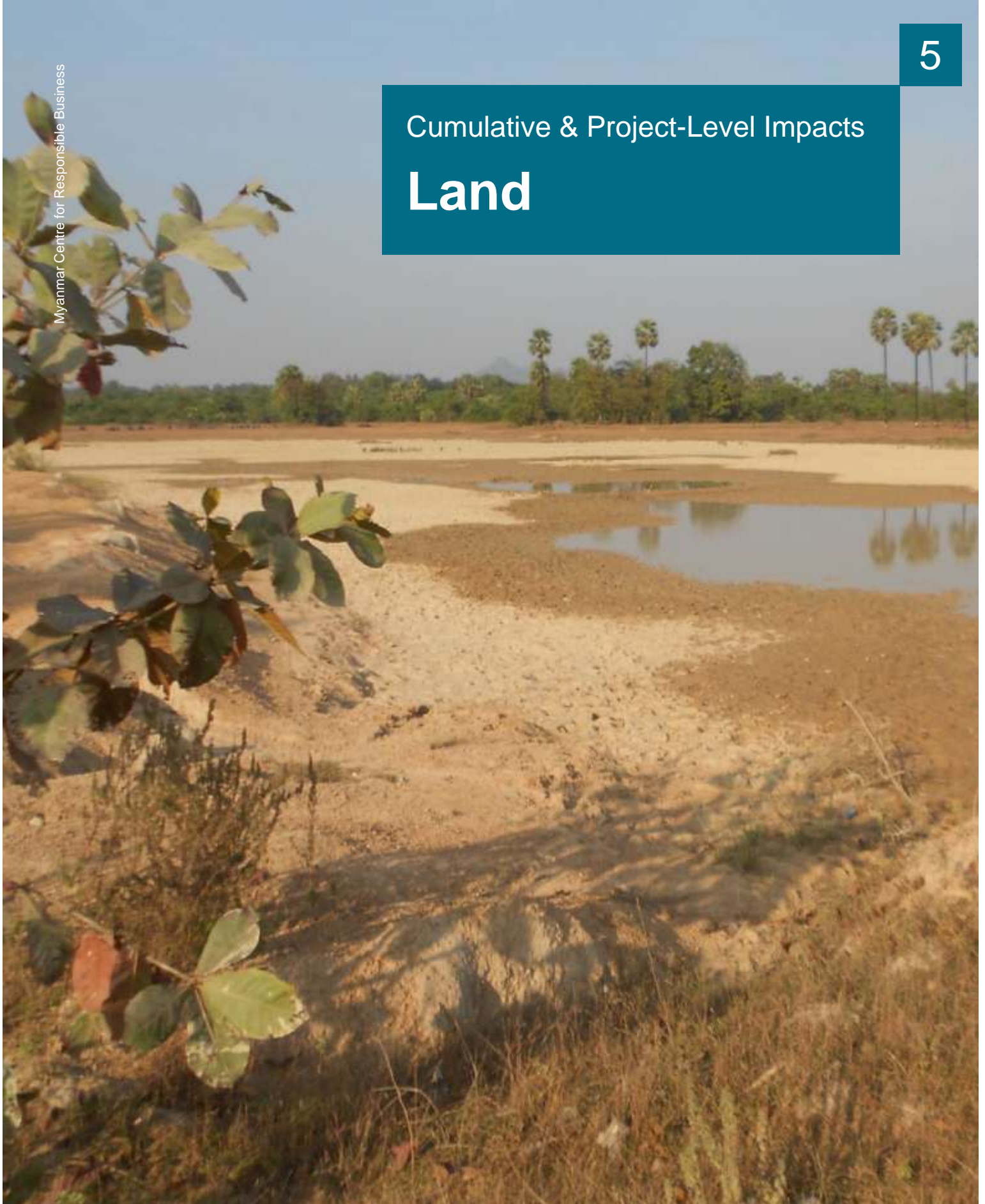
- Centre for Social Responsibility in Mining, [Good Practice Note: Community Development Agreements](#)
- EI Sourcebook, [Good Practice Note on Community Development Agreements](#)
- ICMM, [Approaches to Understanding Development Outcomes from Mining](#)
- ICMM, [Community Development Toolkit](#)
- ICMM, [Human Rights in the Mining and Metals Industry: Integrating Human Rights Due Diligence into Corporate Risk Management Processes](#)
- ICMM, [Understanding Company-Community Relations Toolkit](#)
- IFC, [Understand Project Induced In-Migration](#)
- IFC, [Strategic Community Investment: A Good Practice Handbook for Companies Doing Business in Emerging Markets](#)
- IIED, [A Guide to Applying the Spirit of Free, Prior, and Informed Consent in Industrial Projects](#)
- IIED, [Shared Value, Shared Responsibility](#)
- Oxfam, [Women, Communities and Mining: The Gender Impacts of Mining and the Role of Gender Impact Assessment](#)
- Rio Tinto, [Why Cultural Heritage Matters](#)
- UNDP, [Extractive Industries Strategy Note](#)
- World Bank, [Gender Dimensions of the Extractive Industries: Mining for Equity](#)
- World Bank, [Large Mines and Local Communities: Forging Partnerships, Building Sustainability](#)

Guidance on Local Employment and Supply Chains:

- GIZ, [Cooperative Vocational Training in the Mineral Resource Sector](#)
- ICMM, [Mining: Partnerships for Development Toolkit](#)
- IFC, [A Guide to Getting Started in Local Procurement](#)
- IFC, [Investing in People: Sustaining Communities through Improved Business Practice](#)

Cumulative & Project-Level Impacts

Land



Part 5.3

Land

In this section:

- A. National Context
 - Land ownership, access and use
 - Legal and policy framework
- B. Field Assessment Findings
 - Land ownership, access and use
 - Resettlement
 - Livelihood impacts associated with land
- C. Relevant International Standards, Guidance & Initiatives

A. National Context

Land ownership, access and use

An estimated 72% of the population live in rural areas and more than 38% of households rely on agriculture as their main source of income.³²⁸ Land is often the most significant asset of rural communities. Communal use of lands, including under a customary land tenure system, is common, having been established over years by custom rather than written laws.³²⁹ However, due to the complex and centralised nature of the land registration system, much rural land is not formally registered, leading to weak land rights protections for local land users and customary owners, including individuals and groups at risk of expropriation of their land by the Government for use by companies. Moreover, lack of formal written land title documentation frequently translates into uncertainties and disputes when land ownership, access and usage rights are transferred from one party to another.

Expropriation of land by the military for business and other use has a long history in Myanmar, along with associated patterns of forced evictions; including limited, unclear or no compensation for land, housing and crops seized from villagers. This has led to significant impacts on livelihoods and subsequent disputes regarding land ownership, access and usage rights.³³⁰

In the context of mining activities, disputes regarding land access and use can also be exacerbated by the interaction between formal and informal mining activities. Typically, large- and small-scale mining will have more formal land use rights, whereas subsistence mining activities take place alongside uncertain or non-existent land use rights or illegal

³²⁸ Myanmar Ministry of Labour, Immigration and Population, Central Statistical Organisation and ILO, [Myanmar Labour Force, Child Labour and School to Work Transition Survey](#), 2015, p. 5 and 8.

³²⁹ Transnational Institute, [Access Denied: Land Rights and Ethnic Conflict in Burma](#), May 2013.

³³⁰ Displacement Solutions, [Land Acquisition Law and Practice in Myanmar](#), May 2015, p. 17.

usage, leading to increased risks for subsistence miners who depend on the use of land for their livelihoods.³³¹

SWIA field research found land rights to be a fundamental issue for the mining sector. Site visits revealed significant negative impacts associated with land ownership, access and usage. These findings are outlined in further detail in section B, below.

Legal and policy framework

Land rights in Myanmar have gained increased attention since 2011, associated in part with the previous Government's political and economic reform process that included a focus on attracting foreign investment.³³² Three central pieces of legislation governing land are: the 1894 Land Acquisition Act;³³³ the 2012 Vacant, Fallow and Virgin Land Management Law;³³⁴ and the 2012 Farmland Law.³³⁵ These laws are discussed briefly below. In addition, the 2016 National Land Use Policy (NLUP)³³⁶ has been a reference point for civil society and community organisations following extensive consultations during 2014 and 2015, although the attitude of the new Government is unclear.

Despite these reforms, the legal and policy framework regarding land remains fragmented, internally inconsistent, and incomplete. Policies, laws and practices still do not adequately protect land rights. A central issue remains widespread insecurity of tenure, partly due to the inefficient and complex land registration system. This is further complicated by the fact that the cadastral (land mapping) system is out of date, meaning that land classifications and mappings used by different ministries may overlap, conflict, and not represent current land use patterns. Land tenure remains insecure for most smallholder farmers because of: "i) a complex and long registration process resulting in low land registration rates; ii) rigid land classifications that do not reflect the reality of existing land use; iii) lack of recognition of customary land use rights; iv) weak protection of registered land use rights; v) inefficient land administration; and vi) active promotion of large-scale land allocations without adequate safeguards."³³⁷

Land Permitting under the Mining Rules

According to Rules 150 and 151 of the proposed 2018 Mining Rules, the holder of a permit for minerals production needs to obtain written consent from the relevant landowner, person in possession of the land, or their legal representative for the use of any land which is within 200 meters of any residential dwelling house, building or site for the construction of a residential building; any land within 100 meters of land which has been cleared or land on which agricultural crops are grown; and any land which is the site of or within 200 meters of any irrigation canals, ponds, dams or other land for the storage of water.

³³¹ IIED, [Responding to the challenge of artisanal and small-scale mining](#), 2013, p. 6.

³³² MCRB, [Land Briefing Paper](#), March 2015, p. 4.

³³³ [1894 Land Acquisition Act](#) (India Act I).

³³⁴ [2012 Vacant, Fallow and Virgin Lands Management Law](#).

³³⁵ [2012 Farmland Law](#).

³³⁶ [2016 National Land Use Policy](#).

³³⁷ OECD, [OECD Investment Policy Reviews: Myanmar 2014](#), March 2014, p. 292.

Additionally written consent is needed from the relevant Ministry, Government Department or Government Organization for use of any land reserved for a railway track or which is within 50 meters of the boundaries of any land so reserved; any land within a township or within 200 meters of the boundaries of any township³³⁸; or any land within 200 meters of an area reserved for religious purposes as well as land within 200 meters of a riverbank or within 100 meters of the bank of a canal.

Obtaining permission from landowners or neighbours does not appear to be requirement in the case of Prospecting or Exploration.

Land acquisition by the Myanmar Government and the 1894 Land Acquisition Act

The 2008 Constitution provides that the Government is the ultimate owner of all land in Myanmar but also provides for ownership and protection of private land and property rights.³³⁹ A private investor may acquire land or land usage rights from either the Government or from a private landowner. Foreign investors can lease land but can only obtain a lease of more than a year with a Permit or Endorsement from MIC.

The Government can carry out compulsory acquisitions in the State or public interest, which includes mining activities. Under the 1894 Land Acquisition Act, land acquisition for a company may be carried out where it is “likely to prove useful to the public.”³⁴⁰ In these cases the Government has the responsibility for carrying out the acquisition and distributing the compensation; however, the company acquiring the land has to provide the compensation. Compensation is based on the market value of the land and also possible damage incurred by the private landowner, such as loss of crops and firewood or the cost of changing residence and place of business. Land in-kind can also be provided in place of monetary compensation (Art6). These losses should take place “in consideration of the compulsory nature of the acquisition” (Art23).

The Law sets out basic procedures governing land acquisition, including a preliminary investigation, and a procedure for notification of persons interested in the land. The Law also includes provision for objections to the land acquisition, in which the objector is granted the ‘opportunity of being heard’, where the objections raised may be further explained. However, the President’s decision on the objection is final, in practice giving him/her wide discretionary powers (Art5). As of 2018, this Law was being prepared for revision by a Parliamentary Committee.

2012 Vacant, Fallow and Virgin (VFV) Lands Management Law and Rules

Details in these sections are taken from MCRB’s 2015 Briefing Paper on Land, currently under revision³⁴¹.

The VFV Law and the associated Rules facilitate the implementation of Government land policies in a manner that maximises the use of land as a resource for generating agricultural

³³⁸ Use of the word *myo-neh* meaning township is confusing in this instance, as all land is within a township, which is one of the main geographical administrative units in Myanmar.

³³⁹ [2008 Myanmar Constitution](#), Articles 35, 37, 356 and 372.

³⁴⁰ [1894 Land Acquisition Act](#) Article 40(1) (b).

³⁴¹ MCRB, [Land Briefing Paper](#), March 2015.

income and concomitant tax revenues. The Law and Rules do not recognise informal land rights and the land tenure provisions are weak, essentially allowing the Government to classify land as vacant, fallow and virgin (VFV) where it may in fact be occupied by people or used for seasonal cultivation by farmers. The land registration procedure under the Law and Rules are complicated, meaning that smallholder farmers have struggled to register their land tenure claims.

Investors can acquire land by applying to the Government for land rights over VFV lands. Foreign investors need to hold an MIC permit or be in a joint venture with a Government body or Myanmar national in order to apply to the Central Committee for the Management of VFV Lands for rights to cultivate and use such lands. VFV land rights are temporary and not transferable.

The Central Committee for the Management of VFV Lands has the right to repossess VFV land for various reasons, including where repossession is required in the interests of the State or where natural resources are discovered on VFV lands. The VFV Rules do not contain procedural safeguards whereby individuals can object to an acquisition or the amount of compensation provided. There is no provision for judicial review. These gaps in the Law and Rules have been criticised. Moreover, the legislation has criminal provisions for persons who ‘encroach’ on the land or ‘obstruct’ the land rights-holders, which may be abused if they are used against protestors seeking to assert their interests in VFV land.

2012 Farmland Law

According to the 2012 Farmland Law, farmland can be owned and registered by Myanmar nationals or organisations, including government departments, NGOs, associations and companies. Rights applying to foreign companies should be read in conjunction with the 2016 Myanmar Investment Law.

Subject to certain restrictions (such as those relating to foreign investors), farmland under the provisions of the Farmland Law is freely transferable. Farmers groups in Myanmar have expressed that this is problematic as it contributes to instances where poor farmers sell their land because they are tempted by short-term gain, potentially leaving them landless and without a livelihood.

As with the VFV Law, the Farmland Law also allows for the repossession of farmland “for the interests of the state or the public” as long as the farmland rights-holder is compensated “without any loss,” including the value of buildings located on the farmland.³⁴² The Law does not provide for procedures for objections to be made regarding acquisition or compensation, or for judicial review.

2016 National Land Use Policy (NLUP)

The NLUP was adopted by the Government in January 2016, after having been in development for some two years.³⁴³ The Policy is intended to guide the drafting of an umbrella land law, although it is not clear whether the Government will pursue this.

³⁴² [2012 Farmland Law](#), Article 26.

³⁴³ [2016 National Land Use Policy](#).

The NLUP addresses a number of important issues relevant to mining, including:

- Land use administration;
- Formation of the National Land Use Council;
- Determination of land types and land classifications;
- Procedures related to land acquisition, relocation and compensation; and
- Land dispute resolution and appeal.

The NLUP (Parts 8 and 9) explicitly addresses the land use rights of ethnic nationalities and the equal rights of women and men with regard to land rights.

While the NLUP is arguably an improvement, a number of criticisms voiced by CSOs and farmers groups remain. One is associated with the high number of internally displaced persons that had to leave their land either due to internal armed conflict or natural disasters in past years. Even though the NLUP acknowledges the right to return and to restitution, many believe that there is a significant lack of clarity because the NLUP only refers to land of those who lost it ‘illegally’, which does not explicitly include all individuals who lost land during armed conflict and the waves of land expropriation by previous governments.³⁴⁴ Some reports suggest that under the system set out by the NLUP, about half of the population of Myanmar would have recognised land titles. The other half may still be subject to forced evictions and other related human rights abuses.³⁴⁵ The International Commission of Jurists has argued that the NLUP approach to the resolution of grievances in the case of forced eviction includes neither a clear dispute resolution mechanism, nor legal accountability.³⁴⁶

Foreign investors’ use of land

In most circumstances, land cannot be sold or transferred to a foreign individual or company through a private transaction. However, the Government may allow exemptions from these restrictions. Furthermore, private investors cannot acquire VFV land rights or farmland through private transactions without the permission of the Government. Under the 2016 Myanmar Investment Law, foreign investors with a Permit or Endorsement can obtain leases for up to 50 years, extendable for 10 years twice.³⁴⁷

Governance structures and dispute resolution

In order to tackle land disputes, the previous Government, under U Thein Sein, created two bodies: The Parliament’s Farmland Investigation Commission (established in 2012 with a mandate to accept complaints from individuals) and the Land Utilisation Management Central Committee (established in 2013), set up to implement the findings of the Commission. The Committee agreed to return land or provide compensation in some 699 cases. However, in practice there were extreme delays in returning land to farmers, due to lack of capacity within the Government to deal with the large number and complexity of land

³⁴⁴ [The Right to Land: At Crossroads in Myanmar](#), Transnational Institute, 5 July, 2016.

³⁴⁵ Frontier Myanmar, [A Sound Basis for Land Reform](#), 19 February 2016.

³⁴⁶ [Implementable Action Plans from the ICJ to the new Parliament & Government](#), International Commission of Jurists, May 2016, p. 12.

³⁴⁷ VDB, [What Changes In Practice Under the New Investment Law](#), 8 October 2016, p. 2.

disputes. Most complaints received by the Myanmar National Human Rights Commission also relate to land.

In May 2016, the Government announced the formation of a new committee, the Central Review Committee on Confiscated Farmlands and Other Lands, to investigate conflicts between communities and companies, and to oversee the return of land to its rightful owners.³⁴⁸ The Committee has adopted a policy on adequate compensation to be provided to dispossessed farmers and maintains that government ministries, SOEs and private companies should disown confiscated lands that they no longer use. It is reported that in July 2016 the Committee decided to resolve all land grab cases within six months.³⁴⁹

Concerns with the current legal framework

Concerns regarding the current legal and policy framework governing land include:³⁵⁰

- Laws governing land acquisition are outdated and do not include procedural and substantive protections for rights-holders;
- The provision that Government acquisition must be 'in the public interest' is not further circumscribed or defined, leaving this process open to abuse;
- There are no substantive legal and policy provisions governing resettlement to ensure that this is conducted in accordance with international human rights standards;
- Customary land rights or the rights of informal users or occupiers who may lack formal documentation are not sufficiently recognised;
- The Government may be declaring land to be VFV when in reality it is not; and
- There are no detailed regulations defining compensation levels for land and other assets such as buildings, equipment and lost harvests.

B. Field Assessment Findings

The field research showed that mining activities caused significant impacts on land use, leading to human rights impacts, particularly related to livelihoods. An overview of key findings is provided below.

Land ownership, access and use

Human Rights Implicated: Right to property; right to an adequate standard of living; right to freedom of expression and information; right to an effective remedy

- **Land boundaries are not clearly demarcated:** The SWIA field research found that land boundaries were often unclear, meaning that there was uncertainty for rights-holders as to who holds ownership or usage rights over particular areas. As flagged above, this is further complicated by the fact that the land cadaster or register in Myanmar is out of date. The Government therefore lacks a clear overview of land ownership and usage which causes complications. For example, individuals or communities were accused of, or indicted for, trespassing on land that they believed

³⁴⁸ BurmaNet News, [The Irrawaddy: Government committee to settle all land grab cases in six months](#), 2 July 2016; Global Witness, [Myanmar's Efforts to tackle land grabbing crisis must address the role of the military in perpetuating theft and violence](#), 11 May 2016.

³⁴⁹ Ibid.

³⁵⁰ MCRB [Land Briefing Paper](#), March 2015, pp. 12-13.

belonged to them, or where they had established farms. Lack of clarity was also problematic in land purchase transactions. At one site, the land being sold was measured by a company representative and a representative from a local EAO, with no input from communities or government actors, leading to a dispute about the actual size of the land that was being sold by villagers to the company. Moreover, field research identified several instances of confusion among different government ministries as to the status of particular parcels of land. At one site the Land Records Department determined that a village could be registered with the Ministry of Home Affairs. However, a mining concession had been granted by MoM (now MoNREC) over the exact same parcel. In another instance, the land attributed to the mining area included a school, which, having been included within the fenced area was no longer available for classes.

- **People have limited legal ownership or usage rights over the land on which they live and farm:** This was particularly pronounced in the subsistence gold mining areas where communities were typically living on land owned by MoNREC (some with, and some without, a licence-holder), or land that was officially declared forestry land and owned and administered under the auspices of the Ministry of Forestry. Correspondingly, without legal ownership or usage rights people were found to be at risk of being moved off the land, without notice or compensation, for example where a concession was granted to a mining company over land where there was subsistence farming. Such settlements were also usually not officially registered with the Government and therefore not eligible for essential services such as schools, hospitals, electricity, roads, or water infrastructure (see Part 5.2: Community Impacts and Development).
- **Even with legal ownership and usage rights, people may not have title certificates or other proof of ownership or usage rights:** Even when people had legal title to the land where they lived, farmed or mined, they frequently did not hold land title certificates or other documentation that proved such ownership (e.g. land purchase contract or the like). This presented significant problems for rights-holders. For example, if a company acquired interest in a piece of land, it was the responsibility of the company to negotiate and provide compensation. At some sites, people faced restrictions in obtaining land title certificates. For example, when people were able to officially register their land and obtain land title certificates, they had to pay a per-acre fee for the registration. The official fee was already prohibitively expensive for some people, and in practice the cost was usually even higher due to the need to pay bribes to government officials to obtain the title certificates.
- **Lands are designated as VFV lands, allowing companies to gain access to these lands even where they are communally used:** At several sites, the Government granted a company access to land that was classified as VFV land, despite local communities actually using this land for farming and livestock grazing. As explained above, the VFV Law and Rules do not contain procedural safeguards whereby individuals can object to a land acquisition or the amount of compensation provided, and there is no provision for judicial review. Access to information about the designation of VFV lands and any company interests over such land was also a problem. At one site the company informed the village head that the land had been declared VFV and that it was acquiring an interest in the land. However, this information was not passed on to villagers, who were unaware of the company's plans to take over the land until it actually happened.

- **Determination of the price for land purchases is arbitrary and ad hoc, and sale is sometimes under duress:** In several instances where companies purchased land from villagers, the determination of price and decisions about how much land was to be sold to a company were reported to have occurred under duress and without verification by a third-party of what would be a reasonable market rate price. Decisions around land sales often involved a combination of government actors and EAOs, with the armed groups reportedly putting pressure, sometimes in the form of threats, on villagers to sell their land. At one site where a company wanted to purchase land officially, the price was determined through a negotiation between the Land Records Department, the Township Administration Department, a leader from the local EAO, and the land-owning farmers. However, villagers reported that in fact they had no choice about how much land was to be sold because the local EAO told them how much land they must sell and villagers were too afraid to object. In many cases the purchase price did not reflect the real value of the land. For example, the same price was paid for an acre of genuine farmland as for one that was actually vacant or fallow. In other cases, the village head received the money from the company and retained a percentage. At one site this was said to be up to 20% of the total price. People were often paid in cash, sometimes in communities that previously did not have cash-based economies, contributing to associated community impacts (see Part 5.2: Community Impacts and Development).
- **Lack of information and documentation in land purchase transactions:** Often, where land purchases occurred farmers or other local landowners were not fully informed of the nature of the transaction and did not receive legal documentation of land purchases from the companies. At one site where farmers sold their land to a company, the farmers did not understand that they were engaging in a transaction that would involve the permanent transfer of their land title and access rights. Nor did the company provide them with a copy of the documentation for the land purchase. When the field research team asked company representatives why the villagers did not have copies of the contracts, the representatives responded that they were too busy to supply the contracts to the villagers. In a similar scenario elsewhere, the company told the field research teams that they had forgotten to provide the land sale contracts to the villagers.

Resettlement

Human Rights Implicated: Right to housing; right to an adequate standard of living; right to an effective remedy

- **Forced evictions³⁵¹, threats to rights-holders and relocations under duress:** The field research found several instances of forced evictions and cases where individuals and communities were threatened by armed groups or companies, including companies with connections to the Myanmar military. At one site, a military-affiliated company pressured villagers to move, after a previous administrative deadline, of which villagers had been informed, had passed. When they refused to move, the police and fire brigade destroyed the houses and arrested several people, who were subsequently detained at the local police station for one month. At another site, around 150 houses were destroyed by company security guards in a forced eviction during the rainy season,

³⁵¹ Defined in: UN Committee on Economic, Social and Cultural Rights, [General Comment No. 7: The right to adequate housing: forced evictions](#).

making it even more difficult for people to move. Those women, men and children evicted were not able to take their belongings with them and had to take temporary refuge in a monastery.

- **Limited access to information and consultation in resettlement processes:** Where resettlement occurred, those who were impacted – including new host communities – were generally not provided information or consultation. In one instance, a company planning to resettle communities in order to begin operations simply informed the village head, who then gave villagers one month to move. At another site, people were given two days advance notice of being resettled.
- **Alternative resettlement sites are often not suitable:** There were several examples of resettlement of people to unsuitable alternative sites. Frequently these sites did not have sufficient services or infrastructure to support the new community. In one instance communities were resettled to a site with only one water well located three miles away from their new homes and without decent road access, which meant that they had to build their own road. Prior to resettlement, the company had promised to build a school and roads, and to provide adequate water supplies and electricity, but it failed to do so. There were also examples of resettled people receiving unsuitable land. In one case people were resettled to land at a lower elevation subject to flooding, which was not suitable for growing the same kinds of crops that they had previously cultivated. In other cases the host communities were not consulted about the population influx caused by resettlement. There was one incident reported where people were resettled onto farming land grabbed from another village.
- **Compensation for resettlement is ad hoc and does not reflect the actual cost of economic and physical displacement:** Compensation processes and amounts were ad hoc and inconsistent. In some cases, compensation was provided for land but not for crops or houses and in other cases money was given for moving but not for replacement of land or houses. In one case affecting 50 households, compensation was provided for building new houses at the resettlement site. However, the money did not cover the actual cost of building replacement housing, which was in fact up to three times higher. At another site, farmers were offered compensation for crops but not for the land from which they had been forcibly resettled.
- **Displacement of artisanal miners through formal mining activities:** Displacement was particularly problematic for artisanal miners without any formal ownership or usage rights over the land on which they lived and mined. There were several cases where companies displaced artisanal mining communities. Such companies had acquired formal licence rights over the areas used and occupied by the artisanal miners.

Livelihood impacts associated with land

Human Rights Implicated: Right to an adequate standard of living; right to water; right to food

- **Damage to land, crops and water sources essential for agricultural activities:** At several sites visited there were examples of damage to farmland as a result of mining activities. At one site, approximately one mile away from limestone mining activities, large amounts of dust had settled on crops, and according to local farmers the rice yield had decreased and increased use of fertilizers was necessary. The farmers earned less money from their harvests because of decreased yields. They also reported that

they had to use more water to remove dust from crops and that they sometimes could not afford to buy enough seeds to replant. Similarly, at two of the gold mine sites visited, chemical waste from companies in paddy fields damaged land and crops, as well as critical water sources used for drinking, livestock and irrigation. When accidents, such as the collapse of tailings dams, occurred, these were reportedly not properly cleaned up; moreover, associated impacts on livelihoods were not mitigated or compensated (see Part 5.7: Environment and Ecosystem Services). At one site, following extensive damage caused to paddy lands as a result of a tailings dam collapse, there was no systematic approach taken by the company to assess the damage and award compensation. Those farmers who complained to the company were compensated; however, those who did not complain were not. At the same site, some farmers preferred to sell their land to the company because it had already been damaged by the company's tailings and wastewater without an effective clean-up response by the company.

- **Loss of communal grazing and farming areas when land is declared VFV:** Designating land as VFV without proper due diligence by government and company actors to establish the nature of the community's use of such land had adverse impacts not only on land rights but also on related livelihood activities. At one site, people could no longer use communal grazing areas, which meant that they had to take livestock much further away to graze. At another site, land was registered as VFV, allowing the company to acquire it despite the communal use of the land for farming.
- **People become daily workers and/or migrate as a result of having less land for farming:** The field research found that where women and men have less access to farming land, they turn to alternative ways of earning a living, including working as labourers on mine sites and on farms. At one site where people sold some of their land to a company, they could no longer farm so they began to work as daily workers on other farms. Due to an increase in the price of land, they subsequently could not afford to buy any new land for farming. At another site, which presented a similar pattern of the transition from farming to daily work due to loss of land associated with mining activities, villagers reported a preference for farming rather than daily work, noting the importance of having long-term financial security and having land to hand over to the next generation. At yet another site, people had to make the transition from farming to daily work because of the poor resettlement process.
- **Livelihood sustaining activities in ASM areas on land that is not owned by communities:** As flagged above, communities farming on land that is officially owned by the Government was particularly problematic in subsistence gold mining areas, since they have no formal claim to the land they are dependent on for a livelihood and from which they can be, and sometimes are, moved without consultation or compensation.

C. Relevant International Standards, Guidance & Initiatives

Box 15: International Standards, Guidance & Initiatives on Land & Mining

International Standards:

- [ICMM Sustainable Development Framework](#)
- [FAO Voluntary Guidelines on the Responsible Governance of Tenure](#)
- IFC Performance Standards and Guidance Notes:
 - [PS 1 – Assessment and Management of Environmental and Social Risks and Impacts](#)
 - [PS 5 – Land Acquisition and Involuntary Resettlement](#)
- [UN Guiding Principles on Business and Human Rights](#)
- [UN International Bill of Human Rights and Core Human Rights Instruments](#)
- [OHCHR Basic Principles and Guidelines on Development-Based Evictions and Displacement](#)

Guidance on Resettlement:

- ADB, [Handbook on Resettlement, A Guide to Good Practice](#)
- CommDev, [Land Access and Resettlement](#)
- FAO, [Guidelines on Compulsory Acquisition of Land and Compensation](#)
- ICMM, [Land Acquisition and Resettlement: Lessons Learned](#)
- IFC, [Handbook for Preparing a Resettlement Action Plan](#)
- Gerry Reddy, Eddie Smyth and Michael Steyn, [Land Access and Resettlement: A Guide to Best Practice](#)

Guidance on Land Management:

- CommDev, [Extractive Industries and Conflict Toolkit and Guidance for Preventing and Managing Land and Natural Resources Conflict](#)
- CommDev, [Women and Sustainable Land Management](#)

International Initiatives:

- [Alliance for Responsible Mining](#). The Alliance for Responsible Mining provides: technical assistance to miners in their work to implement best practices, formalise or obtain Fairmined Certification; development of standards and certification systems for responsible mineral extraction and sourcing; establishment of responsible supply chains; advisory services on legal and voluntary frameworks for ASM; and capacity building and training of trainers working with miners.

Cumulative & Project-Level Impacts

Labour



Part 5.4

Labour

In this section:

- A. National Context
 - Myanmar regulatory framework on labour
 - Occupational health impacts associated with limestone, gold and tin extraction and processing
- B. Field Assessment Findings
 - Health and safety
 - Contracts and employment status
 - Working hours, wages and leave
 - Freedom of association, collective bargaining and labour grievances
 - Workers' accommodation and restrictions on movement
 - Women workers and child labour
 - Discrimination and harassment
 - Workers' benefits
- C. Relevant International Standards, Guidance & Initiatives

A. National context

For 50 years, independent trade unions were prohibited, laws covering labour protection were antiquated and/or restrictive, forced labour of civilians by the military and civil authorities was common, and child labour was widespread. Myanmar labour laws are currently undergoing considerable reform. Many have recently been revised or rewritten (see below for an overview). However, there remains an overall lack of awareness by workers and employers of labour rights and safeguards. Enforcement of the new laws is piecemeal and inconsistent, and full-scale implementation of improved safeguards for workers will be a long-term process.

Informal labour

The economy in Myanmar is predominantly informal. A comprehensive national labour force survey undertaken in 2014-2015 by the then Ministry of Labour, Employment and Social Security (now the Ministry of Labour, Immigration and Population, MoLIP), with the support of the ILO, revealed that 75.6% of all employed persons operate in the informal sector.³⁵² According to statistics from the World Bank from 2011, 73% of the workforce can be classified as informal.³⁵³ The OECD estimated that 83% of all businesses in Myanmar were informal in 2013.³⁵⁴

³⁵² Ministry of Labour, Employment and Social Security and Central Statistical Organisation, [Myanmar labour force, child labour and school to work transition survey](#), 2015, p. 17.

³⁵³ World Bank, [Myanmar: Ending poverty and boosting shared prosperity in a time of transition](#), 2011, p. 15.

³⁵⁴ OECD, [Multi-dimensional Review of Myanmar](#), 2013, p. 104.

Workers in the informal sector do not benefit from the protection of the labour laws and are therefore often at risk of discrimination, marginalisation and human rights abuses. Excessively long working hours, poor working conditions and low incomes are common problems amongst these workers. MCRB field research found that the majority of workers in the formal and informal mining sector are casual or daily workers. Casual workers make up a large part of the workforce even in the larger companies. Subcontracted mine sites only use casual workers. In subsistence mining, all labour is informal. There are, however, oral agreements between the mine owners or operators and workers about payment, working hours and other issues.

Forced labour

A major concern in Myanmar has been the widespread and systematic use of forced labour of civilians by the Myanmar army and the civilian administration for several decades, despite the Government's ratification of ILO Convention No. 29 against forced labour in 1955. Since 2011, many observers, including the ILO, have welcomed the decrease in forced labour, but note that the practice is still continuing in some areas.³⁵⁵ A new Memorandum of Understanding for the elimination of forced labour was signed between the Government and the ILO in March 2012. A complaints mechanism has been put in place to allow victims of forced labour, with the assistance of the ILO Liaison Officer, to seek redress and remedies from government authorities.³⁵⁶

The ILO noted that while forced labour in Myanmar had generally been associated with the Government, complaints are now being received about the use of forced labour in the private sector.³⁵⁷ Exploitative labour conditions – including in the mining sector – may in some cases amount to forced labour; where work is exacted from a person under the threat of a penalty or where the freedom of workers to leave their employer is restricted.

Myanmar regulatory framework on labour

Myanmar is a party to three of the eight fundamental ILO Conventions: the Forced Labour Convention (ratified March 1955); the Freedom of Association and Protection of the Right to Organise Convention (ratified March 1955); and the Worst Forms of Child Labour Convention (ratified December 2013).³⁵⁸

Freedom of association and the right to collective bargaining

Trade union activities were prohibited for several decades. However, the 2008 Constitution affirms the right of every citizen to form and participate in associations and organisations and the 2011 Labour Organisation Law permits the exercise of freedom of association. The 2012 Settlement of Labour Disputes Law provides for dispute resolution institutions and mechanisms. Since 2011, hundreds of enterprise-level trade unions have been formed and

³⁵⁵ ILO Committee on the Application of Standards, [Extract from Record of Proceedings](#), 18 June 2012, p7-10.

³⁵⁶ ILO, Forced Labour Complaint Mechanism,

³⁵⁷ ILO, [Report on progress in the implementation of the Memorandum of Understanding and associated action plans for the elimination of forced labour in Myanmar](#), 13 June 2014, Article 7.

³⁵⁸ ILO, [Ratifications for Myanmar](#)

registered.³⁵⁹ The Mining Workers Federation of Myanmar, said to have 4000 members, is one of the five registered trade union federations³⁶⁰.

Although Myanmar has been a party to ILO Convention No. 87 on Freedom of Association and Protection of the Right to Organise since 1955, gaps remain in protecting freedom of association in both the Constitution and labour laws. The current law sets a relatively high threshold for forming a union at company level³⁶¹ and makes it difficult for unions to establish themselves beyond this level. Moreover, the lack of protection for trade union members and leaders is a concern.³⁶² The ILO has recommended a number of amendments to the new laws on freedom of association to improve the way they function, including the creation of an obligation on parties to engage in collective bargaining in good faith, and to strengthen the enforceability of decisions of the labour arbitration bodies.³⁶³

The Settlement of Labour Disputes Law also prescribes that employers of more than 30 employees must form a Workplace Coordinating Committee (WCC). This must include representatives of both workers and the employer. The Committee is intended to promote a good relationship between the employer and the worker and/or their labour organisation, through negotiation and coordination on the terms conditions of employment, OSH, welfare, and productivity.³⁶⁴ Most businesses are unaware of this requirement.

Details of legal provisions on contracts, minimum wage, working hours and leave are in Box 16. The ILO's 2017 Guide to Myanmar Labour Law is also a useful reference, particularly where legal provisions are unclear. It has partly been used to draw up this table³⁶⁵.

Box 16: Legal Provisions on Contracts, Wages, Working Hours and Leave

Issue	Legal source(s)	Content
Contracts	2013 Skills and Development Law	<ul style="list-style-type: none"> ■ A written contract should be drawn up within 30 days of the beginning of an employment relationship.
Leave	2013 Minimum Wage Act 1951 Factories Act	<ul style="list-style-type: none"> ■ The number of public holidays is 14 days. ■ Earned paid leave is 10 days in a year. ■ Casual leave with wages is 6 days in a year.
Working Hours	1951 Factories Act, Amended 2016 Proposed 2018 Mines Rules ³⁶⁶	<ul style="list-style-type: none"> ■ 8 hours per day and 44 hours per week (maximum six days per week). ■ Maximum five days per week, or no more than 8 hours a day (40 hours a week), and

³⁵⁹ ITUC, Myanmar: [National Trade Union Centre Officially Registered](#), 28 July 2015

³⁶⁰ Industrial Union, [Myanmar mining unions set safety goal](#).

³⁶¹ International Labour Conference, [Observation \(CEACR\) – adopted 2014, published 104th session](#) 2015.

³⁶² ITUC, [Foreign direct investment in Myanmar: What impact on human rights?](#), October 2015, p. 15.

³⁶³ ITUC, [An ILO Commission of Inquiry on Freedom of Association in Burma \(Myanmar\)](#), 2011.

³⁶⁴ [2012 Settlement of Disputes Labour Law](#), Chapter II (3).

³⁶⁵ [Guide to Myanmar Labour Law](#), ILO September 2017.

³⁶⁶ Proposed 2018 Mining Rules (held with MCRB)

Overtime	1951 Factories Act 2018 Mines Rules	<p>exceptionally 48 hours a week (Art 174 a and b)</p> <ul style="list-style-type: none"> ■ A one hour break should be given after 5 consecutive hours, which is counted as a part of working hours (Art 174 c). ■ Moreover, the Rules state that no women are allowed to be employed in underground work sites of any mine, except for in health and social services (Rule 168). ■ Factory workers: no more than 20 hours per week for workers who engage in non-continuous work; no more than 12 hours per week for workers who engage in continuous work. ■ No more than 8 hours overtime per week. (Mining Rule 174d) ■ Overtime payment is twice the normal wage (Mines Rule 172a)
Minimum Wage	2013 Minimum Wage Act	<ul style="list-style-type: none"> ■ Current minimum wage came into force on 1 September 2015, defined at MMK 3,600 per 8-hour working day, or MMK 450 per hour (Art1e). A new minimum wage of 4800 kyats is expected to be set in 2018. ■ The law covers part-time work, hourly jobs and piecework³⁶⁷ and provides that both women and men should receive the minimum wage without discrimination (Art 14(h)). ■ Newly hired workers engaged in a training/induction programme for up to a maximum of three months can receive 50% of the minimum wage, while during the probation period (2nd or 3rd month of employment), workers should receive at least 75% of the minimum. ■ There is predictably less protection for daily workers (often day labourers). However, if a worker in a daily wage job works less than the set hours per day not because of the worker, but because of the employer, the worker should still receive the full wage for the day (Art 14(g)).

³⁶⁷ [2013 Minimum Wages Act](#)

Occupational Safety and Health (OSH)

Some OSH provisions were included in the 1996 Rules which have been taken into the 2018 Rules and expanded on. Rule 176 of the proposed 2018 Mining Rules contains some provisions on health and safety measures, as did the 1996 Rules. The permit-holder must provide all necessary measures for the safety in the mines, e.g. by ensuring the proper design, construction and electrical (communication) equipment needed. The Rules also require monitoring and regular inspection and maintenance of the working environment, tools and equipment in order to determine any potential dangers for workers. This includes adequate ventilation in all underground operations, fire prevention emergency rescue teams, and providing at least two (separate) emergency exits. All medical treatment of injured workers should be provided for free. The permit-holder is also required to appoint adequate supervisory personnel, and provide a system whereby the names and locations of persons entering underground work sites can be determined at any time, and to draw up and implement disaster prevention measures and keep safety records.³⁶⁸ Rule 177 requires an emergency plan to be drawn up. Rule 178 requires the company to ensure all workers exposed to chemical or biological hazards are properly informed of the risks, to minimise the exposure to such hazards, and provide suitable personal protective equipment free of charge, and to arrange for free medical treatment, and treatment in accordance with the Social Security Law (see below).

There is a new draft OSH Law³⁶⁹. However, this has not yet been adopted by Parliament. The 1951 Factories Act also includes provisions regarding workplace safety. The provisions of the Act include, inter alia: adequate ventilation and lighting of workplaces; removal of dust and fumes harmful to health; the avoidance of overcrowding; provision of safe drinking water; provision of adequate number of latrines for workers; and proper disposal of factory waste.³⁷⁰ The welfare provisions include: first aid facilities; washing facilities; and places for taking meals. The Factories Act also provides that any accident inside or outside an industrial establishment above a threshold number of workers must be reported to the Factories and General Labour Laws Inspection Department (Art53). According to the Factories Act, employers shall pay for medical treatment for workplace injuries caused by an employer's failure to keep OSH plans and protections. Employers must report deaths from workplace accidents or any injuries that prevent workers from working for 48 hours or more to the Factories Inspectorate of MoLIP (Art53).

Social security

The 2012 Social Security Law³⁷¹ provides for: a health and social care insurance system; a family assistance insurance system; invalidity benefit, superannuation benefit and survivors' benefit insurance system; and an unemployment benefit insurance system from a social security fund, which both employers and workers pay into (Art 2(c) and (e)). Companies with five or more employees in the extractive industries (among others) are required to pay social security (Art11). Casual workers are not covered by the social security scheme. According to the 2012 Social Security Law, victims of workplace accidents are entitled to

³⁶⁸ Ibid, Chapter XVII, Article 98 and 99.

³⁶⁹ An unofficial translation of the draft OSH Law is available on the MCRB [website](#).

³⁷⁰ [1951 Factories Act](#), Chapter III, Articles 14, 15, 16, 17, 18, and 21.

³⁷¹ [2012 Social Security Law](#).

12 months pay at 70% of their last four months' average salary (Art55 and 56(a) and (c)). In case of permanent disability, the employee is entitled to the same cash benefits for five, seven or nine years depending on the severity of the injury (Art58). In case of the death of a worker, her or his dependants are entitled to receive her/his invalidity or pension fund benefits for 36 months.

Discrimination

Article 348 of the 2008 Constitution prohibits discrimination by the Union against any citizen on grounds of race, birth, religion, official position, status, culture, sex and wealth.³⁷² However, the internationally recognised grounds of discrimination based on colour, language, political or other opinion, and national origin are not included in the Constitution, leaving significant gaps in protection against discrimination. There are also no provisions in the Constitution or laws prohibiting discrimination on the basis of sexuality. The 2013 Minimum Wage Act provides that both women and men should receive the minimum wage without discrimination, which is the first time that a labour law has prohibited discrimination on the basis of sex.³⁷³

Groups particularly at risk of being discriminated against include people with disabilities, women (see also Section 5.5), ethnic and religious minorities as well as lesbian, gay, bisexual and trans-gender (LGBT) people.

Occupational health impacts associated with limestone, gold and tin extraction and processing

In general, mining is considered to be one of the most hazardous industries, with a high rate of accidents and occupational diseases. There are a number of specific health risks associated with the commodities researched in this SWIA.

Health impacts associated with limestone mining

One of the main health hazards in limestone mining is the presence of limestone dust, containing free crystalline silica (SiO₂). With sufficient exposure, silica may cause silicosis, which is a pneumoconiosis that often develops progressively after years of exposure.³⁷⁴ The chronic over-exposure to free crystalline silica dust is often associated with widespread occupational lung diseases, such as tuberculosis – also known as 'silico-tuberculosis'.³⁷⁵ Although the direct link between exposure to silica and tuberculosis is sometimes contested, several scientific studies conducted in different regions of the world have documented the relationship between the exposure to silica dust in mining and developing tuberculosis.³⁷⁶

³⁷² [2008 Constitution](#), Chapter VIII, Article 348.

³⁷³ [2013 Minimum Wage Act](#), Chapter VIII, Article 14(h).

³⁷⁴ ILO, [Health Hazards of Mining and Quarrying](#), March 2011.

³⁷⁵ WHO, [Hazard Preventions and Control in the Work Environment: Airborne Dust](#), 1999, p. 23.

³⁷⁶ Sanjay Basu et al, [The production of consumption: addressing the impact of mineral mining on tuberculosis in southern Africa](#) (2009) 5:11 *Globalization and health* pp. 1-8; David Stuckler et al, [Mining and risk of tuberculosis in Sub-Saharan Africa](#) (2011) 101:3 *American journal of public health* pp. 524-530; Aliakbar Yaramadhi et al, [Correlation between silica exposure and risk of tuberculosis in Lorestan province of Iran](#) (2013) 12:2 *Tanaffos* pp. 34-40; ILO, [Clinical cases of silicosis in Thailand](#), 1997.

Health impacts associated with gold mining

Mercury

As mentioned elsewhere, mercury is commonly used in gold processing in Myanmar. The effects of mercury on human health have been well documented. According to WHO, there are generally two susceptible sub-populations: those who are more sensitive to the effects of mercury, including foetuses, new-borns and children; and those who are exposed to higher levels of mercury. Once mercury has been released, it remains in the environment and has the ability to circulate between soil, water, air and sediments.³⁷⁷ The substance may thus affect entire communities.³⁷⁸

Subsistence miners are generally the most directly exposed, by breathing the mercury vapour generated during the burning of the gold-mercury amalgam,³⁷⁹ which in Myanmar takes place inside houses and without the use of retorts or ventilation systems.³⁸⁰ The most common health problem observed in studies on artisanal gold miners are neurological effects, such as tremors, ataxia (movement disorders), memory problems and disorders affecting the eyes.³⁸¹ Other health problems include skin rashes, vision and respiratory problems, kidney failure, cardiovascular problems and even death.³⁸²

While the SWIA did not measure mercury contamination, previous studies in Myanmar report that mercury concentrations in the air close to artisanal gold mine sites to be as high as 60 µg/m³.³⁸³ According to WHO, tremors have been observed in workers exposed to 30 µg/m³, and renal tubular effects and changes in plasma enzymes have been estimated to occur at 15 µg/m³.³⁸⁴ Consistent with findings in other areas of the world, the Myanmar study further observed that women in charge of heating the gold amalgam frequently do this in their indoor kitchen, filling the living area with mercury vapour. As a consequence, mercury concentrations in female miners may be higher than those in male miners. Infants, who are usually near their mothers, are also more at risk of exposure to mercury vapour than male miners.³⁸⁵ MCRB field research also observed the use of acid to remove the last impurities from the gold recovered by the amalgamation process and noted that this practice was shared by subsistence gold miners in Bago, Sagaing and Kachin.³⁸⁶

Cyanide

Cyanide leaching, or cyanidation, is a common process used in gold extraction technology to dissolve and separate the gold from the ore. The use of cyanidation in mining is officially

³⁷⁷ UNIDO, [UNIDO & Mercury](#), 2013.

³⁷⁸ Herman Gibb and Keri G. O'Leary, [Mercury Exposure and Health Impacts among Individuals in the Artisanal and Small-Scale Gold Mining Community: A Comprehensive Review](#) (2014) 122:7 *Environmental Health Perspectives (Online)* pp. 667-672.

³⁷⁹ WHO, [Guidance for Identifying Populations at Risk from Mercury Exposure](#), 2008.

³⁸⁰ MCRB field research 2016.

³⁸¹ Herman Gibb, Keri G. O'Leary, [Mercury Exposure and Health Impacts among Individuals in the Artisanal and Small-Scale Gold Mining Community: A Comprehensive Review](#) (2014) 122:7 *Environmental Health Perspectives (Online)* pp. 667-672.

³⁸² UNIDO, [UNIDO & Mercury](#), 2013.

³⁸³ Takahito Osawa and Yuichi Hatsukawa, [Artisanal and small-scale gold mining in Myanmar: preliminary research for environmental mercury contamination](#) (2015) *人間生活文化研究* pp. 221-230.

³⁸⁴ WHO, [Air Quality Guidelines for Europe](#), 2000, p. 158.

³⁸⁵ Takahito Osawa and Yuichi Hatsukawa, [Artisanal and small-scale gold mining in Myanmar: preliminary research for environmental mercury contamination](#) (2015) *人間生活文化研究* pp. 221-230.

³⁸⁶ MCRB field research, 2016.

banned in Myanmar, although the authorities sometimes grant exemptions. The field teams observed cyanide use in gold mining areas. Sodium cyanide is one of two 'Other chemicals' together with mercury, regulated as one of 29 Restricted Chemicals under section 5, sub-section (h) of Prevention of Hazard from Chemical and Related Substances Law³⁸⁷.

While cyanide leaching may present a technical risk to miners, it generally does not pose environmental and health problems to the degree that mercury does. The toxins contained in cyanide will breakdown relatively quickly when exposed to air and sunlight. Thus it does not, as mercury, bio-accumulate in the natural environment.³⁸⁸ Safe handling, storage and waste management is, however, essential. Even in favourable conditions, cyanide often will not naturally decompose into harmless elements quickly enough to prevent pollution.³⁸⁹ Cyanide can persist in underground water systems. MCRB field research found community wells polluted with cyanide in sites near gold mining projects.³⁹⁰ Field research also indicated that mines using cyanide in their gold recovery process did so in a manner which may threaten the health of staff.³⁹¹

Occupational exposure often takes place via inhalation and skin absorption of cyanide. The general population may also be exposed to the substance via the air, drinking water and food.³⁹² Cyanide is an acutely toxic chemical and may be lethal if ingested, inhaled or absorbed through the skin in sufficient amounts.³⁹³ Acute symptoms of cyanide toxicity can occur within seconds of inhalation of hydrogen cyanide, or within minutes of ingestion of cyanide salts.³⁹⁴ Symptoms occurring within 14 days or less include skin and eye irritation, asphyxiation and mortality. Chronic health hazards occurring within a year or more, include carcinogenicity, effects on the reproductive system, effects on the nervous system, and effects on other organs.³⁹⁵ Studies have shown that individuals with nutritional inadequacy are particularly at risk.

Health impacts associated with tin mining

Exposure to tin mineral has limited impacts on human health. The exposure to chemicals which makes gold mining very damaging to the natural environment and human health are not replicated in the country's tin sector.³⁹⁶ In Myanmar, tin processing is carried out by gravity separation, a process which uses water and no chemicals to separate the mineral from the ore. Tin smelting operations are limited in Myanmar. As a result, tin fumes, which may have an adverse impact on human health, are not currently being produced in the domestic tin industry. However, some studies have shown that there is a positive exposure-response relationship between exposure of tin miners to dust and the risk of developing

³⁸⁷ 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

³⁸⁸ Images Asia and Pan Kachin Development Society, [At What Price](#), November 2004, p. 30.

³⁸⁹ Ibid.

³⁹⁰ MCRB field research, 2016.

³⁹¹ MCRB field research, 2016.

³⁹² WHO, [Guidelines for Drinking-water Quality](#), 2004.

³⁹³ ICMM, [The Management of Cyanide in Gold Extraction](#), 1999.

³⁹⁴ WHO, [Cyanide in Drinking Water](#), 2007.

³⁹⁵ ICMM, [The Management of Cyanide in Gold Extraction](#), 1999.

³⁹⁶ MCRB field research 2016; MCRB interviews, 2015.

silicosis³⁹⁷ and lung cancer.³⁹⁸ However, this is debated.³⁹⁹ The development of silicosis in tin miners is thought to be related to the quartz content in the ore, released during extraction, processing and transportation, and not to the tin itself.

The Molo Women Mining Watch Network reported that many tin mine workers suffer from arthritis and that women collecting and washing tin nuggets often suffer from pain and numbness in their hands and legs.⁴⁰⁰ This study indicates the poor conditions in which tin miners work, which were seen during the field work carried out by MCRB to be exacerbated by working in water.

Drug use in mining in Myanmar

There is limited independent data available on the number of drug users in Myanmar. According to the latest UN Office on Drugs and Crime Southeast Asia Opium Survey (2015), the prevalence of drug use among Myanmar's total adult population was: opium 0.9%; Ya-ba (a methamphetamine common in Southeast Asia) 0.7%; and heroin 0.1%.⁴⁰¹ Drug use is most prevalent in Shan State.

A number of recent studies have reported a high prevalence of drug use in relation to mining activities in Myanmar.⁴⁰² The harsh working conditions reportedly encourage drug use among many male miners. In the jade mining area in Kachin State, locals estimated that 90% of the workers in the Hpakant jade mine were using drugs.⁴⁰³ Health workers in Hpakant reported that about 40% of injecting drug users in the area were HIV positive, twice the national average.⁴⁰⁴ Some cases of mining companies handing out drugs in order to encourage miners to work longer hours have also been reported.⁴⁰⁵

B. Field assessment findings

Health and safety

Human Rights Implicated: Right to the highest attainable standard of physical and mental health; right to life, liberty and security of person

- **Adverse health impacts:** MCRB field teams gathered testimonies from mine workers, former workers and medical personal about health symptoms. These included:
 - Respiratory problems in limestone processing and tin mining;
 - Dizziness, headaches and body aches and pains in gold mining; and

³⁹⁷ Weihong Chen et al, [Risk of Silicosis in Cohorts of Chinese Tin and Tungsten Miners, and Pottery Workers \(I\): An Epidemiological Study](#) (2005) 48:1 *American Journal of Industrial Medicine* pp. 1-9.

³⁹⁸ Weihong Chen, [Nested case-control study of lung cancer in four Chinese tin-mines](#) (2002) 59:2 *Occupational and Environmental Medicine* pp. 113-118.

³⁹⁹ Agency for Toxic Substance and Disease Registry, [Public Health Statement: Tin and Tin Compounds](#), 2005.

⁴⁰⁰ Molo Women Mining Watch Network, [Lost Paradise: Damaging Impact of Mawchi Tin Mines in Burma's Karenni State](#), 11 December 2012, p. 12.

⁴⁰¹ UN Office on Drugs and Crime, [Southeast Asia Opium Survey 2015: Lao PDR, Myanmar](#), 2015, p. 70

⁴⁰² Kyi Htun, [Sustainable Mining in Myanmar](#) (2014) 36:1 *Applied Environmental Research* pp. 25-35; Reuters, [Myanmar's Old Guard Runs a Jade Empire](#), 29 September 2013.

⁴⁰³ Kachin Women's Association Thailand, [Silent Offensive: How Burma Army Strategies are fuelling the Kachin drug crisis](#), 2014, p. 6.

⁴⁰⁴ Reuters, [Myanmar's Old Guard Runs a Jade Empire](#), 29 September 2013, p. 6.

⁴⁰⁵ All Kachin Students and Youth Union, [Blood Jade: Burmese Gemstones and the Beijing Games](#), 2008.

- Skin problems in tin and gold mining.

At one of the cement factories workers reported that they suffered from acute respiratory diseases or tuberculosis, which may be linked to their exposure to dust from limestone. Workers told the field teams that they felt sick; as they did not have access to proper medical care or a physician's diagnosis, they did not know the cause of their symptoms. Underground miners in small-scale gold mines reported that they suffered from headaches. The field teams also observed that the ventilation in the shafts was particularly poor, except in cases where there were two exits for each tunnel. Workers also complained about rashes from staying in water for many hours underground. In one village, community members told the team about several women involved in gold processing at a large-scale gold mine having had miscarriages or difficulties conceiving. In tin mining, workers staying in water all day were found to have skin diseases and infections, especially on their hands. Tin mining workers also reported acute respiratory problems.

- **Inadequate health and safety procedures and training:** Overall, the field research found that OSH training was ad hoc and insufficient. Only two of the large-scale mine sites visited had an OSH Policy and only one had dedicated OSH personnel. One mine had received ISO 9001 certification and OSH training was given to workers, including through their training centre. At one site supervisors had received OSH training, which they in turn were supposed to give to workers, but that did not in fact happen. At most of the small-scale sites, workers had received no OSH training at all. Several companies had procedures for using explosives, which were reportedly handled by experienced workers only. At a large-scale gold mine site management told field teams that only senior staff were allowed to handle cyanide, but the team observed differently. At several large-scale sites, workers were found to drink unfiltered water and sometimes dripping water in underground mines, mostly because of ignorance of the dangers or because the workers were not provided with enough clean drinking water.
- **Personal Protective Equipment (PPE) is not used systematically:** Overall, PPE provision and use was found to be better and more systematic at large-scale sites than at small-scale operations or in subsistence mining areas. That said, the team found problems at all sites. Employees at large-scale operations were usually provided with free PPE except in one instance. At two of these sites, rules and regulations for staff included the compulsory use of PPE and the field teams observed that staff were in fact wearing it, including daily workers. However, at three other large-scale sites workers reportedly did not always use PPE and management was found to be lax about requiring it. At one site, where top management and government authorities conducted checks on whether workers wear PPE, workers reported that they were usually told by their supervisor when those checks occurred so that they could prepare for them. Several problems were found with regard to the quality of PPE. At one site underground miners were found to have helmets but no uniforms, boots or masks, and the helmets were not replaced on a regular basis. At some small-scale sites and in subsistence mining areas, those processing gold were found to wear gloves but no mask, instead using a cloth to cover their nose and mouth while working. Similarly, at one large-scale gold mine site, workers processing gold were seen not to use any masks, while the field team found the smell to be intolerable. At most of the gold mine sites, whether large or small-scale, no specific arrangements were found in place for pregnant women working with mercury in gold processing.

- **Limited record keeping of Health, Safety and Environment (HSE) data and workplace accidents:** Although all mines have to report accidents and fatalities to MoNREC, only one company said that they had an incident registry in place. It is thus difficult if not impossible to assess the accident rate. The one registry revealed 30 serious accidents and three deaths recorded for the year 2015. At some of the large-scale mine sites, management claimed that there had been no serious accidents in their operations. However, they talked about frequent accidents in subcontracted mines on their site. Fatal accidents reported by workers included: falling rocks; accidents linked to improper use of explosives; tunnels collapsing on workers; electrocution; suffocation; and accidents during construction (e.g. pipe falling on and killing worker); and transportation. Other reported accidents included: injuries caused by falling rocks; fingers cut off by machines; and women's hair being caught in processing machines. At one site, a worker reported that after several accidents where fingers were cut off, the company established safety procedures. With regard to small-scale underground mines, it was reported that accidents occur because there are no systematic plans for building the shafts, which sometimes merge into one and may then collapse.
- **Subcontracted mine operators have very poor health and safety practices:** Subcontracted operators generally had to follow a set of rules and regulations imposed by the permit-holder. Some of these rules and regulations pertained to OSH, for example: regulating the use of explosives (which have to be bought from the permit-holder who has to be informed when blasting will occur); the way in which shafts are built and ventilated; and where waste can be disposed. Some subcontracted operators were found to provide PPE to workers for free or against a deduction on their salary; in other instances workers had to buy their own PPE. While the subcontracted mine operator might have received training, workers told the SWIA field research teams that they had never received any systematic OSH training. They often seemed not to follow the most basic safety instructions, for example exiting shafts when blasting occurs. The rate of accidents was reportedly high, in particular amongst inexperienced migrant workers from elsewhere in Myanmar. The field teams were told at one small-scale site that according to audits of subcontractors at the site 30-40 people were injured every year and 1-2 workers died each year. At another site, medical personnel said that accidents were much more frequent at subcontracted mines. According to rules and regulations imposed on subcontractors by permit-holders, subcontracted operators have to report accidents to the permit-holder. However, they sometimes admitted they did not do so regularly to avoid being closed down. Some permit-holders reportedly had an inspection team to inspect accidents at subcontracted mines.
- **Only a few companies pay social security for their employees:** Only four of the large-scale mines paid into the social security fund for their employees as required by the 2012 Social Security Law. Many of the large companies visited provided a medical centre within their compound with free treatment for employees. One company said that it did not pay the social security contribution because it had its own healthcare fund. At another site, workers reported that they could choose to participate in the social security scheme or not, but they chose not to because the social security hospital was located in another state. At another site, where workers were part of the social security scheme, they told the research team that they would have preferred a company-led scheme, as the public social security benefits were too low and the hospital too far away.

- **Companies cover some medical expenses:** At one site, the company would pay up to a certain amount of medical expenses per month depending on the position of the workers. The amount would vary between USD 8 for a basic worker and up to USD 340 for managers. At one site, workers were reportedly offered a yearly medical check; at another they received a medical check-up at the start of their employment. At other sites, workers only went to the medical facility if they were sick. At some sites, a medical doctor was present, whereas at others, a non-certified doctor or a nurse was in charge. In a few cases, the team observed that there was not enough medication and necessary medical supplies and workers sometimes had to pay for medication. The field research also indicated that contract workers and daily workers never had social security cards and usually had no access to the company-provided health facilities. In one case, contracted workers had their own welfare fund that they contributed to, to support medical treatment or funeral services. At another site, casual workers had access to health facilities of the company in case of an accident.
- **Compensation amounts for accidents and fatalities vary:** Large companies generally provided monetary compensation in cases of serious work-related injuries or death. However, the level of compensation was inconsistent and not transparent. At one site, where a worker died as a result of a pipe falling on him during the construction phase, the company paid for the funeral and compensated the family. Another large-scale company said that it had paid between 15 and 30 lakh compensation for deaths linked to mining activities and that it usually negotiated with families to avoid legal fees and the justice system. Another company said it had given 35 lakh to the family of a deceased worker and 45 lakh in another instance. Subcontracted mine operators also reported that they paid compensation to families in cases of workplace-related death, one company noting that it had paid 50 lakh for one incident.
- **Drug use and HIV:** Drug use amongst mine workers was common in certain regions, especially in gold mining regions. Miners in one small-scale gold mining area were reportedly using ya-ba and heroin. According to a local NGO, miners get tired because of the hard work and are thus more likely to use illegal stimulants such as methamphetamines. The fact that miners may have more cash than others in the community was also cited as a factor contributing to increased drug use. The prevalence of HIV/AIDS is reportedly very high in the area. The team could not establish with certainty in one subsistence gold-mining area whether prevalence of drug use was much higher amongst miners than in the general population. However, they may be more at risk of becoming drug users because they have the available cash and because their work is very demanding and difficult.

Box 17: Health and Safety in Subsistence Mining

Subsistence miners in Myanmar operate under particularly dangerous conditions. This is an overview of the most common issues identified by the field research.

- **Health and safety procedures and training are non-existent and there are no healthcare facilities:** Not even first aid equipment was available. Workers would generally have to go to the local village healthcare centre, which was often poorly equipped. At one limestone processing site, workers extracted the limestone with basic equipment, crushed it and burnt it in an artisanal oven

without any protection. The area where the oven was located was not fenced in, although it was close to a village. Workers and their families lived in small huts near the oven, without any sanitation.

- **Use of mercury and other dangerous products with no appropriate care:** Mercury – said to be imported from China or India – was being sold over the counter in shops in gold mining areas. In one area, women of all ages, including those who were pregnant, were panning for gold and were observed using mercury without any protection. Interviews with panners revealed that they were not aware of the adverse health impacts associated with mercury. Sometimes they chose to ignore the risks because they had no alternative livelihoods. At one site, miners thought that mercury would only be dangerous if ingested and would usually store mercury out of reach of children. At another site, processing with mercury was only done at the mine owners' house. In one subsistence gold mining area, village administrators claimed that they invited workers to a meeting once a year to inform them about mercury use and safe processing. However, no subsistence miners interviewed by the team were aware of such events. In subsistence shaft mining in one village, dynamite was stored in the houses and both mercury and cyanide were used without adequate protection.
- **Small children are present on the mine sites:** The field research teams observed that children, including small babies, were taken to the mine sites where their parents were working. In one area, the shafts were located in the village itself, under houses where families lived.
- **Adverse health impacts from mining:** Female gold panners complained about being in water all day and falling sick as a result. Some reported that they felt dizzy. Hands and fingernails were affected by the work and many also had cuts, abrasions, and contusions. A health officer said that headaches were common amongst gold miners and also reported that many underground miners had respiratory problems, with symptoms resembling tuberculosis. In several areas malaria was reported to be common amongst miners, as well as hepatitis B. Tin miners working in water were found to have skin diseases. There was often no proper sanitation in the subsistence mining areas. Older workers, estimated to be over 60, were panning, which meant remaining in water the entire day.
- **Accidents, with no systematic compensation:** One case was reported to the field team about a landslide at a mine site where 20 people were affected and one person died. No compensation was paid, but the EAO controlling the area shut down the site. In one gold mining area, it was reported that landslides had been frequent in the past. In one village it was reported that there were approximately 10 fatalities per year. Such accidents had significantly decreased since 2015 as mine owners now had access to excavators and could dig more systematically with large equipment. Several cases of accidents were reported because of the absence of rehabilitation of old pits, which are often located close to villages, without fencing or warning signs. In one case, a 17 year old boy had gone to an old mine site with his friends to collect ore but got caught in a landslide and was now disabled. No compensation was given, and the family did not know who the old pit owner was.

Contracts and employment status

Human Rights Implicated: Right to just and favourable conditions of work; right to equal pay for equal work

- **Only employees of larger companies have signed contracts:** At two large-scale mine sites all workers were directly employed by the company. At all of the other large-scale sites workers included employees, contract labour obtained through a third-party, and casual or daily workers. Most employees at large-scale mine sites had signed a written contract or an appointment letter specifying the salary, working hours, leave entitlements and sometimes other benefits. However, they did not have a copy of the contract, which was kept by the company. Only at one site did permanent staff report that they had a copy of their contract. In several cases the Labour Department had recently ordered companies to put in place contracts. The length of contracts was generally found to vary from six months to five years. At one site, workers from the local community reported they were hired as ‘trainees’ for 10 years without any salary but were compensated in-kind with diesel that they sold at the market before getting a 5-year contract. At smaller licensed operations, workers had no contracts but an oral understanding with the owner. At one small-scale mine site, the 300 permanent employees had no written contracts, only oral agreements which entailed a commitment that they would remain on the job for the first three months. The same pattern was observed at other small-scale mines in the same region. At several sites there were also problems with subcontracting. At one large-scale site, the permit-holder only employed eight people, with all mining operations subcontracted to other operators, which were hiring daily workers. At another large-scale mine with over 3000 workers, less than 5% were found to be directly employed by the main company, with 100 subcontracted mine operators recruiting daily workers to perform the actual mining work. No daily workers at any of the sites had contracts.

Working hours, wages and leave

Human Rights Implicated: Right to just and favourable conditions of work; right to an adequate standard of living

- **Long hours:** None of the sites visited fully respected labour law which prescribes a 44-hour week for general workers, and 40-hours a week with two days of consecutive rest for five days of work for mine workers (1996 Mining Rules). At most of the large-scale sites, workers worked six days a week, or about 48 hours, with one day of leave per week. At one small-scale mine site, underground miners would work six days a week and office workers seven days a week, with an additional MMK 3,000 for working on Sunday. At another small-scale site overtime work on Sundays was remunerated at double rate. At other sites, overtime work on a leave day or after normal working hours would not be compensated. At one small-scale mine, workers usually worked from 6am to 5pm with a one-hour break. At some small-scale mine sites, workers worked every day and had no leave except public holidays. Security guards generally had the longest shifts and were granted less leave, many working seven days a week (3 days casual and 10 days of annual leave at one site).

- **Wages:** Although employees at large-scale sites were reportedly paid the minimum wage or higher, which provides a higher income than farming, entry-level employees said that their salary only covered basic expenses and did not allow them to save. Security guards at one site received a salary significantly lower than the minimum wage. Delays in payments of up to 10 days were reported at several sites. None of the companies provided payslips to workers. Small-scale companies sometimes paid a wage according to a system of redistribution of revenues amongst workers. At one small-scale site, it was reported that workers received their share of the production only after having worked for six months.
- **Daily workers have an insecure income:** Daily workers, at both large- and small-scale mine sites, were engaged in cleaning, construction and packing work, among other tasks. They usually received a fixed payment per day. At one site, contract workers employed by a third-party were paid on a piecework basis, by the number of cement bags they carried per day. At a large tin mine site, the daily workers engaged in carrying ore to the surface and women washing ore were reportedly paid by the ton, whereas miners working underground extracting the ore had a fixed daily wage. Even at those locations where daily rates were the highest, daily workers reported that their income barely covered their basic needs.
- **Withholding of wages:** At several sites instances of the company withholding a part of the salary were reported. At one site, the company opened a bank account for each employee into which the company paid USD 20 from their salary each month; however, workers could only access this money after three years of employment. At one small-scale site, the company retained part of the salary, reportedly in agreement with the workers, to allow them to save some money. At one large-scale site, in order to keep workers with the company for a long time, workers had to compensate the company if they left within the first five years of employment. At another large-scale site, employees were requested to stay with the company for at least two years.

Box 18: Working Conditions in Subsistence Mining

The field research found working conditions in subsistence mining areas to be particularly poor. Key findings are outlined in the points below.

- **Living conditions:** In one gold mining area, subsistence miners were mostly internal migrants who had settled with their families in the area to earn a living. Some would stay in the area for many years, while others would migrate seasonally to take part in mining for only part of the year. The settlements of subsistence miners were not registered with the Ministry of Home Affairs and were very poor, with no available healthcare or transportation. In another gold mining area, most migrant workers lived in huts close to the mine sites, while local miners would live in the village.
- **Working hours and daily wages:** Workers were usually recruited by a mine/pit-owner with whom they had an oral agreement about their terms and conditions. Conditions at nearby mine sites were found to be equivalent. In one gold mining area, workers reported that they usually worked 12 hours with a one-hour break. Male workers made a fixed daily amount (MMK 5,000) and a higher rate at night

(MMK 8,000). Women, who often performed different functions than men, were paid around MMK 4,000 to 5,000 a day. Wages were paid every 10 days. Some workers, including female cooks, would sometimes be paid on a monthly basis (MMK 60-100,000). Workers usually received three meals per day and additional snacks for night-time work. In these areas there were no provisions for paid leave days, so when a worker was sick, s/he received no payment. In one area, it was reported that typically wages were not paid on time because of cash flow problems when gold production was low. In the same area, when the mine owner had to buy new machinery, workers had to work very long shifts (up to 24 hours at a time) to contribute to paying the cost of the equipment back to the mine owner. Some mine owners had a profit sharing agreement with workers. In one village where people were mining in shafts within the village itself, there was a production sharing system, where the 'owner' paid for the equipment etc. and then received 60% of whatever was mined, and workers shared the remaining amount among themselves.

- **Fees paid to mine owners:** Informal pit owners may allow individuals to pan on the site or collect ore from waste against a daily fee e.g. MMK 5,000. Other pit owners do not allow such activity on their site and may call the army to chase these subsistence miners from the site. In one gold mining area, village leaders played the role of labour broker. This included organising accommodation for migrant workers on land which they owned, paying a fee to a pit owner to allow the community to mine there, bearing responsibility for the tools if they were lost or damaged, and possibly buying the gold from the workers. Large-scale or small-scale permit-holders could also authorize subsistence miners to operate in some designated places within the mine area. At one large-scale tin mine site, a village leader paid a fee to the mining company to get permission for villagers to pan in the creek, and villagers then had to sell back a part of their product to the villager leader who then sold it back to the company. At two large-scale tin mines, individuals had a card for which they paid a one-off fee, allowing them to collect ore in the waste area within the concession. Then they had to sell back the mineral to the permit-holder at less than market price. The income of individual panners or those collecting waste was insecure because it was entirely dependent on how much mineral they were able to recover and sell.
- **Grievance resolution in informal mining:** In one area, if there was a dispute between a worker and a mine owner about payment of wages the village administrator could act as a mediator. In one instance, the village administrator admitted to the field team that he felt awkward playing that role since the mines were illegal.
- **Discrimination:** As in formally licensed mines, women in subsistence mining areas were usually confined to certain functions (panning, cooking, carrying rocks, washing the ore, and not underground mining). They were not perceived as true miners by male workers, and were generally paid less. No cases of sexual harassment were reported. Overall, workers, including young ones, felt that they were treated equally by the mine owners or their fellow workers and all of them shared their meals.

- **Leave:** Employees at large- and small-scale sites were generally given annual leave (10 days), as well as casual leave and maternity leave, as per the labour laws. Casual workers and subcontracted mine workers were not granted any formal leave. Some smaller companies reported that they had no policy for maternity leave as they had had no cases of women requiring it. At one site, management said that they recognised different public holidays for different religions.

Freedom of association, collective bargaining and labour grievances

- **No independent representation of workers:** One site had two unions – one for casual workers employed through a recruitment committee and the other for workers recruited directly by the company. After the casual worker union had made demands for higher wages, three leaders were blacklisted and could not work for three months.
- **Dysfunctional grievance mechanisms:** No legally established Workplace Coordinating Committee existed at any of the sites visited. However, at two sites a committee to deal with labour problems and grievances had been established. However, no workers were represented on these committees and workers were not always aware of its existence or functions. At one site, the committee had reportedly been set up at the request of ME-2. At another site, the committee had never received any grievances. Suggestion boxes were found to exist at several sites but were reportedly not used because grievances were brought directly to managers by workers.
- **Local authorities or State-owned joint venture partner act as mediators in labour disputes:** At one large-scale mine site, after the take-over of a state-owned mine by a private company, local workers who had informally organised complained to local authorities about no longer having proper contracts and being paid below the minimum wage. As a result, the local labour department visited the site, mediated between the parties and supported the company to draw up the contracts, thereby meeting the demands of the workers. In another instance, the joint venture partner was called upon to intervene in a case of harassment by a foreign supervisor who was then dismissed as a result of the intervention.

Workers' accommodation and restrictions on movement

Human Rights Implicated: Right to an adequate standard of living; right to just and favourable conditions of work; right to non-discrimination; right to housing

- **Variable housing standards for employees:** Employees at large-scale sites were generally housed by the company on the mine site itself or nearby. Where worker accommodation was provided, it was divided into different categories depending on the status of the employees. Family accommodation was sometimes available for a fixed rent, e.g. MMK10,000, which included electricity and water. At one site, the shared accommodation (two people per room in 12-room apartments) was spacious and of a good standard, with electricity, drinking water, sanitation, a hall for entertainment, and Wi-Fi at night. At other sites the standards were very poor. At one site during the dry season, water storage basins (storing water for workers) remained empty for 2-3 days at a time, which was not addressed in spite of complaints by workers. Sanitation facilities were also scarce at several sites, e.g. only 32 toilets for a workers camp with over 1500 people. Accommodation for security staff was particularly poor. At one large-

scale site, security guards did not even have a fixed place to live and usually slept at the different security posts where they were on duty. At another site, security guards stayed in a hut with leaking water and only two hours of electricity per night.

- **Restrictions on freedom of movement:** All worker accommodation sites (except one) were closed at night, usually between 7pm and 7am, with no one able to leave or enter the area during this time. At one of the sites, the housing area for female workers was fenced in separately, reportedly for their safety. Management at one site said that the area was closed at night to prevent disputes or violence between workers and local people, although there were no reports of this. At two small-scale mine sites original identity documents of workers were kept by the general manager to ensure workers did not leave without notice.
- **Poor accommodation for daily workers and subcontracted mine site workers:** At one site, migrant daily workers lived in two villages close to the mine site where they paid a monthly rent (MMK 1,000) for the land on which they had built their houses. The field research team observed overcrowded and dirty housing with poor sanitation. Villagers had some small livestock around their houses. According to residents living in that area, out of 20 migrant worker households, 3 had children suffering from TB. At another large-scale site, (migrant) daily workers were housed for free in houses outside the mine site. They reported that they did not feel safe in the house, which the field team observed looked close to collapse. The company sometimes provided water in the summer, but no electricity. Workers in subcontracted mines did not stay in the same place but moved around, usually in areas close to the shaft where they worked in poor conditions; with no sanitation, bad quality food and large quantities of dust.

Women workers and child labour

See part 5.5: Women and Children.

Discrimination and harassment

Human Rights Implicated: Right to non-discrimination; right to work; right to just and favourable conditions of work

- **Women daily workers are generally paid less than their male colleagues:** Women daily workers were found to generally receive less money, often below the legal minimum wage of MMK 3,600. In one mine, men received MMK 2,500 and women MMK 2,000. At another site the pay differential was MMK 4,000 for men and MMK 3,000 for women; and at another MMK 5,000 for men and MMK 3,500 for women. At another large-scale site, women in gold processing received a monthly salary of MMK 120,000, whereas men were paid MMK 150,000. Male daily workers in construction earned around MMK 6,000-7,000 a day while women would only earn MMK 4,000, supposedly because they had less work to do.

No anti-discrimination policies in place, some cases of discrimination reported: None of the sites had anti-discrimination or harassment policies and procedures in place. At two sites the company reported that they had an unwritten policy of non-discrimination. However, it was unclear what this entailed or how it functioned. Both workers and management were generally not sensitised to the issues of discrimination and harassment. One case of discrimination was reported against labour union leaders

representing casual workers. After they had asked for an increase in salary, three union leaders were then not given any more work. At another site, dozens of workers who had joined the NLD in 2012 were not allowed to work anymore because the company they worked for was believed to be supporting the then ruling party, the Union Solidarity and Development Party. At yet another site, local communities from an ethnic nationality group told field teams that they had less employment opportunities than Bamar migrant workers. Myanmar workers at another site reported that they were subject to oral abuse by their foreign supervisors.

Workers' benefits

Human Rights Implicated: Right to an adequate standard of living; right to just and favourable conditions of work

- **Some benefits provided to workers as part of their employment terms and conditions:** Sometimes workers benefitted from free transportation from their accommodation to their workplace, although in one case, workers had to stand up on the truck beds and felt it was very dangerous. This transportation was only provided from one nearby village to the site. At one site, the company provided a childcare facility for workers for MMK 10,000/month. Most of the large- or small-scale companies provided three free meals a day to workers or a food allowance (MMK 1,500 for basic workers and MMK 3,000 for higher level employees). Different types of bonuses were given at some large-scale sites but not systematically. These included bonuses for working every day, bonuses for working during a religious festival, and bonuses for working on a leave day. Some employers also gave money for a wedding or a child being born. In two instances, the companies would encourage their staff, in particular young people, to study through granting a bonus or paid leave for exams. One company provided free transportation to the closest township for workers when they were on leave. At one site, the company provided loans to workers. According to the management these were interest-free; according to a worker, at a 10% interest rate.

C. Relevant International Standards, Guidance & Initiatives

Box 19: International Standards, Guidance & Initiatives on Labour Rights, Safety & Mining

International Standards:

Fundamental ILO Conventions

*Those ratified by Myanmar are in **Bold***

- **[C29 Forced Labour Convention, 1930](#)**
- **[C87 Freedom of Association and Protection of the Right to Organise Convention, 1948](#)**
- **[C182 Worst Forms of Child Labour Convention, 1999](#)**

Not Ratified by Myanmar

- [C98 Right to Organise and Collective Bargaining Convention, 1949](#)
- [C100 Equal Remuneration Convention, 1951](#)
- [C105 Abolition of Forced Labour Convention, 1957](#)
- [C111 Discrimination \(Employment and Occupation\) Convention, 1958](#)
- [C138 Minimum Age Convention, 1973](#)

ILO Mining Convention and Recommendation

- [C176 Safety and Health in Mines Convention, 1995](#)
- [R183 Safety and Health in Mines Recommendation, 1995](#)

Other relevant international standards

- [UN Guiding Principles on Business and Human Rights](#)
- [UN International Bill of Human Rights and Core Human Rights Instruments](#)
- [ICMM Sustainable Development Framework](#)
- IFC Performance Standards and Guidance Notes:
 - [PS 1 – Assessment and Management of Environmental and Social Risks and Impacts](#)
 - [PS 2 – Labour and Working Conditions](#)

Guidance:

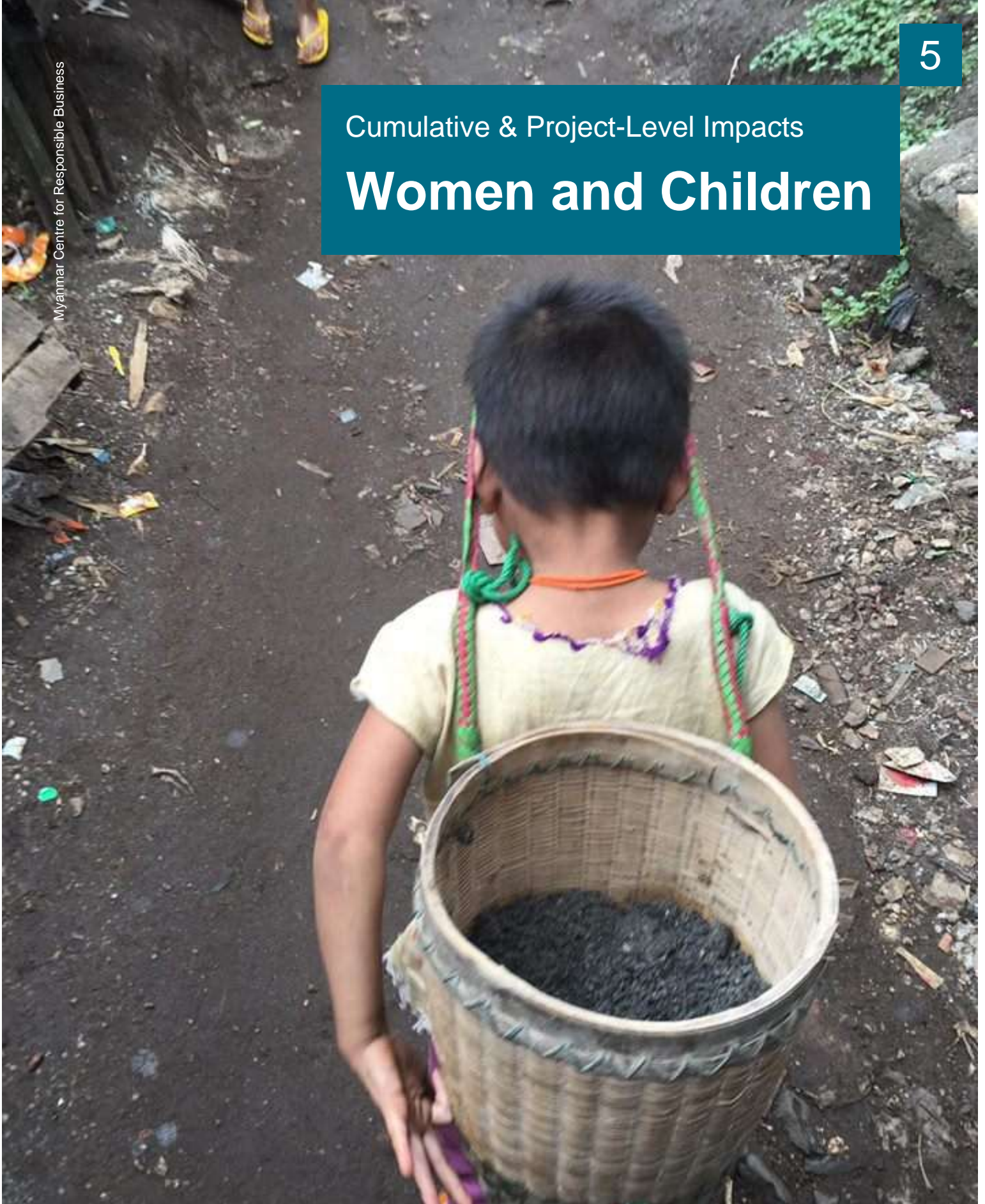
- ICMM, [Health and Safety](#)
- ICMM, [Health and Safety Performance Indicators](#)
- IFC, [Environmental, Health and Safety Guidelines for Mining](#)
- IFC, [Good Practice Note: Non-Discrimination and Equal Opportunity](#)
- IFC, [Good Practice Note: Workers' Accommodation: Processes and Standards](#)
- IFC, [Measure & Improve Your Labor Standards Performance: Performance Standard 2 Handbook for Labor and Working Conditions](#)
- IFC, [Women in Mining: A Guide to Integrating Women Into the Workforce](#)
- ILO, [Safety and health in small-scale surface mines: a handbook, 2001](#)
- ILO, [Safety and health in opencast mines: an ILO code of practice, 1991](#)
- [International Cyanide Management Code for the Manufacture, Transport, and Use of Cyanide in the Production of Gold](#)

International Initiatives:

- Pure Earth, [Teaching Artisanal Gold Miners to Extract Gold without Mercury](#). Pure Earth has been testing and teaching a century-old, traditional method of Mercury-free gold mining. So far, Pure Earth has worked with miners in Bolivia, Mongolia, and Peru. This document provides a step-by-step guide as to the process of mercury free mining as well as describes in detail the organisation's work.
- UNDP, [Guidance: Developing a National Strategic Plan to Reduce Mercury Use in Artisanal and Small Scale Gold Mining](#). This document guides governments in the development of a national strategic plan relating to improving practices and working conditions in ASM gold mining and reducing the impact of mining on the environment.
- US Environmental Protection Agency (EPA), [Reducing Mercury Pollution from Artisanal and Small-Scale Gold Mining](#). EPA has partnered with Argonne National Laboratory to design a low-cost, easily constructible technology called the Gold Shop Mercury Capture System, which was piloted and tested in Amazonian gold producing regions in Brazil and Peru.
- Artisanal Gold Council, [Sustainable Development of Artisanal and Small-Scale Gold Mining in Indonesia](#). This project aims to improve incomes, health, and the environment of the vulnerable and marginalised women and men dependent on the ASM gold mining economy. The project supports the introduction and popularization of non-chemical alternatives to mercury in gold processing.
- The Ban Mercury Working Group, [Ending Mercury Use in Artisanal Gold Mining](#). This report is about the general use of mercury as well as communities at risk, and the mercury alternatives that exist.

Cumulative & Project-Level Impacts

Women and Children



Part 5.5

Women and Children

In this section:

- A. National Context
 - Women
 - Children
- B. Field Assessment Findings
 - Impacts of mining activities on women
 - Impacts of mining activities on children
- C. Relevant International Standards, Guidance & Initiatives

A. National Context

Women

The impacts of mining operations are not gender neutral. Women can experience the direct and indirect consequences of mining operations in different, and often more pronounced, ways than men (Box 20).

Myanmar acceded to the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) in 1997. However, a legal definition of discrimination against women has not been adopted in the 2008 Constitution or other legislation, which ultimately hinders the formulation, interpretation, and dissemination of laws and policies impacting women's rights.⁴⁰⁶ For example, Article 350 of the 2008 Constitution guarantees that women shall be entitled to equal pay for equal work. However, this is contradicted in other provisions within the Constitution that clearly constitute discrimination against women. Article 352, for example, states that although there may be no discrimination on the basis of sex "in appointing or assigning duties to civil service personnel [...] nothing in this section shall prevent appointment of men to the positions that are suitable for men only." Myanmar has not ratified the ILO Conventions on discrimination, equal remuneration or maternity protection. However, the 2013 Minimum Wage Act provides that a worker has the right to enjoy the minimum wage without discrimination between women and men, prior to which civil service salaries were levelled.⁴⁰⁷

Inequality is also illustrated within political processes and representation. The proportion of women Members of Parliament has increased since the 2015 general elections. From 2010-2015, only 5.9% of Union Parliament were represented by women, a number that has increased to 14.5% since the recent elections. Regardless of such progress, however,

⁴⁰⁶ Gender Equality Network & Global Justice Center, [Shadow Report on Myanmar for the 64th Session of the Committee on the Elimination of Discrimination Against Women](#), July 2016, p. 2.

⁴⁰⁷ [2013 Minimum Wage Law](#), Article 14(h).

women remain vastly underrepresented in politics. Out of the 29 Ethnic Affairs Ministers elected, for example, only five were women⁴⁰⁸.

CSOs have pointed to a general lack of political will to implement the National Strategic Plan for the Advancement of Women. This ten year Plan unveiled by the Government in October 2013 embodies a commitment to promoting and protecting the human rights of women in Myanmar.⁴⁰⁹ There are some legal provisions, however, that are designed to protect the personal security of women. For example, the Penal Code contains provision for crimes against women including rape, abuse, and seduction and sex with under-age women. Trafficking or trading women for prostitution, or enticing for sexual purpose is a crime punishable by imprisonment.

Many domestic laws and policies incorporate restrictive gender stereotypes and are thus inconsistent with CEDAW which aims to promote and protect gender equality. For example, Rule 168 of the proposed 2018 Mining Rules maintains the provision in the 1996 Rules that women shall not be employed to work underground except for health and social services functions. In local culture, it is believed that if a woman were to enter a quarry or a mine, said quarry will stop producing minerals or collapse.⁴¹⁰ Such a superstition exists in other cultures but some have managed to overcome it⁴¹¹.

It has been documented that women face discrimination and barriers in accessing or owning land, and participating in consultation and decision-making processes regarding land.⁴¹² At the same time, research indicates that security over land can help to stabilise society and create security for women and their families, as well as contributing to their economic and political independence. Studies also demonstrate that women who own land are less vulnerable to domestic violence.⁴¹³

Box 20: The Gendered Impacts of Mining

Globally, the gendered impacts of mining are well documented. Some of the common ways in which mining may affect women and men differently are outlined below⁴¹⁴.

- **Socio-economic aspects:** While mining can provide positive benefits and create economic opportunities for family units, evidence suggests that mining can also increase the level and extent of economic inequality through redistribution of financial resources. For example, the sudden influx of cash compensation from

⁴⁰⁸ The Asia Foundation, [Myanmar Elections Usher in Unprecedented Number of Women Parliamentarian](#), 2 March 2016.

⁴⁰⁹ Gender Equality Network & Global Justice Center, [Shadow Report on Myanmar for the 64th Session of the Committee on the Elimination of Discrimination Against Women](#), July 2016, p. 7.

⁴¹⁰ [Debating with Data: A response to the 'The Myth Myanmar can Afford to Ditch'](#), Shin Saw Aung, Teacircles, August 2017

⁴¹¹ [Women miners blast through barriers in Chile](#), InterPress Service, 11 April 2013

⁴¹² Transnational Institute, [Linking Women and Land in Myanmar; Recognising Gender in the National Land Use Policy](#), February 2015, p. 7.

⁴¹³ Ibid, p. 4.

⁴¹⁴ This box is based on: Oxfam Australia, [The Gender Impacts of Mining and the Role of Gender Impact Assessment](#), 2009; Oxfam Australia, [Tunnel Vision-Women, Mining and Communities](#), 2011; Rio Tinto, [Why Gender Matters](#), 2009.

direct or indirect employment (usually of men) can result in significant changes to community life, with women often bearing the negative impacts. Mining may also result in adverse social and health impacts for women, including an increase in alcohol related abuse, domestic violence and general social disruption. The implications of the influx of large male populations on local communities, for instance, can include an increased likelihood of early sexual activity, HIV and other sexually transmitted infections, exploitation, and prostitution.

- **Local employment:** One of the most obvious benefits of the mining industry for local communities is the direct and indirect employment opportunities it can provide. As it is mostly men that gain such employment, areas of domestic life can be significantly altered for women through the presence of mining activities. When women are employed in mining, they are often expected to maintain their traditional domestic role as well as their new role as an income earner. Within the workplace itself, women may face issues of sexual harassment and abuse, salary inequity, and other types of discrimination.
- **Environmental impacts:** Women are often in charge of household tasks like food production and preparation. Environmental problems, such as reduced access to water or loss of agricultural land, can have a direct and negative effect on a family's access to food. When a community suddenly becomes a centre for mining, the cost of living usually goes up and food becomes more expensive, creating more stress for the women who are responsible for feeding a family. Women and girls may also bear the responsibility of collecting water, of which the quality and availability becomes compromised after a mining project is underway.
- **Resettlement and relocation:** Resettlement and relocation for the purposes of mining often disproportionately affect women, resulting in negative physical, social, cultural, and economic displacement. For instance, in many subsistence societies, women do not have recognised land rights and are therefore excluded from most land-based compensation schemes. In Myanmar it has been noted that rural communities are especially dependent upon women for tasks ranging from raising families to tending to crops and animals. The important contribution of women to generational and societal reproduction can only be realised through securing their access to land. The critical role that women play needs to be supported by ensuring their access to resources, such as land, in order to create a healthy society.⁴¹⁵
- **Negotiations and engagement:** The disproportionate manner in which women are treated often starts at the initial negotiation and engagement stages of mining developments, as women are often excluded from such processes. Women may be excluded due to cultural or work related factors, including domestic responsibilities. Failure to adequately engage women means that their knowledge is not accessed and considered in project planning, an exclusion that can exacerbate resentment and conflict.

⁴¹⁵ Transnational Institute, [Linking Women and Land in Myanmar: Recognising Gender in the National Land Use Policy](#), February 2015, p. 4.

Children

Children involved in or affected by mining activities are often unseen and uncounted as they lack a public voice to speak up for themselves in their communities and with local governments. While child labour in mining is a critical issue, the impacts of mining on children extend well beyond the issue of labour. Issues such as land acquisition and resettlement, health and safety, educational opportunities and working conditions also impact directly on children (Box 21).

The Government ratified the Convention on the Rights of the Child (CRC) in 1991, and acceded to the CRC Optional Protocol on the Sale of Children, Child Prostitution, and Child Pornography in January 2012. The 2008 Constitution reaffirms the State's responsibility to provide free basic education and healthcare for children. While most children attend primary school the net completion rate is only 54%, and only 58.3% of children of secondary school age attend secondary school.⁴¹⁶ Due to widespread poverty, many children drop out of school and work to help earn money for their families. A 2015 report issued by ILO, for which parents and children were interviewed throughout various regions in Myanmar, found that poverty is considered to be the main driving factor behind child labour.⁴¹⁷

Currently, Myanmar lacks a specific child labour law, although existing related laws, including the 1993 Child Law, are under review to comply with international labour standards. Myanmar law diverges from the CRC in some significant areas. With the amendment of the Factories Act in May 2016, and the Shops and Establishments Act in January 2015, the minimum age for the employment of children in Myanmar is set at 14 years which is in line with international standards for light work, but not in line with the international standard of 15 years for regular work.⁴¹⁸ The 1993 Child Law defines a child as a person under 16 years of age, and classifies children between the age of 14 and 17 as youths. It allows them to engage in 'light duties', although, 'light duties' is not defined.⁴¹⁹ MCRB's May 2017 Briefing Paper on Children's Rights and Business in Myanmar provides further background⁴²⁰.

The ILO Convention No.182 on the Worst Forms of Child Labour was ratified by the Government in December 2013. Nevertheless, child labour is widespread and visible throughout Myanmar in various sectors, including in mining. In a recent study on child labour in the Mon areas, civil society members and child protection officers described child labour in Myanmar as vastly under-researched, and said that accurate data from the country's peripheral areas is almost non-existent.⁴²¹ The Government is working with the ILO and UNICEF to reform laws and end the worst forms of child labour.⁴²² One initiative launched by the ILO has been a training programme for workers, employers, and CSOs to learn about child labour and identify potential interventions to be carried out by their own

⁴¹⁶ UNICEF, [Situation Analysis of Children in Myanmar](#), July 2012, p. 116.

⁴¹⁷ ILO, [Knowledge, Attitudes and Practices \(KAP\) Study on Child Labour in Yangon, Ayeyarwady Region and Mon State](#), January 2016, p. 11.

⁴¹⁸ Freedom House, [The Global State of Workers Rights](#), 31 August 2010, pp. 14-15.

⁴¹⁹ US Department of State, Bureau of Democracy, Human Rights and Labor, [2015 Country reports on Human Rights practices: Burma](#), 2015.

⁴²⁰ Briefing paper on [Children's Rights and Business](#), Myanmar Centre for Responsible Business, May 2017

⁴²¹ The Woman and Child Rights Project, [Children for Hire](#), November 2013, p. 8.

⁴²² US Department of State, Bureau of Democracy, Human Rights and Labor, [2013 Country reports on Human Rights practices: Burma](#), 2015.

organisations.⁴²³ However, it appears that no dedicated initiatives, research studies or interventions related to the prevalence of child labour in the mining sector in Myanmar have been undertaken.

Rule 146 of the proposed 2018 Mining Rules (replacing Rule 94 of the 1996 Rules) states that no person shall be employed to work in a mine unless he is in possession of a certificate issued by the relevant Health Department certifying his fitness and that he is at least 18.

Box 21 Impacts of Mining on Children's Rights⁴²⁴

- **Socio-economic aspects:** In-migration associated with mining activities often increases the exposure of children to the risk of sexual exploitation and violence and the rate of child pregnancy. Such sexual exploitation can continue throughout the lifespan of the mining project and may expose children to risks of contracting sexually transmitted infections, including HIV.
- **Child labour:** Because large-scale mining operations do not directly hire children, the greatest risk of child labour in the sector is within the supply chain, particularly during construction, or in the informal mining sector where children might work in subsistence mining with their parents, siblings and communities.
- **Decent work:** Children are also negatively affected when mining companies or their contractors do not provide their employees with a living wage, potentially leading to parents not enough income to sustain a family; or where housing provided for employees and their families does not meet adequate standards.
- **Environmental impacts:** Localised environmental impacts of mining can include dust, erosion, adverse effects on ecology and biodiversity, and the contamination of soil, ground and surface water by chemicals from the mining process, including cyanide, arsenic, sulphuric acid, mercury and heavy metals. Children are more vulnerable to the localised environmental impacts of mining activities than adults, particularly water, air and soil pollution, due to their progressive and incomplete physical development, among other factors.
- **Resettlement and relocation:** Land acquisition and/or access are vital for mining, often creating significant socio-economic impacts to which children may be most vulnerable. Land acquisition and use can affect community members whose homes are located either within the mine site or adjacent to it. Not only can this lead to the loss of a child's home, but displacement and relocation can cause fundamental changes in family structures and social dynamics.
- **Safety and security of children:** As traffic increases on roads due to mining activities, there is an increased likelihood that children will be injured or killed in accidents. Additionally, children could be adversely impacted through their interaction with private or public security personnel of mining companies.
- **Artisanal and small-scale mining:** ASM activities involve the use of basic methods and processes to extract minerals. Worldwide, one million children aged 5–17 are estimated to be engaged in ASM and quarrying activities, working in

⁴²³ ILO, [Project Updates: Myanmar Programme on the Elimination of Child Labour](#), Volume 4, 2016.

⁴²⁴ This box is based on: Stop Child Labor, The Child Labor Coalition, [Child Mining: 10 Facts](#); UNICEF, [Children's Rights and the Mining Sector: UNICEF Extractive Pilot](#), 2015

dangerous conditions, with no access to basic necessities, schools or health clinics. ASM poses critical risks to children, including:

- Use of child labour, and loss of education, when children need to contribute to the family income.
- Significant health and safety risks, including increases in communicable disease and the impacts of the use of chemicals such as mercury and cyanide, which affect children differently than adults. Mercury poisoning can affect the brain, heart, kidneys, and lungs and is extremely detrimental to children, affecting their nervous system development, which can lead to long-term developmental disabilities (Minamata disease).
- Increased risk of sexual exploitation and violence towards children, including forced marriage, rape and prostitution.
- Links to armed militant groups, particularly in conflict zones or conflict-affected areas, which increases the risk that children are recruited into militias.

B. Field Assessment Findings

Some of the key impacts and concerns concerning mining projects and activities on women's and children's rights that were noted during the field research are outlined below.

Impacts of mining activities on women

Human Rights Implicated: Right to non-discrimination; women's rights; right to the highest attainable standard of physical and mental health

- **Women and men engage in different types of mining work, and experience differences in average pay:** Overall, the field research found that women were more predominantly engaged in mine processing, whereas men worked predominantly in ore extraction. In some of the tin mining areas, for example, most of the women were working in washing the tin and collecting hard rock, pounding, and working in the open pit areas. While equal pay for equal work was observed to be practiced at some of the mine sites visited, by virtue of being engaged in different parts of mining and processing, notable pay gaps between women and men were identified in practice. For example, at one site where men worked primarily in the formal and underground operations for approximately MMK 7,000-10,000 per day, women were engaged in the informal/illegal open pit activities, earning only around MMK 5,000 per day for these activities. In some subsistence mining areas there were also instances reported of women getting paid less for doing the same work as men. An exception to these differences in types of work and pay was in the area of creek tin mining, which was found to be primarily a family-based activity involving women, men and children all performing similar activities. Almost no women were found to be working at the formal large-scale and small-scale mine sites. Furthermore, for the types of jobs that women did perform at these sites the salary was significantly lower than that for positions held by men.
- **Limited job opportunities for women and discrimination in hiring:** At several sites women reported that they would be interested to work in mining if there were jobs available to match their skills. However, women said that they had little information

about the roles and skills needed and that most jobs filled by local staff would be taken by men. Furthermore, there were also some incidents identified where the actual job descriptions posted by the company specified the required gender and age, to women's disadvantage.

- **Women not working in underground mines:** The field research found that at formal and informal sites, women were not working in underground mines. At one site, according to local beliefs women were not allowed to go underground because they might have accidents; but also because it was believed that women's presence in the underground mines would reduce the quality and abundance of the tin deposits.
- **Maternity leave:** As outlined in Part 5.4: Labour, the larger companies said that they followed the law regarding maternity leave but did not have any specific policy provisions for the protection of pregnant women from hazardous work. In subsistence mining areas it appeared to be usual practice that women stop working when they become pregnant and that there was no financial security during this leave. However, in some subsistence mining areas it was also observed that women were working while pregnant, including using mercury for gold processing.
- **Women often work in the informal sector and as daily workers:** In areas where there were both formal and informal mining activities it was reported that women worked predominantly in the informal sector. For example, at one site it was reported that men tended to work in the small-scale underground operations, whereas the women predominantly practiced illegal subsistence mining in open pit mining areas on existing concessions. Overall, the field research found that most women working in the mining sector were employed in casual labour, cooking, panning and collecting and processing ore. In one subsistence gold mining area, from talking to villagers it was observed that women working in mining were not perceived as miners but as acting in a 'supporting role' to male miners, i.e. performing less heavy mining work, cooking, cleaning, and taking care of childcare responsibilities.
- **Double workload:** In the subsistence gold mining areas the responsibilities of women included the double workload of getting up early to cook, arranging for children to go to school, managing the camp, getting food supplies and collecting firewood, as well as mining work.
- **Exposure to mercury and chemicals:** In addition to the insecurity associated with working in the informal sector or as daily workers, the field research also observed that the types of work that women were engaged in can be associated with a higher exposure to mercury and other processing chemicals. For example, at one site, panning and mercury use was described as 'a woman's job'. Furthermore, from speaking with gold miners in the area, it appeared that women were not aware of the adverse health impacts of mercury.
- **Sex work:** Sex work was found to be more prevalent in the subsistence gold mining areas than in the tin mining areas. While prostitution was observed and reported in these areas it was difficult to obtain precise or conclusive data.
- **Women are underrepresented in community and institutional leadership structures:** Bar a few exceptions, women were found not to be represented in leadership positions and structures, such as the 10 or '100 household heads' or mine management. This means that where engagement or consultation occurred between mining companies and community leaders, women would not have been consulted.

Impacts of mining activities on children

Child health and safety

Human Rights Implicated: Right to non-discrimination; children's right to health and health services; children's right to an adequate standard of living; children's right to play; children's right to protection from the use of harmful drugs; children's right to protection from all forms of sexual exploitation and abuse

- **Safety of children on roads and around mine sites:** Close to one large-scale mine site, the old road used by the community had been closed down and school children therefore had to use a new (dirt) road with a lot of traffic from the quarrying site to the processing factory. Villagers expressed concern about the safety of their children because of this heavy traffic, with rocks potentially falling from trucks and the exposure to a lot of dust. While one company was found to have a regular time for the blasting and to announce it with a megaphone, at other sites blasting hours were unknown to villagers and the township administrator. It was also reported that children play in and around mine sites, including in deep pits that fill up with water during the rainy season, leading to dangerous situations.
- **Accidents in and near mine sites:** Several accidents involving children near mine sites were reported during the field research. At one site, a 13-year old boy employed to bring lunchboxes to mine workers died as a result of rocks falling on him while he was walking on a road close to a limestone mountain. Several drowning accidents were also reported. At one site for instance, it was reported that a child drowned while swimming in the ponds created by topsoil removal. Several accidents related to children or young people searching for gold in abandoned pits in subsistence mining areas were also reported. For example, at one site a 17-year old boy was disabled due to a landslide while panning at a former subsistence mine site. Due to lack of information regarding the ownership of the site, nobody could be held responsible and medical costs to treat the boy were not compensated. At another site, a 12-year old boy died in his home near to a tin and tungsten mine site, when the tailings dam collapsed.
- **Noise and air pollution:** At one site near a processing plant, schoolchildren reported that even though they were getting used to the noise and smell, it interfered with their schooling. In one gold mining area, four villages reported that smells from the mine site kept children awake at night.
- **Adverse health impacts from mining:** It was reported that a number of children in villages close to one mine site suffered from tuberculosis-like symptoms and acute respiratory distress syndrome (ARDS). While villagers and doctors could not verify what the cause of these diseases is, villagers suspected that there may be a link between the illnesses and the mining activities. At subsistence mine sites, young children bought and used mercury for panning activities (see further, Part 5.4: Labour). In some panning areas mercury and other chemicals were used and disposed of near to the creek, the main water source for the village that is also used for bathing, swimming and catching fish for consumption. Additionally, children lived, played and bathed close to areas where mercury and other chemicals were used for panning. Food was also prepared close by. Children at a small-scale gold mine site were engaged in various activities causing adverse health impacts, including carrying residue of cyanide without the use of protective equipment and often going barefoot, unaware of the harmful impacts of

cyanide. In another mining area women would bring their small children of two or three years old to mine site. Parents mentioned that they were not aware of the potential (long-term) health impacts of the use of mercury and other chemicals on children.

- **In-migration and safety concerns:** Communities in a number of mining areas expressed safety concerns and reported increases in crime and theft due to in-migration of mineworkers from other parts of Myanmar. At one site, for example, youth attending tuition classes in the evening mentioned they felt unsafe and parents had to accompany their children. In a tin mining area, a girl was reportedly raped by a migrant worker. While no other specific incidents were shared, it was mentioned that this was not an isolated case and parents expressed concerns about their children going to school on their own.
- **Increased drug use among youth:** In several subsistence gold mining areas, drug use (ya-ba and heroin) was reportedly widespread. It was observed that children of parents who use drugs left school at the age of 12-14 years to work on mine sites. Local community members interviewed were concerned about children starting to use drugs at an early age. During the season that mine were closed, children reportedly resorted to drugs because they had no other activities to keep themselves occupied.

Access to education

Human Rights Implicated: Right to non-discrimination; children's right to education

- **Impacts of in-migration:** Community members, including villagers and a school master, mentioned that the influx of Burmese speaking migrant workers and their children near a cement plant in an ethnic area has impacted the education of local ethnic school children. Local children encountered language challenges in school because classes were taught in Burmese language, which is the native language of migrant children but not of the local children who had therefore dropped out of school.
- **Landlessness:** The confiscation of farmers' land for gold mining has led to farmers becoming casual labourers (see further, Part 5.3: Land). Interviews with farmers, village leaders and migrant workers demonstrated that children have had to drop out of school after primary school to work in and around the mine sites, for example as panners. In one mining village, only around 10% of the children went further than primary education.
- **Access to schools:** While in some cases large-scale mining companies, as well as informal mine owners, had contributed to building schools and/or accommodation for teachers, some negative effects were reported. In one area, education of children was not prioritised by parents as they predicted that mining would be the only opportunity for their children and thus concluded that the children did not need to go to high school. In another instance, after a landslide near a tin mine site, four schools had to be closed as they were declared hazardous zones and as a result children had to travel further to attend other schools. The nearest high school was too far away and therefore children as young as 10 years old did not attend school and instead joined their parents on the mine site, for example by helping them to carry tin.

Human Rights Implicated: Right to non-discrimination; children's right to leisure, play and culture; children's right to freedom from child labour

- **Child labour in formal mining:** Child labour was not widespread at large-scale mine sites, but some cases were reported. The field research found that in spite of rules and regulations being in place prohibiting children under the age of 18 years from working, some children were employed in a cement factory. A number of workers mentioned that they had lied about their age to obtain employment at the factory and started working at the age of 14-15 years. Even though the mining companies the field team spoke with said that they did not employ children below the age of 18 and checked identity cards of all new employees, children with an average age of 13, but as young as 10-11 years old, if physically strong enough, were found to work at small-scale gold mine sites, especially during the summer when schools were closed. In one tin mining area, community members reported that although before 2014, there were several cases of children aged 13-16 working for a tin mining company, since the increased monitoring of labour laws and inspections, children had been dismissed. At one site, children would not be allowed in the tunnels but would be occupied with planting or watering trees, carrying residue of cyanide to a waste place without any protective equipment or supporting the CSR projects of the company, such as building a school or other projects. The children reported that if they were found to be playing instead of working they would be warned by the general manager.
- **Child labour in subsistence mining areas:** The field research found that migrant children as young as six or seven years old worked in subsistence gold mining areas as panners. Some children worked from 5 or 6am until 5pm. Others attended school during the day and worked a few hours in the evening, earning MMK 700-1500 per day. The money earned with panning paid for their school fees. When working as independent panners on a mine owner's site, children had to pay MMK 5000 per day to the owner to obtain the right to pan. Children were also found to be involved in quarrying, collecting hard rocks and pounding and mixing of limestone and soil. Girls earned MMK 3500-4000 per day and boys MMK 4000-5000 per day, the reasoning being that boys performed heavier duties than girls. In another region, pit owners would not allow children younger than 16 years to work on the mine site as they were not considered strong enough to perform the work. However, children of 16-18 years of age would be engaged in mining activities, including hazardous activities such as high-pressure hosing for hydraulic mining and the use of dynamite to blast hard rock. In another area, young workers under the age of 18 were involved in washing ore and cleaning and pounding rocks. However, they were not involved in underground mining activities.

C. International Standards, Guidance & Initiatives

Box 22: International Standards, Guidance & Initiatives on Women and Mining

International Standards:

- [ICMM Sustainable Development Framework](#)
- [IFC Performance Standards and Guidance Notes](#)
- ILO Conventions:
 - [C111 Discrimination \(Employment and Occupation\) Convention, 1958](#)
 - [C100 Equal Remuneration Convention, 1951](#)
 - [C156 Workers with Family Responsibility Convention, 1981](#)
 - [C183 Maternity Protection Convention, 2000](#)
- [UN Guiding Principles on Business and Human Rights](#)
- [UN International Bill of Human Rights and Core Human Rights Instruments](#), in particular [UN Convention on the Elimination of all Forms of Discrimination against Women \(CEDAW\), 1979](#)

Guidance and Initiatives:

- CSR, [Mining and Local-Level Development: Examining the Gender Dimensions of Agreement Making and Benefit Sharing](#)
- IFC, [Good Practice Note: Non-Discrimination and Equal Opportunity](#)
- IFC, [Women in Mining: A Guide to Integrating Women Into the Workforce](#)
- Oxfam Australia, [Tunnel Vision-Women, Mining and Communities](#)
- Oxfam Australia, [Women, Communities and Mining: The Gender Impacts of Mining and the Role of Gender Impact Assessment](#)
- Rio Tinto, [Why Gender Matters](#)
- UNIFEM and United Nations Global Compact, [Women's Empowerment Principles](#)
- UN Women focus on promoting leadership and political participation of women, economic empowerment, and ending violence against women.
- World Bank, [Gender Dimensions of Artisanal and Small-scale Mining: A Rapid Assessment Toolkit](#)
- World Bank, [Gender Dimensions of the Extractive Industries](#)
- World Bank, [Women and Artisanal and Small-scale Mining](#)

Box 23: International Standards, Guidance & Initiatives on Children's Rights and Mining

International Standards:

- [IFC Performance Standards and Guidance Notes](#)
- ILO Conventions:
 - [C182 Worst Forms of Child Labour Convention, 1999](#)
 - [C138 Minimum Age for Admission to Employment and Work Convention, 1973](#)
- [UN Guiding Principles on Business and Human Rights](#)
- [UN International Bill of Human Rights and Core Human Rights Instruments](#), in particular [UN Convention on the Rights of the Child, 1989](#)
- [UN Committee on the Rights of the Child, General Comment No.16 on State Obligations regarding the impacts of the business sector on children's rights, 2013.](#)

Guidance and Initiatives:

- UNICEF, [Children's Rights and the Mining Sector project and pilot study report](#)
- UNICEF, UN Global Compact & Save the Children, [Children's Rights and Business Principles](#)
- UNICEF & Save the Children, [Children's Rights in Policies and Codes of Conduct](#)
- UNICEF & DIHR, [Children's Rights in Impact Assessment](#)
- UNICEF, [Children's Rights in Sustainability Reporting](#)
- UNICEF, [Engaging Stakeholders on Children's Rights](#)
- UNICEF, DIHR and ICAR, [Children's Rights in National Action Plans on Business and Human Rights](#)
- Save the Children, [Children as Stakeholders: The Business Benefits of Investing in Children](#)

Cumulative & Project-Level Impacts

Conflict and Security



Part 5.6

Conflict and Security

In this section:

- A. National Context
 - Ethnic armed conflict
 - The Nationwide Ceasefire Agreement (NCA)
 - EAO governance of mining activities
 - Conflict minerals
 - Legal framework relevant to illegal mining, trespassing and peaceful protests
- B. Field Assessment Findings
 - Company-community conflict and influence of armed groups
 - Community insecurity near mine sites
 - Conflict between formal mining operations and informal subsistence miners
 - Illicit payments and trading flows
 - Security forces
- C. Relevant International Standards, Guidance & Initiatives

A. National Context

A significant part of Myanmar's mineral wealth, and of its natural resources generally, is located in the borderlands, where ethnic conflict has been frequent. If such resources are not governed effectively, natural resource wealth may exacerbate conflict and undermine sustainable development.

Insecurity surrounds individual mine sites and the mining sector as a whole in Myanmar. This takes the form of armed conflict between ethnic groups and State security forces in mineral-rich border areas; and the governance (and intimidation) of civilian populations by armed groups, including the management of large, informal mining areas. In central areas of the country, with the progressive opening of Myanmar's political and economic system, community protests against impacts of mine sites and ancillary infrastructure, such as power plants fuelling cement factories, have been observed throughout the country. This has included violations such as Myanmar police officers using white phosphorus to quell a peaceful community protest against the Letpadaung mine in Sagaing Region in 2012, and the death of civilian protester Daw Khin Win at the same site in 2014.⁴²⁵

Ethnic armed conflict

Armed conflict between ethnic minority armed opposition groups in the border areas and the central Bamar-dominated Government broke out shortly after independence in 1948.⁴²⁶ In its decades-long counter-insurgency campaigns against various ethnic minority armed

⁴²⁵ Amnesty International, [Open for Business](#), 2015.

⁴²⁶ Simultaneously, armed conflict began between the Government and the Burma Communist Party.

opposition groups, the Myanmar army has committed a wide range of human rights violations and violations of international humanitarian law. As troops entered ethnic minority villages, they used civilians for forced labour (particularly portering), requisitioned food and supplies, killed and tortured civilians, and forcibly displaced them. Armed ethnic minority opposition groups have also committed abuses, although to a lesser degree.⁴²⁷ Ethnic grievances have centered on these abuses, as well as the lack of self-governance and resource sharing with the central Government, discrimination and marginalisation, lack of freedom of religion, and lack of education in ethnic minority languages.

Conflict and isolation has greatly inhibited economic development in already impoverished ethnic border areas. For example, 73% of the population in Chin State lives below the poverty line, 44% in Rakhine State (though the World Bank's reinterpretation of the data suggests a rate of 77.9%) and 33% in Shan State. The national poverty rate is 26% (the World Bank's 2014 reinterpretation of the data recalculated this to 37.5%).⁴²⁸

The Nationwide Ceasefire Agreement (NCA)

The NCA between the Union Government and eight EAOs was signed in October 2015; ten other groups declined to sign.⁴²⁹ The NCA aimed to consolidate 15 bilateral ceasefires and introduced a political roadmap and set of principles for the subsequent stage of the peace process, 'political dialogue'. It also provided for a mechanism to jointly monitor and address ceasefire violations, which incorporates civilian monitors.⁴³⁰ A key concern and preoccupation of EAOs – including those signatories to the NCA, those who hold bilateral ceasefire agreements but did not sign the NCA, and those still currently fighting government forces – is the need for a fair agreement on how to manage the natural resources held within their territory. The NLD Government has convened two summits under its 21st Century Panglong Initiative in 2016 and 2017 but continued peace talks remain difficult for a variety of reasons⁴³¹. However two further groups, the Mon and Lahu, signed the NCA in February 2018, bringing the total number of signatories to 10⁴³².

Article 25(a) of the NCA also recognises for a transitional period, the *de facto* authority of armed groups in their respective – but undefined – areas, including in the areas of social and economic development. Signatories commit to work together to jointly achieve better development outcomes related to civilian health and education, environmental conservation, the preservation of ethnic cultures, and eradicate illicit drug use.

While the NCA does not mention resource sharing or the devolution of resource governance, it states that the Union Government and the individual EAO shall coordinate the implementation of tasks which are specific to the areas of the respective ethnic group in a joint manner. This may be understood as giving the EAOs greater influence over

⁴²⁷ For a full discussion of the human rights situation in the counter-insurgency context, see reports from Amnesty International from 1988 – 2008, Human Rights Watch and the OHCHR [Reports of the Special Rapporteur on the situation of human rights in Myanmar](#).

⁴²⁸ ADB, [Interim Country Partnership Strategy: Myanmar 2012 – 2014, Poverty Analysis \(Summary\)](#), 2012; Myanmar Times, [Data tweaks change face of poverty](#), 19 May 2014.

⁴²⁹ [2015 Nationwide Ceasefire Agreement](#).

⁴³⁰ International Crisis Group, [Myanmar's Peace Process: Getting to a Political Dialogue](#), October 2016, p. 2.

⁴³¹ [Fresh fighting another setback to the peace process](#), VOA 10 January 2018

⁴³² [Analysis: A Win for the Peace Commission as Mon and Lahu groups sign the NCA](#), Irrawaddy, 13 Feb 2018

policies that affect their respective areas of influence, not just the areas that they have military control over. Article 25(b) of the NCA states that where projects may have a major impact on civilians living in ceasefire areas, their planning should be undertaken in consultation with local communities in accordance with the EITI Standard (sic).

EAO governance of mining activities

During the field research, MCRB observed the resource management practices of more than 10 different EAOs as well as the Union national armed forces. The approaches EAOs took to mining governance were mixed, ranging from sophisticated and systematic rules and requirements, to ad hoc approaches. Overall, EAO governance tended to focus more on fiscal arrangements than environmental and social safeguards. However, as illustrated in Box 24, there were some systematic approaches, where EAOs clearly included environmental and social aspects in their natural resources governance practices.

Box 24: Karen National Union (KNU) Mining Licencing Rules and Regulations

The Karen National Union (KNU) has a number of rules and regulations that apply in the KNU-controlled areas⁴³³. These include rules applicable to individuals and companies that hold a mine permit granted by the KNU. Points relevant to the management of environmental, social and human rights aspects include:

- Before initiating gold extraction activities, the permit-holder shall report to the relevant township administration office and shall extract the mineral only within the permitted/defined area;
- If other mineral resources or ancient heritage objects are found on the concession, the permit-holder shall inform the KNU Mining Department immediately;
- The permit-holder must submit a report stating the names, ages, NRC numbers and addresses of all workers employed to the KNU township administration office;
- If serious injuries or fatalities occur, the permit-holder shall inform the KNU mining department. Compensation must be paid by the permit-holder in accordance with labour compensation rules stipulated by KNU;
- The permit-holder must receive prior approval from the relevant KNU forestry department where any trees are to be cut on forest land;
- Any trees cut from the concession must be purchased at a price set by the KNU forestry department;
- During production, all commitments made to implement the necessary environmental conservation and protection measures, and measures preventing fire and environmental pollution, must be carried out systematically;
- The permit-holder shall pay tax to the KNU township mining committee; and
- In cases of violation of the rules, penalties will be imposed.

Conflict minerals

A 2015 report by the NGO Global Witness estimated that Myanmar's jade industry may have been worth up to USD 31 billion in 2014 alone.⁴³⁴ According to the report, this sum,

⁴³³ MCRB Field research 2016

⁴³⁴ Global Witness, [Jade: Myanmar's "Big State Secret"](#), 23 October 2015.

equivalent to nearly half the GDP for the whole country, is currently funding conflict groups and actors, particularly in Kachin State, rather than contributing to local and national development.

While research has linked Myanmar's jade trade to conflict and corruption, there is less clarity on the links between other minerals and conflict. Significant amounts of tin are being produced in the autonomous United Wa State Army (UWSA)-controlled enclave in Shan State, although the exact amounts are not known. There are no licences issued by Naypyidaw for the area. The production originating from this area is thought to be transported directly to refineries in China.⁴³⁵

Industrial minerals are generally thought to have a lesser impact on, and weaker link to, conflict situations than conventional 'conflict minerals' such as gold, tin and tungsten. Metals with a higher value-to-weight ratio, such as limestone, are not as easy to exploit and smuggle.⁴³⁶ Even so, the use of limestone products (CaO) as part of the cyanidation process for processing gold ore may mean that the exploitation of the mineral is still, ultimately, one part of a revenue stream which contributes to funding armed conflict. The limestone quarrying sector is also growing in certain post-conflict areas, particularly the karst mountains of Karen and Mon States, often with the involvement of companies linked to EAOs⁴³⁷.

Military-affiliated companies UMEHL and MEC are formally involved in the limestone/cement industry and tin mining, as well as other mining commodities not covered in this SWIA.⁴³⁸

Legal framework relevant to illegal mining, trespassing and peaceful protests

The 2015 amended Myanmar Mines Law sharpened penalties for subsistence miners found to be operating without a formal mine permit, resulting in longer prison terms and larger fines (see Part 2: Mining in Myanmar). In addition, the Mines Law includes provisions on trespassing onto mine concession land.

Myanmar's criminal defamation laws were also observed to have led to violations of basic rights at more than one site visited. According to the International Commission of Jurists, the prospect of arrests, detentions, criminal trials and prison time related to the fact that defamation is a criminal, not a civil, offence in Myanmar could chill the exercise of free expression of opinion and exchange of information. In addition, the risks of violations are amplified by the fact that the Myanmar judiciary currently struggles to adjudicate such criminal defamation cases with impartiality and competence.⁴³⁹

Section 143 of the Penal Code pertains to unlawful assembly, section 145 to joining or continuing in unlawful assembly, and section 147 to rioting. As such, the Myanmar Penal

⁴³⁵ Irrawaddy, [Production Slowing at Wa Tin Mine](#), 18 October 2016. [Statement of Yunnan Tin Company Limited on Tin from Myanmar](#), 15 December 2016

⁴³⁶ United Nations University, [The Inequality-Resource Curse of Conflict](#), April, 2016.

⁴³⁷ [Karen villagers pray for mountain's protection](#), Karen News 29 March 2016

⁴³⁸ Myanmar Times, [Military Makes Telecoms Move](#), 31 July 2013.

⁴³⁹ ICJ, [Myanmar: Briefing Paper on Criminal Defamation Laws](#), 26 November 2015, p. 1.

Code limits the right to protest. This provision was also previously applied to charge around 70 students for protesting against the operations of the Chinese-owned Wanbao Company at the Letpadaung site.⁴⁴⁰

B. Field Assessment Findings

Conflict and security related themes from the field research are outlined below.

Company-community conflict and influence of armed groups

Human Rights Implicated: Right to life, liberty and security of person; right to freedom of expression and information; right to freedom of assembly and association

- **Company-community conflict:** At the majority of sites visited, community members reported that there had been no company-community conflict. This was in spite of frequent reports of land seizures and community landlessness related to company operations, environmental damage and low levels of local community employment at mining companies. Company management often maintained good relationships with village leaders and elders, which appeared to contribute to maintaining peaceful relationships with communities at-large. However, at several sites, especially in villages located near large-scale mines, community members reported that they felt village leaders had too close a relationship to company management, sometimes to the point of favouring interests of the company over those of the wider community. Village leaders also often personally benefitted financially from such relationships. Mining companies were found to have aligned themselves with EAOs to gain access to mining land in conflict-affected areas. At one site, villagers reported feeling intimidated by the company due its ties with EAOs. At one large-scale processing site, the company had bought the land on which the factory was built directly from an EAO. Local communities claimed that the land that was confiscated was previously farmland.
- **Control and presence of EAOs and/or the military:** More than half of the sites visited were either entirely or partially controlled by EAOs and/or had substantial military presence in the form of military-affiliated mining companies. This created fear of these entities amongst local community members. It also reinforced a culture of commercial-EAO alliances that made villagers hesitant to voice dissent for fear of reprisal. The field research found that this also created barriers to the effective implementation of grievance mechanisms and community participation and consultation. Several instances were reported of villagers being threatened by members of armed groups. MCRB field research included visits to military-affiliated and operated companies. Near such sites, community members reported being unable to protest against, or otherwise voice dissent with regard to, company operations, due to company ties with the Myanmar army. Such concerns were especially pronounced amongst stakeholders belonging to ethnic minority groups.
- **Mine workers are unable to report concerns or disagreement with their employers:** In areas where Myanmar military troops were stationed or EAOs were active, mine workers reported that they were unable to report concerns or disagreement with their employers as such actors interacted with and protected the interests of

⁴⁴⁰ RFA, [Myanmar Court Charges Nearly 70 Students Under Penal Law for Letpadan Protest](#)

companies. Company representatives also indicated that they complied with the requests of armed actors out of fear of reprisals.

- **Communities are frightened of military-affiliated companies operating in joint venture partnerships with ME-2:** In one area a gold mining company operating in a joint venture with ME-2 had polluted the community water source. Villagers reported that they preferred moving away from their homes rather than raise a complaint about the pollution, which had led to illness in the community. They said this was due to a fear of ME-2, as the enterprise often recruited security staff from the Myanmar army. Community members were scared of violent reprisals if they voiced grievances. At this specific site, the security staff on-site included five soldiers who, according to community stakeholders, had intimidated local villagers living near the mine and processing sites. At another site, community stakeholders reported not understanding the relationship between operator and regulator ME-2 and the military-affiliated companies with which it operates in mining joint ventures. Small-scale companies operating in this area reported confusion about contractual relations and the split in responsibilities between mining SOEs and military-affiliated companies, pointing to a need for greater transparency as well as a clearer delineation of the responsibilities of the mining SOEs.
- **Community protests against large-scale mining companies centre on grievances over environmental damage:** In Myanmar, protesters have to apply for prior authorisation to hold a lawful public protest. MCRB field research found examples where prior authorisation was given by the township police as well as examples where such authorisation was not granted. In one case, police authorisation was given for a community affected by environmental damage caused by a mining company to organise a protest during which approximately three hundred community members participated. Community members reported that during the protest, company representatives were present and shouted at protest participants and took photos of them, but did not engage with protesters' demands. Demands included the remediation of adverse impacts on community drinking water and demands for the systematic disposal of mine waste. In most cases, community members reported that companies had not responded to the demands made during protests.

Community insecurity near mine sites

Human Rights Implicated: Right to freedom of expression and information; right to freedom of assembly and association; right to freedom from torture, cruel, inhuman and degrading treatment or punishment

- **Drug use leading to increased insecurity of the person – especially pronounced for vulnerable groups – and elevated levels of crime:** MCRB field research included visits to several areas plagued by high levels of drug abuse. In one such location, community members reported having apprehended and 'arrested' at least ten individual drug users over a two-year period. These 'community arrests' of drug users were reportedly carried out because community members had been unable to arrest the drug dealers. Following a community arrest, the apprehended person is handed over to the police. One village indicated that in one year, four residents were arrested, charged and sentenced for drug use, though the exact grounds on which this occurred could not be determined. As numbers of both drug users and dealers increase, community members reported that it was increasingly harder to carry out such community arrests,

especially as the price of drugs such as ya-ba (methamphetamines) and heroin had decreased. In one village tract visited, reportedly 30% of villagers were drug users and community representatives indicated that drug use had begun at the time of mining activity in the area, and increased concurrently. Many villagers were members of a minority ethnic group and the area was reportedly plagued by suicides.

- **Few reports of violent crime linked to company operations or staff:** In many communities which had experienced a large influx of migrant mine workers, there were tensions between locals and migrants, but reportedly this rarely escalated into violence. At such sites, community members reported increased incidents of theft in the area since the arrival of migrant workers. At a few sites, increased incomes related to mine labour had reportedly led to increased levels of discretionary spending, the opening of karaoke bars and more drinking of alcohol and drug consumption. In one location near a large-scale mine site, women reported feeling less safe due to the influx of male migrant workers and the recent assault of a local woman. This led the women to travel in groups to fetch water and firewood.

Conflict between formal mining operations and informal subsistence miners

Human Rights Implicated: Right to freedom of expression and information; right to freedom of assembly and association; right to freedom from torture, cruel, inhuman and degrading treatment or punishment

- **Theft of mineral concentrate creates security risks for mine staff, children and subsistence miners:** In Myanmar, tin is processed more effectively during the rainy season when water supplies do not limit companies' ability to concentrate the ore. MCRB field research indicated that the large stockpiles which had been accumulated in the lead-up to this time led to increased rates of theft of tin concentrate near some large-scale mine sites. The operations manager of one tin mining company reported to have requested additional help from the township police department during the rainy season for this reason. Children aged 13-14 were found to have trespassed onto mine sites of large-scale mines to steal tin concentrate. At one mine, the ME-2 production monitor stationed at the mine requested the mine company security staff to not report underage trespassers to the police, due to their young age. This company instead instituted a policy whereby children had to sign a note admitting to having trespassed and attempted theft and promising not to do so again in the future. If the same children were to attempt to trespass onto the site again, however, a police report would be made. One subsistence tin miner who had been allowed to mine on the main company site in a subcontracting agreement with the company was arrested after being found to operate outside of the agreed-upon area, thereby having trespassed. The miner reported having been subject to threats and intimidation by police while being held in custody at the district court. According to the subsistence miner, the mining company was exerting pressure on the district judge to increase her sentence and to force the miner to reveal the names of other subsistence miners operating illegally on the company concession area. MCRB research found several accounts of the apprehension and arrest of children at gold mine sites. At one mine, two boys aged 13-14 trespassed onto the mine concession to sort through mine waste still containing recoverable gold. The children were apprehended by mine security staff, which according to community interviews were recruited from 'local gangsters'. The boys were brought to the police station where

they were arrested. They were subsequently charged with theft and sentenced to one year and six months in prison, respectively. According to community members, the boys were serving their prison sentences at a regular facility housing adult prisoners, rather than a juvenile detention centre.

- **Raids on subsistence miners:** In areas with many informal subsistence miners, the township GAD was found to work in collaboration with other government agencies, including the police and ME-2, to conduct raids on subsistence miners. Stakeholders, including ME-2 staff working in a regional office, indicated that such raids were only effective at apprehending the most vulnerable groups of subsistence miners as larger-scale operators working informally were never found on the site at the time of the raid. Stakeholders attributed this to more powerful miners having been tipped off in advance by the authorities. Tools would be confiscated from poor subsistence miners and excavators might be confiscated from small-scale informal operations, but according to stakeholder interviews, machinery belonging to miners with state/region and/or Union-level connection would not be confiscated, and no fines imposed. By contrast, mines inspections, as opposed to raids on informal mines, are carried out only at mines holding permits. This is because the inspector, employed with DoM, will choose sites for inspection from a list of mines holding permits. According to industry stakeholder interviews, conducting inspections at permitted mines often entails Department staff knowingly travelling past several mines identified as not holding mine permits. The management at one large-scale site visited reported that the ME-2 mines production monitor receives a monthly bribe. In one township visited by MCRB field researchers there were several hundred informal miners but only three policemen. Field research findings indicated that a similar ratio can be found in many townships where informal mining is widespread. This illustrates the significant challenges related to the enforcement of permitting regulations, even in areas without EAO involvement in the informal mining sector.

Illicit payments and trading flows

Human Rights Implicated: Right to property; right to life, liberty and security of person

- **Insecurity of tenure and lack of access to public services is particularly prevalent in conflict-affected or post-conflict areas:** Some MCRB field research was carried out in villages in areas affected by ethnic armed conflict, where the inability of central government agencies to access locations controlled by EAOs had resulted in these villages not being 'gazetted' by the Ministry of Home Affairs, even following ceasefire agreements between armed groups and the Union Government. The lack of official gazetting led to such villages not receiving the same public services as other communities, since government agencies usually only provide services to gazetted villages. Lack of access to healthcare and primary education were cited as key concerns by community members. In two such villages, both subsistence mining communities, villagers had funded and organised schooling themselves as no access to public education was provided.
- **Unofficial taxes levied on subsistence and small-scale mine operations in at least three regions:** In these areas, there were no violent confrontations between the armed groups, miners and community members. In some areas, unofficial payments were standardised and informal taxes were paid according to the size of the operation, the

profits or production generated and the use of excavators and other machinery. In one of these states, miners were taxed on their mining activity and villagers were also asked to pay taxes on their homes and for owning a car or motorbike. In several areas, EAOs reportedly charged miners in a haphazard way, with fees and payment structures varying from year to year.

- **EAO management of mining activities in their area:** The field research found that in some areas EAOs took a systematic approach to managing mining activities (Box 24), whereas in other areas this did not appear to be the case. In one subsistence mining area controlled by an EAO, villagers had recommended to the EAO that they should establish an environmental management wing of the organisation. The villagers' logic was that if the EAO were to impose taxes on miners in the area, some of this income should be redirected to address some of the adverse impacts of the mining activities. In this area, government agencies were not able to inspect mines or environmental conditions due to EAO control. In another state, it was found that the local EAO awarded its own mine permits and calculated a mine tax based on the size of the permitted plot. There appeared to be no systematic management or assessment prior to granting such a permit and if a group of informal miners was already mining a plot, the EAO might grant them a retroactive permit for the area and subsequently tax their activity.
- **In areas outside government control, adverse impacts of mining, including environmental damage, occur undetected:** Where EAOs were active and exercising *de facto* control, Myanmar police reported being unable to enforce any Union-level regulation of the mining industry. Mining generates an important revenue stream for EAOs and this contributes to corruption of public officials. The functioning of border checkpoints was similarly undermined by corruption, with state authorities receiving illicit payments and EAOs exerting control over commodity flows through these points.

Security forces

Human Rights Implicated: Right to freedom from arbitrary arrest; right to freedom from torture, cruel, inhuman and degrading treatment or punishment; right to just and favourable conditions of work

- **Arbitrary arrests and detention:** According to interviews conducted by MCRB, violations by security forces occurring in the context of mining operations included cases of arbitrary arrests and detention, including the incarceration of children with adults and irregular trial proceedings. At the judicial level, security officers enforced Myanmar laws which limit the right to public protest. This affected communities impacted by environmental damage, and loss of land and livelihoods. There were also cases of criminal defamation levied against community members who wrote about mining-induced environmental damage, and many accounts of threats to community members challenging land seizures by companies.
- **Some companies rely on public security forces - the Myanmar military and/or police – to provide security for their operations:** Security staff at company operations frequently included retired and active military personnel, police officers, and members of EAOs. Public security provision was observed both in and outside of ethnic regions and areas, and such security staff were not always provided in response to the presence of EAOs. One company employed someone who had previously worked in security investigations for the military. Employing members of public security forces in

a private function while they are still publicly employed may jeopardise their impartiality and contribute to corruption risks. Where the security function at a company was organised via a subcontractor, the subcontracting party was always the Myanmar military, police or an EAO. Although they exist in Myanmar, no private security providers were encountered at any of the sites visited.

■ **Limited planning and professionalisation of the security function in companies:**

At the majority of sites visited, security staff were recruited from local communities. At nearly all sites, security staff were not given training and no site had a security management plan in place. There were accounts of security staff being drunk during working hours. As a professional group, labour conditions, rights, benefits and protections of security staff were found to be especially precarious at nearly all sites. No female security staff were encountered at any site.

C. Relevant International Standards, Guidance & Initiatives

Box 25: International Standards, Guidance & Initiatives on Security and Conflict in the Context of Mining

International Standards:

- [ICMM Sustainable Development Framework](#)
- IFC Performance Standards and Guidance Notes:
 - [PS 1 - Assessment and Management of Environmental and Social Risks and Impacts](#)
 - [PS 4 - Community Health, Safety and Security](#)
- [International Code of Conduct for Private Security Service Providers](#)
- [The Voluntary Principles on Security and Human Rights](#)
- [UN Guiding Principles on Business and Human Rights](#)
- [UN International Bill of Human Rights and Core Human Rights Instruments](#)
- [World Gold Council Conflict-Free Gold Standard](#)

Guidance:

- Communities and Small-Scale Mining, World Bank, CommDev (2009), [Mining Together: Large-Scale Mining meets Artisanal Mining \(Guide for Action\)](#)
- IHRB, [From Red to Green Flags: The Corporate Responsibility to Respect Human Rights in High-Risk Countries.](#)
- International Alert, [Conflict-Sensitive Business Practice: Guidance for Extractive Industries.](#)
- OECD, [Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas.](#)
- OECD, [Risk Awareness Tool for Multinational Enterprises in Weak Governance Zones.](#)
- ICMM, ICRC, IFC and IPIECA, [The Voluntary Principles on Security and Human Rights Implementation Guidance Tools.](#)
- UN Global Compact, [Business for Peace.](#)

- UN Global Compact, [Guidance on Responsible Business in Conflict-Affected and High-Risk Areas: A Resource for Companies and Investors.](#)
- UNDP, [Women and Natural Resources](#)
- World Vision Canada, [Preventing Conflict in Exploration: A Toolkit for Explorers and Developers.](#)
- Geneva Center for Democratic Control of Armed Forces and the International Committee of the Red Cross, Addressing.
- IFC Good Practice Handbook (2017): [Use of Security Forces: Assessing and Managing Risks and Impacts](#), Guidance for the Private Sector in Emerging Markets

Initiatives:

- European Union, [Crowd Management Training of Myanmar Police Force programme.](#) This is a programme aimed at improving the human rights performance of the Myanmar Police Force and initiate the development of a police service that both respects and protects democratic rights of citizens.
- ICMM, [Research on Company-Community Conflict.](#) ICMM undertook research which focused on reported incidents of company-community conflict between 2002-2013 in order to gain more knowledge of trends related to conflict between companies and communities.
- ICMM Seminar, [The Challenges of Security Provision and Respecting Human Rights when Mining in Conflict or High Risk Countries.](#) This is an audio seminar available online.
- UN Global Compact, [Responsible Business Advancing Peace: Examples from Companies, Investors and Global Compact Local Networks.](#) This document presents case study examples of how companies, investors and Global Compact Local Networks have used the 'Guidance on Responsible Business in Conflict-Affected and High-Risk Areas'.
- Geneva Center for Democratic Control of Armed Forces and the International Committee of the Red Cross, [Knowledge Hub.](#) A free-access website collecting guidance documents and practical tools in support to implementation of good practices on security and human rights challenges.

Cumulative & Project-Level Impacts

Environment and Ecosystem Services



Part 5.7

Environment and Ecosystem Services

In this section:

- A. National Context
 - Legal and Policy Framework
- B. Field Assessment Findings
 - Environmental Management Plans
 - Air pollution
 - Water and waste management
 - Land degradation
 - Noise and vibration
 - Degradation and depletion of forest resources
 - Site rehabilitation and mine closure
- C. Relevant International Standards, Guidance & Initiatives

A. National Context

At the national level, important environmental challenges include air pollution, water stress and contamination, land degradation, waste management and the depletion and degradation of forest resources. These mirror the mining-related environmental and ecosystem challenges evidenced by MCRB's field research on and nearby mine sites throughout the country.

Legal and policy framework

See Chapter 3 for a detailed explanation of the existing framework for environmental protection. For mining, this is complex, overlapping and also has gaps. The framework derives from Art7 of the 2012 Environmental Conservation Law (ECL) which introduces the requirement for EIA and Environmental Management Plans (EMPs), other laws and directives adopted under the ECL such as the National Quality (Emissions) Standards, cross cutting laws, and sectoral laws relating to Mining. Details of additional laws not covered in Chapter 3 are provided below. A separate online Appendix contains a full list of relevant laws. MCRB will also publish a SWIA supplement on mining and biodiversity in 2018.

Waste management

The 2012 Environmental Conservation Law (Art13c) tasks MoNREC, guided by the National Environmental Conservation Committee, to maintain a comprehensive monitoring system of the disposal of waste generated by mineral exploration, production and treatment. According to the Law, companies are required to install or use on-site equipment in order to monitor, control, manage, reduce or eliminate environmental pollution, and are expected to discharge polluting substances in accordance with the 2015 Environmental Quality Guidelines (Art14 & 15.). Waste management treatments and precautions may include: infrastructure to collect waste; rendering the operation of other equipment more effective; indicating and recording pollution levels; issuing warnings when levels become excessive; and others. However, the Law also notes that if these

solutions are impracticable, it may be arranged to dispose of the waste causing a point source of pollution in accordance with environmentally sound methods, which are not specifically defined but may be understood to be less stringent than the Environmental Quality Guidelines.

Chemicals, including Mercury and Cyanide

The 1919 Myanmar Poisons Act grants the President of the Union the authority to regulate the terms of possession and sale of any specified poison.⁴⁴¹ According to the 2012 Environmental Conservation Law (Art30), permission from the Ministry is required in order to import, export, produce, store, carry or trade any material which causes an adverse impact on the environment prohibited by the Ministry. Myanmar has not signed the Minamata Convention on Mercury. Currently none of the companies in Myanmar are a part of the International Cyanide Management Code (Box 26).

Box 26: International Frameworks on Mercury and Cyanide

Minamata Convention

In 2013, the [Minamata Convention on Mercury](#) was adopted under the auspices of the United Nations Environment Programme (UNEP) and entered into force on 16 August 2017. This legally binding instrument is aimed at preventing global environmental pollution and health hazards due to anthropogenic emissions and release of mercury. By becoming members, governments agree to draw up strategies to reduce the amount of mercury used by artisanal and small-scale miners and to facilitate research and monitoring of activities relating to mercury use. Currently, the document has 128 signatures and 74 ratifications. Myanmar has not yet signed the Convention.

International Cyanide Management Code

The [International Cyanide Management Code](#) deals specifically with the use of cyanide in the mining industry. The Code was developed by a multi-stakeholder steering committee under the auspices of UNEP and the former Council on Metals and the Environment. It is a voluntary initiative for the gold mining industry and is intended to complement existing regulatory requirements. Companies that adopt the Code commit to follow its principles and standards in the use of cyanide and those operations that meet the requirements are certified and authorised to use its trademark symbol. None of the mining companies operating in Myanmar are currently part of the initiative.

Dynamite and blasting regulation

Use of explosives and blasting is regulated by the 1908 Explosive Substances Act, part of the India Act, and amended by a set of 2001 amendments, as well as Rule 181 of the proposed Mining Rules (previously Rule 105 of the almost identical 1996 Rules). The Ministry of Defence (MoD) regulates the storage and use of gun powder on mine sites. Dynamite is not allowed in mine or quarry operations without written permission from DoM or one of the SOEs. ME-2 reports permissions granted to MoD. If the request is approved, ME-2 will issue an approval letter authorising the company to procure explosives from a military storage facility in a nearby township. Army personnel and vehicles will provide security for the company during transportation of explosives from the military to the company storage unit located on the mine site.

⁴⁴¹ [1919 Poisons Act](#), Article 2.

According to Mining Rule 181a, explosives may only be stored in accordance with the recommendations of the Magazine Location Selection Committee of the MoD. Companies have to submit monthly records of their use of explosives to ME-2 or other relevant authority or SOE. The Mining Rules 181 require a mine permit-holder to ensure that anyone in the vicinity is given due warning prior to any blasting being carried out underground. This also includes a requirement to guard the entries to sites at which blasting is being undertaken.

Regulation of water use by mining

Rapid growth in demand for water due to population growth, urbanisation and industry use pose serious challenges to water security in Myanmar.⁴⁴² The Myanmar National Water Resources Committee was established in 2013 to ensure a coordinated national approach to water resource issues.⁴⁴³ In 2014, the Committee adopted a policy framework entitled, the National Water Framework Directive, modelled on the EU Water Framework Directive. The Myanmar National Water Framework Directive includes issues such as sustainable river-basin management, the ecological status of water bodies, and principles for stakeholder inclusion.⁴⁴⁴ It also sets a target for Myanmar to become a water efficient nation based on the International Water Resources Management principles by 2020.⁴⁴⁵

Rule 153 of the proposed 2018 Myanmar Mines Rules imposes an obligation for mining permit-holders to take precautions not to deprive “*any other person of the water [to which] he is accustomed.*”⁴⁴⁶ Permit-holders need to obtain permission to use a public water source from the DoM Regional or State Plot Scrutiny and Issuing Team. They must not alter any water course without obtaining prior permission from the relevant government department or agency (see below). Where a permit-holder needs to use public water for mineral production, DoM needs to approve this through a separate application process and the applicant must indicate daily and yearly volumes of public water needed.⁴⁴⁷ A definition of ‘public water’ was not included in the 1996 Mines Rules or the 2018 update, and no definitions contained in other laws are referenced.

Rule 154a (unchanged from 1996 Rule 73a) allows mining license holders to take and use water that is not ‘public water’ within the Permit area without charge. It requires them not to pollute the environment (Rule 154b) and to maintain water quality above and below ground (Rule 154c).

It was not clear from MCRB field research and desk review of law and policy that the Department requires and reviews any hydrological study prior to approving requests to use ‘public water’ from mining companies. Without such studies, it is not clear on which basis permits are granted. The extent to which the water extraction of projects may affect communities’ access to water, or the consequences of water usage for downstream users, also appear not be thoroughly evaluated by the relevant authorities. These impacts should be evaluated under an effective IEE/EIA process.

Mining near and in waterways and rivers

The 2006 Conservation of Water Resources and Rivers Law⁴⁴⁸ grants the Directorate of Water Resources and Improvement of River Systems of the Ministry of Transport the authority to review whether rivers or creeks could be adversely affected by mineral extraction and issue

⁴⁴² FAO, [Assessment of the National Water Policy of Myanmar](#)

⁴⁴³ Water Solutions, [Myanmar: Pilot introducing the National Water Framework Directive](#), 2016.

⁴⁴⁴ Ibid, p. 1.

⁴⁴⁵ Ibid, p. 22.

⁴⁴⁶ Rule 72 of the 1996 Rules

⁴⁴⁷ 1996 Mining Rule 71(a) and (b).

⁴⁴⁸ [The Conservation of Water Resources and Rivers Law](#) 8/2006. An Amending Law No 11/2017 was promulgated on 11 July 2017 but it did not change the relevant sections.

recommendations to the relevant government department (Art 5g). Sand suction, sand dredging, sand excavating, river shingle suction, panning for gold, gold mineral dredging or resource production are prohibited from sandbanks or channels which are used for controlling river flow, or at other prohibited places in a river, creek or the watercourse (Article 14). Anyone wanting to do those activities for commercial purposes near watercourses must seek permission from the Directorate (Article 13). Breaches of Article 13 and 14 may be penalised with a fine of between 300,000 and 700,000 kyats as well as up to two years imprisonment (Art 26, as amended in 2017).

The proposed 2018 Mining Rules also contain provisions regarding use of land for mineral production at the site of, or within 200 metres of, any irrigation canals, ponds, dams or other land for storage of water. According to Rule 151(b) (3), the mining permit-holder must secure permission from the relevant public authority if this is public land, or the landowner if privately owned.⁴⁴⁹ However there appears to be no prohibition per se in Union Law.

For forest land and land on which there are freshwater fisheries or which is otherwise designated under the law, approval is required from the Ministry of Forestry.

Disaster preparedness

In case of an environmental emergency, a natural or man-made disaster, the 2012 Environmental Conservation Law (Art 37) stipulates that individuals or organisations who incur expenses due to the declaration of an environmental emergency are entitled to reclaim these from a national environmental management fund. This Fund has not yet been established. The wording of the law does not make clear whether the right to receive compensation will apply in cases where an environmental disaster occurs but is not formally declared by a government body. Provisions in the proposed 2018 Mining Rules (Rules 176 and 177) also cover disaster prevention.

B. Field Assessment Findings

Field research showed notable environmental impacts from mining activities in all locations visited. Such impacts often had important consequences for access to ecosystem services and the livelihoods of local communities. An overview of key findings is provided below.

Environmental Management Plans

Human Rights Implicated: Right to participation

MCRB was able to review several EMPs which mining companies shared. These were all produced before the adoption of the EIA Procedure in December 2015. The scope of the EMPs varied widely between mines, even between projects of a similar size and permit producing the same mineral. EMPs numbered between 2 and 80 pages for similar-scale projects led by different operators, and covered a range of environmental, labour and social impacts. It is clear that these plans are not produced according to a standardised template or set of issues across the sector, causing difficulties for review and comparison.

While some EMPs reviewed were found to address the full range of impacts covered by the corresponding EIA, others assumed a much narrower focus, e.g. exclusively detailing the company's strategy to support reforestation of the mine area by planting trees and seedlings. It

⁴⁴⁹ Previously 100 metres in the 1996 Mining Rule 70(b) (4).

was not clear – but seems unlikely – that such EMPs had been approved by ECD. None of the projects had been issued with an ECC.

The EMPs which addressed and planned for observed or anticipated impacts flagged by the EIA were found to be of a higher quality than those which were developed for mines which had not yet undertaken an EIA. Even so, an EMP can only be as robust as the EIA process and report which precedes it. Where impacts are not identified they cannot be addressed effectively. EMPs which followed a more thorough EIA were found to offer much more information about company plans, systems implemented to address noise and light pollution, impacts on wildlife and biodiversity, and social and labour issues and impacts during all phases of the mine lifecycle.

Based on the sample of EIAs and EMPs reviewed by MCRB, large mines, unsurprisingly, tended to produce better assessments and plans. However, across the range of reports reviewed, there was significant room for improvement. None of them had been publicly disclosed on company websites, now a legal requirement.

Air pollution

Human Rights Implicated: Right to the highest attainable standard of physical and mental health; right to an adequate standard of living

- **Airborne dust from limestone and gold extraction and processing:** Based on community statements, dust was found to pose an issue especially during exploration blasting, limestone excavation, processing, and transportation by road. Unpaved roads were typically not sealed or watered to reduce dust disturbance as a result of overland traffic and transportation. None of the companies visited had processes in place to measure or monitor dust levels. One cement factory had installed a dust filtering machine to reduce dust emissions. The machine was reportedly cleaned on a monthly basis, which according to community members released a huge amount of dust, which the company did not take any further steps to dispose of.
- **Dust from limestone quarries and cement factories decreases crop yield and quality:** In communities located near cement factories farmers reported that their fields were covered by dust which had caused the productivity of the paddy to decrease for several consecutive harvests. Due to the lower quality, farmers were receiving a lower price for their crops at market. Based on community measurements and perceptions of crop yield, rice paddy and pumpkin harvests were less bountiful, while eggplant seeds could no longer germinate the following season. At several sites, farmers responded by increasing the use of fertilizer to compensate for lower yields and by using more water to irrigate their fields. Such increased use may also pose an adverse impact on health if crops are not properly washed prior to consumption.
- **Fumes and noxious smells cause concern for communities living near mine sites:** Odourless fumes as well as strong-smelling emissions from cement manufacturing and noxious smells related to blasting in limestone quarries were cited as causing concern or a nuisance to communities living near sites. Residents of several villages near a large-scale gold site reported experiencing bad smells all year around, but particularly on cloudy days. Here, smells from mine emissions were reported to occasionally be so bad that children would be unable to sleep. Residents also told of two cases in 2016 of smoke blowing onto paddy fields, drying out the paddy land and colouring the fields red. Two farmers, who reported that they thought the smoke was toxic, were compensated by the company operating the gold refinery emitting the red smoke and dust.

Water and waste management

Human Rights Implicated: Right to safe drinking water and sanitation; right to an adequate standard of living; right to the highest attainable standard of physical and mental health

- **Chemical waste and industrial effluents contaminate rivers and groundwater:** Gold operations of all scales were found to have contaminated water sources, including groundwater, community wells, rivers, creeks and ponds. Creeks and rivers were found to be polluted by mercury and cyanide from gold operations, as well as untreated acid run-off in tin mining areas, where lead deposits exposed by mining activities were thought to have contaminated community water sources. Both formal as well as informal mining operations were found to be a source of such water pollution. In subsistence mining areas, villagers and/or miners reported that pits were dug reaching the aquifer, allowing ground water to flow into the mine pit. As mercury and sometimes other chemicals are used in the pit and washed out with mine run-off, the tailings were thought to have polluted the groundwater. Cyanide and arsenic was found in several community wells tested by public authorities, in several cases in concentrations vastly exceeding the maximum amounts allowed in the National Environmental Quality (Emissions) Standards.⁴⁵⁰ According to affected communities, none of the mining companies identified as being responsible for the contamination followed up to remediate the impact within specified timelines. In the case of one company, there was no follow up at all. At one large-scale mine site, cyanide wastewater resulting from processing was running off onto paddy land, causing suspected cyanide poisoning of cattle. The farmers directly impacted by the pollution complained to the company, which threatened to destroy the villages in which they lived. In some cases, where drinking water was found by government authorities to have been contaminated by company operations and contain cyanide or arsenic, alternative water sources were not provided.
- **Mining operations are too close to waterways:** MCRB field research found both permitted and informal mining activities operating in and near waterways, basins and rivers. For example, field research identified extensive river-based mining in some of the subsistence and small-scale gold mining areas. There appears to be no absolute prohibition in either the 1996 or 2018 proposed Mining Rules. However in Sagaing Region, the pre-2016 regional government had stipulated that all mining projects should be carried out at least 1000 feet from river banks and creeks and 800 feet from paddy land⁴⁵¹. However, MCRB research identified widespread non-compliance with these provisions in three townships. Examples were also observed in some regions where local authorities had issued permits to mine creek areas in contravention of the 1996 Myanmar Mines Rules. In other areas there were examples of regional notifications banning river-based mining. Mining in waterways existed outside the scope of regulation and was seen to lead to unsustainable water-based mining practices. In one example, dredging and the use of mercury and cyanide in two large ponds covering an alluvial gold deposit had led to water pollution and the complete depletion of the ponds' fish stocks. ME-2 representatives reported being powerless to curb gold extraction from ponds because, as opposed to rivers and creeks, there is no regulation against mining from ponds.
- **Sediment discharged from tin mining activities causes siltation of waterways:** According to community testimonies, waterways had narrowed and creeks had been redirected by siltation in several locations. In addition, in several regions with river-based mining of alluvial gold deposits, water blasting was reported to repeatedly stir up sediment from the riverbed, making water inhospitable to aquatic life. Community members remarked that the creeks had become 'dirty'. In several locations, villagers reported previously being able to catch fish in streams but due to mine waste and siltation, fish stocks had been depleted. In one case, this

⁴⁵⁰ Due to a lack of data, MCRB was not able to independently verify whether high levels of arsenic were a direct result of company activity or partly or entirely caused by high natural concentrations in the area's soil.

⁴⁵¹ MCRB interview with Sagaing government officials, 2016

had happened within one year of a large-scale tin mine starting to operate. One community located near a large-scale gold mine also reported that the flow of a creek used for paddy field irrigation, fishing and a source of drinking water for livestock had been redirected due to company operations. While this did not decrease the availability of water in the area, community members found the sudden changes to the natural features in the landscape distressing. The company was subsequently able to redress this issue and remediate the impact to some extent.

- **Inadequate waste management:** In several areas, waste management was found to be an issue. Especially in areas which had experienced a large influx of migrant mine workers, sanitation problems were observed. In local communities surrounding mine sites and in worker accommodation provided by mining companies, many people did not have access to rubbish disposal systems, leading to ineffective waste management. Some communities reported that they suspected inadequate waste management practices to have contaminated their drinking water, but without testing of water sources they could not be sure whether and to what extent this was true. Some communities turned to bottled water as an alternative to community wells previously used; for less well-off communities this was not an option and people continued to drink water thought to be contaminated. Instances where a build-up of solid wastes led to an obstruction of natural water courses by siltation was observed at many sites. During monsoon season, the narrowing of waterways may increase the risk and severity of flooding.
- **Water stress, particularly pronounced in the dry season, is exacerbated by mining:** Field research indicated that both tin and gold mining companies frequently relied on the same water sources for mineral extraction and processing that communities used for drinking water, sanitation and irrigation. This practice reportedly amplified water-related conflict during the dry season; between companies, communities and subsistence miners. In relation to both gold and tin mining, inadequate water supply was found to be a long-term issue facing communities, sometimes for many years. In one tin mining area, for example, the surrounding communities had previously relied on creek water for irrigation and to rear livestock. However, mining activity in the creek meant that it could no longer be used as a water source and so local farmers instead began to rely on mountain stream water. However, as a larger mining company was also relying on the stream water for its operations, its supply had to be shared and this was one factor contributing to the cumulative impact of water shortages in the dry season. Many companies were found to supply drinking water to communities, which may indicate an awareness of the potential for water scarcity. Where companies supplied drinking water to communities, reports were uniformly that communities still did not have access to enough drinking water and water for sanitation.
- **Non-compliance with regulation to disclose public water use and pay water tax:** Several large-scale operations were found to not disclose their source of water for operations to the local authorities for permissions, presumably to avoid being taxed on their water consumption. This constitutes a breach of the 2015 amended Myanmar Mines Law requirement to inform the relevant public authority of water source and usage, and complicates the ability of government authorities to monitor and govern water usage.

Land degradation

Human Rights Implicated: Right to an adequate standard of living; right to the highest attainable standard of physical and mental health

- **Soil erosion and pollution is widespread causing significant damage to farmland:** At several sites visited there were examples of damage to farmland as a result of mining activities. At one site, a farmer had leased a part of his plantation land to a small informal mining operation and attempted to regrow lemons on the land after the small mine closed. However,

he reported that the soil was left eroded and that he was now unable to make anything grow. Cumulative impacts were also observed with communities reporting an exacerbation of landslide risk due to piles of waste rock and soil, as well as many open-cut or shaft mines being clustered close together in subsistence mining areas. Such factors were reportedly exacerbated by heavy rains during the monsoon season as well as the regular occurrence of earthquakes and tremors.

- **Topsoil management:** Impacts to topsoil may include compaction, loss of soil structure, nutrient degradation and soil salinity, all of which will make the soil less fertile. Removal of topsoil was found at several sites to have created soil, crop and land damage as well as ponds where soil was removed and dumped on top of farmland, making it unfit for crop cultivation in the future. Only one of the large-scale gold mining companies was seen by the field research team to be watering and managing topsoil, but the effectiveness of this initiative was unknown. According to the township-level forestry department in one gold mining area, while mining companies should rehabilitate land and replant trees, most companies did not follow instructions.
- **Short length of mining lease leads to unsustainable exploration practices:** In one region, small-scale gold mining permits were found to be issued for 20 acres of land with a one-year validity. Here, permitted small-scale miners reported that this was a larger area than they could effectively exploit within the time of the permit. The short duration of permits and the relatively large plots granted to small-scale companies has, according to such companies, led to exploration on the entire plot causing damage to the soil covering the entire concession. According to small-scale gold mining companies operating in some regions, a lack of exploration data makes it hard for small companies to extract minerals effectively, leading them to adversely impact on larger areas than if they could obtain prior data on the size, shape and location of deposits.

Noise and vibration

Human Rights Implicated: Right to the highest attainable standard of physical and mental health

- **Noise and vibration as a result of blasting and use of machinery:** At nearly all small-scale mine sites visited, MCRB field researchers either witnessed or suspected use of heavy machinery exceeding the legal specifications. In addition to the noise created by digging, blasting and crushing operations, communities cited noise from increased road traffic and the loading and unloading of vehicles as having adverse impacts. At several sites, community members reported that they were either not notified in advance of surface or underground blasting, or that a schedule for blasting had been published by the company but not adhered to. Villagers also reported concerns that their houses might collapse due to mine site blasting.

Degradation and depletion of forest resources

Human Rights Implicated: Right to an adequate standard of living

- **Forest clearance for mining activities contributes to loss of forest cover:** At several sites visited, deforestation was reportedly caused by forest clearing for mine and processing sites, as well as unsustainable and often illegal logging of wood for project use. One mining company estimated that 70% of the forest cover had been lost in the area in which the company operated. In another area, extensive logging to fuel mineral processing operations and related forest degradation was found to have limited community access to traditional medicinal plants. Logging for mine shaft construction was reported by communities to

contribute to deforestation in heavily mined areas. In addition, the burning of limestone for gold processing or cement production was found to consume huge amounts of forest timber, often felled illegally. Charcoal for energy production was frequently purchased by unlicensed sellers and also by large-scale mines found to be operating in accordance with other regulations. Communities expressed concern with logging for fuel and charcoal and noted that forest was being felled at an increased rate. In many of the communities visited by the MCRB field research teams, forest provided ecosystem services and benefits such as fuel for cooking, hunting grounds, medicinal plants and inputs to products consumed and sold, such as cigars. Community members interviewed noted that several types of ecosystem services, including availability and accessibility of fuel sources and medicinal plants, had either decreased or been depleted.

- **Lime powder production for gold processing contributes to deforestation by requiring large amounts of firewood:** In one area, a business supplying lime used for processing by a large-scale gold mine had operated illegally since 1991. Owned and managed by a former MoM employee, the business had been granted permission for integrated limestone quarrying and firewood logging by the district GAD with the permission of the township Forestry Department. Operating five large kilns, the owner was reported to be extracting 200 tonnes of limestone and felling 500 tonnes of wood per year. The business owner said he paid 'permitting costs' to GAD. MCRB was unable to ascertain specific amounts. The owner was reported to have a close relationship with a senior Mining Department official who occasionally reaches out to the owner to see whether he is still operating his project without standard permits and helps him to ensure that the operations can continue. The business owner said finding enough firewood to fuel ovens was increasingly becoming a challenge and within a couple of years, he expected to be unable to continue his business due to deforestation in area.
- **Recent large-scale industrial miners also have a large footprint in terms of forest clearance:** According to interviewees, impacts on forest used to be less pronounced, despite widespread artisanal extraction, with much larger impacts being caused as a result of larger scale operations. Community and civil society groups reported military-affiliated companies as having a worse environmental impact. According to MCRB interviews, these companies only employ retired military personnel who have very limited knowledge of environmental management, exacerbating the adverse environmental impacts of their operations.
- **Forestry Law violations occur unchecked due to lack of oversight by the Forestry Department:** Mine permits were observed to be granted for forest land on which mining is prohibited. One example was an area of dense or old forest, for which tree cover was deliberately reported inaccurately by the Forestry Department to leave the plot off Forestry Department lists for protection. Elsewhere, large trees in a mine site area were damaged by mining operations but the Forestry Department did not fine the permit-holder, reportedly due to corruption. In another region, villagers reported that they bribed township-level Forestry Department officials to be able to continue illegal mining activities. In a tin mining area, the Forestry Department told the MCRB field research team that they did not have any knowledge about the level of deforestation because the land on which mining occurs is under the jurisdiction of the Mines Departments. The effectiveness of Forestry Department efforts to support companies in rehabilitating land is also uncertain. Several companies reported having received free seeds and plants from the township-level Forestry Department near mines to encourage replanting in cleared areas. Some companies reported that they were authorised to fell the trees planted and use them as a source of wood at their own discretion. In some cases it was indicated that the seeds were provided at no cost to the company as a matter of policy, whereas in others companies reported that they were receiving seeds for free due to having a special relationship with the township-level forestry department.

Site rehabilitation and mine closure

Human Rights Implicated: Right to an adequate standard of living; right to property

- **No site rehabilitation and mine closure plans or practices in place by companies:** None of the mine sites visited had rehabilitation plans in place for mine closure. The field research also did not find any examples of systematic rehabilitation of the land on concessions that was no longer being used for mining activities. This included rehabilitation of areas that had been stripped of topsoil. At one site, extensive land areas had been stripped of topsoil for mining activities. According to the Land Record Department, the area is owned by the company but local people were not aware of this.
- **Unclear plans for reclamation of community land after mining activities:** Field research found no structured planning or practices regarding reclamation of land by communities after mining activities. For example, at one site villagers had been informed by a local politician that if the land that had been granted to the company was not used within the first five years of it being granted then villagers would be entitled to reclaim it. Subsequently, when villagers went onto their old land to cut down some trees they were charged with trespassing.
- **No site rehabilitation in subsistence mining areas:** The absence of site rehabilitation practices in subsistence mining areas presents a particular problem. While post-closure mine site rehabilitation is a legal requirement for companies, in the informal sector there is no such equivalent resulting in loss of soil productivity, biodiversity loss, deforestation, soil erosion, the creation of moonscapes and persistent pollution.

C. International Standards, Guidance & Initiatives

Box 27: International Standards, Guidance & Initiatives on Environment and Ecosystem Services and Mining

International Standards:

- [ICMM Sustainable Development Framework](#)
- IFC Performance Standards and Guidance Notes:
 - [PS 3 – Resource Efficiency and Pollution Prevention](#)
 - [PS 6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources](#)
- [Minamata Convention on Mercury](#)
- [UN Guiding Principles on Business and Human Rights](#)
- [UN International Bill of Human Rights and Core Human Rights Instruments](#)
- World Bank:
 - [General Environmental, Health and Safety Guidelines](#)
 - [Environmental Health and Safety Guidelines for Mining](#)

Guidance:

- BirdLife/FFI/IUCN/WWF, 2014, [Joint Briefing Paper on Extraction and Biodiversity in Limestone Areas](#), Cambridge, UK
- Elaw.org [Mining EIA Review Checklist](#)
- ICMM, [Health and Safety Critical Control Management: Good Practice Guidance](#) and [Critical Control Management Implementation Guide](#)
- ICMM, [Health Impact Assessment: Summary of the Good Practice Guidance](#)
- ICMM, [Metals Environment Risk Assessment Guidance \(MERAG\)](#)

- ICMM, [Mining and Protected Areas Position Statement](#)
- ICMM, [Planning for Integrated Mine Closure: Toolkit](#)
- ICMM, [Statement on Climate Change and Principles for Climate Change Policy Design](#)
- ICMM, [Water Stewardship Framework](#)
- Myanmar Centre for Responsible Business [Briefing Paper on Biodiversity, Business and Human Rights in Myanmar](#), 2018 and separate Mining annex
- Mining Association of Canada, [Tailings Management Assessment Protocol](#)
- UNEP and ICME, [International Cyanide Management Code](#)
- UN Global Compact, [CEO Water Mandate](#)
- UNECE, [Safety Guidelines and Good Practices for Tailings Management Facilities](#)
- UNEP, [A Practical Guide: Reducing Mercury Use in Artisanal and Small-scale Gold Mining](#)
- WRI, [Ecosystem Services Review for Impact Assessment](#)

International Initiatives:

- [Alliance for Responsible Mining Certification Process for ASM Practices](#). This initiative seeks to raise the standards of ASM practices by reducing links to conflict, lowering environmental impact, and improving rates of OSH through certification and technical assistance.
- ICMM, IPIECA and Equator Principles, [Cross-Sector Biodiversity Initiative](#). This initiative is aimed at developing and sharing good practices related to biodiversity and ecosystem services in the extractive industries. The initiative supports the broader goals of innovative and transparent application of the mitigation hierarchy in relation to biodiversity and ecosystem services. The programme of work is divided into two main workstreams: tools and guidance; and knowledge sharing.
- UNEP, [Global Mercury Partnership](#). The overall goal of this Partnership is to protect human health and the global environment from the release of mercury and its compounds. The Partnership works closely with stakeholders to assist in the timely ratification and implementation of the Minamata Convention on Mercury.

Region-Specific Governance and Conflict Analysis

Part 6

Region-Specific Governance and Conflict Analysis

In this section:

- A. Conflicts and State-building
- B. Natural Resources as a Driver of Conflicts
- C. Kachin State
 - Conflict dynamics
 - Armed group involvement in mineral extraction
- D. Wa and Pa-O Self-Administered Areas (Shan State)
 - Conflict dynamics
 - Armed group involvement in mineral extraction in Shan State Self-Administered Areas
- E. South-East Myanmar (Kayah, Kayin, Mon and Tanintharyi)
 - Conflict dynamics
 - Armed group involvement in mineral extraction

A. Conflicts and State-building

Much of Myanmar's mountainous borderlands have never come fully under the authority of the central Government, having been largely autonomous in pre-colonial times, administered separately as semi-self-governing 'frontier areas' during the colonial period, and under the control or influence of non-state armed groups in the decades since independence in 1948.

This means that the challenge of integrating the periphery into the Myanmar State is not primarily a logistical challenge of extending state structures and service-delivery mechanisms into remote, hard-to-reach areas. Rather, it is the much more difficult challenge of confidence-building and peace-building, which is in turn dependent on political negotiations that must build a shared vision of a more inclusive Myanmar State that respects its ethnic diversity and provides for a considerable degree of local autonomy or federalism (see further, Part 4: Sector-level Impacts). In the interim, the NCA – ratified by the legislature – includes 'interim arrangements' that recognise the *de facto* authority of EAOs over their areas, including non-State systems of governance and service-delivery.⁴⁵² The NCA provides that projects in these areas – including commercial ventures such as mining – should be developed and implemented in close consultation with non-State armed groups and local communities.

In minority ethnic areas that have not seen significant recent armed conflict, the issues are more related to State legitimacy and EAO political influence (rather than military control). In many cases, the Union Government has been viewed as having neglected – or privileged – particular communities. It is important for outside actors, including companies, to understand the particular grievances that exist, and take steps to ensure that mining projects and activities do not exacerbate them.

⁴⁵² [2015 Nationwide Ceasefire Agreement](#), Article 25.

B. Natural Resources as a Driver of Conflicts

There is currently a clear geographic divide in the conflict situation in Myanmar, between the south-east States and Regions (southern Shan, Kayah, Kayin, Mon and Tanintharyi) which borders Thailand, and the north-east (northern and eastern Shan and Kachin) which border China. This is also reflected in the peace process, with most of the groups that signed the NCA located in the south-east, whereas groups in the north-east have not signed.⁴⁵³ This division reflects the very different political-economy realities in those two areas – including the different policies and approaches taken by China and Thailand, as well as access to funding by EAOs.

Natural resources play a particularly important role in this, including timber, gold, jade and (to a lesser extent) other minerals. Resource revenues are in general far less lucrative in south-east Myanmar compared to the north-east. In the south-east, many areas have already been logged, and with armed groups 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 are multi-billion-dollar annual exports of jade, mostly off-the-books.⁴⁵⁴

Natural resources are one driver of the conflict for several reasons. Many minority communities feel aggrieved that despite having a rich endowment of natural resources, few of the revenues find their way back to minority communities, where the majority of the population remains in grinding poverty. The personal and institutional fortunes being made by some actors would be threatened by transparency, and therefore potentially by peace. In addition, natural resources are a major source of income for most EAOs, funding their armed struggle.

C. Kachin State

Conflict dynamics

The Kachin Independence Organisation (KIO) was established in February 1961 by a group of young Kachin nationalists who felt that the promises of political autonomy made on the eve of independence had not been honoured. It quickly became one of the largest and best-organised armed opposition groups in the country, controlling large areas of Kachin and northern Shan States. Ceasefire offers were made and discussions took place with the Government in 1960s, 70s and 80s, but none succeeded.⁴⁵⁵

Over the years, like many armed groups, the KIO suffered from fragmentation and splits. These were due to a number of factors, including personal rivalries, ideological differences and intra-ethnic tensions, sometimes with the encouragement or support of the Government. In 1968, a prominent Lashi, Ting Ying, defected from the KIO along with several hundred Lashi and Maru fighters. This group affiliated itself with the insurgent Communist Party of Burma (CPB), as Unit 101. When the CPB began imploding in 1989, Ting Ying's group restyled itself as the New Democratic Army-Kachin (NDA-K) and reached a ceasefire with the Government. It converted into Border Guard Force units in 2009.

The KIO itself continued fighting. Yet, faced with the enormous human costs of the conflict, its leadership had become convinced that a negotiated political solution had to be found. It took the initiative to open contacts with the Government in the early 1990s, aiming to negotiate a

⁴⁵³ International Crisis Group, [Myanmar's Peace Process: Getting to a Political Dialogue](#), 19 October 2016, Section II.

⁴⁵⁴ Global Witness, [Jade: Myanmar's "Big State Secret"](#), October 2015.

⁴⁵⁵ Transnational Institute, [The Kachin Crisis: Peace Must Prevail](#), March 2013; Martin Smith, *Burma: Insurgency and the Politics of Ethnicity* (Zed Books, 1999).

nationwide ceasefire on behalf of all armed opposition groups, to be followed by political dialogue. But unity between the groups soon broke down, and the KIO, unable to convince its other ethnic allies to enter dialogue with the Government, signed its own agreement in 1994.⁴⁵⁶ The ceasefire ended the armed conflict in Kachin areas but did not address the underlying grievances.

The shift from a war footing to a peace economy created challenges. The KIO took formal administrative authority over the territory under its control and functioned in many respects as a local government, with departments of health, education, agriculture, and so on; running civilian hospitals and schools (that taught Kachin language and culture); and initiating infrastructure projects.⁴⁵⁷ It also maintained its armed forces. It funded this mainly through business activities, including in the lucrative areas of jade and gold mining, and logging. But there were increasing complaints from communities over the lack of transparency of these resource revenues and the fact that very few were being used for the welfare of the population. The ceasefire also provided the space for outside business interests to enter Kachin State and become involved in unsustainable resource extraction.

The KIO cooperated with the Government's political process during the ceasefire, including attending the constitution-drafting National Convention, advising the Kachin population to vote 'yes' in the constitutional referendum, and supporting the 2010 elections. Yet, the independent Kachin parties were blocked by the authorities from participating in those elections. The KIO was also placed under military pressure in 2009 when – like other ceasefire groups – it was instructed to transform into border guard forces under partial military control. When the KIO refused, the Government declared the ceasefire void.⁴⁵⁸

Following the elections, the scene was thus set for a resumption of hostilities. The flashpoint came in June 2011, with clashes between government troops and a strategic KIO outpost close to the site of two Chinese-operated hydroelectric dams in Momauk Township. The Myanmar army overran the outpost after several days of fighting, and when it ignored a KIO deadline to withdraw, the KIO placed all its troops on a war footing and destroyed a number of bridges in the area to hamper the resupply of government forces.⁴⁵⁹ Numerous rounds of peace talks failed to achieve a breakthrough, and in late 2012 the conflict escalated once more. A de-escalation agreement was eventually signed in May 2013, which reduced tensions for a while. However, sporadic fighting – some serious and intense – has occurred up to the present, and the prospects for a sustainable end to the conflict appear distant. The KIO did not sign the NCA.

Although a de-escalation agreement was signed between the KIO and the Government in May 2013, and there has been continued contact between the two sides, this has not led to a path towards more sustainable peace. However, the KIO considers it important not to be left behind as the peace process, particularly the political dialogue phase, moves forward. It is possible that given the right assurances, the KIO may be willing to join the process.

Armed group involvement in mineral extraction

Armed groups in Kachin State are involved in the licensing, operating or taxing of mineral and gems extraction (Box 28).

⁴⁵⁶ Ibid.

⁴⁵⁷ Ibid; Tom Kramer, Transnational Institute, [Neither War Nor Peace: The Future of the Ceasefire Agreements in Burma](#), July 2009.

⁴⁵⁸ Transnational Institute, [The Kachin Crisis: Peace Must Prevail](#), March 2013.

⁴⁵⁹ Ibid.

Box 28: Kachin Armed Groups Involved in Mining in Kachin State⁴⁶⁰

- **Kachin Independence Organisation (KIO):** The armed wing of KIO is known as the Kachin Independence Army. It is one of the largest and best-organised armed groups, with several thousand troops, and a significant number of armed village militia members. It operates in Kachin State and ethnic Kachin areas of northern Shan State. The KIO was established in 1961. After many years of sometimes intense fighting, it first signed a ceasefire in 1994. It refused to participate in the border guard force scheme in 2010, increasing tensions with the military Government, who declared the ceasefire void and also blocked Kachin representation in the 2010 elections. Serious fighting re-erupted in mid-2011. After many rounds of discussion, a de-escalation agreement was signed in May 2013. However, sporadic clashes – some intense – have continued and around 100,000 people remain displaced in camps. The KIO has not signed the NCA.
- **New Democratic Army-Kachin (NDA-K, now Border Guard Forces):** A splinter group from the KIO, which formed initially in 1968 when a prominent Lashi leader named Ting Ying defected from the KIO along with several hundred Lashi and Maru fighters. The group affiliated itself with the insurgent Communist Party of Burma (CPB), and when the CPB began imploding in 1989, the group restyled itself as the New Democratic Army-Kachin (NDA-K) and reached a ceasefire agreement with the government. In 2009, it transformed into Border Guard Force units. Both Ting Ying and his son, Ying Sau, were elected in the 2010 elections, and were elected again in 2015, but the father lost his seat in an electoral dispute.

By far the biggest extractive industry in Kachin is jade, with declared imports by China at USD 12 billion in 2014, and estimated by Global Witness at USD 31 billion that same year, when smuggled jade is included.⁴⁶¹ Given that Myanmar only reports about USD 1 billion per year in natural resource revenues, most of this trade is off-the-books. The jade mines themselves are in government-controlled areas around the town of Hpakant, with the KIO in control of significant parts of the surrounding area.

Many different actors, including the Myanmar military and the KIO, reportedly profit from the trade at all stages, from extraction to transport to final export. The United Wa State Party (UWSP) are also heavily involved in jade extraction, with UWSP-linked companies operating several concessions in Hpakant; the Pa-O National Organisation (PNO) is also involved in jade extraction through Ruby Dragon Group, a conglomerate owned by the PNO.⁴⁶² There is also significant armed group involvement in gold extraction, including the KIO and the NDA-K, through companies they control, and taxing of other companies (sometimes couched as ‘profit sharing’). Chinese companies have also bought gold mining concessions from these armed groups in their areas of control.⁴⁶³

⁴⁶⁰ This Box is based on multiple sources, including: Martin Smith, *Burma: Insurgency and the Politics of Ethnicity* (Zed Books, 1999); International Crisis Group, [Myanmar’s Peace Process: Getting to a Political Dialogue](#), 19 October 2016, Section II; Transnational Institute, [The 2015 General Election in Myanmar: What Now for Ethnic Politics?](#), December 2015.

⁴⁶¹ Global Witness, [Jade: Myanmar’s “Big State Secret”](#), October 2015.

⁴⁶² Global Witness, *Ibid.*

⁴⁶³ Images Asia and Pan Kachin Development Society, [At What Price](#), November 2004; Kachin Development Networking Group, [Valley of Darkness: Gold mining and Militarization in Burma’s Hugawng valley](#), 2007; Kachin News Group, [Orchards being converted to Chinese gold mines](#), 23 November 2009.

D. Wa and Pa-O Self-Administered Areas (Shan State)

Conflict dynamics

In the late 1960s, the Chinese Communist Party stepped up support for its Burmese counterpart, the Communist Party of Burma (CPB). Its previous strongholds were in the centre of the country, but with new resources, the CPB launched a successful operation in northern Shan State, where it soon absorbed several border-based ethnic armies, including in Wa and Kokang areas, becoming the strongest anti-government force in the country. Several groups in adjoining areas formed looser strategic alliances with the CPB, while others – including the Pa-O National Organisation and Shan State Army – took a strong stand against the communists on ideological grounds.⁴⁶⁴

In 1989, ethnic minority troops of the CPB mutinied against the largely Burman leadership, leading to its swift collapse. These troops formed several new organisations along ethnic lines, including the UWSP. The Government was quick to seize the opportunity, offering advantageous ceasefire agreements to the new groups, including the UWSP. Non-communist groups generally continued fighting. The peace process that started in 2011 brought new ceasefires in Shan State, and reaffirmations of pre-existing ceasefires such as that with the UWSP. However, the UWSP has been ambivalent about the peace process, which it thinks does not accommodate its demands for an autonomous state, a *de facto* existing reality that the Wa will not give up.⁴⁶⁵

Armed groups involved in mineral extraction in Shan State Self-Administered Areas

Within Shan State are five self-administered areas, defined by the 2008 Constitution (out of a total of six such areas in Myanmar, the other being in Sagaing Region). These are made up of four Self-Administered Zones (for the Ta'ang/Palaung, Danu, Pa-O and Kokang) and a larger Self-Administered Division for the Wa.⁴⁶⁶ The Constitution provides some limited devolution of legislative and executive authority from the Shan State legislature/executive to the 'leading bodies' of these areas. Regulation or revenue generation from natural resources is not included in these devolved powers. Nevertheless, some zones have considerable *de facto* autonomy and therefore authority over activities in these areas – in particular, the Wa (since most of the Division is under the full control of the UWSP and is a *de facto* mini-state), the Pa-O (controlled by the relatively powerful PNO militia) and the Kokang (where the Kokang border guard force has considerable authority).⁴⁶⁷

The UWSP is heavily involved in extraction of jade in Kachin State (as discussed above). It has also recently become a major global player in tin production, with mines in the UWSP-controlled enclave responsible for most of Myanmar's rapid increase in tin production over the last several years. In 2014, Myanmar emerged unexpectedly as the third-largest global tin producer, with a 5-year production increase of 4900% – causing major disruption to global tin markets.⁴⁶⁸ There is no history of tin mining in the Wa area prior to 2010, and little geological data available to inform estimates of future production or remaining reserves. However, recent reporting has suggested that output in Wa may have peaked, with uncertainty over whether remaining, less viable resources will be exploited.⁴⁶⁹ Given that the UWSP-controlled area is run as a *de facto* mini-state, revenues from these resources flow directly to the UWSP.

⁴⁶⁴ Martin Smith, *Burma: Insurgency and the Politics of Ethnicity* (Zed Books, 1999).

⁴⁶⁵ International Crisis Group, [Myanmar's Peace Process: Getting to a Political Dialogue](#), 19 October 2016, Section II.

⁴⁶⁶ [2008 Myanmar Constitution](#), Article 56.

⁴⁶⁷ Kim Jolliffe, Asia Foundation, [Ethnic Armed Conflict and Territorial Administration in Myanmar](#), July 2015.

⁴⁶⁸ Gardiner et al, [Tin mining in Myanmar: Production and Potential](#) (2015) 46:2 *Resources Policy* pp. 219-233.

⁴⁶⁹ Reuters, [Exclusive: Production slowing fast at Myanmar mine that rattled tin market](#), 18 October 2016.

The PNO is also involved in jade mining in Kachin State, as well as in ruby mining in Mogok, Mandalay Region.

Box 29: Armed Groups Involved in Mining in Wa and Pa-O Self-Administered Areas (Shan State)⁴⁷⁰

- **United Wa State Party (UWSP):** The armed wing is known as the United Wa State Army. It is the largest armed group in Myanmar, with estimates of around 20,000 regular troops, and many more that could be called up at short notice. The US has described it as “South-east Asia’s largest narcotics trafficking organization” and formally designated it a “significant foreign narcotics trafficker.”⁴⁷¹ It is based in an enclave on the Chinese border that forms part of the Wa Self-Administered Division. The enclave is highly autonomous, operating on Chinese time, using Chinese currency and Chinese cellular networks. The UWSP also controls significant territory in a non-adjacent area further south, on the Thai border, which it consolidated and expanded in the mid-1990s, after it contributed to the defeat of opium kingpin Khun Sa’s forces in the area, and then forcibly relocated some 100,000 Wa villagers there from its main territory. Although the UWSP has had a ceasefire with the Myanmar authorities since 1989, reaffirmed in September 2011, which has generally held, tensions have occasionally been high, particularly over the group’s control of its southern area, which the Myanmar authorities do not recognise. A key political demand of the UWSP is recognition of Wa areas as a separate ethnic state, rather than included under Shan State, something most Shan leaders do not accept. UWSP has not signed the NCA.
- **Pa-O National Organisation (PNO):** The Pa-O rebelled against the Government in the early 1950s, forming several armed organisations in Shan State, including the (Union) Pa-O National Organisation and Shan State Nationalities Liberation Organisation. The PNO was resurrected in 1976 by a former Buddhist monk, Aung Kham Hti. The group signed a ceasefire with the government in 1991 and became a People’s Militia (Pyithu Sit). While nominally under government authority, it has considerable *de facto* independent authority within the Pa-O Self-Administered Zone. The PNO is now also a political party – in addition to an armed militia – and won all the seats in the Pa-O Self-Administered Zone in both the 2010 and 2015 elections, giving it control of the zone’s Leading Body.

E. South-East Myanmar (Kayah, Kayin, Mon and Tanintharyi)

Conflict dynamics

Kayin State has been mired in conflict since the Karen National Union (KNU) went underground in 1949. The nature of this conflict and its impact on the populations living in the area has changed over time. For much of the post-independence period, it was possible for the KNU to hold and administer large stretches of territory.⁴⁷² The Myanmar army was battling a large array of armed opposition groups across the country who were reasonably well-funded and enjoyed the tacit or overt support of neighbouring countries. The mountainous terrain further hampered the Myanmar army’s operations. This meant that the armed groups were able to conduct conventional positional warfare, with uncontested administrative control of their territory, which was defined by a frontline that was fairly stable over time. The KNU operated as a *de facto* government, with education and

⁴⁷⁰ This Box is based on: Martin Smith, *Burma: Insurgency and the Politics of Ethnicity* (Zed Books, 1999); Kim Jolliffe, The Asia Foundation, [Ethnic Armed Conflict and Territorial Administration in Myanmar](#), July 2015; Tom Kramer, *The United Wa State Party: Narco-Army or Ethnic Nationalist Party?* (East-West Center, 2007).

⁴⁷¹ US Drug Enforcement Agency News Release, [Eight high-ranking leaders of Southeast Asia’s largest narcotics trafficking organization indicted by a federal grand jury in Brooklyn, New York](#), 24 January 2005.

⁴⁷² Martin Smith, *Burma: Insurgency and the Politics of Ethnicity* (Zed Books, 1999); Ashley South, Transnational Institute, [Burma’s Longest War: Anatomy of the Karen Conflict](#), March 2011.

health departments that oversaw a fairly extensive (if rudimentary) network of schools and clinics in the areas under its control.⁴⁷³

This situation began to change significantly after the military coup in 1988, which brought a group of younger military officers to power. They embarked on a rapid enlargement and modernisation of the Myanmar armed forces, and more vigorously pursued the goal of bringing the hinterlands under central control. This was carried out through a combination of more concerted military operations against ethnic areas, together with ceasefire deals with individual armed groups.⁴⁷⁴ The attitude of neighbouring countries also adapted to the new post-Cold War realities, and these countries began to place higher priority on good relations with Yangon, and put increasing pressure on EAOs to reach ceasefire agreements or other accommodations with the military Government.

By the late-1990s, the KNU had lost control of most of its 'liberated zones'. Its decline was exacerbated by the defection in late-1994 of several hundred frontline soldiers, unhappy with the Christian leadership, who established the government-allied Democratic Karen Buddhist Army (DKBA) and shortly afterwards overran the KNU's long-standing headquarters at Manerplaw.⁴⁷⁵ Several other groups also split away to do separate deals with the Government, or in some cases to continue insurgency.

On 28 May 2013, a 'Unity Committee' of five ethnic Kayin armed groups – Karen National Union, Karen National Liberation Army Peace Council, ex-DKBA BGF units, Democratic Kayin Benevolent Army and the ex-Karen Peace Force BGF unit – was formed with the purpose of promoting Karen political unity, avoiding skirmishes between different factions and seeking a peaceful solution in case of conflicts.⁴⁷⁶ This has eased, but not eliminated, tensions and clashes between the groups.

This reduction in tensions between different Karen armed groups, and the signing of the 2012 ceasefire by the KNU, significantly reduced armed clashes in Kayin State, and greatly improved the economic and security situation of many communities. However, serious security problems persist. There are large numbers of internally displaced persons in the hills and 100,000 refugees in Thailand, most of whom have not yet been willing – or are not yet able – to return home.⁴⁷⁷ Insecurity remains a problem in many areas, and various armed groups continue ad-hoc taxation and racketeering.

Armed group involvement in mineral extraction

The Mawchi mines in southern Kayah State are traditionally a major tin production centre in Myanmar. They are currently controlled by the Government through a joint venture between MoM and UMEHL. The Karenni National Solidarity Organisation (KNSO), a people's militia, also conducts mining activities in the area through its Kayah Ngwe Kyae Company, with Government permission.

The KNU – which operates mainly in Kayin State, Tanintharyi Region, and some adjacent areas – is involved in gold mining in several areas, and in limestone extraction. The KNU is involved in the licensing and regulation of mining, mainly of gold, through its mining department. Gold mining operations currently exist mainly in KNU 2, 3 and 5 Brigade areas. The KNU has a set of rules

⁴⁷³ Smith, Ibid.

⁴⁷⁴ Smith, Ibid.

⁴⁷⁵ Smith, Ibid.

⁴⁷⁶ Karen News Group, [Karen armed groups unite, agree KNU takes political lead](#), 5 March 2016.

⁴⁷⁷ Kim Jolliffe, Asia Foundation, [Ethnic Armed Conflict and Territorial Administration in Myanmar](#), July 2015.

and regulations for licence-holders, requiring inter alia that they register with the KNU, pay fees and taxes as required, inform it of any deaths or injuries on the mine site, and adhere to certain safety and environmental protection measures (Box 24). The head of the KNU Mining Department acknowledged in September 2016 that implementation of these regulations was weak, and undertook to improve this.⁴⁷⁸

The KNU has also issued permissions or licences for companies to conduct feasibility studies for limestone quarrying/cement production, including in Mon State.⁴⁷⁹

Box 30: Armed Groups Involved in Mining in South-East Myanmar (Kayah, Kayin, Mon and Tanintharyi)⁴⁸⁰

- **Karen National Union (KNU):** The armed wing of the KNU is known as the Karen National Liberation Army. One of the largest armed groups in Myanmar, with several thousand troops, it is organised into seven brigades. It is also one of the oldest (having been founded in 1947). It signed a ceasefire for the first time in January 2012. Prior to this, for several years clashes had been fairly limited as a result of frontline units from both sides working out de facto arrangements to minimise hostilities. Following the ceasefire, there have been only a small number of minor clashes between the two sides. The KNU was one of eight groups to sign the NCA in October 2015.
- **Karenni National Solidarity Organisation (KNSO):** This is a Sgaw Kayin EAO based in Kayah State. It split from the Karenni National Progressive Party armed group in 2002, and became a People's Militia (Pyithu Sit) based near Hpasawng. It is mostly involved in business activities (car rental and mining in Mawchi). It operates a business office in Loikaw. The group has two types of troops: Pyithu Sit troops and some KNSO troops (with different uniform and badges). The group says that it has a total of about 180 soldiers. They are also known as Kye Phyu / White Star Group.

⁴⁷⁸Burma News International, [Head of KNU Mining Department Urges Close Supervision of Mining](#), 28 September 2016.

⁴⁷⁹Mizzima, [KNU Suspends Min Lwin Mountain Cement Factory Project](#), 2 May 2016.

⁴⁸⁰Martin Smith, *Burma: Insurgency and the Politics of Ethnicity* (Zed Books, 1999); Ashley South, Transnational Institute, [Burma's Longest War: Anatomy of the Karen Conflict](#), March 2011; MCRB field research, 2016.

Recommendations



Part 7.1

Recommendations to the Myanmar Government

Part 7.1 is addressed primarily to the Executive branch of government, and to a variety of government authorities, in particular MONREC (both mining and environmental conservation departments). Some of the recommendations are also relevant to DICA, MOLIP, the Home Ministry, state/regional governments. Some are also relevant to the legislature.

1. Adopt a National Mineral Resources Policy; use it as the basis for new mining legislation, and for ensuring Myanmar's mineral resources benefit local people and do not drive continued conflict

A **National Mineral Resources Policy** could define a vision and strategy for the sector, give greater clarity to potential investors and guide the adoption of new mining legislation, which should NOT take the existing legislation as a starting point. Ideally it should encompass gemstones including jade.

A national policy could be accompanied by **State/Region Mineral Resources Strategies**, where there is significant mining potential (e.g. Sagaing, Mandalay, Shan, Kachin, Kayah, Kayin, Tanintharyi) setting out the State/Region's approach to mining in its development plan, identifying any no go areas, and addressing those areas in which they have delegated powers under the Constitution and identifying any additional restrictions or taxes.

A National Mineral Resources Policy should:

- Draw on **international best practice** and effective mineral resources policies from other countries which have achieved a sustainably managed mining sector, as well as make use of **international expert assistance**.
- Involve **cross-governmental coordination**, particularly between the Mining and Environmental Departments.
- Be developed in an **open and participatory process**, consulting business, communities and EAOs. A Strategic Environmental Assessment (SEA) process as recently conducted for the hydropower sector with IFC support might assist this.
- Differentiate clearly in policy, regulation, and licencing between the phases of the mining cycle, and in particular between **prospecting, exploration** and **mining** activity.
- Support the objectives of Myanmar's **peace process and the ongoing debate on natural resource federalism**. In particular they should be based on principles of:
 - Clearly defining government roles and responsibilities at different levels;
 - Ensuring different levels of government have the capacity and resources to adequately fulfil their responsibilities;
 - Maintaining minimum national social and environmental standards despite subnational jurisdiction;
 - Promoting transparency over decision-making at all levels of government;
 - Creating platforms for discussion and information exchange between levels of government and across jurisdictions;

- Including non-state actors such as local communities in decisions that affect them.
- Guide the **restructuring of the roles and responsibilities of departments and state owned enterprises involved in mining** to establish a clear separation between the geological survey, cadaster/licensing and inspection functions.
- Support the development of a modern and unified **Mineral Rights Cadaster**, based on a unified cadastral database and cadastral maps. The Cadaster, which is required for EITI, should have **exclusive responsibility for licensing**, including the reception and registration of applications, the verification of eligibility, checking the overlapping, evaluating for granting or submission to granting authority and maintenance of the mineral rights (renewal, transfer, extension, expiration, etc.) Specific cadastral procedures for creation of gemstone tracts and reserved zones could be established, preserving the rights of existing titleholders and previous applicants.
- **Define evaluation criteria for decision-making in the award of licences** including 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.
- Address **how to balance positive and negative economic, environmental, social, and human rights impacts** when reviewing licensing applications, and in negotiations and decision-making.
- Build broader local and national understanding, of **options for sharing revenue** between the Union Government and states/regions, as well as maximising **local benefits** from mining. (e.g. jobs, supply chain opportunities, infrastructure)
- Address positive and negative impacts in the **informal sector**, while recognising its importance for livelihoods, and identifying practical ways to formalise it.
- Clarify and further **separate the regulatory and commercial functions of State-Owned Economic Enterprises (SOEs)** and take steps to ensure that these are subject to the same level of environmental and human rights scrutiny as private companies.
- Consider **phasing out of Production Sharing Contracts (PSCs)** and instead using Investment Agreements while working towards greater reliance on a standard permitting regime and generally applicable law.
- Examine the feasibility of a **'model mine agreement'** as a basis for contract negotiations will promote greater transparency and consistency between the terms and conditions for different projects.
- Clarify policy on mineral concessions in, or close, to **Myanmar's Protected Areas**, including the potential for **'no-go' areas** for mining.
- Help Myanmar meet its **international obligations** including environmental agreements.

2. Simplify and align mining, investment, environmental and safety permitting, and the legislation which underpins it

The current licensing process is complex, lengthy and unclear. It does not reflect the differentiated nature of the mining cycle. It involves multiple departments and Ministries and creates uncertainty for all stakeholders. It leads to poor implementation and enforcement, and a lack of transparency which reduces trust and mining's 'social licence'. The above-mentioned National Mineral Resources Policy could be used to identify challenges faced by stakeholders, including those improvements which can be achieved under a new Mining Law. In the meantime, SWIA research has identified a number of permitting processes across Government, including at sub-national level which could be aligned and simplified. These include:

- Rationalising the 100-pages+ of **Mining Rules into several separate Rules, Orders and Guidelines on licencing, safety, artisanal mining, closure etc.** As one set of Rules, they are too long and complex to be understood and easily applied. This would also allow for easier amendment and alignment with other laws and reforms, particularly of those Rules relating to environment and safety which are less dependent on achieving wider minerals policy reform.
- Close collaboration between ECD and Department of Mines/DGSE of MoNREC, to **align permitting processes** under the **Mining Law/Rules, Investment Law/Rules and Environment Impact Assessment (EIA)** to ensure that these are rational, transparent, simple, consistently applied, and designed to address the impacts at different stages of the mining project cycle. This includes:
 - **Making the EIA Procedure the sole determinant of EIA requirements** for different types and sizes of mines and different stages of the mining cycle, to avoid regulatory divergence. The Mining Rules should simply reference the need to abide by the EIA Procedure.
 - **Amending Annex 1 of the EIA Procedure** to distinguish between requirements at Prospecting, Exploration, Feasibility, Operation and Closure. Requirements should be appropriately scaled to the level of impact anticipated at these stages and the sensitivity of the area.
 - **Threshold sizes** for IEE/EIA requirements in Annex 1 of the EIA Procedure should be reviewed and made consistent with those used to define mining permits, as far as possible. The requirements and thresholds should be designed to discourage gaming of the system e.g. subdivision of plots to avoid EIA requirements.
 - Making clear that an **MIC Permit** is required only at the Feasibility stage of the mining cycle, when the scope of planned investment is known.
- Rolling out **standard guidelines for environmental, health and safety practices** tailored to the phases of the mining cycle. This includes simple **rules for Prospecting**, and simple **rules and model Environmental Management Plans and sub-plans for Exploration and for Small Scale Mining**. This will be more efficient and facilitate companies and regulators to draw up, review, implement, and monitor EMPs and issue Environmental Compliance Certificates. They should be developed and agreed through a cross-departmental process and with clear accountability for inspection and monitoring. They should include a list of all relevant laws.
- **Clarify accountability for regulating occupational health and safety on mining and accountability for inspection and enforcement.** At the moment, it is unclear whether OSH is to be addressed through the Mines Rules; inclusion of mining in the forthcoming Occupational Safety and Health (OSH) Law, or EIA/EMP. There should be alignment and consistency, and clarity for mining companies and other stakeholders.
- Requiring a **Stakeholder Engagement and Communication Plan (SECP)** (see below) that should combine the public participation requirements of various permitting processes
- Ensuring that, if the concept of an **'integrated mining permit'** is retained, it makes clear what companies have permission to do, and the requirements for environmental or other additional permitting as the project progresses through the 'stage-gates' in the cycle, including a full EIA at the feasibility stage.
- **Standardising terminology (either EIA, ESIA or ESHIA)** across relevant environmental laws, policies and procedures for environmental **and social** impact assessment and management plans. ESIA or ESHIA is preferable, to emphasise the inclusion of social, health and other human rights impacts.
- Ensuring that companies are not required to obtain **multiple letters of support** from local authorities if these have no added value at that stage of activity, or basis in law.
- Clarifying the requirement for **'prior permission'** (as mentioned in the Environmental Conservation Law, Rules and Procedure) e.g. by ECD in coordination with other authorities, publishing a list of permits issued by other regulatory bodies which could constitute prior

permission, and the types of projects and activities for which an IEE/EIA/EMP will additionally be required.

Additionally the current approach in the Mining Law and proposed Rules to **size and length of mining permits** needs to be changed to align it with **sustainability objectives**. In particular, it encourages amalgamation of multiple small-scale licences. This leads to unclear boundaries and lack of accountability for impacts. It also results in inability to mine deep resources efficiently or safely, due to lack of area for effective mine planning and waste dumps (see Advisory Note for Hpakan/Lonkin by Coffey/Valentis).

- **Licence sizes and lengths should be increased to at least the global average** to encourage more commercially viable and efficient mining, sustainable rates of extraction, and safer practices. This includes extending the size and length of areas for prospecting licenses to incentivise acquisition of geological data, and cover a larger area, including through hi-tech, low impact technology as airborne geophysics or remote sensing. The minimum size of the small scale mining and gemstone licenses should be increased to improve safety and environmental practices.

3. Address gaps and inconsistencies in environmental and social safeguards for mining

The legal framework for environmental and social safeguards in mining involves the Mining Law and Rules, Myanmar Investment Law and Rules, various environmental laws and standards including on EIA as well as other laws in place and under preparation concerning OSH, Labour, Land and the rights of Ethnic Nationalities, inter alia. These contains gaps, overlaps, and some requirements which are inconsistent with good practice. They can be addressed through legislative reform and permitting requirements. Action points include:

Environment

- **Ratification of the Minamata Convention on mercury.** Develop and implement a National Action Plan to reduce, and where feasible eliminate, the use of mercury and mercury compounds in, and the emissions and releases to the environment of mercury from, artisanal and small-scale mining and processing
- **Adopting environmental standards** under Article 7 and 10 of the 2012 Environmental Conservation Law, to guide the establishment of EIA/EMPs. These should be realistic and based on the International Finance Corporation (IFC) Environmental, Health and Safety Guidelines for Mining, and other relevant international standards and frameworks (e.g. World Health Organisation). Where these relate specifically to mining (e.g. cyanide, mine closure) they should be coordinated between the Mining and Environmental Conservation Departments, and may be appropriate for adoption under the Mining Law. They could cover inter alia:
 - water use and quality
 - waste
 - air quality
 - hazardous materials (including cyanide, and mercury)
 - biodiversity
 - payment for access, or damage to ecosystem services
 - noise and vibration
 - energy use
 - visual impacts; and
 - site rehabilitation and mine closure.

Labour and Safety

- Developing mining safety regulation and standards under the Mining Rules, and/or Sectoral Rules under the forthcoming OSH law, which are consistent with the **ILO Safety and Health in Mines Convention 176**, with the aim of ratifying this Convention.
- **Including requirements in permits that licence-holders must meet international standards ('good international practice') for mining-specific processes** such as tailings dams, management of spills, site rehabilitation, closure and post-closure. Ensure that these requirements are monitored, and compliance is incentivised by appropriate financial and criminal penalties.
- **Clarify maximum working hours and minimum rest time** for miners, in particular those working underground or in water.
- **Ratification of the five remaining Fundamental ILO Conventions and develop a comprehensive and overarching labour law framework** in line with international labour standards. Extend protection to all types of workers, including daily workers. Strengthen the protection of workers involved in trade union activities.
- Remove the discriminatory prohibition in the Mines Rules on **women working underground**
- **Define mining as 'hazardous work' for all children** in the list to be adopted to implement ILO Convention 182.

Land

- **Establish a coherent legal framework for land use in line with international standards** (such as the FAO Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security) and the 2016 National Land Use Policy. This may be as part of developing a comprehensive land law, or through the coherent amendment and strengthening of existing laws that are applicable to land use practices of businesses. This should ensure the protection of land use and ownership rights of communities and vulnerable groups, provide clarity around permitted transactions, and reform land-related dispute resolution mechanisms.
- **Clarify and simplify land classification and use procedures** to provide appropriate protection for farmers from unscrupulous land transactions and for food security.
- **Develop a national land register** that documents existing land use and ownership.
- **Reform the 1894 Land Acquisition Act** to align it with IFC [Performance Standard 5](#).
- Ensure independent third-party land valuation practices are applied for land purchase and other compensation regarding land and associated assets (e.g. housing, crops) in transactions for mining projects and activities.

Communities

All permit-holders should be required under the Environmental Compliance Certificate and/or Mining Licence) to:

- **Respect human rights**, including of workers and communities impacted by mining and the specific rights of Indigenous Peoples.
- **Protect tangible and intangible cultural heritage** such as culturally important sites, cultural knowledge and use of medicinal plants.

Additionally companies should be required (in the case of long-life large scale mines) or encouraged to:

- **assess and address potential impacts on ecosystem services** including the use of natural resources by relevant local stakeholders and incorporate avoidance or mitigation measures into Environmental Management Plans (EMPs) to protect those services

- develop a **plan for local employment and local procurement**
- negotiate a **Community Development Agreement (CDA)** with local communities.

Where companies undertake **community investment/development** they should focus on projects which are both community priorities and appropriate for company support. They should avoid religious projects, or ones which could contribute to corruption or conflict. Where possible and appropriate, community investment should align with national or local government development plans and strategies. However government should discourage companies from assuming the government's role as health and education provider.

4. Improve enforcement of laws and permit obligations

While a comprehensive legal framework is important, there needs to be greater awareness of the law by all stakeholders. Even more importantly, regulators need the capacity to implement and enforce the law. SWIA research found that weak enforcement is in part due to a lack of capacity of government departments, partly a result of lack of coordination amongst different departments, partly due to corruption, in particular at the local-level, and also due to specific problems in contested areas. Lack of transparency, including of company obligations, is also a problem. Key points for improvement include:

- **Clarifying responsibilities of different government authorities** with regard to enforcement of environmental, social and human rights standards in the mining sector, particularly OSH and environmental management, as well as land issues.
- **Adequately resourcing and training all those inspecting mines**
- **Improving the capacity of the Environmental Conservation Department (ECD) to assess EIAs** and monitor commitments in EMPs, including at the local-level.
- **Publication by relevant government authorities of company obligations** such as contracts, EIA/EMP, and the Commitments Register of the Environmental Compliance Certificate, to enable stakeholders including communities and the media, as well as regulators to hold companies accountable
- Ensuring that companies abide by all their legal obligations for **disclosure**.

5. Strengthen processes for judicial and non-judicial remedy

Pending the reform of Myanmar's judicial system, and even if and when it happens, there need to be effective alternatives to formal legal proceedings to ensure access to remedy is available to victims of adverse impacts associated with mining activities. It is also important that where rights holders have grievances, they should have the freedom to express them. The rights to freedom of expression, to information, and to freedom of assembly and association are not fully guaranteed in Myanmar. Restrictions on these rights need to be lifted in order to enable communities, workers and civil society to raise concerns about and engage with the mining sector.

Government actions which can support the right to remedy include:

- Making it a permitting requirement for companies to set up appropriate **operational-level grievance mechanisms** throughout the mining cycle, in accordance with the UN Guiding Principles on Business and Human Rights, and to publicly report on its operation through the six-monthly monitoring reports for the EMP
- **Amending the Law Relating to Peaceful Assembly and Peaceful Procession** to eliminate the criminalisation of protests and demonstrations, and ensuring that those who peacefully protest against mining projects are not criminalised or threatened.
- Recognising the **legitimate role of NGOs and CSOs**, whether registered or unregistered, in providing support to affected communities seeking remedy

- Improving opportunities for communities to obtain **redress via the courts**, and as a minimum, not inhibiting this.
- Adopting a modern Freedom of Information Law and amending the Constitution to give a guarantee of public access to information held by the Government.
- Raising awareness with mining companies of the **legal requirement to establish Workplace Coordinating Committees** in companies of more than 30 employees.

6. Enhance public participation and transparency

The SWIA field research highlighted that communities were usually not engaged as part of the permitting process or during operations. When consultations occurred, these were not inclusive, as only village leaders or elders were usually consulted. Key information about the mine, including EIA/EMP was not publicly disclosed. Consequently mines in some cases were in breach of legal requirements around public participation and disclosure and in all cases lacked a solid social licence to operate.

Various opportunities exist for improving **public participation**, some of them already legal requirements which are not being fully implemented. Actions for government include:

- **Raising awareness with companies, local authorities and other stakeholders of, and strictly enforcing, the existing requirements in the EIA Procedure for public consultation and disclosure** to ensure all stakeholders have an opportunity to obtain information about mining projects and give their views. The draft Public Participation Guidelines should be adopted and widely disseminated to provide guidance on how to conduct meaningful engagement of people affected by mining projects, including women and at-risk community members. Government should ensure that ethnic minorities have been fully consulted in EIA processes, including using local languages.
- Recognising the **legitimate role of NGOs and CSOs**, whether registered or unregistered, in public participation, including in the EIA process, and the support they can give rights-holders
- **Rejecting EIAs which fail to demonstrate that meaningful consultation of local stakeholders has been undertaken**, or where the project proponent has failed to disclose the draft IEE/EIA.
- **Requiring companies to have a Stakeholder Engagement and Communication Plans (SECP) which should be demonstrated as part of the various permitting processes.** A single SECP, and its implementation, should combine the needs of various permitting processes, including legal requirements for public consultation and EIA disclosure, negotiation with local communities under the proposed Mining Rules, and the requirements under Article 5 of the 2015 Law on the Protection of the Rights of National Races concerning the **rights of Indigenous Peoples** (*hta-nay tain-yin-tha*) to “receive complete and precise information about extractive industry projects and other business activities in their areas before project implementation so that negotiations between the groups and the Government/companies can take place.”:
 - SECPs should prioritise consultation with regional governments and local communities, including ethnic nationalities and indigenous peoples. In the SECP, a company should provide details about its stakeholder engagement processes, including what information they provide to communities about their project, from the prospecting and exploration stages onwards.
 - SECPs should also provide information on the project’s media/social media strategy
 - The SECP should be prepared and submitted to the Mining Department/ECD at each stage of permitting, and at least annually or with any required workplan.

The Mining Law and proposed Mining Rules do not currently promote **transparency**. Ongoing efforts to implement the 2016 Extractive Industries Transparency Initiative (EITI) Standard are gradually providing a better understanding of the revenue contributions of the sector and permitting. However information about the licensing process, permitted projects, as well as environmental and social impacts and financial management of the mining sector is piecemeal and inconsistent. Further steps are needed to improve transparency including:

- **Implementing the 2016 MEITI standard and fully disclosing taxes and revenues** from mining projects, including disaggregated data on revenues from mining SOEs and transfers between government agencies, and data from the jade and gemstone industry.
- **Simplifying** the currently complex **licence types**
- Publishing **licensing requirements and evaluation criteria** so as to reduce government discretion over decision-making and opportunities for corruption, and improve investor confidence.
- **Establishing standard conditions for licenses** (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.
- Publishing up-to-date information on permit-holders, including **beneficial ownership**.
- **Publish Proposal Summaries for MIC Permit applications**, in line with Myanmar Investment Rule 45
- Enforcing the requirement for mines with an MIC Permit to publish an **annual sustainability report** under Myanmar Investment Rules 196/199. These should include information about the operational grievance mechanism, stakeholder engagement, and community investment.
- Enforcing **EIA disclosure requirements** and establishing an **online register** of projects undertaking EIA/IEE/EMP with links to relevant disclosed documents to enable stakeholders to track progress and commitments and hold companies to account.

7. Take steps towards formalising subsistence mining and reducing harmful practices

Subsistence or artisanal mining is an important source of livelihoods for many poor communities in Myanmar. It also has significant negative impacts on the environment. Workers and community members, including children, engaged in subsistence mining were found to be particularly vulnerable to abuses, ranging from poor labour conditions, exposure to hazardous substances, lack of access to adequate education and health services, illegal taxation and repression by companies and the authorities. Moreover, the informality deprives the government of resources and contributes to corruption, illegal financial flows and criminality. A process towards legalising and formalising artisanal mining is needed to enable better government oversight, taxation and improved health, safety and environmental standards and security among subsistence miners. However it must involve participation of the subsistence miners themselves. The government should therefore learn from experience elsewhere and:

- Remove all references to artisanal and subsistence mining from the 2018 proposed Mining Rules, and put these together a basis for developing a **separate set of Rules** tailored to the specifics of the ASM sector.
- Use the step-by-step process for governments on how to develop, implement and monitor an effective **ASM Management Strategy** contained in the [2017 Guidance for Governments on Managing Artisanal and Small-Scale Mining](#) published by the InterGovernmental Forum on Mining. This could include:
 - **Engaging with subsistence miners and other relevant stakeholders** to develop a common vision/policy/approach to reduce adverse environmental and human rights impacts of subsistence mining and to progressively formalise the sector.

- **Simplifying the permitting process** – including with regard to environmental impact assessment and management - **and taxation scheme for subsistence mining to encourage formalisation** by making the process financially, technically and physically accessible and refrain from imposing further restrictions on subsistence mining without any accompanying measures for miners.
- **Supporting and encouraging the organisation of subsistence miners into cooperatives or associations**, including by facilitating access to credit and markets.
- Partnering with development partners and CSOs to **provide training to subsistence miners, including women, on OSH and environmentally responsible practices**. For example, provide financial and technical support, as well as training targeting women in particular, to promote mercury free processing alternatives.
- **Facilitating a dialogue between small-scale and large-scale permit-holders** on collaborative formalisation programmes. Develop guidance on model contracts between subsistence miners and concession-holders.
- **Implementing a programme of action towards eliminating child labour in subsistence mining, including awareness-raising and development of education**, in accordance with ILO Convention No. 182 on the Worst Forms of Child Labour, and in collaboration with relevant national and international actors.
- **Developing access to essential services, including healthcare facilities and schools**, in subsistence mining areas.
- establishing **programmes supporting alternative livelihood activities for subsistence miners** in coordination with development partners and CSOs,

Part 7.2

Recommendations to Companies in the Mining Sector

Part 7.2 is addressed to all Myanmar and foreign companies operating in the mining sector, including both small-scale and large-scale operations.

1. Commit to applying international standards of responsible business conduct

Due to the pace of change, lack of capacity and experience among legislators and government ministries, there is no guarantee that once adopted, national laws will fully reflect the standards of responsible business conduct (RBC) expected of companies operating in Myanmar. In addition to providing companies with certainty at a time when the national legal landscape is in flux, using international standards also provides confidence to local and international stakeholders.

- **Establish a human rights policy commitment** (standalone or integrated into a wider code of conduct) which, in line with the UN Guiding Principles on Business and Human Rights, should include reference to, at minimum, the rights outlined in the International Bill of Human Rights and the Core Labour Conventions of the International Labour Organisation.
- Make clear the expectation that **the business, its staff and business partners** will respect human rights.
- **Incorporate the UNGPs and other relevant standards in the company's environmental and social management systems (ESMS), including for EIA.** Relevant additional standards are listed with hyperlinks at the end of each section in Part 5, together with other relevant initiatives, and include the:
 - IFC Performance Standards and World Bank Group Environmental, Health and Safety Guidelines on Mining;
 - International Council on Mining and Metals Sustainability Framework;
 - Voluntary Principles on Security and Human Rights;
 - OECD Guidelines for Multinational Enterprises; and
 - OECD Guidelines on Minerals from Conflict-Affected and High-Risk Areas.

2. Implement human rights due diligence

Under the [UN Guiding Principles on Business and Human Rights](#), companies are expected to carry out **human rights due diligence**. This means:

- **Identifying and assessing** actual and potential human rights impacts
- **Acting on** and integrating the assessment findings into a management plan for operations
- **Tracking and monitoring** performance in managing impacts
- **Communicating** that performance to relevant stakeholders

It can be integrated into other types of due diligence procedures that assess and manage the company's impacts on society and the environment, such as EIA, since social and environmental impacts are often impacts on human rights, viewed from the perspective of the 'rights-holder'.

To manage human rights impacts effectively, companies need to allocate sufficient human, financial and other resources in a manner that is appropriately scaled to their particular operations. Human rights should be managed holistically as part of core business operations, throughout the project lifecycle, and in business relationships (e.g. supply chains and joint venture partnerships).

- **Assign responsibility for human rights due diligence** to senior management.
- **Build internal capacity, but draw on external human rights expertise as necessary**, for examples to address specialist issues such as resettlement or Indigenous Peoples' rights. External human rights experts or organisations could also be engaged to play a neutral third-party facilitating role in community-company dialogue.
- **Arrange for the periodic assessment and monitoring of human rights impacts**
 - Undertake EIAs in line with the legal requirements of the EIA Procedure and ensure they address human rights impacts, and are fully disclosed
 - Make information available to rights-holders in formats and fora that are accessible to them (e.g. publishing non-technical summaries, holding community meetings in local language).
 - Obtain feedback from workers, communities and other relevant stakeholders, and where appropriate, consider joint monitoring of operational impacts with local communities.
- **Publicly communicate the results of due diligence**
 - Incorporate human rights issues into the 6-monthly monitoring reports required for the Environmental Management Plan.
 - Include results of human rights due diligence in sustainability reporting including the annual Rule 196 report to the Myanmar Investment Commission for companies with an MIC Permit.

3. Identify and mitigate adverse impacts

This section identifies typical adverse impacts observed in the Myanmar mining sector including in SWIA research (See Part 4 and 5), and makes recommendations on how to manage those identified in human rights due diligence.

Land and cultural heritage

- **Respect communities' land rights by:**
 - investigating existing land claims prior to investment;
 - recognising peoples' claims to land even where they might not hold formal land title certificates or other proof of such land claims;
 - recognising and respecting communally used land; and
 - pausing investment decision-making until land claims are effectively resolved;
 - not interfering with judicial and non-judicial processes that community members may be accessing to raise claims against company use of land.
- **Apply international good practice standards in resettlement planning and implementation** such as IFC [Performance Standard 5](#) (Involuntary Resettlement); the UN General Comment on the Right to Housing and Forced Evictions (and the accompanying OHCHR Factsheet) and the FAO Voluntary Guidelines on Responsible Land Tenure.
- **Determine and allocate compensation for damage to land and crops through independent third-party valuation** that reflects market rates and actual costs, and is determined in consultation with the applicable community members. Determinations of who is to be compensated and compensation amounts should reflect both physical and economic displacement and consider good practice standards, such as IFC [Performance Standard 5](#).
- **Survey cultural heritage as part of the EIA** in collaboration with communities and cultural heritage experts prior to beginning operations. Put in place measures to **respect intangible and tangible cultural heritage**. EMPs should contain a cultural heritage management subplan where relevant.

Water and environment

- **Put in place environmental management and monitoring strategies and systems.** These should include: incident reporting systems; proper equipment for measuring emission levels and testing of soil, air and water; independent verification of environmental monitoring data as appropriate; guidelines on hazardous substances used in processing (e.g. mercury, cyanide); tailings management; and water use.
- **Pay special attention to water consumption and impacts on water.** Evaluate proposed and/or actual water consumption, including with reference to community access to, and use of, local water sources, as well as potential cumulative impacts on water if other mining or industrial operations are active in the area and develop appropriate mitigation measures.
- **Adopt and implement the International Cyanide Management Code,** a code that deals specifically with the use of cyanide in the mining industry.
- **Allocate adequate budget and planning for site rehabilitation and mine-closure** from the start of operations, in line with new Myanmar legal requirements.

Safety and labour rights

- **Have in place a functioning OSH management system** which at least meets the minimum Myanmar legal requirements (see Box 19 for guidance on OSH in Mining). It should include:
 - health and safety training;
 - free provision of PPE;
 - incident reporting and investigation system;
 - tracking of HSE incidents;
 - escalation of serious HSE to senior management;
 - implementation of HSE risk assessments and
 - mitigation measures
- **Provide employment contracts to workers,** clearly stipulating terms and conditions, in accordance with Myanmar labour law.
- **Respect the labour rights of casual workers,** for example, that they are appropriately remunerated, do not work excessive hours and receive training on health and safety and are provided appropriate Personal Protective Equipment (PPE) free of charge.
- **Ensure company housing provided to workers is adequate** in terms of water provision and access to food, sanitation, light, air etc., and does not unduly restrict freedom of movement.
- **Do not retain workers' identity documents or salaries,** including in the form of compulsory savings schemes which are not accessible to them.
- **Proactively ensure that union membership and collective representation are allowed and facilitated.** Companies should ensure that these are explicitly allowed in company policies and that workers are not in any way restricted from joining trade unions or suffer reprisal as a result of belonging to a union or engaging in collective bargaining processes.
- **Have a worker grievance mechanism in place** where workers can raise instances on a confidential basis. **Workplace Coordinating Committees** are a legal requirement for all companies with more than 30 workers, and can play a role in addressing systemic grievances.

Women and children

Women and children frequently bear a disproportionate burden of adverse impacts caused by mining, including in Myanmar. SWIA research found child labour; adverse impacts on children's access to school as a result of mining activities; lower pay for women workers than their male counterparts; and almost no community engagement opportunities for women.

- **Companies should combat child labour by:**
 - putting in place a **policy commitment** against child labour;
 - taking steps to **avoid employing** anyone who is under 18 years of age
 - taking steps, in situations where child workers are employed or tolerated, to **develop a strategy for transition** of these workers out of work and into education or less hazardous activities;
 - taking care **not to abruptly dismiss children** from employment thereby likely causing unintended consequences, such as children entering equally hazardous work as an alternative livelihood;
 - where companies subcontract to mine owners or have arrangements for subsistence miners to mine on their concession, they should **engage subcontractors and subsistence miners in a dialogue about avoiding child labour**, as well as how to reduce the presence of small children at mining activities occurring on the concession. However companies should aim to avoid unintended negative consequences e.g. preventing women miners from earning a livelihood as they cannot leave their children elsewhere.
- **Companies should combat discrimination against women by**
 - **Practicing equal pay for work of equal value.** Women workers should never be paid less than their male counterparts for performing the same work.
 - **Practicing non-discriminatory hiring.** Avoid discrimination against women in hiring, including by ensuring that job descriptions and hiring processes do not specify that certain positions are open only to men.
 - **Encouraging the engagement and promotion of women** workers through skills development and gender targets in hiring, as appropriate.
 - **Actively engaging women community members** in community consultations which were usually found to be male-dominated.

4. Implement heightened due diligence in conflict-affected areas

The potential for human rights abuses is particularly high in conflict-affected areas, including those controlled by ethnic armed organisations (EAOs). Companies operating in these areas need to take additional care for example by:

- **Consulting widely with ethnic armed organisations (EAOs) at both local and headquarters level, as well as local and international NGOs** which have operations in these areas or expertise on them, in order to understand the current political economy and conflict context and significant human rights issues.
- **Reconsidering whether to operate in these areas at all**, given that it will be extremely difficult, if not impossible, to do so in a conflict-sensitive way and one which respects business integrity. This is particularly the case where the EAO is not a party to the National Ceasefire Agreement (NCA). Contacts may be illegal under Myanmar law, and put company personnel at risk.
- **Applying international standards of responsible business conduct (RBC)**, including on anti-bribery and corruption.
- **Being very transparent**, including on about payments to non-state authorities/EAOs.
- **Not adopting business practices which create conflict**, such as use of 'CSR' budgets to make payments (bribes) to elites and community leaders in return for their support or signatures, or promises of other benefits
- **Ensuring that all operations and activities meet or exceed the relevant provisions of Myanmar law and regulation**, including as regards environmental, social, labour and human rights protection.
- **Applying the Voluntary Principles on Security and Human Rights (VPSHR)**
- **Adopting IFC Performance Standards**, including PS7 on Indigenous Peoples.

5. Establish an operational-level grievance mechanism for each mine

Companies have a duty under the 3rd pillar on the UN Guiding Principles to provide a **remedy** or co-operate in remedying actual impacts caused or contributed to. This may be done either through the company's own grievance mechanism, or other grievance mechanisms (including judicial and non-judicial mechanisms, whether state-based or non-state based). Having an effective company operational-level grievance mechanism which is accessible directly to individuals and communities can help companies to address adverse impacts early and effectively, before they escalate into major issues. Companies holding small, medium or large-scale licences should:

- **Establish an operational-level grievance mechanism** that meets the eight effectiveness criteria outlined in UN Guiding Principle 31 (legitimate, accessible, predictable, equitable, transparent, rights-compatible, a source of continuous learning, and based on dialogue and engagement).
- **Develop the grievance mechanism in close collaboration with local communities** to ensure that it is appropriate for the local context
- **Ensure that complainants are free to choose whether to use the company's mechanism or remediation processes by State or third-party institutions.** Companies should be careful not to undermine the role of judicial remedy mechanisms or nascent Myanmar trade unions. Relevant State-based mechanisms for remedy may also evolve in coming years, such as Myanmar's National Human Rights Commission or more effective local courts, and therefore the operational-level grievance mechanism should in no way restrict or limit access of complainants to such mechanisms.
- **Prevent retaliation against complainants inside and outside the company.** This includes refraining from intimidation or threats against individuals or groups that have raised concerns or grievances related to company operations and activities, as well as raising cases with the authorities where individuals peacefully protesting against mining operations are suppressed or mistreated by the police, private or public security forces, ethnic armed organisations (EAOs) or others.

6. Engage with stakeholders, particularly workers and communities

The SWIA research identified that historically, with a few exceptions, there was little interaction with communities around mining operations, either by the Government or companies. This is now slowly changing, including through the introduction of EIAs, and MEITI. Communities told MCRB they would like more direct contact with companies. Companies should:

- **Identify and map relevant stakeholders** and develop a regularly updated **Stakeholder Engagement and Communication Plan** that outlines the processes for stakeholder engagement, purpose, response and persons responsible.
- **Ensure engagement is more than only formal and legally required consultation meetings** e.g. those in the EIA process. There should be a broader strategy to engage workers, the local community, local government and civil society in on-going discussions about the changing face of operations and their impacts.
- **Communicate in a form and frequency that is accessible to local workers and communities, and does not put them at risk.** This will require an understanding of local ethnic dynamics, languages and appropriate communication channels, as well as identifying any literacy, cultural and physical barriers.
- **Engage with local civil society organisations (CSOs)** to understand local communities and their preferences, as well as important issues, and legacies problems.

- **Prioritise rights-holders in stakeholder engagement i.e. those directly affected by the mine.** Make special provisions to engage rights-holders whose voices may be **marginalised**, so that they can meaningfully participate. This may include women, children, people with disabilities and the elderly, minorities and the landless and illiterate.
- **Establish effective ways to share information and promote community-company dialogue.** This may include the company having dedicated community-relations staff, ideally employed from, and well-known in, the local community. A company may also consider setting up a local community or 'shop-front' office where communities can come for information, apply for jobs and make complaints.
- **Build positive relations with local communities,** and obtain broad-based community support for activities throughout the life of the project, including through **employment and training of local workers,** and **good consultation and grievance management.**

7. Develop local content, supply chains and community capacity

It is well recognised that in addition to longer-term contributions to national revenue, the mining sector can create positive impacts in the shorter term, in the local area of operations if planned carefully and with sufficient company support. There are a range of opportunities for companies operating in the mining sector to contribute to more immediate positive impacts in Myanmar beyond the longer-term payment of revenue that will take years to materialise, including:

- **Developing short-, medium- and long-term strategies for addressing communities' desire and need for jobs.** These may include supporting basic education and vocational training programmes for skills needed in the sector, including supporting women or other groups facing discrimination
- **Developing social investment programmes with, for and by communities** which maintain a strategic link with the mining operations and 'create shared value'. Programmes should support communities in developing their capacity to undertake needs assessments, and choose and manage small-scale development projects. Companies without qualified staff may wish to outsource this to a third-party provider
- Designing programmes to be **gender sensitive** and **inclusive.**
- **Avoiding 'donations'** which resemble payments to secure support of local elites and opinion-formers, including donations to religious leaders
- For larger projects, considering negotiating with the local communities some form of **Community Development Agreement (CDA)** that covers the medium and long term relationship between the communities and the company.
- **Promoting small business and entrepreneurship programmes** to build subcontractor capacity and local supply chains for the mine.
- **Understanding local development priorities and activities** both by Union and local government, but also international development partners and EAOs. Information is available on www.themimu.info
- **Developing more systematic planning of quality project infrastructure together with the authorities.** Companies need to minimise adverse impacts on infrastructure (e.g. roads, schools, health facilities, waste) used by communities, and together with local authorities and in consultation with communities, work towards planning of quality infrastructure that can improve community livelihoods while also serving the project.

8. Support the formalisation of informal and subsistence mining

Part 7.1 (Recommendations to Government), and in particular Recommendation 7 outlined the case for formalising subsistence mining. Companies can contribute to this by improving the interaction between the informal and formal parts of the sector and:

- **Proactively engage subsistence miners to understand and address their issues.** For example, companies should include subsistence miners and mining activities in feasibility studies, EIAs and EMPs, in particular where subsistence miners are operating on the mining concession. For more ideas, see [Mining Together](#) toolkit of the World Bank, ICMC and CASM and other guidance on ASM in Box 25
- Partner with development actors and CSOs to **support subsistence miners on OSH and environmentally responsible practices**, such as mercury free processing alternatives.

9. Take collective action to improve responsible mining practices

Collective action by companies, or in some cases in multistakeholder form, allows sensitive topics such as corruption to be broached but reduces exposure for individual companies. It promotes a level playing field, and allows for sharing lessons learned on applying international standards in other comparable countries. It also is more effective and less labour intensive for Government to deal with a group rather than individual approaches.

Opportunities for **collective action by companies in the mining sector** include:

- **Myanmar Extractives Industries Transparency Initiative (MEITI):** In addition to participating actively on disclosure of data in line with MEITI requirements, companies – for whom transparency generally means an improved investment climate - should press for adoption of ‘encouraged’ and ‘recommended’ requirements under the MEITI Standard. This includes disclosure of contracts and beneficial ownership. In addition, international companies with EITI experience from elsewhere can share this.
- **Voluntary Principles on Security and Human Rights:** depending on whether Myanmar develops an active pilot group, mining companies should participate and share experience of applying international human rights and humanitarian standards regarding security, including where this is relevant to the activities of Myanmar’s security authorities, and EAOs.
- **Promote learning between Myanmar and foreign companies.** While the members of the International Investors for Mineral Development Association (IIMDA) may have more experience of, and company commitment to applying international standards, they should actively engage with the Myanmar Federation of Mining Associations, to improve the sector as a whole. **Safety** should be the priority for engagement. International experts such as **EIA consultants** and mining engineers should also commit to supporting professional development of Myanmar consultants
- Work with the **Mining, ECD, and Forestry Departments of MoNREC to improve the EIA process** including through providing business input into any future amendments or new legislation or Mining EIA Guidelines. Again, mining companies that have experience of international good practice EIA should deploy this in discussion, including with development partners.
- Participation whether through Chambers of Commerce or sectoral associations, in **cross-sectoral private sector dialogues** with government e.g. on draft legislation on issues such as **labour law reform, taxation, safety, and corruption.**
- **Sharing baseline environment data, particularly around biodiversity and water**, working with academia and international and local environmental NGOs
- Work with government, academia, EAOs and development partners to adapt **education and vocational training programmes to build skills for the mining sector** to address skills shortages over the medium term, through education, technical education and certification programmes
- Collaboration on **programmes to support SMEs and supply chain development**, particularly with development partners
- Collective action to support for **formalisation of the subsistence mining sector.**

Part 7.3

Recommendations to Ethnic Armed Organisations

Part 7.3 is directed at individual EAOs, both those which have signed, and those which have not signed the Nationwide Ceasefire Agreement (NCA). Their relevance to EAOs will vary depending on the local context, the institutional strength of the EAO, and the interest the EAO they have in seeing responsible mining in their area. SWIA field research in conflict-affected areas found significant human rights abuses and an unclear regulatory environment. The variety of authorities present focus more on rent-seeking rather than regulation of mining impacts.

EAOs with an interest in regulating mining, who are in a position to contribute to the debate, whether through formal peace and dialogue arrangements, or through public and media advocacy, could be more effective if they draw on international standards and experience. These are highlighted in Part 5 of the SWIA at the end of each section. In addition, EAOs need a good understanding of the evolution of the national regulatory framework and its impacts (Parts 3 & 4).

There is a significant reform agenda for mining underway at Union level. This includes the possible establishment of a National Mineral Resources Policy (separate or including a Gemstones Policy), leading, ideally, to a further revision to mining legislation, as well as implementation of the decentralising 2015 changes. This, and the ongoing debate on **natural resource federalism** is very relevant to both the development of responsible mining practices in ethnic areas, and the outcome of the peace process. EAOs are encouraged to develop specific positions and proposals on the roles and responsibilities of administrations and regulators at different levels; how to maintain at least minimum national social and environmental standards; and issues such as transparency, and local community consent, including protecting the rights of Indigenous Peoples and ethnic minorities.

1. Develop EAO approaches to mining policy and permitting that align with the national framework, but enhance local participation

- **Study the evolving Union-level legal framework for mining** outlined in this SWIA, including the 2015 Amended Mining Law, proposed 2018 Rules, 2016 Myanmar Investment Law/2017 Rules and the Environmental Conservation Law and EIA process, as well as the amendments to the Schedules of the Constitution in Law 45/2015 which further decentralised mining permitting and revenue raising.
- Engage on the byelaws for the **2015 Protection of the Rights of National Races Law** relating the requirement in **Article 5** that Indigenous Peoples (hta-nay tain-yin-tha) “*should receive complete and precise information about extractive industry projects and other business activities in their areas before project implementation so that negotiations between the groups and the Government/companies can take place.*”
- Identify the opportunities in the national framework for **EAOs and other local stakeholders to influence investment decisions and regulation of mining**, and how these can be used to make real the ‘**interim arrangements**’ in Para 25 of the NCA.
- Develop through a transparent and consultative process, an **EAO Vision/Strategy for Mineral Resources** in ceasefire areas which takes competing demands such as protecting

ecosystems services into account, as well as safety, transparency requirements, and requirements for local revenue/benefit sharing and closure/rehabilitation. Such an EAO Strategy could be used to input into the drawing up of a **National Mineral Resources Policy**, and could be a part of the relevant **State/Region mineral resources strategy**.

- Where relevant consider strategies for mining specific commodities (e.g. **limestone** in Kayin/Mon/Shan; **tin** in Wa)
- Develop a position on the establishment of a nationwide unified **mineral rights cadaster** which addresses EAO interests, to contribute to the work taking place on this under MEITI.

2. Improve governance of, and standards at, EAO-permitted mining operations

At those sites visited where EAOs had influence, and in some cases were formally permitting and taxing mining activity, there were extensive environmental and human rights impacts particularly from artisanal mining. While one EAO (the KNU – see Box 24) has mining regulations, SWIA field research did not find this for other EAOs.

- Given the limited capacity of EAO administrations to regulate the environmental, social and human rights impacts of mining activities in conflict-affected areas, **consider a pause on issuing any further permissions to mine** or renewals of existing permits (some NLD Chief Ministers introduced a similar pause in 2016).
- If new permits are issued or renewed, ensure that they contain **environmental, health and safety (EHS) standards** and that companies have clear guidance. The IFC's EHS Guidelines (both General, and [Mining](#)-specific) are a useful reference point for EAOs (see also Part 5).
- **Enforce standards through on-site inspections, suspension of operations, fines and cancellation of licences where companies do not remedy failings.** This will require allocation of human capacity and financial resources to develop these regulatory functions.
- Support moves towards **formalisation of subsistence mining** in a manner which reflects its specific nature (see guidance material in Box 25)
- Take steps towards the reduction and elimination of **mercury** use in artisanal and small-scale gold mining (see guidance material in Box 27)
- **Ensure clear institutional separation between EAO/local governance structures and ethnic/local companies** to avoid conflicts of interest, as well as companies operating with an armed presence.
- **Adjust taxation approaches** to ensure that EAO revenue is tied more closely to production and company profits.
- Introduce **transparency over mining permits and income received** to shadow MEITI This includes:
 - Ensuring greater oversight of local tax and fee collection.
 - Publishing up-to-date information on permits issued.
 - Disclosing all payments and EAO income related to these permits and projects.
 - Ensuring companies receiving permits from EAOs are registered with DICA.

3. Protect the rights of communities affected by mining

Some EAOs have advocated effectively for communities where companies are having negative impacts. In some cases EAO-permitted companies have caused the problem. The relevant recommendations in Part 7.1 and 7.2 concerning **consultation, grievance mechanisms, and building positive relationships with communities**, including through **employment and training of local workers** are all relevant. In view of the armed nature of the administration it will be important to ensure that **EAO security forces operate in accordance with the VPSHR**, by including these standards in training of forces as well as any contractual arrangements made.

Part 7.4

Recommendations to Civil Society

1. Support local communities impacted by mining so that negative impacts are prevented or mitigated, and they obtain remedy

Many environmental and human rights impacts have been highlighted in Part 5 of the SWIA. Communities need the support of CSOs to assert their rights. CSOs need support from development partners to conduct effective advocacy, and an enabling environment in which to operate. Recommendations to Government in Part 7.1 highlight the important role that CSOs play in support to affected communities through advocacy and capacity-building, both in the EIA process and subsequent monitoring. CSOs could do this through:

- **Advocating for adoption by MoNREC of Public Participation Guidelines** that ensure that consultation processes are meaningful in terms of information provided, languages used, notice given and timelines, and full **implementation and enforcement by ECD of the legal requirements on public participation and disclosure** in the EIA Procedure.
- **Using the EIA process to drive more responsible mining.** To date, mining EIAs and EMPs have been developed without adequate consultation or input from affected communities, or disclosure in line with legal requirements. There is a risk that this will continue. CSOs need to develop the expertise to review EIAs and EMPs and submit comments on their own account, as well as helping communities to do so.
- **Participating in consultations**, and advocate for them to be inclusive of women and other excluded groups.
- **Building CSO and community capacity** to participate in **consultation** and ensure their rights are protected in consultation processes such as **EIAs**
- Undertaking **awareness raising and training for communities** on practices with major human rights impacts such as **artisanal mining, mine safety** and **child labour**, independently or in partnership with companies, government or development partners.
- **Submitting comments on disclosed EIAs and EMPs**, and helping communities to do so
- **Advocating for rejection of draft EIAs** which do not meet the required standards for public participation and disclosure.
- Providing **feedback to ECD on companies and EIA consultants** who behave unprofessionally or in a manner which creates conflict, or who fail to meet EMP/ECC commitments

Civil society organisations can also provide support to communities in monitoring impacts and obtaining remedies, including by:

- Undertaking **community assessments** which ideally should feed into formal environmental and social management systems **and impact monitoring**
- **Assisting workers and community members** to input into design and implementation of mine-level **operation grievance mechanisms**.
- **Undertaking advocacy with companies** based on implementation of their legal commitments in their EMP/ECC
- Supporting the establishment of **unions for mine workers**.

2. Advocate for relevant legal and policy reforms

The mining sector and related laws are undergoing significant reform which would benefit from civil society input. The aim should be build a legal and policy framework that leads to the reduction of negative environmental and human rights impacts.

The programme to enable Myanmar to meet the 2016 MEITI Standard provides a framework for some, but not all of these reforms. It includes a number of ‘encouraged’ or recommended ‘options’ such as disclosure of contracts and disclosure of beneficial ownership which would be beneficial for Myanmar. Other issues need to be addressed through cross-cutting laws on safety, EIA, labour, investment permitting etc. CSOs could:

- **Undertake coordinated advocacy on relevant legal and policy reforms** with government, the legislature and companies, at Union and State/Region level. The Recommendations to Government outlined in Part 7.1 offer a reform agenda identified by MCRB, but there may be other issue or priorities for CSOs.
- **Conduct independent assessments** on the actual environmental and human rights impacts of mining activities to serve as an **evidence base** for advocacy
- Use **international standards** in advocacy, such as those list in Part 5
- Use toolkits have been provided in Part 5 for use in advocacy and capacity building efforts.

3. Participate in multi-stakeholder initiatives and make use of the data and dialogue opportunities they offer

The main multistakeholder initiative of relevance is the **Myanmar Extractives Industries Transparency Initiative (MEITI)** in which civil society groups, supported by Myanmar Alliance for Transparency and Accountability (MATA), plays a full role. One role of civil society is to make full use of the data disclosed including with media, communities and parliamentarians to raise awareness of the sector and underpin reform.

Another potential multistakeholder initiative on the extractives industry, including mining that may be implemented more fully in Myanmar through a local pilot group is the **Voluntary Principles on Security and Human Rights**.

If the government proceeds with developing a **National Mineral Resources Policy**, it will be important that this is done through a transparent and participative multistakeholder process, similar to that being attempted for the Gemstones policy, and that CSOs play a full role, reflecting the experiences of communities and other non-governmental stakeholders. The same is true for any reforms to formalise the **subsistence mining sector**.

Part 7.5

Recommendations to Other Governments

Part 7.5 is directed at other governments active in Myanmar, as development partners, and as home governments for foreign companies investing in the mining sector.

1. Provide technical assistance to strengthen environmental and social safeguards in mining to government, and to CSOs

Development partners are essential providers of expert technical and financial assistance, which is needed for transition towards a more sustainable mining sector, particularly for EIA. However this needs to be coordinated, including between ECD and the Department of Mining, and based on qualified expertise.

- **Provide technical assistance to MoNREC to strengthen and implement the framework for EIAs.** This should include ongoing mentoring of MoNREC, technical assistance to develop EIA guidelines for the mining sector and capacity building for ECD to assess EIAs and monitor EMPs at the local level. Development partners should also support capacity-building of local EIA providers.
- **Provide technical assistance to the Government for the development of a Natural Resources Policy.**
- Support the Government to **strengthen its inspection capacity for labour and environmental protection including at the state/region-level.**
- Support programmes to **develop civil society capacity** to engage effectively with the mining sector, including implementation of EIAs (see Part 7.4)
- **Encourage the government to include references to international standards** (for example IFC Performance Standards and World Bank EHS Guidelines) in EIA Terms of Reference and permits provided to investors in the sector.
- **Encourage enhanced transparency in the mining sector** through continued technical and financial assistance to the **MEITI**.
- Support the government in the **reform of land laws.**
- Support the **development of education and vocational training programmes to build skills** for the mining sector, and programmes to support SMEs to be able to provide goods and services to mining operations.

2. Provide technical assistance to formalise subsistence mining

Specific support is needed for the subsistence artisanal sector which has been neglected.

- Work with the Government, subsistence miners and other stakeholders to **start a process towards formalising the subsistence mining sector** which addresses human rights impacts and draws on international experience
- **Support training programmes for subsistence miners**, including women, on OSH and environmentally responsible practices.
- Support the establishment of programmes for subsistence miners, including women, aiming at **the reduction and elimination of mercury use** in artisanal and small-scale gold mining.
- **Support the implementation of a programme of action towards eliminating child labour in subsistence mining**, including awareness-raising and development of education.

- **Support better access to essential services, including healthcare facilities and schools,** in subsistence mining areas and establish **programmes supporting alternative livelihood activities for subsistence miners.**

3. Support EAOs to address impacts of unsustainable mining in conflict-affected areas

- **Build capacity of EAO governance bodies to regulate mining, and enforce standards.** Chapter 6 (Article 25) of the NCA recognises signatory EAOs' role in managing natural resources in areas under their authority. The NCA also authorises international development partners to support EAOs in such roles, in cooperation with the Government. The creation of protected areas should be a priority, and should be selected and managed in partnership with local communities. In many cases, EAOs have already established protected areas, the recognition and management of which should be negotiated with the Government.

4. Encourage foreign investors to invest responsibly in Myanmar

Home governments of mining companies operating in Myanmar should make clear they expect those companies to apply the highest standards of responsible business conduct.

- **Home country governments should proactively express their expectations of companies domiciled in their country which invest in Myanmar.** This should include clear expectations that they should apply the UN Guiding Principles on Business and Human Rights and, where relevant, the OECD Guidelines on Multinational Enterprises, the VPSHR and the IFC Performance Standards, in the absence of Myanmar laws that provide for a higher standard. Companies should also be encouraged to set up operational grievance mechanisms.
- Include Myanmar, or at least the most conflict affected regions, within the scope of **due diligence for conflict-affected and high-risk areas** under the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas and the European Union Regulation on conflict minerals.
- **Consider adopting financial and non-financial reporting requirements for companies** operating in Myanmar where these do not already exist.
- **Encourage companies to ensure local benefit-sharing** including potential for CDAs.
- Map, support and strengthen **community-based dispute resolution mechanisms** in Myanmar.

Additional Information on SWIA Methodology

A. SWIA Phases

The SWIA process follows well-established impact assessment steps. For each step of the process the specific tools or approaches developed are shown below.⁴⁸¹



I. Screening	
<p>Objective: Economic sectors selected based on several criteria:</p> <ul style="list-style-type: none"> ■ Importance of the sector to the Myanmar economy; ■ Complexity and scale of human rights risks involved in the sector; ■ Diversity of potential impacts looking across the sectors; ■ Human development potential; and ■ Geographical area. <p>Tasks:</p> <ul style="list-style-type: none"> ■ Informal consultations held inside/outside Myanmar to develop and verify the selection of sectors. 	<p>Key Outputs / Tools</p> <ul style="list-style-type: none"> ■ Selection of 4 sectors for SWIA: Oil & Gas, Tourism, ICT and Agriculture – replaced by Mining in 2015
II. Scoping the Mining sector in Myanmar	
<p>Objective: Develop foundational knowledge base to target field research for validation and deepening of data collection.</p> <p>Tasks:</p> <ul style="list-style-type: none"> ■ Scoping the mining sector; ■ Stakeholder mapping; ■ Informal consultations were held inside and outside of Myanmar to understand the key issues and areas relevant for the Mining SWIA; and ■ Selection of commodities. 	<p>Key Outputs / Tools</p> <ul style="list-style-type: none"> ■ Scoping paper ■ SWIA workplan
III. Identification and Assessment of Impacts	
<p>Objective: Validate foundational knowledge base with primary data collected through field research from targeted locations across Myanmar.</p> <p>Tasks:</p> <ul style="list-style-type: none"> ■ Four rounds of field team visits to eight different locations each time collecting qualitative data on: Livelihoods; Environment; Housing & Land; Community Consultation; Grievance Mechanisms; Public & Community Services; In-Migration; Cultural Rights; Vulnerable Groups; Labour; Security and Conflict 	<p>Key Outputs / Tools</p> <ul style="list-style-type: none"> ■ Interview guidance ■ Internal fact sheets on impacts of mining ■ Ethical research policy ■ Field safety guidelines ■ Field trip reports, including stakeholders consulted

⁴⁸¹ This table is gratefully adapted from the presentation used in [Kuoni's HRIA of the tourism sector](#) in Kenya.

- Compile and synthesise field data, including DIHR trips to debrief with research teams in Yangon
- Further desk research.

IV. Mitigation and Impact Management

Objective: Identify measures that will help avoid, minimise, and mitigate potential impacts of the sector.

Tasks:

- Synthesise information on potential impacts at three levels, sector-level, cumulative, and project-level, in order to identify recommendations for the Government, business actors, civil society and other stakeholders to prevent and mitigate potential impacts.

Key Outputs / Tools

- Initial synthesis reports of field findings

V. Consultation & Finalisation of the SWIA Report

Objective: Present SWIA findings and conclusions, as well as recommendations to be validated through consultations with representatives of the Myanmar Government, businesses already operating/planning to operate in Myanmar, and representatives of civil society organisations, trade unions, international organisations, and donor governments.

Tasks:

- Drafting of main SWIA chapters;
- Translations for consultations;
- Consultations in Yangon;
- Revisions to draft SWIA; and
- Finalisation, publication and dissemination of the Mining SWIA.

Key Outputs / Tools

- Draft SWIA report in English
- Slide pack summarising the SWIA findings and areas of recommendations for consultation in English and Burmese
- Report for consultation
- Final Mining SWIA report and dissemination

B. Limitations of the Mining SWIA

- **Non-attribution:** In order to protect individuals and groups who participated in the SWIA as well as to facilitate engagement with companies and government actors in the research and its follow-up, it was decided to anonymise the information. Field findings are not attributed to any particular company or township. Neither maps of mining locations including GPS coordinates used by field teams to understand the scope of impacts on the ground, nor photos of recognisable sites or individuals are included.
- **Limited scope: 8 mining regions visited; 3 commodities researched; focus on exploration, extraction and processing:** Due to limited resources, as well as accessibility and security considerations, and taking into consideration pre-existing research, only three commodities were the focus of the current SWIA. This excludes some important commodities for the mining sector in Myanmar. MCRB field visits for the SWIA were undertaken to extraction and processing sites and included sites in the exploration, operations and post-mine closure phases of the mine lifecycle. The role of segments such as financial services, import and export, transportation, sales and specialised subcontractors to mining companies were not considered in detail in the research. Further research should be undertaken in Myanmar to cover these gaps.
- **Lack of official data, maps and monitoring reports:** Sector-level impacts were difficult to assess as there is limited reliable public information on permits, production volumes, financial revenues, exports and so forth. No survey data about labour in either the formal or informal mining sector in Myanmar is available. EIAs which were obtained in the course of the research included no or only very limited social baseline information on communities. Analysis of impacts focused primarily on environmental rather than social or human rights impacts. MCRB

did not access any labour inspection reports, production monitoring reports and environmental reports by government agencies.

- **Lack of environmental and health expertise:** MCRB teams are specialised in human rights and do not have technical expertise on environmental or health issues. No testing of air, soil or water was undertaken as part of the SWIA. The team did interview medical personnel and collected some personal medical information, but no independent medical data or studies were accessible for review to assert the effects of mining on human health in the visited locations. Furthermore, only very limited secondary environmental and health data is publicly available to integrate into the SWIA.
- **Workers' interviews:** MCRB obtained authorisation from both Union-level and state/region governments (as well as from EAOs) to conduct field visits and informed companies about upcoming visits in order to be able to access mine sites. Field teams were thus authorised to visit sites including pits, shafts and processing facilities. In most cases focus group discussions as well as individual interviews with workers were held without direct interference from management at the mine sites, at workers' accommodation sites or outside the mining area. However, in some cases (at three large companies), MCRB field researchers were not allowed to interview workers without company presence, nor were they allowed to visit workers' accommodation.
- **Diversity and discrimination:** The field researchers are experienced social science workers, who received additional human rights training as part of the SWIA, but did not hold specific expertise on diversity issues or pre-existing in-depth knowledge about all locations visited, to allow them to analyse power dynamics. Three of the six field researchers were women, to facilitate engagement with female interviewees. Field teams were supported in each region by a local facilitator identified through civil society, acting as a trusted focal point for contacts with communities and community based organisations. The local facilitator also acted as a translator where no member of the MCRB team had working knowledge of the local language. Discrimination on the basis of gender, ethnic or religious identity or other grounds is not always well understood by communities and workers in Myanmar and topics of interracial tension and sexual violence are relatively sensitive. Moreover, whereas MCRB field teams found workers and members of local communities willing to engage and share their experiences of mining with MCRB, in some situations community members felt apprehensive about the military, government authorities or EAOs.

C. Field Research Methodology & Interviews

Field Research Methodology

The Mining SWIA comprises both primary and secondary research. For the primary research, two teams of three researchers (plus a local facilitator, translator and driver as needed) visited eight different locations (see location map below). The field teams used qualitative research methods that were adapted to the local contexts to take account of the sensitivities of localised issues (such as potential conflict or tensions), while being sufficiently standardised to allow for coverage of all major human rights issues and comparison of findings. The field researchers used interview guidance to structure their conversations. The guidance was derived from questionnaires developed for the first SWIAs based on DIHR's Human Rights Compliance Assessment Tool (HRCA),⁴⁸² a tool to enable companies to identify and assess human rights compliance in their operations. The researchers, being more experienced than in the first SWIAs and in order to allow for more qualitative discussions, decided to use guidance⁴⁸³ rather than more structured questionnaires.

⁴⁸² DIHR, [Human Rights Compliance Assessment](#).

⁴⁸³ For example of guidance for stakeholder engagement in Human Rights Impact Assessment, see: DIHR, [Human Rights Impact Assessment Guidance and Toolbox](#), 2016.

The interview guidance covered five overarching stakeholder groups and interviews were held one-to-one, in small groups and through focus group discussions:

- Community members;
- Mining workers;
- Companies;
- Government; and
- Actors involved in artisanal/subsistence mining.

Box 31: Topics Covered in SWIA Questionnaires

- | | |
|---|--|
| ■ Community impacts, including consultation and participation | ■ Grievance mechanisms for communities |
| ■ Land acquisition and resettlement practices | ■ Public services and community services |
| ■ Livelihoods of communities | ■ Women and children |
| ■ Impacts of in-migration and out-migration on communities | ■ Indigenous Peoples |
| ■ Labour issues, including health and safety of employees, working conditions and opportunities, worker accommodation | ■ Security arrangements |
| | ■ Conflict |
| | ■ Environment and ecosystem services |
| | ■ Ethical business practices |

Open questions were used as much as possible, in order to allow respondents to answer using their own thoughts and words, and raise the issues they considered to be important. All interviews were documented with written notes and in most cases voice recorded with permission of the interviewees. Most interviews were conducted in Burmese, while local intermediaries translated in meetings with local community representatives where other ethnic languages were used. The issues in Box 31 were covered.

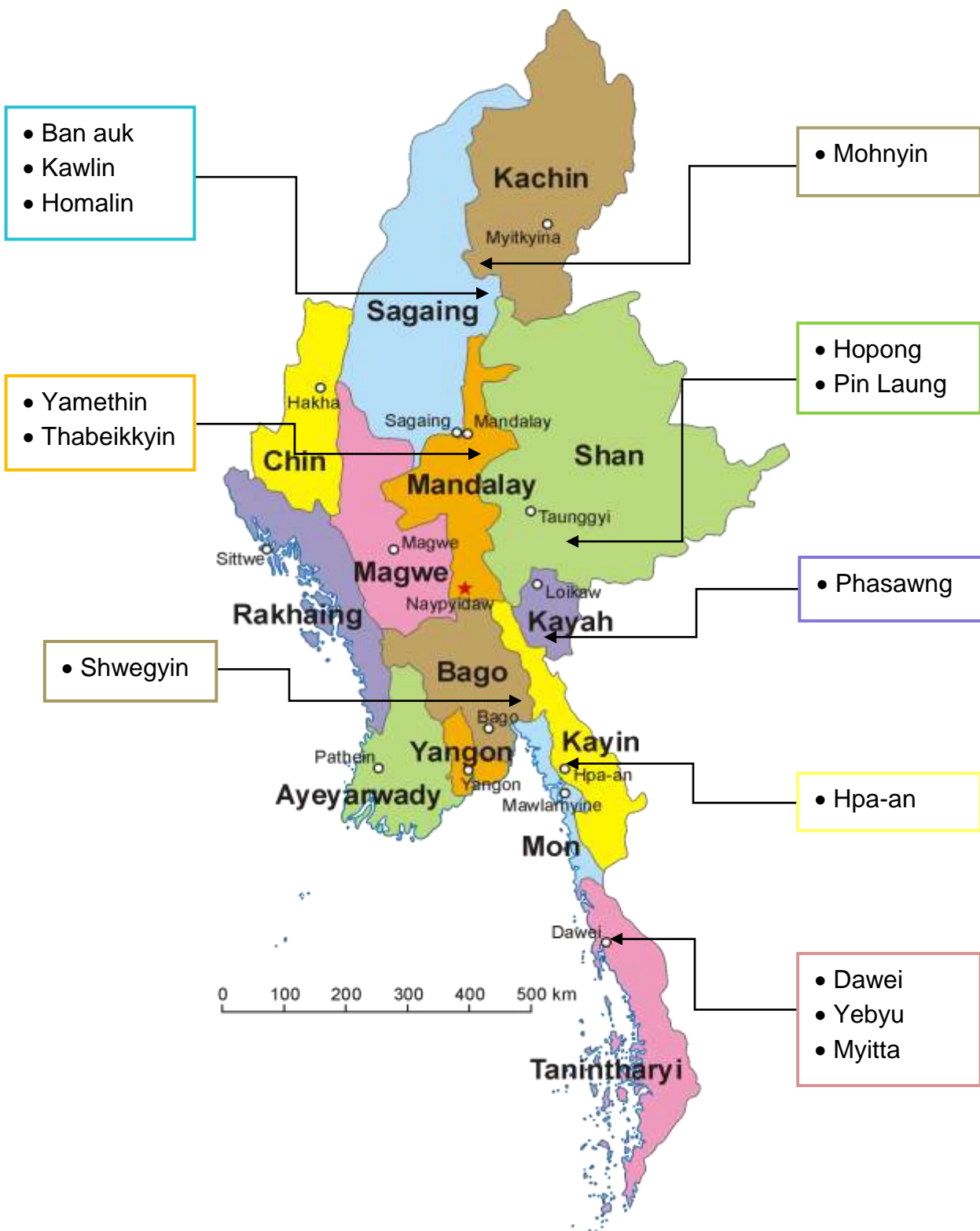
Mining SWIA Field Visit Locations

The SWIA field research was carried out in the following states and regions: Shan State, Kayin State, Kayah State, Sagaing Region, Mandalay Region, Tanintharyi Region, Bago Region and Kachin State: see Figure 5. For limestone, the field research focused on three large-scale projects and also visited several artisanal quarrying sites, and limestone processing sites. For gold, three large-scale projects and eleven small-scale projects were looked at, whereas the team visited 15 subsistence mining sites. For tin, four large-scale projects and four small-scale projects were researched. As highlighted in the report, some of the large-scale and small-scale projects had subcontracted operations and/or subsistence mining occurring within the concession area.

Overview of Stakeholders Consulted

Researchers often began visits to different towns by speaking with the local township or village authorities. This helped provide an initial understanding of some of the main issues affecting or concerning the community as a whole. Researchers then conducted individual interviews and focus group discussions (FGD) to discuss in more detail but without the authorities present in order to gain insights from other perspectives. A total of 1378 individuals were interviewed, either independently or as part of a semi-structured group discussion during the field research. A diverse range of different stakeholder groups were consulted in each location, comprising 487 individual interviews and 140 focus group discussions (for further details see Mining SWIA page on www.mcrb.org.mm).

Figure 5 Mining SWIA Field Research Locations



Meetings were also held in Yangon with relevant stakeholders including representatives of Myanmar and international mining companies and mining service providers, international intergovernmental organisations such as the United Nations Environment Programme (UNEP)

and the World Bank, non-profit organisations such as the Natural Resource Governance Institute (NRGI), Spectrum, the Myanmar Alliance for Transparency and Accountability (MATA), the Myanmar Green Network. Meetings were also held with the Myanmar Mining Federation Association and local and international experts on mining law and governance, mineral economics, mineral processing, subsistence mining and environmental and health impacts relating especially to the report's chosen commodities. An Advisory Group to the Mining SWIA was established to comment on research priorities, planning, findings and analysis, to help with multi-stakeholder collaboration during and after the research process and publication, and to input on recommendations. Advisory Group members are listed in the Acknowledgments. : Mining SWIA Field Research Locations

Consultations on the Draft Report

Consultations on the draft SWIA report were undertaken in Yangon in English on 11 October 2016 (36 participants) and in Burmese on 12 October (39 participants). The draft report was shared in English three weeks prior to these consultations and an executive summary in Burmese as well as slides were also made available in advance. Myanmar civil society organisations and international non-governmental organisations, researchers, government, business and development partners participated in the consultations. Written comments on the draft were also sought via the MCRB website and circulated through partner organisations' mailing lists and websites. Comments raised in written submissions and at the consultation meetings in Yangon were incorporated into the final report prior to publication. The Recommendations in particular were shaped by the inputs received.

The Mining SWIA Field Research Team

One objective of the SWIA programme is to build the capacity of Myanmar researchers to understand human rights issues and their connection to business to build a cadre of Myanmar researchers with this skill set for future assignments including with EIA Consultancies and others doing impact assessments.



The research team of six consisted of MCRB's Extractives Programme Manager, who led one of the field teams, one additional field team leader, and four field researchers. They were supported by a Danish research consultant based in Yangon for ten months and two senior advisers from DIHR. Field researchers had a background in conducting qualitative and quantitative social science research. Before visiting the field, all field staff received thorough training by DIHR, complemented with training sessions by local experts. Training covered basic human rights and business, an introduction to the practice of human rights impact assessment, sessions on the mining sector and its human rights impacts in particular for groups at risk, role plays on interviewing, ethical standards for conducting field research, and discussion on environmental issues and EIA, labour etc. After each round of field research, the Myanmar research teams were debriefed by the consultant and/or DIHR experts.



The Myanmar Centre for Responsible Business (MCRB) was set up in 2013 by the Institute for Human Rights and Business (IHRB) and the Danish Institute for Human Rights (DIHR) with funding from several donor governments. Based in Yangon, it aims to provide a trusted and impartial platform for the creation of knowledge, building of capacity, undertaking of advocacy and promotion of dialogue amongst businesses, civil society, governments experts and other stakeholders, with the objective of encouraging responsible business conduct throughout Myanmar. Responsible business means business conduct that works for the long-term interests of Myanmar and its people, based on responsible social and environmental performance within the context of international standards.

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