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CORPORATE CRIME AND ABUSES AT MYANMAR COPPER MINE

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cover picture: Farmers confront riot police at the site of the Letpadaung copper mine near Monywa in Central Myanmar on 22 December, 2014. On the same day a protester was shot and killed by police. Local people are protesting against forced evictions from their land to make way for the mine.
Credit: AP photo

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EXECUTIVE SUMMARY

This report is the culmination of a one year investigation by Amnesty International into alleged human rights abuses by companies, including multinational companies, operating in Myanmar. The report focuses on the Monywa copper mine project and highlights forced evictions, substantial environmental and social impacts, and the repression, sometimes brutal, of those who try to protest. It also raises serious questions about opaque corporate dealings and possible infringements of economic sanctions on Myanmar. The report calls on the Government of Myanmar to urgently introduce strong measures for the protection of human rights, and on multinational companies and the home governments of those companies to ensure that due diligence is carried out to international standards for all investment in Myanmar.

POLITICAL AND ECONOMIC REFORMS

Starting in 2012, economic sanctions that had been imposed on Myanmar – by western countries – were substantially eased, opening the country up to foreign investment. This followed the election, in 2011, of the current government and the announcement by President Thein Sein of a range of political and economic reforms.

Myanmar has a vast wealth of oil and gas reserves, mineral resources and precious gems, but its extractive industries are underdeveloped, hampered by a lack of investment and modern technology. That is now changing as international oil, gas and mining companies increasingly enter the country. However, as foreign companies move into Myanmar, the lack of effective safeguards to protect the human rights of the people of Myanmar is thrown into sharp relief. So too are the challenges of investment in a context where the economy is still dominated by the interests of Myanmar's military and powerful individuals known as 'cronies'. In this context there are serious risks that Myanmar's natural wealth will largely benefit powerful domestic interests and foreign business, while poor communities see only the negative impacts of unregulated commercial activity.

Foreign investment in the extractive sector has the potential to bring social and economic benefits to Myanmar. However, extractive industries also carry specific risks for human rights, in particular because these industries often require the expropriation of land and generate harmful waste materials that require careful management.

This report examines the issues in relation to one major mining operation - the Monywa project - made up of the Sabetaung and Kyisintaung (S&K) and the Letpadaung copper mines. During an extensive one-year investigation, Amnesty International examined incidents that are specific to the Monywa project as well as some of the wider structural issues – such as the processes for acquisition of land and environmental protection – that will affect other extractive projects in Myanmar. The organization found that, since its inception and throughout its various changes in ownership, the Monywa project has been characterised by serious human rights abuses and a lack of transparency. Thousands of people have been forcibly evicted by the government with the knowledge, and in some cases the participation, of foreign companies. Environmental impacts have been poorly assessed and managed, with grave long-term implications for the health and livelihoods of people living near the mine. Protests by communities have been met with excessive force by police.

THE MONYWA PROJECT

In 1978, a Myanmar government-owned enterprise, Mining Enterprise No. 1 (ME1), began developing the S&K deposits at Monywa. In 1996 the S&K project became a joint venture between ME1 and Ivanhoe Myanmar Holdings Ltd., a subsidiary of the Canadian company, Ivanhoe Mines (now Turquoise Hill Resources). The joint venture - in which both held a 50% interest - was called the Myanmar Ivanhoe Copper Company Limited (MICCL). In 2010 the Monywa project (including both S&K and the Letpadaung mine, which had not been developed at that stage) was taken over by the military company, UMEHL, and the Chinese state owned enterprise, China North Industries Corporation (NORINCO). The process by which

the Monywa project was transferred to UMHEL and NORINCO has never been publically disclosed.

From 2010/11 the Monywa project has been operated by Wanbao Mining Ltd. (Wanbao Mining), a wholly owned subsidiary of NORINCO. Myanmar Yang Tse Copper Limited (Myanmar Yang Tse), a wholly owned subsidiary of Wanbao Mining operates the S&K mine, Myanmar Wanbao Mining Copper Limited (Myanmar Wanbao), another subsidiary, operates Letpadaung in partnership with the military-owned conglomerate, Union of Myanmar Economic Holdings Limited (UMEHL). In 2013 the Government of Myanmar gained a stake in Letpadaung via ME1, which now receives 51% of the profits of the mine.

Approximately 25,000 people, in some 26 villages, live within five kilometres of the S&K and Letpadaung mines. The majority rely on agriculture for their livelihood.

THOUSANDS OF PEOPLE FORCIBLY EVICTED OVER TWO DECADES

In order to make way for the S&K mine the government forcibly evicted thousands of people, depriving them of their main source of livelihood, after nationalising their land in 1996 and 1997. The government used colonial era land laws and provisions of Myanmar's Code of Criminal Procedure to push people off land they farmed and evict entire villages with no compensation, consultation or legal remedies, in violation of international human rights law to which Myanmar is party. Many of those evicted had no choice but to work as manual labourers on other people's farms in order to survive. Their situation today remains precarious.

Further forced evictions were carried out for the Letpadaung mine between 2011 and 2014. In this case the government deliberately misled people, telling village meetings that machines would be taken through their farms and they would be given compensation for damage to crops. No mention was made of land acquisition or evictions. The villagers only realised what was happening when, in 2011, Myanmar Wanbao began construction on part of their farmland. Again, the government used provisions in the Criminal Code to restrict people's access to their farms. Although Myanmar Wanbao offered people some additional compensation, the company has not addressed the loss of livelihoods, which is a long-term problem. Moreover, thousands more people are at risk of forced evictions as Wanbao continues to develop the Letpadaung mine without ensuring that displacement of people is done in a way that respects human rights.

The government has undertaken some legal reforms related to land laws in 2012. While this is positive, the reforms do not go far enough. People still lack protection against forced evictions and other human rights violations linked to the acquisition of land for commercial or other uses.

ABOVE THE LAW: UMEHL'S SULPHURIC ACID FACTORY

Most of the sulphuric acid needed for the S&K mine is supplied by a sulphuric acid factory operated by UMEHL. The factory is about 200 metres from Kankone village. Villagers told Amnesty International that they suffer respiratory, skin and eye problems that they believe are caused by the factory. They also described damage to crops in fields adjacent to the factory. UMEHL set up the factory in 2007 without obtaining permission from the Ministry of Industry, and operated it without permits until July 2013 when the Ministry gave permission for it to continue. No sanction was imposed on UMEHL for the illegal operation and, as far as AI could discover, no action has ever been taken to investigate the community concerns.

ENVIRONMENTAL IMPACTS

Any mining operation can have negative human rights impacts if environmental risks are not properly managed. In the case of the Monywa project, the government has failed to regulate the companies involved, who have been able to engage in environmentally destructive behaviour with impunity.

In 1995 and 1996, ME1 discharged hazardous copper tailings (waste) from the S&K mining operations over more than 150 acres of land and into the Chindwin River. It has still not been properly cleaned up. Amnesty International observed the waste close to people's homes in 2014, almost twenty years later, and found that artisanal miners have been manually handling the waste to try to extract copper for many years. Researchers took samples of the waste and had these tested in a laboratory in the United Kingdom. The tests established that the waste is extremely acidic and contains very high levels of copper. According to environmental and health experts the waste poses significant health risks, particularly for the artisanal miners who are handling it.

In 2002, MICCL, while mining the Sabetaung pit, intruded into an aquifer that lies under the mining area. Groundwater from the aquifer continued to flow from the aquifer into the pit, raising concerns about contamination of this water and possible impacts on groundwater in the area, which the villagers rely on.

In 2012, when the S&K mine was run by Myanmar Yang Tse, the foundation of a waste dump collapsed following an earthquake.

Despite the obvious risks to people living nearby, the government has not monitored the effects of these environmental incidents. No information was shared with local communities. Villagers repeatedly told AI they were concerned about the safety of the water in the wells that they use and that there was a drop in groundwater levels in the area, making it harder for them to dig wells.

The Letpadaung mine is not yet operational, but Wanbao published a draft Environmental and Social Impact Assessment (ESIA) for the project in 2014. An environmental scientist with many years' experience reviewed the ESIA for Amnesty International and noted several critical shortcomings. Although the Letpadaung mine, S&K mine and the Sulphuric Acid Factory have shared ownership, the ESIA did not assess the cumulative impacts of these three interrelated projects. This is a major omission and is contrary to international standards, with which the ESIA claimed to comply. The assessment of social and health issues is extremely superficial. The weaknesses in the ESIA leave people exposed to serious risks that have never been properly assessed and therefore will not be properly managed. Villages who have refused to relocate for the Letpadaung mine were excluded from discussions on the ESIA.

Myanmar lacks the legal framework and technical capacity to adequately regulate environmental impacts of such a large and environmentally sensitive project. For example, environmental quality standards and the framework for environmental impact assessments have not been adopted. The government has shown no real willingness to provide people with information about environmental impacts of major projects or to ensure meaningful consultation over such projects. This lack of openness has led to a lack of public trust and ongoing community protests.

PROTESTS AND REPRESSION

Communities have protested the forced evictions and loss of livelihoods caused by the Letpadaung mine. These largely peaceful protests have been met with excessive use of force by the police. Protestors have suffered serious injuries and on 22 December 2014 Daw Khin Win, a woman villager, was shot and killed by the police. Another of the worst incidents, involving a deliberate attack on peaceful protestors by police, occurred in November 2012. During that month local villagers set up protest camps around the mine area and hundreds of monks from nearby monasteries joined the protests. The main protest camp was located outside Myanmar Wanbao's compound near the mining area. On the night of 29 November, at least three trucks of police entered the compound. When protestors refused to disperse the police started throwing 'fire bombs', later identified as white phosphorus incendiary munitions. White phosphorus is a highly toxic, explosive substance.

The police continued to throw incendiary white phosphorus munitions at the protesters despite seeing people's clothing and bodies catch fire, and even threw incendiaries at people who were leaving the camps. More than 100 people were injured, some suffering horrific burns and lifelong disability. This use of white phosphorous by the security forces against the protestors constituted torture – a crime under international law.

LACK OF TRANSPARENCY AND OPAQUE SALE OF ASSETS

The failure to fully disclose the environmental risks and impacts of both the S&K and Letpadaung mines is emblematic of a wider lack of transparency and accountability around the whole Monywa project. The transfer of ownership of the Monywa project to a Chinese-Myanmar military partnership occurred at a time when US, EU and Canadian economic sanctions applied to all dealings with UMHEL and the Myanmar military. Ivanhoe Mines has never explained how its former interest in the Monywa project ended up in the hands of the UMHEL-Wanbao Mining partnership. An examination of the company's behaviour reveals that it used entities in secrecy jurisdictions (countries which allow companies to operate with little or no public disclosure of information), seemingly in an effort to evade scrutiny of its dealings in relation to its Myanmar assets.

In 2006, Ivanhoe Mines announced its intention to divest its interest in the Monywa project in Myanmar. It established the Monywa Trust, described as an independent third party trust, and transferred ownership of its interest in the Monywa project, and its other Myanmar assets, to the Trust. Ivanhoe Mines stated that the purpose of the Trust was to facilitate the future sale of the Myanmar assets and to ensure that the process did not involve a breach of economic sanctions relating to Myanmar. Ivanhoe Mines did not reveal which jurisdiction the Trust was established in. However, based on company searches carried out in multiple jurisdictions, Amnesty International believes the Trust was registered in the British Virgin Islands, a British Overseas Territory and established secrecy jurisdiction.

Ivanhoe Mines claimed that it had no involvement in the Myanmar joint venture (MICCL) after February 2007. However, information from US Embassy cables published by Wikileaks revealed that the company remained involved in discussions about the sale of the Myanmar assets in 2008, after the establishment of the Trust. The same cables also reveal that a well-known 'crony', Tay Za, was involved in negotiating the sale. Further investigations by Amnesty International found that the Trust was not an independent entity, and that Ivanhoe Mines had set up a protector company in Barbados that had oversight of the Trust. A director nominated by Ivanhoe Mines, who was an employee of Ivanhoe Mines, sat on the board of the protector company. These facts were not disclosed in Ivanhoe Mines' public filings before US and Canadian regulatory bodies.

If funds or economic resources were made available to Tay Za or UMEHL (even indirectly) in connection with the sale of the Myanmar Assets, the Trust may have committed an offence under UK law, which applied in the British Virgin Islands. Similarly, Ivanhoe Mines may also have breached applicable Canadian economic sanctions because of its oversight of the Trust, and related failure to regulate the Trust's sale of the 50% stake in MICCL in line with the requirements of applicable economic sanctions.

All the information collected by Amnesty International leads to the conclusion that Ivanhoe Mines set up a Trust to allow it to dispose its stake in MICCL in a manner which would enable it to evade any public scrutiny and applicable sanctions related to Myanmar.

The sale of its stake in the S&K mine is not the only activity whereby Ivanhoe Mines or its subsidiaries may have breached economic sanctions. The company was involved, though its Monywa investment, MICCL, in the sale of copper to a 'who's-who' of the Myanmar military. These sales took place when economic sanctions were still in force. Ivanhoe Mines lied publically about the copper sales in its filings with the US and Canadian regulatory authorities. If the copper was used by the Myanmar security forces for military activities or to manufacture any 'restricted goods', Ivanhoe Mines' British Virgin Islands subsidiaries, which were parent companies of MICCL, may have committed an offence under UK law (as applied to the British Virgin Islands) through providing *"indirect assistance"*.

CORPORATE COLLUSION IN ABUSE

All companies must respect human rights. This is a baseline, and widely accepted, international standard. The 'responsibility to respect' as it is known requires companies to exercise due diligence in order to become aware of and prevent human rights abuses and to take action should abuses occur.

Despite a history of human rights violations surrounding the mine, a Canadian company, and subsequently a Chinese company, have invested without undertaking appropriate due diligence. Both Ivanhoe Mines and Wanbao Mining have built their business on a foundation of human rights abuse. They have also profited from abuses that took place during their investment and in some cases have colluded in the commission of human rights abuses. Specifically:

- Thousands of people were forcibly evicted in 1996 to make way for investment by Ivanhoe Mines; the company knew their investment would lead to the evictions – this was included in the original agreement – yet it took no action to ensure the evictions did not lead to human rights violations. Ivanhoe Mines profited from more than a decade of copper mining, carried out in partnership with Myanmar's military government, without attempting to address the thousands left destitute.

- Myanmar Wanbao directly engaged in forced evictions at Letpadaung by constructing infrastructure on their land despite being aware that the people had not agreed to move or been paid adequate compensation. Myanmar Wanbao has also provided material assistance to forced evictions carried out by the authorities, including by providing bulldozers to destroy crops.

- Myanmar Wanbao provided material assistance to the police in the commission of the attack against peaceful protesters in November 2012. The company has failed to produce any evidence that – at the minimum – it ascertained the police's plans and sought guarantees that any use of force would comply with international standards, before allowing a large contingent of police to use its premises.

- UMEHL has abused the right to health of people of Kankone village by illegally setting up and operating a factory producing hazardous chemicals, which poses severe risks to people's health and the local environment.

CONCLUSION AND RECOMMENDATIONS

This report exposes how Myanmar offers the perfect storm of a rich natural resource base and a weak regulatory framework that has allowed foreign and Myanmar companies to engage in and profit from serious human rights abuses. The Monywa project is a cautionary tale for the government of Myanmar and investors. Foreign investment cannot benefit Myanmar when such contexts prevail.

Impunity for illegal conduct by business can lead to human rights violations. Some illegal conduct – such as the unlawful and unregulated operation of a chemical factory – can lead directly to human rights abuses; more often a tolerance of illegal conduct establishes a culture in which breaches of law and regulations are normalised and the rule of law is undermined. When business operations breach law with impunity it encourages further illegal conduct and human rights abuses. It is essential that governments ensure transparency and accountability to prevent a cycle of corporate crimes and human rights abuses.

For foreign corporations doing business in Myanmar the rewards and the risks are substantial. Both corporates and their home governments have a responsibility to ensure that investment in Myanmar does not result in human rights abuses or in the plundering of the country's wealth, as has happened in so many other countries rich in natural resources.

Amnesty International is calling on the government of Myanmar to urgently act to prevent further human rights abuses and to provide an effective remedy for the human rights abuses that people have already suffered. The government must put in place an adequate framework on land acquisitions, environmental protection and policing of protests before signing off on other large projects.

The involvement of Myanmar's military in the economy has not been subject to meaningful reform and the roots of this involvement go deep. This must change if legal and policy frameworks to protect people are to work in practice.

Amnesty International is calling on foreign business actors entering Myanmar to carry out robust due diligence in line with international standards on business and human rights, including the UN Guiding Principles on Business and Human Rights.

Home state governments of companies investing in Myanmar must ensure that there are mandatory requirements on their companies to undertake due diligence prior to investing or undertaking business operations in the country. The seriousness of the ongoing human rights situation in Myanmar and the lack of adequate national safeguards calls for enhanced human rights due diligence by companies.

Myanmar must urgently halt the development of the Letpadaung copper mine until human rights and environmental concerns are addressed, in consultation with affected communities.

Inside the S&K mine, November 2012.

METHODOLOGY

Amnesty International researchers visited Myanmar from 14 to 30 March 2014. They travelled to Yangon, Mandalay and Monywa district over this period. Amnesty International researchers visited the areas which are affected by the two mines and the sulphuric acid factory.

Due to the arrests and harassment of activists and villagers who have opposed the Letpadaung mine, Amnesty International only conducted interviews with members of the affected communities, when it was possible to do so without jeopardising the safety of the interviewees. In most cases researchers interviewed people in locations outside of their villages to manage the risk of surveillance. This affected the number of interviews that Amnesty International could safely conduct. 30 individuals, affected by the Monywa project, were interviewed. Researchers also interviewed a number of activists and lawyers who have supported the villagers, including some activists who were arrested because of their involvement in protests linked to the Letpadaung mine. To ensure their safety, neither the names of the persons interviewed nor the locations of the interviews is disclosed in the report.

Researchers also collected various documents related to environmental and human rights concerns from villagers and activists. These documents were translated from the Myanmar language to English by professional translators hired by Amnesty International.

In addition to investigative work inside Myanmar, researchers undertook a detailed analysis of documents, company reports and satellite imagery. They reviewed public filings and reports on the project from Ivanhoe Mines Ltd., Myanmar Ivanhoe Copper Company Limited and Wanbao Mining Ltd. Detailed company searches were conducted in Barbados, British Virgin Islands and British Columbia. Amnesty International staff also searched information available in registries in Myanmar, Singapore, US, UK and Canada.

All available safety, health and environment reports on the Sabetaung and Kyisintaung mine were analysed in detail. The organization obtained a rough translation of the Letpadaung Investigation Commission's report which was checked by a professional translator from the Myanmar language to English.

The organization also sought specialist input and reviews from health, environmental and weapons experts. Amnesty International asked an environmental scientist with many years' experience of mining projects, including copper mining, to review the Environmental and Social Impact Assessment for the Letpadaung mine. Researchers collected samples of sediment (soil) from the Pathein-Monywa road, from an area where copper floatation waste was discharged these samples were tested by the Greenpeace Laboratory at the University of Exeter. A number of international weapons experts examined photos and other information on the munitions used by the police against protesters on 29 November 2012.

Amnesty International obtained copies of two internal reports prepared by Myanmar Ivanhoe Copper Company Limited (MICCL) which contain, amongst other information, details of copper sales in 2003 and early 2004. These documents were acquired from a source who had downloaded them from the MICCL's website using an internet archive service.

Amnesty International met with numerous non-governmental organizations working on corporate activity in Myanmar to gain a better understanding of how similar issues are being dealt with in other projects and if legal reforms undertaken by the government are being implemented.

Amnesty International shared relevant portions of the draft of this report with Ivanhoe Mines (now Turquoise Hill Resources), Rio Tinto Plc (which is the majority shareholder in Turquoise Hill Resources), Wanbao Mining Ltd., Midocean Management and Trust Services Limited, Mining Enterprise No. 1 and Union of Myanmar Economic Holdings Limited. The organization also wrote to individuals referred in this report, where contact details could be traced. It has sought responses from companies to specific allegations about their operations in Myanmar and the impact of these operations and offered them an opportunity to comment on Amnesty International's research findings.

Rio Tinto, Wanbao Mining Ltd., Knight Piésold Consulting, Robert Friedland (the Chairman of Ivanhoe Mines till 2012) and Dr. Andrew Mitchell (Board Member of MICCL from 2007 to May 2011) responded to Amnesty International. Their responses are included in Annex III.

Amnesty International has also shared its findings with the governments of Myanmar, Canada, China and the United Kingdom.

Amnesty International thanks Justice Trust, for sharing an analysis it had obtained of a munition used against protesters in November 2012. The organization would like to thank everyone who has been willing to share information with its researchers.

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BACKGROUND TO THE MONYWA PROJECT

REFORMS IN MYANMAR AND INCREASING FOREIGN INVESTMENT

In March 2011, in his inaugural address to Parliament, President Thein Sein announced a series of wide-ranging political, economic and social reforms. These included moving to a multi-party political system; reforms to enable economic growth and invite investment; wide ranging legal reforms; the relaxation of media censorship; increasing access to health care; and fighting corruption.[1] Since then, the government has taken notable steps to implement some of these reforms.

The US, Canada and European Union eased economic sanctions in 2012 in response to the government's reforms. The US lifted its ban on imports from Myanmar, except in relation to jade and rubies, and on new investment in the country, although certain restrictions remain.[2] In 2013, the EU lifted its remaining trade, economic, and individual sanctions, except those on arms sales.[3]

Economic reforms in particular – including the adoption of a foreign investment law – has brought with it renewed international engagement. Myanmar's considerable natural wealth in oil and gas reserves, mineral resource deposits and precious gems make it an attractive – and lucrative – investment prospect. According to the World Bank, Myanmar's economy continues to grow and foreign direct investment is expected to increase to 5.1% of Gross Domestic Product over 2014 to 2015. Most of this investment has so far been in the energy sector, the garment industry, information technology, and food and beverages. Gas exports are estimated to have reached USD4.2 billion in 2013 - 2014 and are forecasted to reach USD5.8 billion in 2015.[4] International oil, gas and mining companies are increasingly considering entry into Myanmar.

Yet despite these promising economic prospects, the human rights situation remains of serious concern. The military retains significant political and economic power, while key institutions – including Parliament and the judiciary – remain weak and largely ineffective. Failures to tackle impunity have further undermined efforts towards reform.

This report deals with one major mining project: the Monywa copper mine project. Although that project itself was initiated long before the recent reforms, the development of the Letpadaung mine (which is part of the broader Monywa project) since 2011 has come to represent a test case for how the government actually addresses environmental and human rights concerns related to mining projects.

LOCATION OF THE MONYWA PROJECT

There are four large deposits of copper in Monywa district which is in the Sagaing Region in Central Myanmar. The deposits are called Letpadaung, Sabetaung, Sabetaung South and Kyisintaung. The Sabetaung, Sabetaung South and Kyisintaung deposits are located next to each other and have been were developed by a Myanmar state owned enterprise since 1978 as the Sabetaung and Kyisintaung (S&K) mine.[5] The Letpadaung deposit is approximately seven kilometres south east of the S&K mine site[6] and is currently being developed for mining. Letpadaung is the largest of the four deposits and accounts for 75% of the copper from all four deposits.[7] There are 26 villages located within five

1 Unofficial English translation of President Thein Sein's inaugural speech in The New Light of Myanmar, Voulme XVIII, No. 34, 31 March 2011, available at http://www.burmalibrary.org/docs11/NLM2011-03-31.pdf (last accessed 2 February 2015).

2 The US sanctions program continues to apply to new investments involving the Myanmar Ministry of Defense, any state or non-state armed group or any entity in which they own 50% or more as well as to any transaction, whether direct or indirect, with any person whose property and interests in property remains blocked under the US sanctions program.

3 See Council of the European Union, 'Burma/Myanmar: EU sanctions suspended', 14 May 2012, available at www.consilium.europa.eu/uedocs/cms_Data/docs/pressdata/EN/foraff/130188.pdf (last accessed 1 February 2015).

4 See World Bank, East Asia and Pacific Economic Update, World Bank Group, October 2014, p. 132 and Myanmar Economic Monitor, October 2013.

5 Ivanhoe Mines Ltd., Renewal Annual Information Form for the year ended December 31, 2002, (20 May 2003), p. 22.

6 Ivanhoe Mines Ltd., Renewal Annual Information Form for the year ended December 31, 2002, (20 May 2003), p. 22.

7 Knight Piésold Consulting. Myanmar Wanbao Mining Copper Ltd Letpadaung Copper Project: Environment and Social Impact Assessment, (May 2014), p. 1.

kilometres of the S&K and Letpadaung mines, with a population of approximately 25,000 people. A large number of people living in these villages rely on agriculture, including seasonal work on farms, for their livelihood.[8]

THE DIFFERENT PHASES OF MINING IN MONYWA AND THE COMPANIES INVOLVED

The Monywa project has a long and complicated history and a number of different companies and operators have been involved over many years. The back fold out cover of this report includes a full page diagram outlining corporate relationships and transfers in connection with this project over the last two decades.

THE KEY PLAYERS

Mining Enterprise No. 1 (ME1) is a state-owned enterprise and one of the eight departments and enterprises under the Ministry of Mine. It is responsible for 14 kinds of minerals including copper,[9] including investment in these minerals and concessions[10].

Ivanhoe Mines Ltd (Ivanhoe Mines) is a Canadian mining company with a focus on gold and copper exploration and development, principally in Southeast and Central Asia. It was initially incorporated in British Columbia, Canada on 25 January 1994 as Indochina Goldfields Ltd. and continued under the laws of the Yukon Territory, Canada in 1995. In June 1999, the company changed its name to Ivanhoe Mines Ltd. The company's name was changed again in 2012 to Turquoise Hill Resources Ltd. Robert Friedland, the Chairman of Ivanhoe Mines till 2012, held the rights to the name Ivanhoe Mines and another of his companies, Ivanplats Limited, now holds the name Ivanhoe Mines Ltd. All references in this document to Ivanhoe Mines are to the original company, now known as Turquoise Hill Resources Ltd.

Myanmar Ivanhoe Copper Company Limited (MICCL) was incorporated in Myanmar in 1996 as a joint venture between ME1 and Ivanhoe Mines (through Ivanhoe Mines' British Virgin Island based subsidiary, Ivanhoe Myanmar Holdings Ltd.). MICCL operated the S&K mine from 1996 to 2010/2011.

Rio Tinto is a British-Australian multinational metals and mining corporation with its headquarters in the United Kingdom. Rio Tinto plc holds its interest in Ivanhoe Mines through Rio Tinto International Holdings, a wholly owned subsidiary incorporated in the UK. The Rio Tinto group held 33.4% of the shares in Ivanhoe Mines in 2006.[11] By June 2011 it had increased its stake in Ivanhoe Mines to 46.5%. It assumed management of Turquoise Hill Resources in April 2012, after becoming the majority owner earlier that year.

Wanbao Mining Limited is a Chinese mining company, incorporated in Beijing. It is a subsidiary of China North Industries Corporation (NORINCO), one of the largest Chinese state owned enterprises, which deals with defence products, petroleum and mineral resource exploitation. Wanbao Mining Limited (through Hong Kong Wanbao Mining Copper Limited, a wholly owned subsidiary) wholly owns Myanmar Wanbao Mining Copper Limited (Myanmar Wanbao) and Myanmar Yang Tse Copper Limited (Myanmar Yang Tse). These two companies – Myanmar Wanbao and Myanmar Yang Tse - have operated the Letpadaung and S&K mines since 2010/2011.

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8 Knight Piésold Consulting. Myanmar Wanbao Mining Copper Ltd Letpadaung Copper Project: Environment and Social Impact Assessment, (May 2014), pp. 117- 119.

9 Available at www.mining.gov.mm/ME-1/default.asp?page=2 (last accessed 21 October 2014).

10 M. Smith, 'Environmental governance of mining in Burma', M. Skidmore and T. Wilson (eds.), Myanmar: The state, community and the environment, The Australian National University E Press and Asia Pacific Press, 2007, p. 240. "In 1962, separate companies were created to handle specific minerals, including investment in those minerals and concessions granted. The companies are Number One Myanmar Enterprise (ME1), Number Two Myanmar Enterprise (ME2), Number Three Myanmar Enterprise (ME3), Myanmar Gems Enterprise (MGE), Myanmar Pearl Enterprise (MPE) and Myanmar Salt and Marine Chemical Enterprise."

11 Schedule 13D for Ivanhoe Mines Ltd, dated October 27, 2006, available at https://www.sec.gov/Archives/edgar/data/1158041/000102123106000568/0001021231-06-000568-index.htm (last accessed 12 December 2014). While Rio Tinto actually owned 9.95% of the shares, it had the right to acquire a further 23.45% of the shares (giving it beneficial ownership of 33.4% of Ivanhoe's shares).

The Union of Myanmar Economic Holdings Limited (UMEHL) was formed in 1990 by the military government in Myanmar. There is limited information in the public domain on its structure and ownership. 40% of its capital shares were initially held by the Ministry of Defence through the Directorate of Defence Procurement and the remainder by serving and retired members of the armed forces of regimental organizations.[12] UMEHL was exempt from commercial and profit taxes till 2011 – 2012 (when new reports indicate that it started paying some taxes/fees).[13] It has had preferential access to foreign contracts and in the past held a monopoly on sectors such as gems, jade, and cigarettes. It is a conglomerate and had 54 subsidiaries as of 2011.[14] According to US Embassy cables published in Wikileaks, 10 military officials sat on the board of UMEHL in June 2008.

The Monywa Project commenced in 1978 when ME1 started developing the S&K deposits. In 1996 the Monywa project became a joint venture between ME1 and Ivanhoe Mines. As noted above, the joint venture - in which both held a 50% interest - was called the Myanmar Ivanhoe Copper Company Limited (MICCL). MICCL built the current S&K mine and a solvent extraction and electro winning plan (where copper is extracted and turned into copper cathodes) was fully operational by the end of 1998.

In 1996 Ivanhoe Mines publically stated its intention to divest from Monywa. [15] The company established the Monywa Trust and transferred its interest in the Monywa project to the Trust in early 2007. Ivanhoe Mines has never disclosed the name of the Trustee(s), where the Trust was established and to whom the Trust subsequently sold Ivanhoe Mines' former interest in the Monywa project. [16] In June 2010, NORINCO and UMEHL entered into an agreement about the Monywa Project. It is not clear how the Monywa project ended up in their hands - an issue taken up later in this report.

In 2010 – 2011, Wanbao Mining, a subsidiary of NORINCO, started operating the Monywa project. Its subsidiary, Myanmar Yang Tse Copper Limited operates the S&K mine but production sharing and ownership arrangements related to the mine have not been made public.[17] The Letpadaung mine, which is in the process of being developed, is operated by another Wanbao Mining subsidiary, Myanmar Wanbao. Under the current production sharing contract for the Letpadaung mine (modified in July 2013), Myanmar Wanbao and UMEHL retain 49% of the profits[18] and the remaining 51% goes to the Government of Myanmar, represented by ME1.

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12 A. Selth, Burma's Armed Forces: Power Without Glory, Eastbridge, 2001, p. 146.

13 Thet Aung Lynn and Mari Oye, Natural Resources and Subnational Governments in Myanmar: Key considerations for wealth sharing, International Growth Centre, MDRI and the Asia Foundation, June 2014, p. 8.

14 Aung Min and Toshihiro Kudo, 'Business Conglomerates in the Context of Myanmar's Economic Reform', H. Lim and Y. Yamada, eds., Myanmar's Integration with Global Economy: Outlook and Opportunities, Bangkok Research Centre Report, Institute of Developing Economies, Japan External Trade Organization, 2014, p. 155, available at: http://www.ide.go.jp/English/Publish/Download/Brc/13.html.

15 Ivanhoe Mines Ltd., 'Ivanhoe Mines and Rio Tinto form strategic partnership to develop Mongolian Copper-Gold resources', 18 October 2006, p. 5, available at www.turquoisehill.com/i/pdf/2006-10-18_NR.pdf (last accessed 2 August 2014).

16 Ivanhoe Mines Ltd., Monywa Trust, 2011, p. 1, available at http://www.turquoisehill.com/i/pdf/RoleofMonywaTrustAugust31-2011.pdf

17 According to a news report in the Myanmar Times newspaper, Lieutenant General Wai Lwin told the Myanmar Parliament that profit from the project was shared between the government (16. 5 per cent), UMEHL (13.15 per cent) and Myanmar Yang Tse Copper Limted (12.63 per cent). The remaining 57.67 per cent covered production costs, including investment, Soe Than Lynn, "Myanmar parliament approves Letpadaung mine probe", Myanmar Times, 24 November 2012. Amnesty International asked Wanbao Mining and UMEHL for information on production or profit sharing arrangements for the S&K mine but did not receive an answer on this point.

18 According to various new reports, UMEHL will receive 19 per cent of the profits and Myanmar Wanbao will receive 30 per cent. For examples see https://www.dvb.no/news/commission-approves-contract-giving-govt-larger-share-of-laptadaung-profits/29945 and http://www.reuters.com/article/2014/05/19/us-mynamar-mine-chinese-idUSBREA4I08420140519.

A PROJECT FOUNDED ON FORCED EVICTIONS

"I LIVED ON THE LAND IN THE ORCHARD AND WAS DRIVEN OUT BY THE HIGHER UP PEOPLE. I HAD ONE WEEK TO MOVE MY THINGS. I GOT NO COMPENSATION AND NO RESETTLEMENT. I HAVE NO LAND NOW."

A woman who was forcibly evicted from her home and farmland for the Sabetaung and Kyisintaung (S&K) mine in 1996/'97

While governments can acquire land for 'public purposes' and evict people, they are required under international human rights law to follow due process safeguards, consult all affected people and give them an opportunity to suggest alternatives to evictions, provide resettlement (adequate alternative housing and/or land if agricultural land was acquired), compensation and legal remedies. Failure to comply with these safeguards can result in forced eviction[19], a violation of the right to adequate housing and other human rights.

This chapter examines the evictions carried out for the Monywa project. It describes how the government forcibly evicted people for the S&K mine in 1996–1997 and for the Letpadaung mine since 2011 and how the companies involved in the Monwya project benefited from – and in some cases aided – these forced evictions. As of January 2015, people still remain at risk of forced evictions as Myanmar Wanbao, the project operator, has announced its intention to take possession of the remaining farmlands which are earmarked for the project.

TIMELINE

10 April 1996: Ivanhoe Myanmar Holdings Ltd. and ME1 enter into a joint venture agreement for the S&K and Letpadaung mines

9 May 1996: 2477.88 acres of land farmed by the villagers taken over by the government for the mining project, farmers evicted from their lands without compensation

10 November 1997: An additional 2933.14 acres of land farmed by the villagers taken over by the government for the mining project, farmers evicted from their lands without compensation

FORCED EVICTIONS IN 1996-97 FOR THE S&K MINE: ME1'S CONTRIBUTION TO THE JOINT VENTURE WITH IVANHOE MINES

In 1996 Indochina Goldfields Ltd. (subsequently renamed to Ivanhoe Mines Ltd.) entered into a joint venture with Mining Enterprise No. 1 (ME1) to establish the Myanmar Ivanhoe Copper Company Limited (MICCL), in which each held a 50% interest. ME1's contribution to the joint venture was to provide the leasehold for the mining concession area as well as other land on which production and support facilities would be constructed.[20] A similar provision existed in respect of the Letpadaung deposits if the parties decided to proceed with mining operations there.[21]

The area around the mine was surrounded by various villages and farmlands. In 1996 and 1997 the government nationalised 5411 acres of farmlands to which ME1 was then given a thirty year lease for the mine.[22] As described in greater detail below, the nationalisation of the land and the subsequent eviction of people breached international human rights standards; there was no consultation with the affected people, no compensation was paid and basic due process safeguards were not followed.

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19 The Committee on Economic, Social and Cultural Rights defines a forced eviction as "the permanent or temporary removal against their will of individuals, families and/or communities from the homes and/or land which they occupy, without the provision of, and access to, appropriate forms of legal or other protection." UN Committee on Economic, Social and Cultural Rights, General Comment No. 7: The right to adequate housing (Article 11.1 of the Covenant on Economic, Social and Cultural Rights) - forced evictions, (Sixteenth session, 20 May 1997), UN Doc. E/1998/22, Annex IV, para 3.

20 The Joint Venture agreement was signed on 10 April 1996. Ivanhoe Mines detailed the main provisions of the joint venture agreement in its 1997 Annual Information filed with the Canadian authorities. See Indochina Goldfields Ltd., 1997 Annual Information Form, (dated 16 May 1997), pp. 12 - 15.

21 Indochina Goldfields Ltd., 1997 Annual Information Form, p. 12.

22 Ministry of Home Affairs (General Administrative Department), Order dated 27 October 1997, Yangon,on file with Amnesty International.

LAND TENURE SYSTEM IN MYANMAR

Myanmar's 1948 Constitution provided that the state was the ultimate owner of all lands.[23] This approach found expression in the Land Nationalisation Act, 1953 through which the government 'resumed' possession of all agricultural land in Myanmar with some exceptions.[24] The government then allocated the land to farmers who then became 'tenants'.[25] The government could also stipulate the type of crops that farmers should grow or divert the land for any other purpose it deemed necessary.[26] The Act did not recognise private ownership of land and instead set out different categories of land use rights, as defined by the government.[27] The Land Nationalisation Act was replaced by the Farmland Act, 2012. However, at the time of the events described in this chapter, the Land Nationalisation Act applied.

Myanmar has a complex land tenure system which is a mixture of the colonial laws imposed by the British and new laws adopted after independence. There were 11 categories of land after Independence with different types of tenure arrangements, which determine whether people could transfer the land and were required to pay land revenue on it. Certain categories of land such as freehold land and grant land can only be acquired by the government using the Land Acquisition Act, 1894 and with the payment of compensation. The Land Acquisition Act has many weaknesses but it at least sets out certain safeguards that the government must comply with while acquiring land, such as notice to people, procedures for objections, payment of compensation and the opportunity to challenge the compensation before a court. The government did not have to follow the procedures and safeguards around notice, objections etc. set out under the Land Acquisition Act when 'nationalising' agricultural land using the Land Nationalisation Act. The Act gave the government broad powers under Section 39 to take over agricultural land for any specific use that it considered necessary. The government was only required to pay token compensation; a maximum of 12 times the land revenue (tax) amount payable on that land or 1.50 Kyat (0.00143 USD) per acre.[28] Land taken over under Section 39 of the Land Nationalisation Act is referred to as 'La Na 39' land.[29] Until 2012, people were also not allowed to transfer agricultural land.

The Farmland Act, 2012 allows agricultural land to be sold, transferred, mortgaged etc.[30] The government still has broad powers to 'resume possession' of the land and rescind land use rights and many challenges persist in its application.[31]

NATIONALISATION OF THE LAND

In March 2014 Amnesty International interviewed farmers who lost their land in 1996/1997 nationalization process. They claim that the government did not pay them even the token compensation that is set out under the Land Nationalisation Law. They also said that the government did not consult them before passing the orders to nationalise the land.[32]

Amnesty International obtained substantial documentary evidence confirming the land had been nationalised to enable the mine - and the foreign investment of Indochina Goldfields (Ivanhoe Mines) - to proceed. This included copies of the orders passed by the Sagaing Division Law and Restoration Council in May 1996 and November 1997, nationalising 2477.88[33] and 2933.14 acres[34] of farmland

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23 Article 30 (1). A similar provision is found in the 2008 Constitution under Article 37 (a).

24 Section 5.

25 UN-HABITAT et. al, Guidance Note on Land Issues: Myanmar, UN-HABITAT, UNHCR and Norwegian Ministry of Foreign Affairs, pp. 4 – 5, available at: www.burmalibrary.org/docs12/Guidance_Note_on_Land_Issues-Myanmar.pdf (last accessed 17 January 2015).

26 Section 39.

27 S. Leckie and E. Simperingham, Housing, Land and Property Right in Burma: The Current Legal Framework, Displacement Solutions HLP Institute, November 2009, p. 27.

28 Section 42.

29 See UN-HABITAT et. al, Guidance Note on Land Issues: Myanmar, pp. 4 – 6.

30 Section 9.

31 Amnesty International interviews with lawyers, Myanmar, 18 and 30 March 2014. See also the discussion on legal reforms undertaken since the Letpadaung project was set up, at the end of this report.

32 Amnesty International interviews, Myanmar, 26 March 2014.

33 Sagaing Division Law and Order Restoration Council, Order dated 9 May 1996, on file with Amnesty International.

34 Sagaing Division Law and Order Restoration Council, Order dated 10 November 1997, on file with Amnesty International.

respectively; copies of letters written by the General Manager of ME1 to the District Governor requesting a contract/lease for the land in order to meet its agreement with a foreign organization and responses from the District Governor's office agreeing to the request;[35] and other orders passed by the Ministry of Home Affairs and Ministry of Agriculture confirming that the land had been allocated to ME1 for use for the mining project.[36] In addition, land records obtained by the villagers at the time, and shared with Amnesty International, confirm that the plot numbers which were nationalised by the government were originally registered to 1938 persons from Moe Gyo Pyin, Nyaung Bin Gyi, Kyauk Myat, Done Taw and Aung Palu villages.[37]

A man who is in his sixties told Amnesty International *"nine villages had fields in this area and about 13,000 people were living in these villages. People lost their farmland and were not given compensation. I lost 30 acres of land. My family had been there for generations. We grew wheat, corn, sesame and other seasonal crops. I was forced to work as a manual labourer on other farms in other villages. My whole village was forced to do that."* [38]

USE OF SECTION 144, CODE OF CRIMINAL PROCEDURE TO REMOVE PEOPLE FROM THEIR FARMLANDS

Following the nationalisation of the farmland the government did not take possession of the farmlands and ask people to vacate the land. Instead, they used Section 144 of the Code of Criminal Procedure which allows magistrates to restrict access of all persons, unless they have authorisation, to particular designated areas. Anyone who fails to comply can be prosecuted.[39]

Villagers described how the army, police and local authorities enforced the Section 144 orders. One man explained *"they announced a curfew and people were blocked from accessing the lands. The army stayed in a camp in the factory and would say to people 'this is Section 144 land, go away'. .. No one would dare to go in … I was told this as well by the head of police. The township authority sent letters to the leaders of villages stating that the land was under Section 144. We receive copies of this letter every year."* [40]

The Section 144 orders were therefore used as a way to effect the actual eviction of people from their farmland.

The villagers' accounts of Section 144 being continuously imposed in the area was confirmed by the Letpadaung Investigation Commission, appointed by the President in December 2012 to investigate social and environmental impacts of the Letpadaung copper mine.[41]

Villagers described the impacts of the evictions to Amnesty International. A woman said *"I had 52 acres of land and my father's family had lived there for over a 100 years. About 15 – 20 acres were an orchard. On the rest I was growing wheat, beans and sesame. … Higher up people from ME1 people came and told us that the land next to the copper project was restricted …They put up sign-*

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35 Letter from General Manager, ME1, Ministry of Mines to the District Governor, dated 18 September 1997 and 5 November 1997, Report by District Governor, dated 24 September 1997, on file with Amnesty International.

36 Ministry of Home Affairs, Order dated 27 October 1997, Ministry of Agriculture and Irrigation, Notice dated 18 September 1997, Ministry of Finance and Tax Revenue, Notice No: 235/97, dated 26 November 1997, on file with Amnesty International.

37 Land Records Department, Sarlingyi township, Sagaing division (now Region), Land record forms, issued in 1997 [other details withheld for the safety of individuals], on file with Amnesty International.

38 Amnesty International interview, Myanmar, 26 March 2014.

39 Entry or assembly in an area which is restricted by a Magistrate under Section 144, Code of Criminal Procedure has been treated as an offence under S. 188 (failure to comply with the order of a lawfully empowered public servant), Sections 141 and 143 (unlawful assembly) of the Myanmar Penal Code. People have also been charged under Section 447 for criminal trespass, though the Myanmar Penal Code specifies this as entry into or upon property with the intent to commit an offence or to intimidate, insult or annoy any person in possession of such property. See in this regard, Letter from the Permanent Mission of the Republic of the Union of Myanmar to the United Nations Office and other Intergovernmental Organizations in Geneva, 16 August 2013, responding to Urgent Actions issued by five UN Special Rapporteurs on continuous targeting of human rights activists, including peaceful demonstrators, defending and promoting economic and social rights in Myanmar, available at https://spdb.ohchr.org/hrdb/24th/Myanmar_16.08.13_(10.2013).pdf (last accessed 17 January 2015).

40 Amnesty International interview, Myanmar, 26 March 2014.

41 The Commission stated that the orders had been issued under Section 144 of the Code of Criminal Procedure declaring the area a restricted area since the State Peace and Development Council times after La Na 39 permission was given (to acquire land under S. 39 of the Land Acquisition Law, 1953). See Final report of the Investigation Commission, para 88 (c) (1). This confirms the villagers' testimony about the prolonged imposition of orders under Section 144, Code of Criminal Procedure as the State Peace and Development Council replaced the State Law and Order Restoration Council in 1997 and the original La Na 39 permission was given for nationalization of land for the S&K mine in 1996 and 1997.

boards in the area. I lived on the land in the orchard and was driven out by the higher up people. I had one week to move my things. I got no compensation and no resettlement. I have no land now."[42]

A man in his forties said *"14 acres of my land were taken in 1997 for the mining project. In the beginning they only used the factory area and left the other land free so some people managed to keep ploughing it but Ivanhoe took it all. I got no compensation. I used to grow wheat, beans, corn and chilli. I have only five to six acres of land left, which I can only grow on in winter. The cell line [part of the heap leach processing facilities] has been built on my land."*[43] Some people voiced their frustration and anger that the mining and refining operations had polluted the land which had been taken from them, making it impossible to cultivate it in the future.[44]

The nationalisation of land and subsequent evictions of people by the government from land that they cultivated, without any due process, consultation, payment of adequate compensation and re-settlement amount to forced evictions, a violation of international human rights standards applicable to Myanmar (see text box below).

These forced evictions had ruinous impacts for families who lost their main source of livelihood and received no compensation or resettlement. As agriculture is the major activity in the area, most of them then had to work as manual labourers on other people's farms. Some people also lost their homes. As the man, in his sixties, stated, that after he was forcibly evicted, *"I and my family worked for others farmers, that's what my entire village has done since then"*.[45]

MYANMAR'S OBLIGATIONS UNDER INTERNATIONAL LAW TO REFRAIN FROM AND PROTECT PEOPLE AGAINST FORCED EVICTIONS

Myanmar is a party to the Convention on the Elimination of All Forms of Discrimination against Women and the Convention on the Rights of the Child. Both these treaties require states to ensure the right to adequate housing. [46]

The UN Committee on Economic Social and Cultural Rights which monitors the implementation of the International Covenant on Economic, Social and Cultural Rights has provided the most comprehensive guidance on the right to adequate housing and forced evictions, which violate this and other human rights. The UN Committee on the Elimination of Discrimination Against Women and the Committee on the Rights of the Child have relied on the Committee on Economic Social and Cultural Rights' definition and guidance while interpreting the scope of state obligations in relation to the right to adequate housing, and emphasised the obligations of states to refrain from and protect people against forced evictions.[47]

The Committee on Economic, Social and Cultural Rights defines a forced eviction as *"the permanent or temporary removal against their will of individuals, families and/or communities from the homes and/or land which they occupy, without the provision of, and access to, appropriate forms of legal or other protection."*[48] The Committee has emphasized that evictions may only be carried out as a last resort and only after all feasible alternatives to eviction have been explored in genuine consultation with the

42 Amnesty International interview, Myanmar, 26 March 2014.

43 Amnesty International interview, Myanmar, 26 March 2014.

44 Amnesty International interviews, Myanmar, 26 March 2014.

45 Amnesty International interview, Myanmar, 26 March 2014.

46 Article 14 (2) of the Convention on the Elimination of All Forms of Discrimination Against Women provides that "States Parties shall take all appropriate measures to eliminate discrimination against women in rural areas in order to ensure, on a basis of equality of men and women, that they participate in and benefit from rural development and, in particular, shall ensure to such women the right: … (h) To enjoy adequate living conditions, particularly in relation to housing, sanitation, electricity and water supply, transport and communications." Article 27 of the Convention on the Rights of the Child provides that "1. States Parties recognize the right of every child to a standard of living adequate for the child's physical, mental, spiritual, moral and social development. … 3. States Parties, in accordance with national conditions and within their means, shall take appropriate measures to assist parents and others responsible for the child to implement this right and shall in case of need provide material assistance and support programmes, particularly with regard to nutrition, clothing and housing."

47 See for example Committee on the Elimination of Discrimination against Women, Concluding Observations on fourth and fifth periodic reports of Cambodia, UN. Doc. CEDAW/C/KHM/CO/4-5, 18 October 2013, para 43, and Committee on the Rights of the Child, Concluding observations the combined second to fourth periodic reports of Albania, UN. Doc. CRC/C/ALB/CO/2-4, 7 December 2012, para 69.

48 Covenant on Economic, Social and Cultural Rights) - forced evictions, (Sixteenth session, 20 May 1997), UN Doc. E/1998/22, Annex IV, para 3.

affected people.[49] **It has clarified that evictions can only be carried out when appropriate procedural protections are in place.**

These include:

- **an opportunity for genuine consultation with those affected;**
- **adequate and reasonable notice for affected people prior to the eviction;**
- **information on the proposed evictions and, where applicable, on the alternative purpose for which the land or housing is to be used, to be made available in reasonable time to all those affected;**
- **government officials or their representatives to be present during an eviction;**
- **everyone involved in carrying out the eviction to be properly identified;**
- **evictions not to take place in particularly bad weather or at night unless the affected people consent otherwise;**
- **provision of legal remedies;**
- **provision, where possible, of legal aid to people who are in need of it to seek redress from the courts;**[50]
- **provision of adequate alternative housing to those who cannot provide for themselves; and**
- **compensation for all losses.**

These requirements apply to all evictions, irrespective of the tenure status of the people being evicted; if they occupy, rent, lease or own the land or housing that they are being evicted from.[51] **They also apply to evictions from farmland – where people are stopped from cultivating the land that they formerly farmed on - even if people do not live on that land.**

The UN Commission on Human Rights has stated that the *"practice of forced evictions constitutes a gross violation of human rights, in particular the right to adequate housing"*.[52] **It has urged all governments to undertake immediate measures to eliminate the practice of forced evictions and confer legal security of tenure to all persons threatened with forced evictions.**[53]

IVANHOE MINES' RESPONSIBILITY FOR THE FORCED EVICTIONS

The government of Myanmar is responsible for forcibly evicting people to make way for S&K mine in violation of international human rights treaties that Myanmar is a party to.

However, Ivanhoe Mines also benefitted from the forced evictions as they were carried out for its joint venture with ME1.[54] The joint venture agreement stipulated that:

> ME1's contribution to the Monywa Joint Venture will consist of assets including a leasehold or other contribution of the concession areas comprising the Sabetaung and Kyisintaung deposits, which may require rezoning from currently zoned agricultural land in respect of the Kyisintaung deposit. ME1's contribution will also include other property for access to the deposits and for the location of production and support facilities, the facilities comprising the No. 1 Copper Mine (other than concentrator, lime kiln, test smelter facilities and town site facilities) all of which will be valued, for purposes of the Monywa Joint Venture, at U.S.$28 million.[55]

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49 Committee on Economic, Social and Cultural Rights, General Comment 7.

50 Committee on Economic, Social and Cultural Rights, General Comment 7, para.15.

51 Committee on Economic, Social and Cultural Rights, General Comment 7, para. 16.

52 UN Commission on Human Rights Resolution 1993/77, para 1.

53 Paras 2 and 3.

54 In its application to the District governor for a contract/lease for the use of the land, ME1 stated that it needed such a document because of an agreement with a foreign organization and to use it for a foreign loan agreement. Letter from General Manager, ME1, Ministry of Mines to the District Governor, dated 5 November 1997, on file with Amnesty International.

55 Indochina Goldfields Ltd., 1997 Annual Information Form, p. 12.

The forced evictions were carried out after the joint venture agreement was signed on 10 April 1996 and as stated by ME1 itself, the lease for the land was required because of its agreement with a foreign organization.

Ivanhoe Mines had commissioned an environmental assessment of the mining project and the final report was ready by March 1996, before it entered into the joint venture agreement with ME1. This environmental assessment is not publicly available but has been summarized in the recent Environmental and Social Impact Assessment (ESIA) for the Letpadaung mine. The ESIA notes that the 1996 environmental assessment focused on socio-economic conditions in the area, including the fact that most people were engaged in farming.[56]

Moreover, Ivanhoe Mines has claimed the 1996 assessment was *"prepared to normal international standards similar to those proposed by the World Bank and other multilateral lending agencies"*.[57]

This would imply that any divergences between the Myanmar's legal framework and practices on evictions and World Bank safeguards should have been identified and addressed. The weaknesses in the land tenure system and land acquisition laws in Myanmar and the government's pattern of forced evictions for commercial or other development projects had also been highlighted by NGOs and experts.

Ivanhoe Mines therefore knew or should have known that people were at risk of forced evictions as a result of the project. However, the joint venture agreement contained no safeguards about prevention of forced evictions or payment of compensation to people whose land would be acquired for the project. The forced evictions of people for the Monywa project met none of the safeguards set out in the World Bank's Operational Directive on Involuntary Resettlement[58] or under international human rights law. Ivanhoe Mines did not take any corrective measures once the forced evictions were carried out by the government although the company could not have been unaware of the impact on affected people.

Ivanhoe Mines therefore failed to exercise due diligence, to prevent, mitigate and address adverse human rights impacts linked to its operations and business relationships. Amnesty International presented its findings to Ivanhoe Mines (now called Turquoise Hill Resources) but did not receive any response from the company.

Years later, based on the Letpadaung Investigation Commission's recommendations, Amnesty International was told that a small proportion of people who were affected by the forced evictions for MICCL have received compensation for 790 acres of land that was taken over. 217.5 acres of land has also been returned to the farmers to plough again.[59] The majority are yet to receive compensation.

TIMELINE

5 March 2010: UMEHL obtained permission from the government to nationalise 7867 acres of land for the Letpadaung mine; most of this land was villagers' farmlands but also included four villages which would have to be entirely relocated

3 June 2010: NORINCO and UMEHL entered into a production sharing contract for the S&K and Letpadaung mines

12 December 2010: the Monywa District Government met with Wet Hme villagers and told them they would be given compensation for damage to crops but their lands were not being acquired; similar meetings were held in other villages

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56 Knight Piésold, Myanmar Wanbao Mining Copper Ltd, Letpadaung Copper Project: Environment and Social Impact Assessment, May 2014, pp. 52 – 53.

57 Indochina Goldfields Ltd., 1997 Annual Information Form, p. 23.

58 World Bank Operational Directive 4.30, Involuntary Resettlement, 1 June 1990 stated that involuntary resettlement should be avoided or minimised where feasible. It required the adoption of resettlement plans when displacement was unavoidable, in which displaced persons should be compensated for losses at full replacement cost prior to the actual move; assisted with the move and the transition period; and assisted in improving or restoring their living standards. It also encouraged community participation in planning and implementing resettlement and a preference to be given to land-based resettlement strategies for people dislocated from agricultural settings.

59 Amnesty International, phone interview, 10 December 2014.

Early 2011: People received compensation from the government, believing it to be for damage to crops while in reality it was for the acquisition of their land

First half of 2011: Myanmar Wanbao began construction on part of the acquired farmland

December 2011: Sarlingyi township authorities demolished homes of people in Wet Hme, Zeedaw, Saedee and Kandaw villages who had agreed to move voluntarily or under government pressure, and relocated them; 196 households refused to move

2011 onwards: Because of construction of fences and buildings on parts of the land acquired, many people were blocked from accessing – effectively evicted from – their lands.

December 2012: the President appointed the Letpadaung Investigation Commission, which recommended that there should be transparency and discussions with affected people who should be paid compensation at market value of the land and that other measures should be put in place to improve living standards

May – September 2013: Myanmar Wanbao appointed teams of Community Development Officers carried out some consultations in 24 villages

7 March 2014: Myanmar Wanbao bulldozers, operated by their staff, demolished palm trees and crops in Ohn Thone Pin village

March – April 2014: Knight Piésold conducted community consultations after ESIA is undertaken. People in Zeedaw, Saedee, and Wet Hme villages who refused to relocate were excluded from the consultations

May 2014: ESIA stated that 44% of households from villages who own land in the project area were refusing to relinquish the land for the project and accept compensation.

22 December 2014: Myanmar Wanbao announced that under the direction of the Myanmar Government, the company will extend its working area in the Letpadaung copper project and commence construction

22 – 23 December 2014: Myanmar Wanbao bulldozed crops and began fencing off more farmlands near Saedee village.

22 December 2014: Local community members tried to stop the bulldozers leading to clashes between the police and protesters. Police fired live ammunition killing Daw Khin Win. Myanmar

Wanbao temporarily suspended fencing the working area.

FORCED EVICTIONS FOR THE LETPADAUNG MINE

The Letpadaung copper mine project, a joint venture between Myanmar Wanbao and UMEHL, involves the acquisition of 2,746 hectares (6785 acres) of land from 30 villages. This is in addition to the land that was acquired for the S&K mine. The project proposed the complete relocation of four villages, Zeedaw, Saedee, Kandaw and Wet Hme and acquisition of land from 26 other villages. According to a census conducted by UMEHL and the regional authorities, 16694 people (3138 families) are adversely affected by land acquisition for the project.[60]

UMEHL made an application under the Land Nationalisation Act, 1953 for utilisation of farmlands for the mining project and was given the 'La Na 39' permission on 5 March 2010 for a total area of 7867 acres (3183 hectares).[61]

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60 Knight Piésold Consulting, Myanmar Wanbao Mining Copper Ltd Letpadaung Copper Project: Environment and Social Impact Assessment (Letpadaung ESIA), (May 2014), Appendix T, p. 11.

61 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 185.

EVICTIONS OF PEOPLE FROM THEIR HOMES AND FARMLANDS WITHOUT DUE PROCESS

On 12 December 2010, the Governor of Monywa District and the Sarlingyi Township Administrator convened a meeting of villagers in Wet Hme village. Villagers who attended this meeting and similar meetings held at other villages, stated to Amnesty International, that the authorities told them that they would give them compensation for damage to crops because some machines would be taken through their farms. The authorities did not inform the villagers that the government was permanently acquiring their land and homes.[62] According to one of the villagers who attended the meeting in Wet Hme, the Governor told them *"they were not acquiring our lands, they were not building anything or dumping waste on our land. They were just going to take some machines through our paddy fields. They said they would build a copper mine but sometime in the future [many years later]."* People were told that as some of their crops would be spoilt, the authorities would give them compensation for the loss of their crops for a three year period.[63]

Amnesty International's investigations found that the decision to pay compensation based on three times the selling price for crops, or three years profit based on the type of land, [64] emerged from a committee set up by the regional authorities in 2010, based on a request by UMEHL.[65] This compensation though partially calculated by the Committee in terms of crops was not intended to compensate people just for the loss of crops but rather for acquisition of their lands. From 2011 - 2012 the authorities paid the villagers the set compensation. [66] People interviewed by Amnesty International stated that, when the authorities paid them the compensation in 2011, they were not given a receipt or a copy of the document they were asked to sign, just a chit of paper with the amount written on it. Most people were paid the amount of 520,000 kyats per acre but some people claimed that they were paid less.[67]

When the Letpadaung Investigation Commission later investigated what happened, they found discrepancies in the original announcement and the documents that people were asked to sign. *"The term 'compensation for farmland/crops' is stated in the notice letter/summons advertisement to claim the compensation"*. However, in the agreement that villagers were asked to sign or put their thumb print on, it was stated that it was to *"an agreement for the receipt of the compensation and to relinquish ownership of the lands"*.[68] The Commission also stated that authorities did not read out and explain the documents before asking people to sign or provide their thumb prints.[69] It also stated that transparent explanations were not given by responsible officials when confiscating the land and *"[f]or that reason the local populace thought that they were receiving compensation only for the crops"*[70]

The villagers realised they had been misled by the authorities when Myanmar Wanbao started constructing and moving in machinery and materials on to their lands in 2011. A woman from whom 16 acres of land were acquired told Amnesty International, *"We were told by officials, including from the town ship authority that it was compensation for damage to crops. They didn't mention any building on the land or dumping of waste. In 2011, people wearing the Wanbao uniform started building on the land so the villagers got very upset. We said you have given us only compensation for crops not for land. They stopped building for four to five days and then started again."*[71]

According to the Lawyers Network and Justice Trust, on 2 December 2011, the Sarlingyi township

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62 Amnesty International interviews, Myanmar, 27 March 2014.

63 Amnesty International interviews, Myanmar, 19 March 2014.

64 See Myanmar Wanbao Mining Copper Limited Letpadaung Copper Project, Resettlement Action Plan, prepared by Myanmar Wanbao, p. 34, included in Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,as Appendix T. This amount was worked out at 520,000 or 550,000 Kyats (494 to 523USD) per acre which is the amount that was paid to villagers whose land was acquired for the project.

65 According to the Resettlement Action Plan developed by Myanmar Wanbao, UMEHL submitted a letter to the regional authorities asking them to set up a committee for compensation. The letter was dated 12.10.2010. The RAP does not mention the date the Compensation Committee was set up. See Myanmar Wanbao Mining Copper Limited Letpadaung Copper Project, Resettlement Action Plan, prepared by Myanmar Wanbao, p. 34, included in Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,as Appendix T.

66 Myanmar Wanbao Mining Copper Limited Letpadaung Copper Project, Resettlement Action Plan, prepared by Myanmar Wanbao, pp. 35 - 36, included in Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,as Appendix T.

67 Amnesty International interviews, Myanmar, 27 March 2014.

68 Paras 70 (d) and 87 (c), Final report of the Investigation Commission.

69 Para 82 (b) (2), Final report of the Investigation Commission.

70 Para 82 (b) (2), Final report of the Investigation Commission.

71 Amnesty International interview, Myanmar, 27 March 2014.

administrator ordered residents of Zeedaw, Saetee, Kandaw and Wet Hme villages to relocate to a nearby area. While some people agreed to relocate many others initially didn't but were pressurised by the authorities to move.[72] The authorities proceeded to demolish the homes of people who accepted relocation, either willingly or through government pressure.[73] They were relocated to two new sites where a total of 441 houses made with wood and iron sheet roofs were constructed.[74] 196 households have refused to move from these four villages and 245 households have been moved to resettlement sites and houses built by Myanmar Wanbao.[75]

In March 2014, people interviewed by Amnesty International, who have refused relocation and are still living in the four villages, highlighted that the authorities closed the local school around the time that the relocations were undertaken. *"Schoolchildren had to write exams and tried to secure permission to write the exam at other schools [in the area], but this was denied."*[76] People were not provided with any remedies and opportunities to challenge the evictions.

There was no formal process to remove the villagers from farmlands. Some people lost access to their lands when Myanmar Wanbao put up fences on portions of the farmlands, blocking people from accessing these lands in 2011. Villagers told Amnesty International that Myanmar Wanbao has continued to fence farmlands since then leading to a situation where some people are still able to farm their lands even after they were acquired but others have lost access to their lands.[77] Journalists have also reported that the company has been fencing farmlands that have been acquired for the project since 2011 and bulldozing crops on these lands.[78] For instance, on 8 October 2013, Myanmar Wanbao began constructing a fence around a 400 acre area[79] as many farmers were trying to farm the lands that had been acquired deceptively from them. Amnesty International interviewed some of the farmers who lost access to all or a portion of their farmlands after Myanmar Wanbao constructed fences in October 2013. A woman farmer from whom 10 acres of land was acquired said *"they have built on 4.8 acres of my land, I was stopped from entering the land. They also put up a fence on my land in October 2013"*.[80]

The use of fences to block access to land is not the only concern the villagers have about the impact of the mine operations. Over and over again in interviews with Amnesty International, people stressed their anger and frustration that Myanmar Wanbao was placing what appears to be waste rock, top soil and other materials on the lands that have been deceptively acquired. They were concerned that the waste and other materials placed on their land would make it difficult or impossible for people to farm the lands in the future, even if they get the land back.[81] A 30 year old woman farmer told Amnesty International that *"large mounds of materials have been dumped and we are worried that chemical pollution from these materials will affect the land and make it impossible to grow crops"*.[82]

As with the S&K mine, the government has passed orders under Section 144, Code of Criminal Procedure since July 2012 restricting peoples' access to the mining areas, including areas where Myanmar Wanbao has already taken possession of the villagers' land.[83] As discussed in the Chapter on Clampdown on Opposition to the Mine, the authorities have arrested activists and villagers who have tried to enter or plough (as a form of protest) their farmlands where Section 144 orders are in force.

The result of the construction of buildings and fences and the imposition of Section 144 orders is that many people have been blocked from accessing and removed – evicted – from the land that they used to farm. According to news reports, the company has fenced approximately half of the

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72 Lawyers Network and Justice Trust, Report of Evidence Regarding Controversies at Letpadaung Hill Copper Mine Project, 14 February 2013, p.13

73 Amnesty International interview, Myanmar, 19 March 2014.

74 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 111.

75 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 111.

76 Amnesty International interview, Myanmar, 28 March 2014.

77 Amnesty International interviews, Myanmar, 27 March 2014.

78 DVB, 'More Land fenced off at Latpadaung, locals devastated', 13 December 2013, available at: www.dvb.no/dvb-video/more-land-fenced-off-at-latpadaung-locals-devastated-burma-myanmar/35247 (last accessed 7 January 2015).

79 Nyein Nyein, 'Minister's Visit Fails to Ease Letpadaung Tensions', The Irrawaddy, 18 October 2013.

80 Amnesty International interviews, Myanmar, 27 March 2014.

81 Amnesty International interviews, Myanmar, 19, 26 and 27 March 2014.

82 Amnesty International interview, Myanmar, 19 March 2014.

83 See Lawyers Network and Justice Trust, Report of Evidence Regarding Controversies at Letpadaung Hill Copper Mine Project, 14 February 2013, p. 15. Also confirmed by Amnesty International interview, Myanmar, 28 March 2014.

total project area.[84] As discussed later in this chapter, Myanmar Wanbao has announced its intention to take over the remaining project area, leaving people whose lands have not yet been possessed at risk of evictions.

MISINFORMATION AND FAILURE TO CONSULT PEOPLE

International human rights law requires that people are provided information about evictions from homes and farmlands that could result from land acquisition. They should also be informed about the alternative purpose for which the land or housing will be used. It requires that, prior to carrying out any evictions, all feasible alternatives are explored in genuine consultation with all affected persons.[85] Additional guidance is provided to states in the UN Basic Principles and Guidelines on Development-based Evictions and Displacement which provide that prior to evictions, the authorities should effectively disseminate relevant information in advance, including land records and proposed comprehensive resettlement plans specifically addressing efforts to protect vulnerable groups.[86] The authorities failed to meet any of these requirements. People were not given accurate information about the land acquisition process and the alternate use that the land would be put to. They were not consulted on these plans and given an opportunity to suggest alternatives or on compensation and resettlement options. It is this misinformation and lack of transparency which created distrust and protests once the villagers realised that their lands would be taken over permanently.

The Letpadaung Investigation Commission recommended in 2013 that that those implementing the project have open and transparent discussions with the local population on the project, compensation and to do what is necessary for the relocated villages to become 'model villages.[87] This has not happened.

The authorities have not organised any consultations with the communities. Myanmar Wanbao has organised two sets of consultation processes; one undertaken by a team of Community Development Offices (referred to as CSD in short) who were recruited and trained by Myanmar Wanbao in 2013 and the second by Knight Piésold, the consultants who prepared the Letpadaung ESIA, in 2014. Knight Piésold only took note of people's concerns about compensation and resettlement but did not engage with them on these issues, focusing instead on other parts of the ESIA.

The CSD team members were selected from the villagers but the ESIA admits that they were not selected through a mass meeting of the village due to the 'unstable situation'.[88] The ESIA acknowledges the limitations of the consultation conducted by the CSD team, including the fact that consultations overlapped with construction for the mine and the late disclosure of these plans to the communities; that six out of 26 villages who were approached refused engagement; and that planned activities were side tracked by either project delays or *"civil disobedience in some of the affected villages"*. [89] It also commented, *"[t]he refusal of villages to participate in the community engagement activities and the general atmosphere of discord influenced the venue for consultation, the type of consultation technique used, and the amount of time spent obtaining information. In many instances, the quality of the stakeholder engagement methods utilised was compromised in response to the uncertainty posed by access restrictions to some of the villages (as a result of barred entry or the potential threat of physical harm by the protesters)"*.[90]

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84 Phyo Wai, Myanmar Eleven, 'Myanmar Wanbao firm on 2016 schedule', The Nation, 31 December 2014, available at: www.nationmultimedia.com/aec/Myanmar-Wanbao-firm-on-2016-schedule-30251026.html (last accessed 22 January 2015).

85 See Committee on Economic, Social and Cultural Rights, General Comment 7: Forced Evictions, (Sixteenth session, 1997), paras 14 and 16.

86 Principle 37. The UN Basic Principles and Guidelines on Development-Based Evictions and Displacement were developed by the UN Special Rapporteur on Adequate Housing. They provide guidance to states on the steps that they should take prior to, during and after evictions, expanding on guidance provided by the UN treaty bodies, in particular the Committee on Economic, Social and Cultural Rights. See UN Doc. A/HRC/4/18, 5 February 2007, Annex I.

87 Para 70 (d), Final report of the Investigation Commission .

88 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,Table 6.7: Effective evaluation record.

89 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,pp. 190 - 194. "Although information did come out of the consultations in Phase 2, the process of stakeholder engagement was less than satisfactory. The disclosure of the Early Works activities to the villages should have occurred much earlier, as it had been planned as early as April 2013 …It would also have allowed for agreements to be made regarding deferment of planting of crops in the wet season. The first blasting took place on October 9th, barely a week after the September 30th deadline and the disclosure of the Construction Schedule. The short notice given by the Company may have been perceived by the communities to be a forewarning of the upcoming construction works rather than a genuine effort to obtain informed feedback and broad consent."

90 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 190.

© Reuters / Soe Zeya Tun

Villagers protest against the mining project during a visit by Myanmar opposition leader Aung San Suu Kyi March 13, 2013.

The CSD team was not even able to present its 'Public Consultation and Disclosure Plan' in a public forum, which all villagers were invited to attend, *"because of the volatile situation"* and instead made *"separate visits to receptive villages"*.[91] According to the ESIA, the CSD team was only able to engage with 24 villages. Seven villages, including three of the villages which have refused to relocate ('old' Zeedaw, Saedee and Wethme villages) refused any engagement with the CSD team. An additional five villages were not engaged at all.[92]

Myanmar Wanbao developed a retrospective Resettlement Action Plan based on the information collected by the CSD teams (the plan is discussed below). The Resettlement Action Plan was developed without any input from people who have refused to relocate for the project because they refused to engage with the company appointed-CSD teams. Considering the distrust of the companies (UMEHL and Myanmar Wanbao) after the forced evictions that were already undertaken and the police's attack on the protesters on 29 November 2012 (described later in this report), it is hardly surprising that many people refused to meet a team set up by the company. As there are also concerns about the role played by local authorities in the process, any consultation process should have involved independent bodies as well as government agencies which have not been involved in the original land acquisition process. This has not happened; the Myanmar authorities have played

91 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 192.

92 The ESIA refers to 33 villages and counts the old Saedee and Zeedaw villages as one. It also does not count the new and old relocated villages separately. If the old and new villages are counted separately, there are 36 villages as per the table.

no role in conducting the consultations and there was no representation from ministries which are meant to be responsible for overseeing the project in the CSD team led consultations.

The consultations organised by Knight Piésold also had fundamental shortcomings. Knight Piésold also stated that *"villages inside the Project area, which are subject to resettlement, were excluded from the consultation [organised by Knight Piésold in 2014] at the request of Government authorities"*.[93] The deliberate exclusion of villages who may be the most adversely impacted by the project starkly demonstrates the chasm that exists between requirements for genuine consultation under international standards and the consultation processes organised by Myanmar Wanbao for the Letpadaung mine.

The villagers consistently raised concerns about compensation for loss of their lands and employment opportunities, including lack of opportunities for unskilled people, salaries etc. Knight Piésold responded by giving an overview of employment opportunities and the numbers of jobs that will be made available. On the issue of land compensation however, it repeatedly replied that these issues needed to be discussed with, or a complaint made to, UMEHL and it would merely note that this issue was raised. Given that the Letpadaung Investigation Commission highlighted severe problems with the land acquisition process for the project, including the lack of consultation and transparency, this issue should have been central to the consultations organised around the ESIA. If Knight Piésold was unable to address this issue, government officials and UMEHL representatives should have attended the meetings to respond to these queries. This also underscores the weakness of the earlier CSD team consultations, as the communities considered that these issues had not been satisfactorily addressed many months after the CSD consultations were concluded. To date, Myanmar Wanbao, UMEHL and the government have not carried out a genuine consultation with all affected people on future plans for evictions, alternatives to evictions, compensation and resettlement.

MYANMAR WANBAO'S UNSUBSTANTIATED CLAIMS OF BROAD COMMUNITY SUPPORT

Myanmar Wanbao issued a press release on 22 December 2014 stating that it will commence construction of the project and extend its working area, claiming that there was *"broad community support for the project"*. It referred to "unprecedented extensive door-to-door consultations for months" and claimed that over 71% of total *"land lost villagers"* [presumably villagers who are losing land to the project] consulted in 35 villages supported the project. *"Within these 35 villages, 27 villages consulted through door-to-door visits have given us an average 91% acceptance rate of the contribution [being offered by the company]. These numbers are considered by International Best Practice to have exceeded the requirements for "broad community support" of the mine project."*[94] These claims are incorrect and misleading.

There is no record in the ESIA of how many people the CSD team met and if, and how, it distinguished between people who will lose/have lost land and their responses and other villagers who attended meetings. No summaries have been provided of the CSD team meetings with villagers.[95] In phase 1 of the consultation, the CSD team distributed a questionnaire which included a question, Question 18, *"What is your acceptance of these mine projects?"* No information has been provided by Myanmar Wanbao on how many people completed this questionnaire and how many people answered this question positively. If the company's figure of people who support the project is based on responses to the questionnaire, the company needs to provide records to substantiate these numbers, which should be capable of independent verification. Knight Piésold meetings would also not justify this figure; the records of attendees did not differentiate between villagers who will lose land for the project and those who will not and the

93 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. xiii (executive summary).

94 Official Press Release of Myanmar Wanbao, 'Myanmar Wanbao to commence construction of Letpadaung project in agreement with the Myanmar Government and under its direction', 22 December 2014, available at: www.myanmarwanbao.com.mm/en/our-latest-news/45-december-2014/128-official-press-release-of-myanmar-wanbao.html (last accessed 8 January 2015).

95 Table 6.4 in the ESIA includes a pro forma of minutes of these meetings. It contains a cursory record and notes that signatures of attendees were not recorded because of sensitivities in the project area.

overall numbers of attendees are far lower than those quoted by Myanmar Wanbao.[96]

Amnesty International presented these concerns to Wanbao Mining.[97] **In its response, Wanbao Mining did not provide any evidence to Amnesty International to substantiate its claims of broad community support and the numbers of people who support the project. Moreover, as discussed above, these claims are also not borne out by the ESIA for the project, undertaken by Knight Piésold and released in May 2014, which describes significant shortcomings in the consultations organised by Myanmar Wanbao.**

The consultations that have been conducted do not meet the International Finance Corporation (IFC) standards for *"broad community support"*. Broad community support is defined by the IFC as *"a collection of expressions by Affected Communities, through individuals or their recognized representatives, in support of the proposed business activity."*[98] This requirement has clearly not been met for the Letpadaung mine.

Knight Piésold itself concluded in May 2014 that *"[p]roject construction commenced before the development of the ESIA and as a result, stakeholder engagement with affected communities was less rigorous than the WB/IFC model. Free, prior and informed consent about the construction activities did not take place in the communities, and resulted in local tensions and protests that continue to undermine broad community support for the Letpadaung Project and create a rift between those persons and communities who support the Project and those who do not. The situation deteriorated with the commencement of the Early Works in November 2013 and remains problematic."*[99]

FAILURE TO PROVIDE ADEQUATE COMPENSATION AND RESETTLEMENT

COMPENSATION AND EMPLOYMENT

The Letpadaung Investigation Commission found that the compensation paid to people was below the market value for the land and quite low compared to the price of crops and land in the area.[100] The Commission stated that the compensation received by the farmers had already been used by them and that even though some of the villagers were given jobs in Myanmar Wanbao, this was not sufficient to support their family. They also highlighted the lack of job opportunities in the area.[101]

Amnesty International was also told by the villagers that it would be very difficult for them to buy other farmland in the area with the compensation they received.[102]

The Commission recommended:

- the payment of land compensation at market value to the villagers whose lands have been acquired;
- that the project only confiscate the actual amount of land needed for the project, and that 1900 acres of fallow and unused land surrounding the villages should be made available as replacement farmland to the villagers; and

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96 As per the records provided by Knight Piésold, "[t]here were approximately 1300 recorded participants in Stage One and approximately 850 for Stage Two, or approximately 2150 participants for both." In Appendix R, Knight Piésold stated that "approximately 13% of the local population attended the meetings overall" and in the main body of the ESIA it stated "approximately 30% of the local adult population was able to attend the meetings overall". The extrapolation to the total adult population is not explained nor did Knight Piésold explain how it counted unique attendees from stage one and stage two, as presumably a number of people attended both meetings

97 Letter to Wanbao Mining Ltd. sent on 11 January 2015. Amnesty International received a response from Wanbao Mining on 19 January 2015 (included in Annex III).

98 Para 30, IFC Sustainability Framework: Policy and Performance Standards on Environmental and Social Sustainability - Access to Information Policy, effective 1 January 2012, available at www.ifc.org/wps/wcm/connect/b9dacb004a73e7a8a273fff998895a12/IFC_Sustainability_+Framework.pdf?MOD=AJPERES (last accessed 8 January 2014).

99 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p.189.

100 Final report of the Investigation Commission, paras 87 (d) (e) (f) and (g).

101 Final report of the Investigation Commission, para 87 (g) (4).

102 Amnesty International interview, Myanmar, 27 March 2014.

- in addition to jobs with the company, the villagers should be provided with additional support to set up small business and economic opportunities.[103]

In addition to financial compensation, Myanmar Wanbao has offered *"a minimum of one job per person on the Project for every household that was relocated as a consequence of the project. This offering increases as the size of the affected land involved increases (to a maximum of three jobs)."*[104] The criteria for the number of jobs per household was changed in 2013 to take into account the amount of land lost by the household. [105]

Knight Piésold noted, in the ESIA, after analysing the socio data on the villages that it *"is not clear whether employment placement will be sufficient to meet the subsistence needs of larger families"*. It stated that *"[g]iven the level of literacy within the community … the complexity of work … the income that each household could expect to earn, will be quite low and possibly resulting income per capita still being below the World Bank recognized poverty line."* It highlighted that the social baseline studies (conducted by UMEHL in 2013) had alerted Myanmar Wanbao *"and its stakeholders to the fact that villages are extremely poor by international standards and live precariously on the margins of subsistence."*[106]

Knight Piésold underlined that resettlement assistance may be required by the affected households in the interim period between relocation and the commencement of employment at Myanmar Wanbao. *"Villagers note in the social baseline survey interviews that their ability to feed their families is an immediate concern. The most advisable form of assistance is provision of alternative land and the provision of seeds and other inputs for planting and rice for immediate consumption. However, past endeavours to attract project-affected people to alternative sites have not received the support expected and this option may be difficult to implement"*.[107] No further information was included on who attempted these endeavours and why they failed. Elsewhere Knight Piésold had noted that there was some anecdotal evidence *"that land was offered in two (2) locations some distance from the Project area but this was not accepted by the villagers [who were being entirely relocated]"*.[108] This hardly qualifies as an attempt by the government, Myanmar Wanbao and UMEHL to try and find alternative land for farming.

The consultations conducted by Knight Piésold in March 2014 also revealed the limitations of the compensation and resettlement arrangements. Women in particular highlighted that they were severely impacted by loss of access to common land which they used for grazing cattle. Other negative impacts highlighted by women included loss of the income from work on other people's farms and making jaggery (unrefined cane sugar) from palm trees and inability to collect firewood and other natural produce for personal use and as a source of income.[109] People from the 'new' resettlement villages requested that compensation be *"offered to the many old people who have lost land and/or their house and cannot take up a job"*. These concerns have not been concretely addressed by the companies.[110]

Myanmar Wanbao has stated, in a press release issued on 16 December 2014, that since July 2014 it has created an annual contribution payment between USD 70 and USD 160 per month depending on the number of jobs people are entitled to because of their land loss. This contribution will be paid on a six monthly basis until a job materialises. Myanmar Wanbao noted that due to stoppages, the company was unable to provide jobs to land-lost people through no fault of its own.[111] While this

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103 Final report of the Investigation Commission, para 87 (g).

104 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. xiv.

105 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,pp. 187 – 188.

106 Knight Piésold Consulting, Letpadaung ESIA, n. 60, p. 253.

107 Knight Piésold Consulting, Letpadaung ESIA, n. 60, p. 255.

108 Knight Piésold Consulting, Letpadaung ESIA, n. 60, p. 255.

109 See for example Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,Appendix R, see Appendix F: Village Reports, Consultation Overview, Village: Aung Chan Si – Visit 1, Question 10, See also Women's Group Discussion in Ma Gyi Tann village, held on 12 March 2014.

110 The ESIA outlines some very broad mitigation strategies such as 'Community Natural Resource Management Plan', development of the non-farming sector and alternative fuel sources through community forestry and resource conservation initiatives, without much concrete detail on who will take these forward and if they will sufficiently address the negative impacts identified. See Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 252. Myanmar Wanbao also claims on its website that people not covered under the employment criteria will be given government assistance, without detailing what this assistance will consist of, available at: www.myanmarwanbao.com.mm/ (last accessed 22 January 2015).

111 Myanmar Wanbao, 'Wanbao supports "People Centred Development"', 16 December 2014, available at: www.myanmarwanbao.com.

payment is welcome, the company has not provided details of how many people have received the subsidy so far. Knight Piésold's conclusion in the ESIA was that the *"most advisable form of assistance is provision of alternative land and the provision of seeds and other inputs for planting and rice for immediate consumption."* [112] Myanmar Wanbao, UMEHL, ME1 and the government should also explain why, despite this, no provision has been made to provide alternative land to farmers. They should also clarify how the compensation and 'subsidy' amounts and employment offered in the mine will be sufficient to ensure the living standards of families in the medium to long-term.

Myanmar Wanbao has made another round of compensation payments (described as subsidies) in September 2013 in response to the Commission's findings. *"The rate of compensation was between 3 to 3.7 times the legal requirements"*.[113] As of 16 December 2014, based on Myanmar Wanbao's own figures, 34% of households from other villages who own land in the project area are refusing to relinquish the land for the project and accept the additional compensation offered by the company.[114] Myanmar Wanbao has not provided a breakdown of the payments made, making it difficult to substantiate these figures. The company should disclose the precise subsidies offered to different categories of people and clarify how these meet the Commission's recommendations and the concerns identified in the ESIA about ensuring subsistence needs of larger families. This is crucial considering the social baseline studies (conducted by UMEHL in 2013) had alerted Myanmar Wanbao *"and its stakeholders to the fact that villages are extremely poor by international standards and live precariously on the margins of subsistence."*[115]

RESETTLEMENT

The Letpadaung Investigation Commission also found that the resettlement provided was inadequate both in terms of the quality of housing provided and the cultural adequacy of the housing as it did not enable people to keep cattle. *"The houses built by Myanmar Wanbao Company Limited were not up to standard and were of inferior quality, the relocated people have to stay in an urban style house and plots. Land is required to build sheds for cows/buffaloes as well as cows and buffaloes and pasture for farm animals, similar to that of village life styles."*[116]

Amnesty International did not visit the resettlement sites and interview people living there because of concerns that such interviews or visits would jeopardise the safety of interviewees as well as of people who escorted the delegation to the sites. However, the ESIA itself acknowledged that people who had moved to the resettlement sites had *"mentioned in the community consultations that they were not satisfied with the quality of the house construction, citing the poor quality wood used"*. They also brought up water improvements and a drainage system.[117] People from the 'new' resettlement villages also requested, in the consultations organised by Knight Piésold, *"additional houses / extensions for parents and children who still remain in the compound of the old village"*. They highlighted the difficulties they are facing as they no longer have space for livestock because of the smaller village area they have been relocated to.[118]

The ESIA includes a draft of the retrospective Resettlement Action Plan (RAP) which is being developed by Myanmar Wanbao. Though the document claims that it is developed in line with World Bank/International Finance Corporation (IFC) Safeguard policies, it fails to meet these requirements in a number of crucial regards. The most important of these is the failure to consult all those affected

mm/our-latest-news.html (last accessed 21 December 2014).

112 Knight Piésold Consulting, Letpadaung ESIA, n. 60, p. 255.

113 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 187. In a press release issued on 16 December 2014, Myanmar Wanbao claimed that the "total amount of compensation and three times of subsidies is between 1,825,000Ks and 3,250,000Ks per acre depending on the type of land", see Myanmar Wanbao, 'Wanbao supports "People Centred Development"', 16 December 2014, available at: www.myanmarwanbao.com.mm/our-latest-news.html (last accessed 21 December 2014).

114 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 105. Myanmar has also confirmed this number in the press release issued on 16 December 2014: "66% of the total land-lost people have taken up the second subsidies, which means the majority of villagers losing land are willing to release their land to the project", see Wanbao supports "People Centred Development"', 16 December 2014, available at: www.myanmarwanbao.com.mm/our-latest-news.html (last accessed 21 December 2014).

115 Knight Piésold Consulting, Letpadaung ESIA, n. 60, p. 253.

116 Final report of the Investigation Commission, para 87 (c).

117 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 111.

118 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,Appendix R, see Appendix F: Village Reports, Consultation Overview, Village: SeeDae and Zee Taw (new), 16 March 2014, Questions 6 and 12. Knight Piésold's response was that it would note their requests and raise them with the government and 'Wanbao'.

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Farmer protesters sit on the ground in front of a line of armed police during their protest at the site of the Letpadaung copper mine, 22 Dec 2014. Local people are protesting against forced evictions from their land to make way for the mine.

on the resettlement options being proposed. The RAP states that this is because some villages refused the CSD team consultations in 2013, described earlier. It is also extremely weak in terms of outlining concrete measures to resolve concerns around resettlement identified above. Though the RAP uses the headings suggested in the IFC guidelines for preparing a resettlement action plan, it completely fails to meet its substantive requirement. For instance, the section on preparation and selection of a resettlement site in the RAP, instead of outlining how the relocation sites were selected or the resources available at the site, lists the administrative arrangements for moving people and monasteries.[119]

The ESIA also states that Myanmar Wanbao has budgeted 4.9 million kyats for house renovations and to address infrastructure concerns in the two resettlement sites.[120] The recent updates provided by Myanmar Wanbao do not include any information on whether these renovations have been made and infrastructure concerns addressed.

Under international human rights law, governments must provide adequate compensation to people for any property, both personal and real, which is affected by evictions.[121] Where those affected are unable to provide for themselves, the government should ensure that adequate resettlement or

119 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,Appendix T, pp. 39 – 48.

120 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 111.

121 Principle 60, UN Basic Principles and Guidelines on Development-based Evictions and Displacement, UN Doc. A/HRC/4/18, 5 February 2007, Annex I.

access to productive land, as the case may be, is provided to them.[122] The UN Basic Principles on Development-based Evictions and Displacement emphasise that identified relocation sites must also fulfil the criteria for adequate housing according to international human rights law.[123]

The UN Special Rapporteur on the Right to Adequate Food has emphasised that as part of their obligation to respect the right to food, governments *"should not arbitrarily take away people's access to food. Violations of the obligation to respect would occur, for example, if the Government arbitrarily evicted or displaced people from their land, especially if the land was their primary means of feeding themselves."*[124] The UN Basic Principles on Development-based Evictions and Displacement also provide that *"[c]ash compensation should under no circumstances replace real compensation in the form of land and common property resources. Where land has been taken, the evicted should be compensated with land commensurate in quality, size and value, or better."*[125]

Though some positive steps have been taken by Myanmar Wanbao to implement the Commission's recommendations, it has not implemented these recommendations fully. Myanmar Wanbao, ME1 and UMEHL have also failed to respect standards set out under international human rights law on payment of compensation and resettlement to evicted people.

PEOPLE AT RISK OF FURTHER FORCED EVICTIONS AFTER MYANMAR WANBAO ANNOUNCES THAT IT WILL EXTEND ITS WORKING AREA.

On 22 December 2014, the day it issued its press release claiming that it will commence construction of the project and extend its working area, because of *"broad community support for the project"*, Myanmar Wanbao bulldozed crops and began fencing off more farmlands near Saedee village. [126] **The company bulldozers were accompanied by the police. Some local community members tried to stop the bulldozers, which led to clashes between them and the police. The police opened fire on them, fatally shooting Daw Khin Win. Two other people suffered gunshot injuries. The police claim that the villagers, who were armed with slingshots and knives, attacked them, but even if this were true, intentional lethal use of firearms is only permissible if strictly unavoidable in order to protect life and would not justify the police shooting live ammunition into a crowd of protesters.**[127] **Myanmar Wanbao, according to news reports**[128]**, suspended the fencing on 24 December 2014, but people remain at risk of losing their farms and crops should the company resume its attempt to take over the rest of the project area.**

CONCLUSION

Safeguards required under international human rights in terms of consultations, due process, compensation and provision of adequate alternative housing and land have not been met in the land

122 Principle 43, UN Basic Principles and Guidelines on Development-based Evictions and Displacement, UN Doc. A/HRC/4/18, 5 February 2007, Annex I.

123 These include (a) security of tenure; (b) services, materials, facilities and infrastructure such as potable water, energy for cooking, heating and lighting, sanitation and washing facilities, means of food storage, refuse disposal, site drainage and emergency services, and to natural and common resources, where appropriate; (c) affordable housing; (d) habitable housing providing inhabitants with adequate space, protection from cold, damp, heat, rain, wind or other threats to health, structural hazards and disease vectors, and ensuring the physical safety of occupants; (e) accessibility for disadvantaged groups; (f) access to employment options, health care services, schools, childcare centres and other social facilities, whether in urban or rural areas; and (g) culturally appropriate housing. Principle 55, UN Basic Principles and Guidelines on Development-based Evictions and Displacement, UN Doc. A/HRC/4/18, 5 February 2007, Annex I.

124 Preliminary report of the Special Rapporteur of the Commission on Human Rights on the right to food, Jean Ziegler, UN. Doc. A/56/210, 23 July 2001, para 28.

125 Principle 60, UN Basic Principles and Guidelines on Development-based Evictions and Displacement, UN Doc. A/HRC/4/18, 5 February 2007, Annex I.

126 Official Press Release of Myanmar Wanbao, 22 December 2014, available at: http://www.myanmarwanbao.com.mm/en/our-latest-news/45-december-2014/128-official-press-release-of-myanmar-wanbao.html (last accessed 7 January 2015).

127 Principle 9.

128 'Fencing suspended in the controversial Letpadaungtaung copper mine project', Eleven, 25 December 2014, available at: www.eleven-myanmar.com/index.php?option=com_content&view=article&id=8474:fencing-suspended-in-the-controversial-letpadaungtaung-copper-mine-project&catid=44:national&Itemid=384 (last accessed 9 January 2015).

acquisition process for the Letpadaung mine, in which people have been evicted from their homes and lands and others remain at risk of eviction. The acquisition of lands and evictions of people from their homes and farmlands by the government is a forced eviction in contravention of international human rights standards on the rights to adequate housing and food that apply to Myanmar. By arbitrarily evicting people from land which is their primary means of feeding themselves, the government has also violated their right to food. [129]

The UN Committee on the Elimination of Discrimination against Women has emphasised the obligations of states to ensure that *"land lease contracts with foreign companies do not result in forced evictions …or the increased food insecurity and poverty of local populations, including women and girls, and that the company concerned and/or the State party provide the affected communities with adequate compensation and alternative land"*.[130] As a result of the forced eviction and the government's failure to provide rural women with alternative land, including access to common lands and natural resources, their living conditions, including income have been negatively impacted in breach of Article 14 of the Convention on the Elimination of All Forms of Discrimination against Women, which protects the rights of rural women to enjoy adequate living conditions.

The government has used Section 144 orders to block access to land and remove people from land that they farmed, and/or lived on, for the S&K and Letpadaung mines. The restriction on access for farmers while Myanmar Wanbao is allowed to construct or place mining and construction materials on the land, which could damage crops or land, as discussed earlier, blocks any possibility of the restitution of the land to the farmers who were forcibly evicted. Until effective remedies are provided for the forced evictions that were undertaken, including genuine consultations on the acquisition of land for the project and on resettlement and compensation, the companies should not be allowed to use the land. By using powers under the criminal code to restrict the farmers' access to the land that they were forcibly evicted from and which was acquired from them deceitfully, the government continues to violate the farmers' rights to adequate housing, food and freedom of movement.

Crucially, none of the officials who were involved in the forced evictions, including through deceiving people about the land acquisition process, have been held responsible in anyway and no remedy has been provided to people who have been forcibly evicted.

RESPONSIBILITY OF THE COMPANIES

Under the production sharing contract and its amendments, ME1 (on behalf of the Myanmar government) and UMEHL are apparently responsible for all consultation with communities and all elements associated with land acquisition, compensation and resettlement.[131]

As discussed earlier, the government of Myanmar violated international standards on the rights to housing and food by forcibly evicting people from their homes and farmlands. Many people, especially those still living in the villages proposed to be relocated, are still at risk of forced evictions.

Companies have a responsibility to respect human rights. The scope and meaning of this responsibility has been clarified in the UN Guiding Principles on Business and Human Rights (UN Guiding Principles).[132]

According to the UN Guiding Principles:

"The responsibility to respect human rights is a global standard of expected conduct for all busi-

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129 Preliminary report of the Special Rapporteur of the Commission on Human Rights on the right to food, Jean Ziegler, UN. Doc. A/56/210, 23 July 2001, para 28.

130 Concluding observations of the Committee on the Elimination of Discrimination against Women: Togo, UN Doc. CEDAW/C/TGO/CO/6-6, 18 October 2012, para 37 (e).

131 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. ii (executive summary). Amnesty International is unable to verify it or clarify when this division of responsibilities was agreed as neither the original production sharing contract or its amendments have been made publicly available.

132 UN Office of the High Commissioner for Human Rights, Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework (2011) UN Doc HR/PUB/11/04, available at: www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf (UN Guiding Principles).

ness enterprises wherever they operate. It exists independently of States' abilities and/or willingness to fulfil their own human rights obligations, and does not diminish those obligations. And it exists over and above compliance with national laws and regulations protecting human rights." [133]

The responsibility to respect human rights requires that companies:

"Avoid causing or contributing to adverse human rights impacts through their own activities, and address such impacts when they occur" [134]

In order to meet this responsibility, companies should put in place:

"A human rights due diligence process to identify, prevent, mitigate and account for how they have addressed their impacts on human rights" and "Processes to enable the remediation of any adverse human rights impacts they cause or to which they contribute."[135]

Myanmar Wanbao, UMEHL and ME1 failed to respect the human rights of the villagers to food and housing in the way that consultation, land acquisition, compensation and resettlement were carried out. Myanmar Wanbao utilised the lands of the villagers in 2011 despite considerable evidence of the deception and inadequacies of the land acquisition process.[136] By constructing fences to block farmers' access to the land, constructing buildings on the land and dumping what appears to be waste rock and top soil on the farmlands, Myanmar Wanbao has carried out forced evictions of people from their farmlands. It has hampered any remedy process which could involve the restitution of these lands to the villagers in a condition where they can farm them. Myanmar Wanbao also built the inadequate housing that was provided as a form of resettlement to villagers who were evicted from their homes. [137] It has taken on the role of carrying out consultations but failed to genuinely consult people on the plans for evictions and resettlement. The consultations have not provided any opportunity for people to suggest alternatives to evictions and have totally failed to comply with requirements under international human rights law which require that all affected people are included in the consultations.

Myanmar Wanbao's actions on 22 and 23 December 2014, in particular, demonstrates the flagrant manner in which the company has abused the villagers' human rights. The company, accompanied by police, bulldozed farmers' crops and erected fences to block – evict – villagers from their farmlands. People were not given any notice before fences were erected and crops destroyed.

Myanmar Wanbao has failed to undertake a risk assessment of the situation. It appears not to have sought any guarantees from the police, who accompanied its staff and bulldozers, to ensure that they will comply with international standards on the use of force and the right to peaceful assembly nor taken other reasonable measures to prevent abuses.

Myanmar Wanbao, UMEHL and ME1 should immediately halt any construction for the mining operations until the violations of human rights, identified above, are remedied. The government should ensure that no further evictions of people from their homes or farmlands are carried out until adequate safeguards are put in place, including a genuine process of consultation with all affected persons on the evictions, resettlements and compensation. Myanmar Wanbao, ME1 and UMEHL should improve the conditions in the resettlement sites to which people have been already moved and ensure that they meet the criteria for adequate housing under international law. Myanmar Wanbao and UMEHL should also ensure that fences and barriers are removed and ask the government to revoke Section 144 orders, enabling farmers to access their farmlands. Compensation should be provided to villagers for any loss of income related to the forced evictions. Myanmar Wanbao, UMEHL and ME1 should ensure that any final resettlement and compensation package provides an adequate standard of living for people who will be evicted from their lands and homes and is developed in consultation with all affected people.

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133 UN Guiding Principles, Principle 11.

134 UN Guiding Principles, Principle 13 (a).

135 UN Guiding Principles, Principle 15.

136 The Lawyers Network and Justice Trust report, which documents these issues at length, was released on 14 February 2013 with considerable publicity. These issues were also picked up by Letpadaung Investigation Commission.

137 Final report of the Investigation Commission, para 87 (c).

The government must hold the companies and officials who were involved in the forced evictions accountable, including through investigation of officials who deceived the villagers about the land acquisition process.

OHN THONE PIN FORCED EVICTION: AIDED AND ABETTED BY MYANMAR WANBAO

"My grandfather planted for my parents, my parents planted for me. The trees were the work of generations. We depend on these trees for food and shelter, they are our survival"

- A woman from Ohn Thone Pin village whose palm trees and crops were bulldozed

On 7 March 2014, a large contingent of police accompanied by two bulldozers razed palm trees and other crops on 100 acres of land in Ohn Thone Pin village in Sagaing Region. Villagers estimated that there were over 200 police officers present and also stated the bulldozers belonged to Myanmar Wanbao and were operated by Myanmar Wanbao employees. They described the uniform worn by the drivers to Amnesty International and it matches the uniform of Myanmar Wanbao staff.[138] This village does not fall within the list of villages from whom land has been acquired for the Letpadaung project and therefore there is no reason for Myanmar Wanbao to have been involved in these evictions.

In October 2013, the Yinmarbin Township authority told the villagers they would be given two plots of land measuring 80 by 60 feet if they gave the township authority one acre of their land for town planning purposes. [139] According to women whom Amnesty International interviewed, they were not told where these alternative plots of land were located. On 7 December 2013, the Secretary from Sagaing Region, accompanied by officials from the Township, Land and District authorities, called a meeting of the villagers. The same offer was repeated to them but this time they were told that the land was needed to construct police quarters. 17 villagers refused the offer and four villagers agreed. The Sagaing Region authorities started surveying the lands of all the villagers, including those who had not agreed to the acquisition. The villagers asked them to stop, pulled out the flags and poles placed on their lands by the authorities, and wrote a letter of complaint to the local MP and Chairman of the Farmland Committee. The land of those who had agreed to the acquisition was cleared by bulldozers on 16 January 2014.[140]

In early February 2014, the authorities put up notices in various parts of the village with the names of people, how much land would be taken and how much they would receive. These notices also mentioned that the alternative land that the villagers would receive was located in the eastern part of the Pathein road.

A woman villager however told Amnesty International that there was no empty land in that area and the plots the authorities were offering them were much smaller than what they had. *"We have relatives in the eastern part so we know there is no extra land there and they would have to grab the land from those people. We would also only get a small part of one acre - there are six compounds in an acre - and they are asking us to give up one acre for two compounds."*[141]

On 4 February 2014, the township authorities razed the crops of two farmers who had not agreed to give up their land. They were accompanied by approximately 50 police and a bulldozer operated by a Myanmar Wanbao employee (identified because of his uniform).[142] The villagers protested and blocked the bulldozers and a policeman tried to negotiate with them. He explained that they had to clear the land in accordance with a letter issued by the Sagaing Region which stated that permis-

138 Amnesty International interview, Myanmar, 26 March 2014.

139 Amnesty International interview, Myanmar, 26 March 2014.

140 Amnesty International interview, Myanmar, 26 March 2014.

141 Amnesty International interview, Myanmar, 26 March 2014.

142 The interviewee described the driver as wearing a blue uniform with a strip of reflective material on the sleeve and leg, which matches the uniforms worn by Myanmar Wanbao staff.

© Name withheld

Scenes taken from videos of the forced eviction carried out by police in Ohn Thone Pin village on 7 March 2014. Villagers' crops and palm trees were destroyed, and the police used excessive force. Myanmar Wanbao assisted the police by providing the bulldozers, but the evictions were not related to the mining project.

sion had been given to use specific plots of lands for other purposes.[143] He asked the villagers for information about how many people were unwilling to give up their lands and left.[144]

On 7 March 2014 the police returned, without any notice being provided to the villagers. Videos taken on the day, which were provided to Amnesty International, show yellow bulldozers, accompanied by a large number of police, systematically pushing down palm trees.[145] One of the videos shows some people from the village picking up clumps of mud and stones and throwing them at the police and shouting at them to stop the bulldozers. The police responded by charging the villagers with their shields and hitting some of them with batons. A man who was part of the crowd of villagers scuffling with the police and a monk who was standing on the side were surrounded by groups of policemen and taken to the 'arrest van' on the site. The footage showed the police shoving and pushing the man and the monk and hitting them with batons before putting them into the van. The man and monk were unarmed and did not offer any resistance to the police. One of the villagers informed Amnesty International that the monk suffered an eye injury, for which he received treatment. A female villager was also surrounded by policewomen who lifted her by her hands and legs and dragged her away from the site and into the van. Law enforcement officials are required to apply non-violent means, as far as they can, before resorting to violent means.[146] The UN Basic Principles on Use of Force specify that force and firearms may be used only if other means remain ineffective or without any possibility of achieving the intended result.[147] The police used excessive force in violation of these international standards in the course of these arrests.

The bulldozing of trees and crops to evict people from the farmlands they are cultivating, without genuine consultation to identify alternatives, advance notice of the eviction date, and without the provision of resettlement and compensation is a forced eviction. It violates international human rights standards on the rights to housing and food. By destroying the trees and crops that people depended on for their livelihood without notice, the government has also breached international human rights standards on the rights to work and an adequate standard of living.

The women that Amnesty International interviewed described the devastating impacts of the loss of the palm trees and their crops. *"I lost 38 palm trees as they were bulldozed. I also lost the ladders/ pulleys to climb the palm tree. It takes us eight months to work on one of the mature palm trees. … The palm tree lasts our whole life and we use every part of it. We can make baskets, chairs, roofs. It takes 20 years to become fully mature. I have no food because I no longer have the trees. I have no other land. I have no palm trees and no job. I am trying to find work as an odd job labourer but it is tough right now."* Another woman said *"I have two acres of land in this area where the police demolished the crops. I lost 70 palm trees, corn and sesame. I have seven acres elsewhere but cannot grow crops there in this season. We have to beg for food now"*.[148]

As the evictions were ostensibly carried out to allow for the construction of police quarters, there was no reason for Myanmar Wanbao to have any involvement in these evictions. Despite this, Myanmar Wanbao's staff and equipment were used to destroy trees and crops that the company, if it had undertaken even the most basic due diligence, would have known were many people's only source of livelihood. The drivers continued to operate the bulldozers and demolish crops and trees despite the community's vocal and evident concern at the authorities' actions. Amnesty International presented its findings to Wanbao Mining but the company did not provide any information in its response explaining why Myanmar Wanbao's bulldozers and drivers assisted the police in demolishing the villagers' trees and crops.[149] By providing its bulldozers and drivers to the government to demolish palm trees and crops that people rely on, Myanmar Wanbao aided and abetted the government in forcibly evicting people.

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143 Amnesty International has a copy of this letter which was sent from the Secretary of the Sagaing Division to the Chairman, Sub-divisional Administrative Committee and the Chairman, Township Administrative Committee, dated 4 February 2014.

144 Amnesty International interview, Myanmar, 26 March 2014.

145 Part of this footage was also broadcast in a DVB news report on 7 March 2014, available at: https://www.dvb.no/dvb-video/38212-burma-myanmar/38212.

146 Principle 4.

147 Principle 4.

148 Amnesty International interviews, Myanmar, 26 March 2014.

149 Letter to Wanbao Mining Ltd. sent on 11 January 2015. Amnesty International received a response from Wanbao Mining on 19 January 2015 (included in the annex to this report).

BACKGROUND TO THE NOVEMBER 2012 PROTESTS

This chapter describes how the government blocked people's attempts to organise peaceful protests against the Letpadaung mine. It examines events leading up to protests organised in the mining area in November 2012.

TIMELINE

May 2012: About 100 villagers go to the Myanmar Wanbao company compound to complain about the company placing construction materials on their farmlands

3 June 2012: UMEHL, the Sarlingyi township authorities, the District Governor, police and two monks representing the villagers, sign a temporary agreement which states that, pending a full solution to the villagers' grievances, the companies will temporarily halt construction activity and people will not have to relocate.

15 July 2012: Myanmar Wanbao puts up signs in the mining area declaring that these areas are restricted under Section 144 of the Code of Criminal Procedure.

17 – 21 November 2012: Six protest camps are set up. Monks and more than 1,000 people join the protests.

23 November 2012: Pyithu Hluttaw (the Myanmar Parliament) adopts a motion calling for an independent Commission to investigate the Letpadaung expansion and the S&K mine

27 November 2012: The Ministry of Home Affairs and the Police Colonel for Monywa District call on the protesters to disperse

ABILITY TO PEACEFULLY PROTEST BLOCKED BY THE GOVERNMENT

As described in the chapter on forced evictions, the villagers whose land was acquired for the Letpadaung mine only realised what was happening when Myanmar Wanbao began construction work, including dumping waste and construction material, on their land. A woman farmer told Amnesty International that the villagers complained to the police that Myanmar Wanbao was bringing materials in company trucks from the mining area and dumping it on their farms.[150]

At the end of May 2012, a local official visited some of the areas where materials had been placed and then went to the Myanmar Wanbao and UMEHL office.[151] Amnesty International was informed that about 100 villagers then went to the Myanmar Wanbao company compound and attempted to enter it, although police were present and blocked access. The hinge of the gate to the compound was broken in the process. A staff member of Myanmar Wanbao came out of the compound and told the villagers that the company was willing to negotiate with them.[152]

Following this event, on 3 June 2012, UMEHL, the township authorities, the District Governor, police and two monks representing the villagers signed a temporary agreement.[153] This agreement provided that pending a full solution to the villagers' grievances, the companies would temporarily halt the dumping of waste materials and not carry out further construction for the mine, and the remain-

150 Amnesty International interview, Myanmar, 28 March 2014.

151 Amnesty International interview, Myanmar, 28 March 2014.

152 Amnesty International interviews, Myanmar, 28 March 2014.

153 See Lawyers Network and Justice Trust, Report of Evidence Regarding Controversies at Letpadaung Hill Copper Mine Project, 14 February 2013, p. 26 for a copy of the agreement.

ing households from Wet Hme, Saetee and Zee Daw villages would not have to relocate.[154] However, according to villagers, this agreement was not honoured and Myanmar Wanbao continued to dump materials and construct on the farmlands that were acquired deceitfully.[155]

According to the Lawyers Network, an independent association of lawyers in Myanmar, and Justice Trust, a human rights organization that works through local lawyers and activists, on 15 July 2012 – some six weeks after the signing of the agreement – signs were put up around the company compound, at the access road, and in the mine area declaring that these areas were restricted under Section 144 of the Code of Criminal Procedure. [156] Villagers whose farms were within these restricted areas could no longer access them.[157]

Since the temporary agreement was not honoured, protests began to grow in size and people from adjoining areas also became involved.[158] Villagers began to organize meetings, demonstrations and performances to publicise their concerns and many civil society groups got more involved. There was also increased reporting of the villagers concerns in national, regional and international media.[159] Things came to a head when people heard reports that parts of the Ledi Sayadaw monastery, located in the mine area, had been damaged by Myanmar Wanbao's operations. By November 2012 the villagers had applied 11 times to the Sarlingyi police for permission to organise a peaceful assembly but were refused.[160]

SIX PROTEST CAMPS SET UP IN NOVEMBER 2012

Between 17 and 21 November 2012 villagers set up six protest camps and monks from monasteries in the area joined the protests.[161] The main camp was located outside the gate of Myanmar Wanbao's compound and five other camps were set up at different points within the mine lease area and on access roads. The protesters maintained a presence at the camps on a 24-hour basis and, by all accounts, the protests were peaceful. The Irrawaddy reported on 20 November 2012 that more than 1,000 people had held a demonstration outside the Myanmar Wanbao compound.[162]

There was extensive reporting on the protests, which also gathered wider public support. Students, activists and monks from other parts of the country came to the area to show their support and demonstrations were also organised in Yangon.[163]

On 23 November 2012 Daw Khin San Hlaing, a Member of Parliament from Sagaing Region, tabled an extraordinary motion before the Pyithu Hluttaw (the Myanmar Parliament) calling for the formation of *"an independent, national-level commission"* to investigate the Letpadaung expansion, as well as the existing mine at Sabetaung and Kyisintaung.[164] The motion was unanimously adopted by the Pyithu Hluttaw.[165]

Daw Aung San Suu Kyi, a member of the Parliament's Rule of Law Committee, announced that she would visit the area on 29 November 2012 to meet the protesters and look into the impacts of the

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154 Lawyers Network and Justice Trust, Report of Evidence Regarding Controversies at Letpadaung Hill Copper Mine Project, 14 February 2013, pp. 15 and 26.

155 Amnesty International interview, Myanmar, 28 March 2014.

156 Lawyers Network and Justice Trust, Report of Evidence Regarding Controversies at Letpadaung Hill Copper Mine Project, 14 February 2013, p. 15.

157 Amnesty International interview, Myanmar, 28 March 2014.

158 Amnesty International interviews, Myanmar, 25 March 2014.

159 See E. Zerrouk and A. Neef, 'The Media Discourse of Land Grabbing and Resistance During Myanmar's Legal Reformation: The Monywa Copper Mine', Law and Development Review, Volume 7, Issue 2, pp. 275 – 312.

160 Amnesty International interview, Myanmar, 28 March 2014. See also Lawyers Network and Justice Trust, Report of Evidence Regarding Controversies at Letpadaung Hill Copper Mine Project, 14 February 2013, p. 15, See also pp. 24 – 25 for a copy of the police response denying permission to the villagers.

161 Amnesty International interview, Myanmar, 25 March 2014.

162 Nyein Nyein, 'Monywa Copper Mining Protest Resumes', The Irrawaddy, 20 November 2012, available at: www.irrawaddy.org/burma/monywa-copper-mining-protest-resumes.html (last accessed 31 January 2015).

163 Kyaw Phyo Tha. 'Copper Mine Protesters Defiant despite Threats', The Irrawaddy, 28 November 2012, available at: www.irrawaddy.org/burma/copper-mine-protesters-defiant-despite-threats.html (last accessed 31 January 2015).

164 Soe Than Lynn, 'Myanmar parliament approves Letpadaung mine probe', Myanmar Times, 24 November 2012 available at: www.mm-times.com/index.php/national-news/3343-myanmar-parliament-approves-letpadaung-mine-probe.html (last accessed 24 October 2014).

165 Soe Than Lynn, 'Myanmar parliament approves Letpadaung mine probe', Myanmar Times, 24 November 2012 available at: www.mm-times.com/index.php/national-news/3343-myanmar-parliament-approves-letpadaung-mine-probe.html (last accessed 24 October 2014).

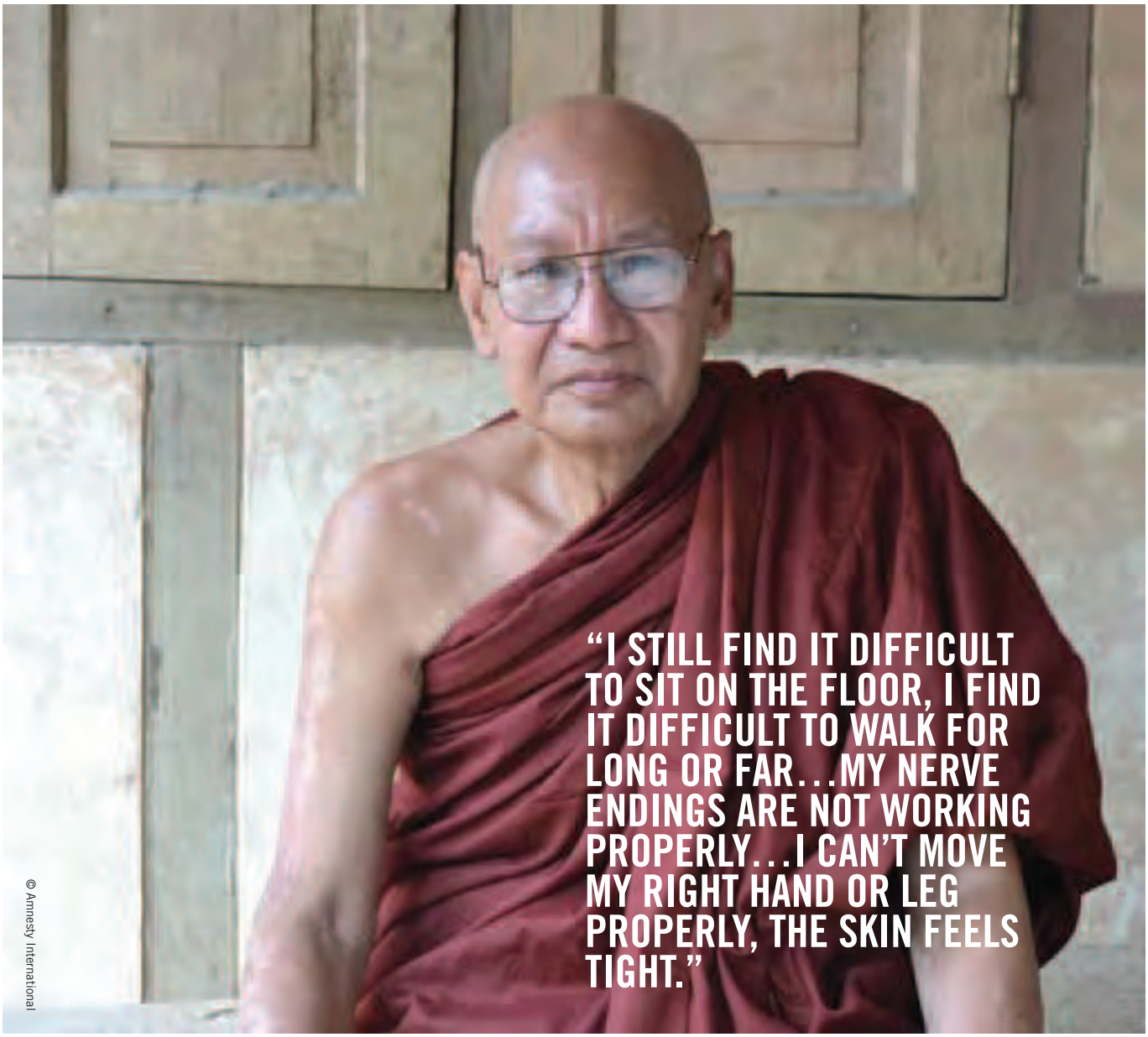
mine on the village.[166] However, on 27 November 2012, the Ministry of Home Affairs issued a press release and the Monywa District Police Colonel also made announcements on Myanmar Television asking the protesters to disperse by 24:00 otherwise measures would be taken against them.[167] The protesters did not disperse.

Approximately 500 monks and 50 other people, villagers and activists, were at the six protest camps on 29 November 2012[168] when the police launched a deliberate attack on the protestors, using explosive devices. The attack and its legality under international human rights law are discussed in detail in the next chapter.

166 VOA, 'Burma Mine Protesters Attacked Ahead of Suu Kyi Visit', 30 November 2012, available at: http://m.voatibetanenglish.com/a/aung-san-suu-kyi-to-visit-controversial-copper-mine/1555272.html (last accessed 24 October 2014).

167 Para 90 (d), Final report of the Investigation Commission and Unofficial translation of the Ministry of Home Affairs Press Release 7/2012 reproduced in the The New Light of Myanmar, 28 November 2012, Volume XX, No. 22, p. 2. The press release referenced the Pyithu Hluttaw resolution and said a commission would be formed soon and would visit the project area. It stated that "[d]ue to strike at six camps in the project area where Section 144 is declared, the project activities are suspended since 18 November, 2012. The commission will not be able to look into the project as usual if the project activities are suspended. The commission will be able to independently investigate and correctly assess the project only when it is running as usual. The protesting organizations around the project area are to break away not later than 12 pm on 27 November, 2012, to enable the commission conduct independent investigation. …If not, the measures will be taken under the existing laws in line with the constitution."

168 Lawyers Network and Justice Trust, Report of Evidence Regarding Controversies at Letpadaung Hill Copper Mine Project, 14 February 2013, p. 4.



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this page: **U Teikkha Nyana, an elderly monk who suffered severe second and third degree burns after being hit by a white phosphorus munition thrown, by the police, at peaceful protestors on 29 November 2012. These images were taken in March 2014. He has had to undergo multiple surgeries and skin grafts, because of the burns he suffered.**

WHITE PHOSPHORUS MUNITIONS

"I WAS ON FIRE ON MY BACK AND ONE ARM, ALSO MY LEGS."

U Teikkha Nyana

TESTIMONY OF AN ELDERLY MONK WHO WAS ONE OF THE PROTESTERS AT THE MAIN PROTEST CAMP AND SUFFERED SEVERE BURNS ON HIS LEGS, BACK AND ARM WHICH REQUIRED HIM TO BE HOSPITALISED FOR FOUR MONTHS AND UNDERGO MULTIPLE SURGERIES AND SKIN GRAFTS.[169]

"From 10 pm [on 28 November 2012], after one and half hours intervals, the police were making a stamping sound and beating their batons against the shields. About 2.30 am, they announced with a loud speaker, 'people who are demonstrating are not following the law, they are going to break down the camp, move away from the camp'

*They [the police] repeated 'this camp is an ill**egal camp, an illegal organization, we are going to break down the camp'. They started the fire engine and started spraying out the water. It was winter time, so people had shawls or blankets and they didn't run away, they just covered themselves. The water spraying speed was very high, the whole body was soaked.*

Near the gate [of the Wanbao compound], there were five demonstrators standing there. They opened the gate and arrested them. I was about 15 feet away from the entrance. In front of me, some of the young monks were standing. Suddenly the fire ball fell down. It landed close to me, it was like a round tube and fire came out like a fire cracker. I was sitting cross-legged, the fire bomb hit me on the back on the right hand side. I had a blanket and a bag and even though the whole body was wet, the fire started. I tried to put out the fire and rolled on the ground. I saw fire all around. I tried to stand up and put out the fire. Another fire bomb fell between my legs. I was on fire on my back and one arm, also my legs. It was very painful. There was a burning smell from the body like a barbecue. My robe was burnt. I had pebbles and stones on my body. I was still able to walk. I went towards the police, they were lined up with shields and batons. I shouted 'look at me, look at me'.

Some of the policemen were covering their faces with sheets, they tried to show me the way out saying 'go that side'. I reached one of the roads and one man carried me on his cycle. I called my son and told him I was injured. He came and picked me up. They took me straight to the Mandalay general hospital."

The six protest camps at Letpadaung were at different points in the mine area. One was outside the main Myanmar Wanbao compound, some were on access roads and one was near a monastery. Amnesty International has interviewed protesters at the main camp, outside the Myanmar Wanbao compound, on 29 November 2012 as well as people who were at three of the other five camps on that day. They all described a similar chronology of events.

Between 02:30 to 03:00 on 29 November 2012, police officers using loud speakers ordered people to leave the protest camps. People did not leave and fire hoses attached to fire engines were used as water cannons to spray the protesters with water at high pressure. In the case of the main protest camp, the police and fire engines were inside the Myanmar Wanbao compound at this time. One of the protesters told Amnesty International that it was too dark for them to see whether it was the police or the fire brigade staff who were spraying them.

Immediately after, the police started throwing 'fire bombs', later identified as white phosphorus incendiary munitions, at the protesters. A protester interviewed by Amnesty International stated:

169 Amnesty International interview, Myanmar, 25 March 2014.

top: **One of the six protest camps, which caught fire after the police used white phosphorus munitions against the protesters on 29 November 2012.**

above left and next page: **Protesters who suffered burns because of the police's use of white phosphorus munitions on 29 November 2012. Between 110 and 150 people were injured as a result of the attack.**

above right: **Exploded munition collected from the site (of the attack on peaceful protestors by Myanmar police on 29 November 2012). Justice Trust organised for the canister to be tested in Bangkok, and the results confirmed a phosphorus residue, consistent with a white phosphorus munition.**

"the police then threw a bomb and the whole area became smoky. … I saw the bomb landing in the crowd, spraying out fire. It was aflame and like a fire-cracker."[170] Another protester who was in the camp near a monastery stated that the 'bombs' thrown at them by the police were of different kinds, *"one was finger-shaped, one was round …when they reached the ground, it broke into two or three pieces and there was fire"*. The protester suffered burns on his legs when his longyi and blanket caught fire. He described how he saw a man running ahead of him being hit on the head by a 'bomb'. *"He lost half of his hair and his back and hand were burnt"*.[171]

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170 Amnesty International interview, Myanmar, 28 March 2014.
171 Amnesty International interview, Myanmar, 19 March 2014.

People said that it was too dark for them to see what the police were using to fire the 'bombs' but one man said that he heard something, which sounded like *"taung taung"*. Other protesters described a *"phoom phoom"* like sound. All the protesters were clear that the 'fire bombs' were shot or thrown directly at the protesters and some were thrown over their heads (some of the palm trees near the camps caught fire).[172]

The protester from the camp outside a local monastery, quoted above, also stated that the police threw 'fire bombs' at people even when they were leaving the camps. *"Three firebombs were shot within seconds… old people were withdrawing from the camp but the police continued to throw firebombs"*. He also claimed that the police continued to chase the protesters and beat them as they tried to walk towards Saetee village and tried to arrest some of the people once they arrived at the village.[173]

Different protestors described the action of the 'bombs'. There was a slight delay between the bomb landing and it exploding.[174] The area became smoky and fire from the 'bombs' spread on the ground when the 'bomb' landed.

Those who were hit and whose clothing caught on fire stated that it was very difficult to extinguish the fire. Many people described the fire from the 'bomb' as spreading like a fire-cracker.[175]

Those who had smaller burns and people who witnessed others getting burnt described to Amnesty International researchers how the *"flesh which was burnt initially became whitish but there was no bleeding"*.[176] People who were not burnt also described effects from the smoke and fire. A protestor who was at the camp on the Pathein-Monywa road said: *"I could see fire and people running … in all directions. I was about 30 – 40 feet from the police. I also started running and as I was running, I saw …bombs being thrown at my camp. There was a lot of smoke and fire. My throat felt stuffy and my eyes were burning"*.[177]

The eyewitness descriptions given to Amnesty International by protesters are consistent with detailed testimonies given to the Lawyers Network and Justice Trust by protesters soon after the attack.[178] Video footage of the attack released by The Irrawaddy news channel and Democratic Voice of Burma (DVB) also confirm the protester's accounts. The Irrawaddy video footage shows liquid being sprayed at high pressure, bright explosions, smoke and fire.[179] In the DVB video, the viewer can see the camps burning but from slightly further away.[180] Various photos taken by journalists on the morning of the attack captured the smoke and fire as a tarpaulin roof shelter and flags erected by the protesters burned. Journalists also photographed people burnt by the attack, mainly monks but also a woman protester from one of the villages who was burnt on her cheek and arm.[181]

Between 110 and 150 people were injured as a result of the attack. Many were burnt severely.

ANALYSIS OF THE WEAPONS

According to news reports, the authorities stated that the police had used water cannons, tear gas and smoke bombs in accordance with international standards on riot control.[182] Protesters however maintained that the burns were caused by incendiary devices, which they referred to as "fire bombs" or "fire balls".[183]

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172 Amnesty International interviews, Myanmar, 19 and 27 March 2014.

173 Amnesty International interview, Myanmar, 19 March 2014.

174 Amnesty International interview, Myanmar, 19 March 2014.

175 Amnesty International interviews, Myanmar, 19, 27 and 28 March 2014.

176 Amnesty International interview, Myanmar, 28 March 2014.

177 Amnesty International interview, Myanmar, 27 March 2014.

178 Lawyers Network and Justice Trust, Report of Evidence Regarding Controversies at Letpadaung Hill Copper Mine Project, (14 February 2013).

179 Available at: www.youtube.com/watch?v=HcJUPVNR9qg (last accessed 22 August 2014).

180 Available at: https://www.youtube.com/watch?v=msFZh5u1-6w (last accessed 22 August 2014).

181 See for example, The Irrawaddy, available at: www.irrawaddy.org/wp-content/gallery/monks-suffer-with-dignity-but-shall-not-forgive/3.jpg (last accessed 1 February 2015).

182 See for example, Associated Press, 'Dozens burned and injured as Myanmar security forces violently crack down on mine protesters', Daily News, 29 November 2012, available at: www.nydailynews.com/news/world/myanmar-security-forces-violently-crack-protesters-article-1.1210610.

183 Amnesty International interviews, Myanmar, 25 March 2014.

Activists and locals collected evidence from the sites of the attack, including exploded canisters. One of the canisters was put into a sealed plastic bag to prevent contamination and entrusted to Justice Trust for scientific analysis.[184] An activist also informed Amnesty International that some of the canisters were given to the Letpadaung Investigation Commission, whose findings are discussed later in this chapter.[185]

Justice Trust gave the canister for analysis to the ALS Laboratory Group in Bangkok. The canister is 10 cms high and with a diameter of 5 cms. It is wider at the top than at the bottom (see photo). The lettering on the canister is faded in parts but two lines of it are partially visible; both are in English. The first visible line reads "AND SMOKE" followed by "LOT 01/12/96". The base of the canister contains an orange-brown residue, which was analysed by the laboratory. The laboratory's report stated that the sample contained 25.5% phosphorus, of which 58.3% was in the form phosphorous pentoxide (P2O5).[186]

Amnesty International shared the ALS laboratory results and a summary of the witness testimonies it had collected with Professor Alastair Hay, a Professor of Environmental Toxicology at the University of Leeds in the UK, who has published and worked extensively on chemical weapons. Professor Hay stated that *"the laboratory results indicate a high phosphorus content which is consistent with a white phosphorus munition. The claims by some of the protesters that the fires were difficult to quench would fit with phosphorus burning. If any phosphorus was on someone's skin, the burns would be very painful as the phosphorus will burn until all of it has been used up. This can mean very deep burns."*

right: **Protesters who suffered burns because of the police's use of white phosphorus munitions on 29 November 2012. Between 110 and 150 people were injured as a result of the attack.**

opposite page: **Other exploded munitions collected from the site of the attack on peaceful protestors by Myanmar police on 29 November 2012. The varied canisters are consistent with witness testimony that police used different types of munitions.**

WHITE PHOSPHORUS AND ITS EFFECTS

White phosphorus is a toxic substance produced from phosphate-containing rocks. It is used by the military in various types of ammunition as an incendiary agent (because it spontaneously catches fire in air) and as a smoke agent (because it produces clouds of irritating white smoke). It has a match-like or garlic-like, acrid odour.[187]

On exposure to air, white phosphorus ignites spontaneously in an exothermic reaction resulting in yellow flaming and production of dense white smoke, the particles of which scatter light and absorb infrared radiation. The smoke contains phosphorus pentoxide and phosphorus trioxide, which are hygroscopic (absorb or attract moisture from the air) and can form polyphosphoric acids.[188]

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184 Lawyers Network and Justice Trust, Report of Evidence Regarding Controversies at Letpadaung Hill Copper Mine Project, (14 February 2013), p. 21. This was also confirmed by staff of Justice Trust in a conversation with Amnesty International as well as in interviews that Amnesty International conducted in Monywa and Yangon.

185 Amnesty International interview, Myanmar, 30 March 2014.

186 ALS Laboratory report, shared by Justice Trust with Amnesty International.

187 Center for Disease Control and Prevention (CDC), White phosphorus: Systemic agent, available at: www.cdc.gov/niosh/ershdb/EmergencyResponseCard_29750025.html (last accessed 17 August 2014).

188 J.A. Romano, B. J. Lukey and H.Salem (eds.), Chemical Warfare Agents: Chemistry, Pharmacology, Toxicology, and Therapeutics, CRC

White phosphorus causes severely painful, partial (second degree) to full thickness (third degree) burns with necrosis (dead tissue) and eschar (dead tissue or shreds of skin, typically brown or black in colour).[189] **It is highly fat soluble, and easily absorbed through the skin, possibly causing whole-body (systemic) effects.**[190] **Upon contact, white phosphorus can continue to burn on the skin in the presence of air until all the phosphorus is consumed or until there is a deprivation of oxygen. A report by the UN on incendiary weapons and their effects noted that white phosphorus *"is usually scattered as a mass of sticky particles, and each of these may adhere to a person's skin, continuing to burn until isolated from air or fully burnt out. The result is a multiplicity of relatively small burns that extend deep into the skin over a large surface area and often into the underlying tissue. Burns of this type are extremely difficult to treat ... Phosphorus burns of the hands, wrists or feet, for example, may (like other deep burns) result in partial or total disablement of these extremities after healing"*.**[191]

Amnesty International shared photos of some of the burn injuries taken soon after the police attack as well as some photos of U Teikkha Nyana, taken in 2014, with Professor Derrick Pounder, an expert in forensic medicine. After analysing the photos, he described the burns as geographic area burns (spread over larger areas) and punctate lesions (lesion marked with points or punctures) of varying sizes.[192] *"The punctate lesions are most consistent with white phosphorus burns. Punctate lesions would not result from burning fabric falling on or touching people but are the result of intense heat in a localised area. Many of the images suggest that the burns were caused by an external source rather than through a person's clothing catching fire, which would have caused more burns to the torso."* Professor Pounder said that the wounds displayed a very unusual pattern, which is consistent with being hit by or coming into contact with white phosphorus. He stated that from the photos taken in 2014, it was evident that U Teikkha Nyana had suffered second and third degree burns. The photos show keloid scarring at the right upper arms, which suggest intense burning in a localised area.

Amnesty International also obtained photographs of other exploded munitions collected from the areas of the attack, from reliable sources, which were different to the canister that Justice Trust tested. These include canisters that are green or black with grooves at the bottom, which appear to be exploded grenades and also contain an orange-brown residue and rectangular silver canisters, with a red stripe in the middle (see photos). This was consistent with the protesters' testimonies that they saw different types of bombs. The munitions themselves could not be located, as they had been removed from the areas of the attack.

Amnesty International consulted weapons and military experts and asked them to review photos of munitions, the ALS laboratory report shared by Justice Trust and in some cases, the Irrawaddy and DVB videos of the police attack.[193] The experts were unable to identify the make of the munitions. A few experts noted that this suggests that the munitions were either locally manufactured (as Myanmar also uses the English system for assigning lot numbers to munitions it produces) or adapted from commercially available munitions. All the weapons and military experts consulted by Amnesty International were unanimous in the view that there could never be a tactical reason for a police force to deploy a white phosphorus munition and that such munitions are normally used by the military. Chris Cobb-Smith, a weapons expert who has worked extensively on the use of white phosphorus munitions said, *"even when used by the military there are meant to be strict guidelines to ensure white phosphorus is deployed only for obscuration measures and not directly against enemy combatants"*.

Press, 2nd edition (2007), p. 480.

189 CDC, White phosphorus: Systemic agent. See also J. A. Romano, et. al., Chemical Warfare Agents, p. 481 and W. N. Rom and S. B. Markowitz (eds.), Environmental and Occupational Medicine, Lippincott Williams and Wilkins, 2006, p. 1091.

190 CDC, White phosphorus: Systemic agent, available at: www.cdc.gov/niosh/ershdb/EmergencyResponseCard_29750025.html (last accessed 17 August 2014).

191 UN Department of Political and Security Council Affairs, Napalm and Other Incendiary Weapons and All Aspects of Their Possible Use, Report of the Secretary-General, A/8803/Rev.1, 1973, para 122.

192 Professor Pounder noted that there was no indication of any flow pattern to suggest the use of a liquid accelerant.

193 Two of the experts also circulated the images to various other weapons specialists, who were also unable to identify the munitions.

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MEDICAL TREATMENT AND ASSISTANCE

Activists and victims confirmed to Amnesty International that neither the police nor the local authorities provided any medical treatment or assistance to the protesters after the attack. Many of the protesters initially took refuge in the Paung Ka monastery. Some of those injured were initially treated by local doctors, with the help of the Letpadaung Salvation Committee,[194] and then taken to Monywa Hospital. The doctors in Monywa lacked the proper equipment to treat people with severe burns so community members organised transport to a hospital in Mandalay.[195]

The Letpadaung Investigation Commission, which investigated the use of forced by the police against the protesters between December 2012 and March 2013, recorded that 99 monks and nine other people were injured. According to the Commission, most of the injured were treated at Mandalay Hospital, four monks were transferred to Yangon General Hospital and, of them, two monks were subsequently sent to Thailand for treatment. One hundred and eight people were treated in hospitals between 29 November and 7 December 2012. Thirty people were hospitalised for a longer period.[196] However more people may have been affected and not sought treatment. According to some of the protestors interviewed by Amnesty International, not all of those who were injured were able to access treatment, in part because people were worried about being arrested. [197]

One of the activists who spoke to Amnesty International said he did not to go to hospital because he was afraid of being arrested. He said that the round white burns on his feet caused due to his longyi catching fire in the attack took four months to heal.[198]

LIFELONG INJURIES DESPITE INTENSIVE TREATMENT

U Teikkha Nyana, the elderly monk who had suffered severe burns, was taken initially to Mandalay Hospital but as there was no specialist burns ward in there he was moved to Yangon General Hospital, where he stayed for over a week. He told Amnesty International that he was interviewed by Daw Aung San Su Kyi who organised for him to be treated outside the country based on the recommendation of his doctor.

The Myanmar authorities arranged for treatment in Bangkok. He stayed in a hospital there for more than three months.

"I had multiple surgeries and skin grafts nearly every three weeks. They used my own skin for grafts. They changed my dressings every day, it took about 45 minutes and it was incredibly painful. About seven to eight medical staff had to change the dressings. It was the worst time, the skin graft was easier because of the morphine.

I still find it difficult to sit on the floor, I find it difficult to walk for long or far. My skin feels very tight. My left heel is painful. My nerve endings are not working properly, my toes and skin are numb on the left hand side. I don't know if a thorn pricks me right away. I can't move my right hand or leg properly, the skin feels tight."

He told Amnesty International that a young monk who was also badly burnt during the attack had been in the same Bangkok hospital as him but discharged a month earlier. He described how the young monk used to scream in pain when his dressings were changed.

When U Teikkha Nyana was in hospital in Bangkok, he had to rely on a translator appointed by the Myanmar embassy for translations of conversations with doctors. Although U Teikkha Nyana spent three months in the hospital he did not get any explanation of his injuries; nor was he given any medical

194 Lawyers Network and Justice Trust, Report of Evidence Regarding Controversies at Letpadaung Hill Copper Mine Project, (14 February 2013), p. 20.

195 Amnesty International interviews, Myanmar, 28 March 2014.

196 Paras 25, 36 and 90 (f), Final report of the Investigation Commission. Once the Investigation Commission was set up, it was also involved in negotiating care for those with severe injuries.

197 Amnesty International interviews, Myanmar, 19 and 28 March 2014.

198 Amnesty International interview, Myanmar, 19 March 2014.

records of the treatment he received. He does not know if there is any damage to his internal organs or if there are future health risks as a consequence of the injuries he received and his exposure to white phosphorus.

"I don't have any medical record or papers. They gave me only two pages of papers, which were kept by the Yangon hospital, but they said it was not a record, just discharge papers. I would like to see a copy of the record and to know what treatment I received. I don't understand why it disappeared. I was asked to wear some special clothing for eight months but it was too hot and tight to wear in Monywa."

Dr. Chatchai Pruksapong, a burn specialist who treated U Teikkha Nyana in Bangkok told the New York Times that his wounds were similar to those he saw on soldiers injured by bomb blasts in Thailand's southern insurgency.[199]

Amnesty International's investigation found no indication that the Myanmar authorities were undertaking any medium to long-term health monitoring of the people who were exposed to white phosphorus. Nor is there any evidence of the authorities providing rehabilitation for burns victims, after they left hospital (necessary for severe burns to help recover movement). As noted earlier, U Teikkha Nyana asked for his medical records but he still has no information about the treatment he received, whether any of his organs were affected because of the exposure to white phosphorus, and the health risks that he may face in the future.

VIOLATIONS OF INTERNATIONAL HUMAN RIGHTS LAW

International human rights law clearly sets out a framework regulating the use of force by law enforcement officials. This framework is set out in the UN Basic Principles on the Use of Force and Firearms by Law Enforcement Officials (UN Basic Principles on Use of Force) and the UN Code of Conduct for Law Enforcement Officials.

The UN Code of Conduct for Law Enforcement Officials provides that law enforcement officials must uphold human rights in the performance of their duty.[200] This requires, amongst other things, that law enforcement officials respect the rights of people to peaceful assembly as well as their rights to life, to be free from torture and cruel, inhuman or degrading treatment or punishment, and to physical and mental integrity. The UN Code of Conduct for Law Enforcement Officials stipulates that law enforcement officials may use force only when strictly necessary and to the extent required for the performance of their duty.[201] The UN Basic Principles on the Use of Force expand on this protection and provide more detailed guidance on the circumstances in which force can be used, the type and extent of force that can be used, and the principles of legitimate purpose, strict necessity and proportionality, which must underlie any use of force.

Law enforcement officials are required to apply non-violent means, as far as they can, before resorting to violent means to carry out legitimate law enforcement actions.[202] The UN Basic Principles on Use of Force specify that force and firearms may be used only if other means remain ineffective or without any possibility of achieving the intended result.[203] Even if law enforcement officials have to disperse unlawful assemblies, as long as these assemblies are non-violent, they are required to avoid the use of force, or where that is not practicable, to restrict it to the minimum extent necessary.[204]

The guidelines for the use of firearms or lethal force are stricter and limit the use of lethal force to the following circumstances:

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199 T. Fuller, 'Myanmar police used Phosphorus on Protesters, Lawyers say', The New York Times, 30 January 2013.
200 Article 2.
201 Article 3.
202 Principle 4.
203 Principle 4.
204 Principle 13.

- In self-defence or defence of others against the imminent threat of death or serious injury; or
- To prevent the perpetration of a particularly serious crime involving grave threat to life, to arrest a person presenting such a danger and resisting their authority or to prevent his or her escape; and
- Only when less extreme measures are insufficient to achieve these objectives.[205]

Intentional lethal use of firearms is only permissible if strictly unavoidable in order to protect life.[206] Law enforcement officials are also required to warn people of their intent to use lethal force and give them time to respond before they do so, unless this would put the official at risk.[207] They must notify their superiors after any use of lethal force and the incident should be reviewed by independent administrative or prosecutorial authorities.[208] Law enforcement officials must also ensure that assistance and medical aid are given to any injured or affected persons at the earliest moment.[209]

Even if protesters use violence, the police must react proportionately and only use the minimum force necessary to control the situation and re-establish public order.[210] Governments are required to make the arbitrary or abusive use of force or firearms by law enforcement officials punishable as a criminal offence under their national laws.[211]

The protests about the Letpadaung mine in November 2012 were peaceful.[212] Throughout the protests, the protesters had not engaged in or threatened any acts of violence, nor were they armed in any way. Even if the police considered the protests to be unlawful, there was no justification for the use of force to disperse the protests.

The police did not attempt any non-violent measures to disperse the protesters. They made announcements that people who were demonstrating were breaking the law, that they would break down the camp and that people should move away from the camp. The police made the last announcement between 02:30 to 03:00 on 29 November 2012 and then hoses attached to fire engines were used as water cannons to spray the protesters. Soon after the hoses being used, the police began to throw white phosphorus munitions directly at the protesters – no warning was given.

There is a prohibition on attacking civilians with incendiary weapons even in situations of armed conflict.[213] There can be no justification for the police to use white phosphorus and any use contravenes the safeguards set out under the UN Code of Conduct for Law Enforcement Officials and the UN Basic Principles on Use of Force. The use of white phosphorus munitions and high-pressure water sprays against peaceful protesters amounts to the use of abusive force, which governments are required to criminalise.

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205 Principle 9.

206 Principle 9.

207 Principle 10.

208 Principles 6 and 22.

209 Principle 5 (c).

210 Principle 14.

211 Principle 7.

212 The authorities told the Commission that Section 144 of the Code of Criminal Procedure was imposed in the area to ensure the safety of people, mine machinery and workers. The Commission referred to incidents and disturbances that had occurred in general the mining area in 2012 while examining the rationale for impositions of orders restricting access to these area. See paras 88 and 90, Final Report of the Letpadaung Investigation Commission. However, the police did not provide any evidence that the protesters had engaged in or threatened any acts of violence, or had any weapons or objects that could be used to cause injuries to the police.

213 Article 2 (1), Protocol on Prohibitions or Restrictions on the Use of Incendiary Weapons (Protocol III), 10 October 1980. Incendiary weapons are defined under article 1 (1) of Protocol III as any weapon or munition which is primarily designed to set fire to objects or to cause burn injury to persons through the action of flame, heat, or combination thereof, produced by a chemical reaction of a substance delivered on the target. Using white phosphorus an as smokescreen is not banned under Protocol III but throwing white phosphorus munitions directly at civilian populations or overhead in densely populated areas would result in the white phosphorus munition being treated as an incendiary weapon, in contravention of Protocol III.

PROHIBITION ON TORTURE AND CRUEL, INHUMAN OR DEGRADING TREATMENT OR PUNISHMENT

Torture and other cruel, inhuman or degrading treatment or punishment (other ill-treatment) is absolutely prohibited under international law.[214] Myanmar has yet to ratify any human rights treaty that imposes a general prohibition on torture and other ill-treatment.[215] However, the prohibition of torture and other ill-treatment is a rule of customary international law,[216] binding on all states whether or not they are parties to particular treaties which contain the prohibition. The prohibition on torture is also considered a norm of jus cogens[217].[218] It is absolute and can never be subject to any limitation or suspended, even in times of war, threat of war, internal political instability or states of emergency.

Article 1 of the UN Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment sets out the definition of torture, which is accepted as the definition of torture under international law.

> *For the purposes of this Convention, the term "torture" means any act by which severe pain or suffering, whether physical or mental, is intentionally inflicted on a person for such purposes as obtaining from him or a third person information or a confession, punishing him for an act he or a third person has committed or is suspected of having committed, or intimidating or coercing him or a third person, or for any reason based on discrimination of any kind, when such pain or suffering is inflicted by or at the instigation of or with the consent or acquiescence of a public official or other person acting in an official capacity. It does not include pain or suffering arising only from, inherent in or incidental to lawful sanctions.*

SEVERE PAIN AND SUFFERING

As described earlier, the incendiary munitions either hit individuals directly or the ground near them and the fire, heat and corrosive action (as phosphorus pentoxide can turn into phosphoric acid) produced from the white phosphorus burnt people. The degree of heat produced by the white phosphorus as well as the fact that it is very difficult to put out the fire meant that people, especially those who were hit directly with the munitions, suffered severe pain. Even after they finally managed to put out the fire, the burns themselves were extremely painful and slow to heal. The police and the authorities did not provide any medical assistance to people on the site and there was a considerable delay before they were able to receive treatment, leaving them to suffer physically and mentally. The fact that the police tried to arrest some people after the attack meant some protesters did not seek medical treatment for fear of being arrested.

Human Rights Watch and the Harvard Law School's International Human Rights clinic drafted a memorandum on the human suffering caused by incendiary weapons, which describes the cruel and lasting injuries that they cause. *"Burn injuries from incendiary munitions often cause lasting physical and psychological disabilities. Permanent physical damage can include loss of function in the hands due to intense scarring and damage, … contractures (restriction of underlying muscles and joints by superimposed scars or inadequate grafts), and loss of strength and activity. Less tangible damage includes psychological trauma and an inability to assume former roles in society. … The burn event itself is often prolonged and especially painful. Treatment of severe pain with drugs can result in dependency and later withdrawal symptoms. Isolation during treatment, and being forced to "confront … the sight of one's own naked and burned body … and the stench of one's own rotting flesh" can be particularly horrifying."*[219]

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214 The prohibition of torture and other ill-treatment was recognized in Article 5 of the Universal Declaration of Human Rights. The prohibition has been included in many subsequent international and regional human rights treaties, and other international and regional instruments.

215 Though it has indicated its intention to ratify the UN Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (UN Convention against Torture)

216 See e.g. International Court of Justice, Case Concerning Ahmadou Sadio Diallo (Republic of Guinea v. Democratic Republic of the Congo), Judgment of 30 November 2010, para. 87.

217 Jus cogens refers to certain fundamental, overriding principles of international law, from which no derogation is permitted. Jus cogens norms may also invalidate any provisions of any international treaties, which are inconsistent with such norms.

218 The International Criminal Tribunal for the former Yugoslavia (ICTY), Prosecutor v. Delalić and others, 16 November 1998, stated that the prohibition of torture constitutes a norm of jus cogens (para. 454) and that the prohibition of inhuman treatment is a norm of customary international law (para. 517). See also International Court of Justice, Questions Relating to the Obligation to Prosecute or Extradite (Belgium v Senegal), Judgment of 20 July 2012, para 99.

219 Human Rights Watch and Harvard Law School's International Human Rights Law Clinic, Memorandum to Convention on Conventional Weapons Delegates: The Human Suffering Caused by Incendiary Munitions, March 2011, pp. 4 – 5.

As described by U Teikkha Nyana, the treatment for extensive burns was itself extremely painful. People spent weeks or months in hospital because of the injuries that the state inflicted on them. They suffered temporary or permanent incapacitation, which affects their mobility and functioning. U Teikkha Nyana for instance finds it difficult to sit on the floor or walk for long. His left heel continues to be painful and his nerve endings do not function properly. He cannot move his right hand or leg properly because the skin feels very tight after the multiple skin grafts he underwent.[220]

Even for those who were not burnt in the attack, the use of the munitions and the spreading of the fire created shock, confusion, and mental suffering.

PURPOSIVE ELEMENT – FOR PUNISHMENT OR INTIMIDATION

The authorities deliberately used white phosphorus munitions on peaceful protesters. Though some of the police officials involved in the attack may not have known exactly what the munitions were or what their effects would be, they continued to attack the protesters even after they saw people being burnt. The police also continued to attack people who were attempting to leave the area. In such circumstances, the pain and suffering inflicted on people by the police must be considered to have been intentionally inflicted.

The context in which the police attacked the protesters is relevant for understanding the purpose of the attack. The protests, which were receiving a lot of media and public attention in Myanmar, were placing the government under considerable pressure. [221] An MP had raised the issue in the Myanmar parliament and the Parliament had agreed to establish a Commission to investigate the situation. Daw Aung San Suu Kyi had also announced that she would meet the protesters on 29 November 2012.[222]

The peaceful protesters could have been dispersed by many other methods that were available to the police, especially considering the numbers of police that had been amassed at the site.

The deliberate use of white phosphorus munitions, which can cause such cruel and lasting injuries, and the fact that the police continued to chase people and attack them with the munitions even after they started running away from the protest camps, suggests that the purpose of the attack was to punish the protesters. The authorities may have also wanted to intimidate the protesters, who had resisted attempts to disband their peaceful protest, in order to prevent them from protesting in the future and to deter other people from joining the protests.

The nature of the munitions used as well as the manner in which the attack was carried out contributed to the powerlessness of victims to escape the attack. The attack was launched in the early hours of the morning when many of the protesters were resting. The rationale provided by the police to the Letpadaung Investigation Commission, set up after the attack, that the time was chosen to minimise the number of injuries[223] is unconvincing as by attacking the protesters when it was dark, the police increased rather than reduced the likelihood of injuries.

In the case of the main protest camp, the police were inside the Myanmar Wanbao compound, which allowed them to organise and prepare themselves without the protesters seeing their preparations.

The attack was launched suddenly and without any warning from the police about the munitions they were going to use and when people were still recovering from being sprayed with water at high pressure. The swiftness with which the white phosphorus munitions were launched and the speed with which white phosphorus can ignite meant that people were caught completely off guard and were unable to protect themselves. There was also considerable shock, confusion and fear as people's clothes

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220 Amnesty International interview, Myanmar, 25 March 2014.

221 E. Zerrouk and A. Neef, 'The Media Discourse of Land Grabbing and Resistance During Myanmar's Legal Reformation: The Monywa Copper Mine', Law and Development Review, Volume 7, Issue 2, pp. 275 – 312.

222 VOA, 'Burma Mine Protesters Attacked Ahead of Suu Kyi Visit', 30 November 2012, available at: http://m.voatibetanenglish.com/a/aung-san-suu-kyi-to-visit-controversial-copper-mine/1555272.html

223 The Director General, Myanmar Police and Police Commander (Colonel), Sagaing region testified to the Commission that "the shattering of the strike was made at 03:00 AM because there were least number of strikers in the strike station and just to cause injuries in the least possible amount". Para 90 (g) (1), Final report of the Investigation Commission.

or skin caught fire or they saw parts of the camp or other protesters' bodies or clothes catch fire.

The intentional use of white phosphorus munitions to punish and intimidate protesters, which caused them severe pain and suffering, amounts to torture.

ROLE OF MYANMAR WANBAO

Protesters told Amnesty International that they saw at least three trucks filled with police enter the Myanmar Wanbao compound on 28 November 2012, on the eve of the attack. These police were additional to those police officers that were always stationed in the compound. One witness said: *"I saw the police entering the Wanbao compound at 4 pm and then another lot of police trucks went in at 5.30 pm… more trucks full of policemen arrived at about 10.30 pm and then a fire engine."*[224] This was confirmed by other protesters who also corroborated the presence of a contingent of police who lived inside the company's compound before and after the attack.[225]

The Irrawaddy video footage[226], referred to earlier, shows the attack on the main protest camp being launched from inside Myanmar Wanbao's compound. The viewer can see water, originating from inside the gates of the compound, spraying out at the protesters outside the compound. This was confirmed by protesters who saw the police make announcements from inside the compound and saw the police come out of the compound as they threw 'fireballs' at the protesters.[227]

As noted earlier, the fact that the police were inside the compound helped them organise themselves and the attack without the protesters at the main protest camp seeing their preparations. It helped the police to maintain the surprise element of the attack. It also made it harder for the protesters to see the police, how they were armed and how the munitions were stored.

The administrative manager of Myanmar Wanbao stated in an interview with the Irrawaddy that the *"crackdown happened without their knowledge"*.[228] This statement lacks credibility.

The government had made announcements in a national newspaper and on TV that measures would be taken if all six protest camps were not closed and vacated before midnight on 27 November 2012.[229] Considering this announcement, Myanmar Wanbao should have been aware that the police force and fire engines, which entered and stayed in the compound, were doing so as part of the plans to take action against the protesters.

Knowing the past history of human rights violations by the Myanmar police against protesters, at the very minimum, the company should have ascertained the government's plans and sought guarantees that the police would not violate international human rights law standards, before allowing the police to use its premises.

Amnesty International presented its findings and conclusions to Wanbao Mining, including the conclusion that Myanmar Wanbao provided material assistance to the police in the commission of the attack against peaceful protesters. In its response, Wanbao Mining stated that: *"we have always consistently asked the police to comply with international standards on the use of force. As we all know the police is [an] independent governmental authority, we strongly refute your accusations made about us with regard to police matters and refer you to the relevant Myanmar authorities to direct your question to. We understand that the Myanmar Police have received European Union (EU) training within the past two years. This is something we have hugely welcomed."*

Wanbao Mining did not explain how the police were able to use Myanmar Wanbao's premises as a

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224 Amnesty International interview, Myanmar, 25 March 2014.

225 Amnesty International interviews, Myanmar, 27 March 2014.

226 Available at: www.youtube.com/watch?v=HcJUPVNR9qg (last accessed 22 August 2014).

227 Amnesty International interviews, Myanmar 27 and 28 March 2014.

228 'We Want the Project to Continue': Wanbao, The Irrawaddy, 22 February 2013, available at: http://www.irrawaddy.org/labor-issues/we-want-the-project-to-continue-wanbao.html.

229 See Unofficial translation of the Ministry of Home Affairs Press Release 7/2012 reproduced in the The New Light of Myanmar, 28 November 2012, Volume XX, No. 22, p. 2 and para 90 (d), Final report of the Investigation Commission.

base from which to carry out serious violations. It did not provide any details of guarantees sought or received on the date in question from the police or the authorities before allowing at least three truckloads of police and a fire engine onto its premises in the context in which it did (i.e., with protests on-going and a large number of police contingents deployed to the site). There are serious questions about the presence of incendiary devices on Myanmar Wanbao's promises; how did they get there and what action did Myanmar Wanbao take to prevent their use – either before they were deployed or as soon as they saw the munitions deployed. There is no evidence that Myanmar Wanbao took action after the events to make official complaints about the horrific attack mounted in part from its compound. Nor did Myanmar Wanbao offer any help to injured protesters after the incident. The company has allowed police officers to remain in its compound despite the attack on protesters on 29 November 2012.

Considering Wanbao Mining's failure to provide any evidence of guarantees obtained from the government and/or the police before allowing the police to use Myanmar's Wanbao's premises and the lack of corrective action since, Amnesty International considers that Myanmar Wanbao provided material assistance to the police and was 'reckless' as to the consequence of its assistance.

Recent incidents, in particular the police's excessive use of force in December 2014 (described in the Chapter on Forced Evictions), including the use of firearms against people who were protesting Myanmar Wanbao taking over more land for the project, starkly demonstrate that the police have continued to disregard international standards on use of force while providing protection to Myanmar Wanbao's operations.

THE LETPADAUNG INVESTIGATION COMMISSION'S INVESTIGATION INTO THE USE OF FORCE

The Letpadaung Investigation Commission was established by the President of Myanmar approximately two weeks after the Pyithu Hluttaw (Myanmar Parliament) adopted a motion calling for the formation of *"an independent, national-level commission"* to investigate the Letpadaung expansion, as well as existing mines at Sabetaung and Kyisintaung.[230]

In the original notification issued by the President of Myanmar setting up the Commission, its mandate included an investigation of the *"causes of protests that demanded the shutdown of the copper mine project"* and *"review on control of protests and injuries of members of the Sangha"*.[231] These clauses were removed from the mandate of the Commission, which was reconstituted two days later by the President with a smaller number of members.[232] The modified mandate of the reconstituted Commission focused largely on environmental and other aspects of the copper mine project.

One of the issues that the Letpadaung Investigation focused on was the type of munition that the police had used against the protesters. As noted earlier, there was a divergence between the authorities and the protesters on the type of weapon used, especially on whether an incendiary device had been used. [233]

The final report of the Letpadaung Commission stated that the Director General, Myanmar Police, and the Police Commander, Sagaing region told the Commission that smoke bombs had been used. The police officers said that the police had used smoke bombs before, during the protests that occurred in 2007 [during the police crackdown on mass demonstrations by Buddhist monks in Yangon against the government's policies in September 2007]. The police officers declared that however *"no*

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230 Soe Than Lynn, 'Myanmar parliament approves Letpadaung mine probe', Myanmar Times, 24 November 2012 available at: www.mm-times.com/index.php/national-news/3343-myanmar-parliament-approves-letpadaung-mine-probe.html (last accessed 24 October 2014).

231 Republic of the Union of Myanmar President Office Notification No. 92/2012, Formation of the Investigation Commission, issued on 1 December 2012.

232 Republic of the Union of Myanmar President Office Notification No. 95/2012, Reconstitution of the Investigation Commission, issued on 3 December 2012.

233 See for example, Associated Press, 'Dozens burned and injured as Myanmar security forces violently crack down on mine protesters', Daily News, 29 November 2012, available at: www.nydailynews.com/news/world/myanmar-security-forces-violently-crack-protesters-article-1.1210610.

one got injured at that time and there were no burn wounds". The Commission noted that *"the officers testified that they thought the effect of the smoke bombs used before and the ones used now have different effect."*[234]

The Letpadaung Investigation Commission stated that the Myanmar Police Force used smoke bombs containing phosphorous when dispersing the protesters for the Letpadaung hill project and that such smoke bombs are generally used as a smoke screen. The Commission reported that after practical investigations, it concluded that there were no differences between the 'bombs' used by the police in 2007 and on 29 November 2012. The Commission observed that regardless of the different methods of throwing the canister towards various types of surfaces - whether the bomb is hit forcibly on a surface or just rolled across a surface - it will take four to six seconds to explode. According to the Commission, when the bombs start bursting, it flames like a firecracker before producing white smoke, which would last only 90 seconds. "*However, the smoke should be diminished within a few seconds if the wind is blowing. Due to the explosion, it is found that the burning phosphorus could be scattered up to 8 meters radius of the surrounding area and a few pieces shall keep burning for 30 seconds to 90 seconds. Some canisters remain unexploded although they are hit on a hard surface."*[235]

The Commission also noted that if flammable materials such as *"textiles, waterproof plastic sheets and the carrier bags made from polyester and polypropylene materials happen to be located within the impact zone of 8 meters radius of the smoke bomb's explosion"*, a fire would break out as a result of engagement *"between the burning phosphorus pieces and the materials, regardless of the conditions whether the material are soaking wet with water or not."* They also maintained that the *"burning process shall keep going on after the materials are melted and dripped due to very high temperature and the fire can spread to the flammable substances on a ground. Synthetic fabric can catch fire easily and holds the burning longer than the cotton clothing in comparison."*[236]

The Commission affirmed that *"fire could have broken out if an excessive quantity of the smoke bombs are thrown at the targeted area and the flammable substances and clothing are located within 8 meters radius of the exploding zone. … Using an excessive quantity of smoke bombs at the same time can cause the huge flames and the powerful burning process could last for some time depending on the types of the substances located in the affected area."*[237]

The Commission also declared that out of 100 smoke bombs, 55 were used.[238]

The Commission found that *"[a]s the police had less experience with the smoke bomb and they were not in touch using this bombs, they could not consider the nature of the use, effects and side effects. As the police were close to the strikers and the public and monks did not move away but were sitting down under the tarpaulin and sleeping there and could not move away quickly and because of the fires spread out from the smoke bomb, there were burning inside the polypropylene plastic sheets and the seeping plastic liquid fell down onto the robes/cotton wool blankets and the ground sheets."*[239]

The Commission recommended that *"Police Force members should make the advance tests of any material intended to use for dispersing the crowd should be made and find out what kind of effects and side effects can be received"*.[240] It also recommended that the police be trained in riot control methods, using their own training programmes and through seeking appropriate help internationally.[241]

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234 Paras 28 and 90 (g) (1), Final report of the Investigation Commission. All references are to the unofficial English Translation done for Amnesty International.

235 Para 91 (a), Final report of the Investigation Commission.

236 Paras 91 (b) and (c), Final report of the Investigation Commission.

237 Para 91 (d), Final report of the Investigation Commission.

238 Para 90 (e), Final report of the Investigation Commission.

239 Para 90 (g) (3), Final report of the Investigation Commission.

240 Para 92 (a), Final report of the Investigation Commission.

241 Paras 92 and 94 (d), Final Report of the Letpadaung Investigation Commission.

FAILURE TO PROVIDE ACCOUNTABILITY AND EFFECTIVE REMEDIES

The Commission's investigation into the use of force by the police does not meet the requirements set out under international human rights law for assessing the legality of the use of force by law enforcement officials.

The Commission did not assess the necessity for any use of force by the police against the protesters. The Commission accepted the government's view that the protests were assembled unlawfully but the key factor for assessing the validity of the use of force even in the context of an 'unlawful assembly' is whether such assemblies are violent. There is no suggestion in the Commission's report that the police provided any evidence that the protesters engaged in violence or jeopardised the safety of the police or other members of the public. There was no examination of why it was necessary for the police to use 'smoke bombs' at all against peaceful protesters.

Once the Commission confirmed that the smoke bombs contained phosphorus, it should have clearly ruled out the use of such munitions in any context by the police. Despite considerable information provided by the Lawyers Network and Justice Trust to the Commission on the deliberate and indiscriminate use of the white phosphorous munitions by the police, and their harmful effects, the Commission accepted the police's use of such munitions. It excused the severe injuries caused to the protesters by attributing this to the police's limited experience with the use of such 'bombs'. The Commission noted that therefore the police *"could not consider the nature of the use, effects and side effects"*.[242]

Even if it is true that some of the individual police officials did not know the effects the bombs would cause, this cannot justify their use. This explanation also fails in the face of the fact that the police continued to the use the 'bombs' even after they saw its effects and the camp and people burning.

Professor Derrick Pounder's assessment of photographs of the burns suffered by the monks, described above, is very clear on the fact that some of their wounds (the punctate lesions) could not have been caused by coming into contact with burning cloth or other materials (even if they were synthetic). The wounds displayed a very unusual pattern, which is consistent with being struck by or coming into contact with white phosphorus. Professor Pounder's assessment confirms the testimonies recorded by Amnesty International and other organizations that the police threw the white phosphorus munitions at people, who suffered severe burns as a consequence.

The Commission did not clarify the command and control structure for the police operations or who gave the orders for the use of white phosphorus munitions against the protesters. It did not comment on command responsibility for the attack and examine why Myanmar Wanbao's premises were made available to the police.

The Commission stated that *"the police used 55 out of the 100 bombs that they had"*. [243] The Commission's report however contains no information on who provided the bombs to the police and where they were manufactured. The Commission has not disclosed what investigations were carried at the site of the attacks and by whom, and whether independent investigators collected the munitions and carried out tests on them. The Commission's report merely states that practical tests were carried out [on the bombs] without specifying the name of the agency or entity that helped it conduct these practical tests. This is contrary to the approach adopted in other parts of the Commission's report, which detail the names of institutions and/or individual experts who were authorised to carry out studies or tests. The Commission report does not include photographs of the weapons that were collected and tested. It does not explain if the Commission was provided with other munitions for comparison, including from 2007, and who provided it with these munitions. It also does not include information on the make or chemical composition of the munitions.

International human rights standards prohibit the use, by law enforcement officials, of white phospho-

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242 Para 90 (g) (3), Final Report of the Letpadaung Investigation Commission.

243 Para 90 (e), Final report of the Investigation Commission.

rus and any other incendiary munitions in any circumstances, because of the risk that such munitions pose and their inherently indiscriminate nature. The Commission however did not say that the use of such of weapons be restricted in the future. It merely stated that the police should carry out an advance test of any materials intended for use in crowd dispersal to find out what kind of effects it can have. It recommended that, in the future, police action to disperse protesters should be undertaken at the time of clear visibility. It also recommended that the police be trained in riot control methods using their own training programmes and through seeking appropriate help internationally.[244]

The Commission made no recommendations for provision of effective remedies to victims or accountability of officials involved in the attack. The Commission looked into the medical treatment provided to people and was involved in negotiating immediate care, but did not assess the rehabilitation needs of victims. It also reported that it was involved in the return of lost possessions to the protesters and compensation for items that were burnt or cleared away. The Commission did not however recommend any compensation for other harms suffered by the victims.

As noticed earlier, the mandate of the Commission was modified by the President to focus largely on environmental and other aspects of the copper mine project. Some of these gaps in the Commission's investigation may be a reflection of the modification of the scope of its mandate or the expertise put at its disposal by the authorities. However, the end result is there has not been, till date, an adequate investigation into the police's use of white phosphorus – a grave human rights violation. The Commission has failed to hold the police and the authorities accountable for breaching the prohibition on torture.

No official who was involved in the attack has been investigated, prosecuted or sanctioned in any way for their role in the attack.

Daw Aung San Suu Kyi is reported to have asked the authorities to apologise for the violence used, and the media reported that protests were held in cities demanding an apology from the government.[245] The government organised a ceremony at a monastery in Mandalay on 15 December 2012, where a government delegation led by two Ministers apologised to the monks.[246] The government took no other action to remedy the human rights violations.

The government must provide an effective remedy[247] and reparations to victims. It must investigate, and prosecute, in accordance with fair trial standards those who ordered, assisted or carried out the attack on peaceful protesters on 29 November 2012, in breach of international human rights law, including the prohibition on torture.

NO ONE RESPONSIBLE HAS VISITED ME

"I am a monk, according to the religion, Ledi monastery should be kept in its original place. It may be old, it may be new or small, it must stay in the same place. I pay respect to this old small one. I love it. I got involved because of the threat to the monastery. I also had sympathy for the people who were suffering.

I am not angry with the police, I forgive them but I will never forget it and I will tell people what happened. That is my human right.

The police say it was a smoke bomb, we say it was a fire bomb. They say it was an accident. I cannot accept that, they knew it was a fire bomb and they used it." **– U Teikkha Nyana**

244 Paras 92 and 94 (d), Final Report of the Letpadaung Investigation Commission, unofficial English translation.

245 Yadana Htun, 'Suu Kyi Wants Gov't Apology for Violent Crackdown', The Irrawaddy, 1 December 2012.

246 Phyo Wai Kyaw and Than Naing Soe, 'Myanmar makes apology to monks over copper mine crackdown', Myanmar Times, 24 December 2012.

247 A challenge in this regard is also that torture is not specifically and explicitly prohibited in Myanmar law, creating a situation where acts of torture can more easily go unpunished. Currently, there are no adequate mechanisms in law or practice that allow for victims of torture and other ill-treatment to safely complain about the treatment they suffer, for suspected perpetrators to be held to account, or for victims and their families to receive adequate reparations.

CLAMPDOWN ON OPPOSITION TO THE MINE

Human rights violations and abuses associated with the Monywa project – coupled with failures to address people's concerns about negative impacts - has resulted in community opposition to the mine. Peaceful protests against the mine continue. Rather than addressing people's concerns, the authorities have responded by arbitrarily arresting and detaining activists and community members who participate in or organise peaceful protests. This chapter analyses the legality of the use of the Code of Criminal Procedure to restrict assemblies – and peaceful protests – in the mining area. It also briefly describes a pattern of arrests of activists and community members who participated in or organised peaceful protests related to the Letpadaung mine.

CRIMINALIZING ACCESS TO LAND

As discussed in the chapter on forced evictions, the government used Section 144 of the Code of Criminal Procedure[248] to restrict people's access to the S&K mine area; this was done after the government nationalised the land, and had the effect of forcibly evicting people from land they used for their livelihood.[249] The Letpadaung Investigation Commission confirmed that orders restricting access had been in force for many decades[250] and had been renewed by the Township Administration authority every two months. [251]

The government justified the use of the Code of Criminal Procedure to restrict access to land to the Letpadaung Investigation Commission by stating there had been: *"theft of metals in the Mining Area and occurrence of death due to landslides, quarrels, injuries, etc."*[252] This appears to refer to events related to the S&K mine including the period when it was operated by MICCL. Orders were also issued after UMEHL and Wanbao Mining entered into an agreement to *"ensure the safety of regional populace, occupational safety, machineries safety as well as the safety of foreigners"*.[253]

ARRESTS OF ACTIVISTS AND FARMERS FOR PROTESTS IN AREAS WHERE SECTION 144 APPLIES

On 25 April 2013 police removed farmers who were attempting to plough fields in Saetee village, in an area that had been acquired for the Letpadaung mine and which was restricted under Section 144. [254] **There were clashes between the police and the farmers.**

On the same day, the police arrested an activist from the Yangon People's Support Network and two villagers stating they had entered a restricted area bringing *"an ox cart carrying palm branches and bamboo poles"*. The government claimed that the activist had been arrested *"for inciting the villagers to launch hostile actions against the security forces"* and for entering an area restricted under Section 144. [255] **According to the Assistance Association for Political Prisoners – Burma (AAAP-B) and other**

248 Section 144, Code of Criminal Procedure allows magistrates to restrict access of all persons, unless they have authorisation, to particular designated areas. Anyone who fails to comply can be prosecuted.

249 Para 88 (c) (1), Final report of the Investigation Commission.

250 The Letpadaung Investigation Commission noted in its report that the orders had been issued under section Section 144, Code of Criminal Procedure declaring the area a restricted area since the State Peace and Development Council times after La Na 39 permission was given (to acquire land under Section 39 of the Land Acquisition Law, 1953). Para 88 (c) (1), Final report of the Investigation Commission.

251 Section 144 only authorises the District Magistrate, a Sub-divisional Magistrate, or of any other Magistrate (not being a Magistrate of the third class) specially empowered by the President of the Union or the District Magistrate to act under the section. The Commission however stated that the government had conferred authority on the Ministry of Home Affairs, Township, district and Regional General Administration to exercise powers under sections 127,128,133,143, 144, 145, 146, 147 of the Code of Criminal Procedure. See para 88 (b), Final report of the Investigation Commission.

252 Para 88 (c) (1), Final report of the Investigation Commission.

253 Para 88 (c) (1), Final report of the Investigation Commission.

254 Nyein Nyein, 'Letpadaung Farmers beaten, Shot at for Plowing Fields', The Irrawaddy, 25 April 2013 available at: www.irrawaddy.org/burma/letpadaung-farmers-beaten-shot-at-for-plowing-fields.html (last accessed 7 December 2014).

255 Letter from the Permanent Mission of the Republic of the Union of Myanmar to the United Nationals Office and other Intergovernmental Organizations in Geneva, 1 July 2013, available at: https://spdb.ohchr.org/hrdb/24th/Myanmar_01.07.13_(6.2013)_Pro.pdf (last accessed 23 January 2015).

sources that Amnesty International has spoken to, the activist and the farmers were arrested without a warrant and held incommunicado by the police for 30 days. They were also denied legal representation.[256] The government denied that the three accused were held incommunicado for over a month and did not have access to lawyers. It stated that *"interrogation was carried out till 9 May 2013 by getting the remand in accordance with Section 167 of the Code of Criminal Procedure"*.[257]

On 1 June 2013 the Shwebo Township Court sentenced the activist to 18 months in prison for three counts under Section 188 of the Penal code (for disobeying the order of a public official). On 8 July 2013, he was also charged with five additional offences.[258] According to the government the two villagers were also sentenced to 18 months imprisonment. They were released in November 2013 under a Presidential amnesty but the activist was arrested again on 18 May 2014 for his involvement in protests in Mandalay against 'land grabbing'.

Amnesty International has received information about other cases where activists and farmers have been charged for trespassing on farmlands acquired for the Letpadaung mine and restricted under Section 144. Arrest warrants under Section 505 (b) of the Penal Code have even been issued against activists who have criticised the government's use of Section 144 of the Code of Criminal Procedure to prevent villagers from ploughing their fields.[259]

ARBITRARY ARRESTS OF PEACEFUL PROTESTERS

The Peaceful Assembly and Peaceful Procession Law 2011 (Peaceful Assembly Law 2011, which has been amended since[260]) requires any persons or organizations who wish to organise a peaceful assembly to apply to the Chief of the Township Police five days in advance. Section 18 provides that any person who organises assemblies or processions in breach of the provisions of the Act can be imprisoned for up to six months (previously one year) or a maximum fine of 30,000 Kyats (USD 30) or both.

DAW NAW OHN HLA

Daw Naw Ohn Hla, a prominent human rights activist, has been charged on three occasions in the last three years under Section 18 of the Peaceful Assembly Law for participating in peaceful protests against the Letpadaung mine. She and three other activists, Daw Sein Htwe, U Nay Myo Zin and Ko Htut Paing, were arrested on 30 December 2014 for participating in a peaceful protest outside the Chinese Embassy in Yangon. They were among around 100 protesters calling on the Myanmar authorities to carry out an investigation into the death of Daw Khin Win who was shot by the police in December 2014 (as described earlier).

The four have been charged, along with three other activists, Daw San San Win, Daw Mya Nyunt, and Ko Thant Zin[261], by Yangon's Dagon Township Court under Section 18 of the Peaceful Assembly Law for

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256 Amnesty International was informed that a lawyer who tried to gain access to them to represent was only allowed to meet them in prison and given permission to represent them at a point when they had already been sentenced. There was no privacy in any of the conversations between the lawyer and clients and the authorities recorded all of the conversations. The lawyer was also photographed when he visited the prison.

257 Letter from the Permanent Mission of the Republic of the Union of Myanmar to the United Nationals Office and other Intergovernmental Organizations in Geneva, 16 August 2013, available at: https://spdb.ohchr.org/hrdb/24th/Myanmar_16.08.13_(10.2013).pdf (last accessed 23 January 2015). The government said that the police dispersed the group in accordance with provisions of sections 127 and 128 of the Code of Criminal Procedure which allow the police to disperse any unlawful assembly likely to cause a disturbance of the public peace to disperse, if necessary by force.

258 Breaching sections 144 (joining an unlawful assembly with a deadly weapon), 295 (intent to insult a religion by destroying defiling or damaging a place of worship or sacred object), 295(a) (deliberate and malicious acts intended to outrage religious feelings of any class by insulting its religion or religious beliefs), 333 (voluntarily causing grievous hurt to deter public servant from his duty),) and 505(b) of the Penal Code (offence against the State or against the public tranquillity).

259 See Burma Partnership, Statement on Arrest Warrants for Speaking Out about Letpadaung Emergency Law, available at: www.burmapartnership.org/2013/06/statement-on-arrest-warrants-for-speaking-out-about-letpadaung-emergency-law/ (last accessed 23 January 2015).

260 See Amnesty International, Myanmar: Stop using repressive law against peaceful protesters, AI Index: ASA 16/025/2014, 14 October 2014 for a critique of the amended law. The briefing also highlights ongoing concerns around arrests and charges brought against many peaceful protesters in 2014 since the amendment was brought into force.

261 Daw San San Win and Ko Thant Zin presented themselves to the authorities and were detained on 13 and 20 January 2015, respec-

protesting without permission. They have also been charged with a series of offences under the Penal Code: publishing or circulating information which may cause public fear or alarm and may incite persons to commit offences *"against the State or against the public tranquillity"* (Section 505(b)); assaulting or preventing a public servant from the discharge of his duty (Section 353); rioting (Section 147); doing obscene acts in public (Section 294); and "intimidation" (Section 506).

Separate charges have been brought by six townships, through which the protesters walked. The police have failed to produce credible evidence of the charges brought under the Penal Code and in Amnesty International's view, the activists have been arbitrarily arrested and detained for exercising their right to peaceful assembly. At the time of going to print, six of the seven activists are held in Insein prison and have been denied bail.

Daw Naw Ohn Hla had previously been sentenced to two years in prison under Section 505 (b) of the Penal Code for protesting with a group of 30 women against the Letpadaung copper mine in Monywa on 13 August 2013. She was released on 25 November 2013 under the Presidential amnesty granted to people who had been arrested for certain political offences.[262]

These arrests are part of a broader pattern of arrests of individuals, especially activists, who participate in or organize peaceful protests related to the Letpadaung mine. In addition to the Peaceful Assembly Law 2011, the government has extensively used Section 505 and other provisions of the Penal Code to charge and imprison activists and community members.

These include the notable arrest of a prominent leader of a community-based organization who staged a solo protest in Yangon on 15 December 2012, marching along Sulay Pagoda Road from the Theingyi market to the City Hall calling for the authorities to resolve issues faced by monks after the crackdown on the Letpadaung mine protest in November 2012. He was indicted under Section 18 of the Peaceful Assembly Law on 17 December 2012 and sentenced to a total of nine months' imprisonment.[263] He was released under the Presidential amnesty on 31 December 2013. However, on 5 May 2014 he was again arbitrarily arrested and detained while delivering a speech and distributing leaflets calling on the Myanmar government to resign. He has since been charged under multiple counts of Section 18 of the Peaceful Assembly Law and Section 505(b) of the Penal Code and at the time of writing was serving 13 years and 4 months.[264] His arrest and sentencing demonstrates the misuse of the Peaceful Assembly Law and Section 505(b) of the Penal Code.

On 6 June 2013, the Monywa Township Court tried an activist from the Save Letpadaung Committee who was charged under Section 18 along with two student leaders. The two student leaders were fined 30,000 Kyats (USD 30) each and the activist was sentenced to one year's imprisonment with hard labour for organising assemblies and processions without permission.[265] According to reliable information obtained by Amnesty International, the activist was not allowed access to a lawyer or given the opportunity to defend himself during the trial.

The authorities have also used arrests as a tactic to attempt to intimidate individuals, releasing them without a charge after some days. A farmer who was publicly opposed to the deal offered by the township and district authorities for acquisition of farmlands (portrayed as compensation for damage to crops) was arrested in March 2011 but released after 18 days in detention.[266] Other farmers

tively. Daw Mya Nyunt has also been charged, but remains at liberty.

262 Letter from the Permanent Mission of the Republic of the Union of Myanmar to the United Nationals Office and other Intergovernmental Organizations in Geneva, 26 December 2013, available at: https://spdb.ohchr.org/hrdb/24th/Myanmar_26.12.13_(14.2013).pdf (last accessed 23 January 2015).

263 Assistance Association for Political Prisoners, Political Prisoner Profile: Ko Htin Kyaw, 23 May 2014, facts also confirmed through correspondence with the organization. He was sentenced to three months imprisonment by the Kyauk Tadar Court and six months by the Pabedan Court for his protests against the mine.

264 See Amnesty International, Myanmar: Authorities must end 'relentless persecution' of activist, 10 September 2014 available at http://www.amnesty.org/en/for-media/press-releases/myanmar-authorities-must-end-relentless-persecution-activist-2014-09-10 (last accessed 7 December 2014). Amnesty International considers Ko Htin Kyaw to be a prisoner of conscience detained solely for peacefully exercising his right to freedom of expression and is calling for his immediate and unconditional release.

265 Letter from the Permanent Mission of the Republic of the Union of Myanmar to the United Nationals Office and other Intergovernmental Organizations in Geneva, 16 August 2013.

266 Lawyers Network and Justice Trust, Report of Evidence Regarding Controversies at Letpadaung Hill Copper Mine Project, 14 February 2013, p. 15

who became leaders of protests and opposition to the project were also arrested. A women who was publicly identified as a leader of those opposed to the project was arrested on 10 September 2012 with another woman farmer from Wet Hme village, after they crossed the Chindwin River. The police had tried to block them from crossing and said they could only go under police escort. When they crossed without an escort, they were arrested. They were released after four days.[267]

LEGALITY OF THE RESTRICTIONS ON PROTESTS, ASSEMBLY AND MOVEMENT

The Universal Declaration on Human Rights provides that every person has the right to freedom of peaceful assembly and association.[268] It also provides the right to freedom of movement.[269]

The Human Rights Council in Resolution 15/21 reaffirmed the rights to freedom of peaceful assembly and association. The Resolution calls upon states to *"respect and fully protect the rights of all individuals to assemble peacefully and associate freely … and to take all necessary measures to ensure that any restrictions on the free exercise of the rights to freedom of peaceful assembly and of association are in accordance with their obligations under international human rights law".270 It also clarifies that these rights can only be subject to "certain restrictions, which are prescribed by law and which are necessary in a democratic society in the interests of national security or public safety, public order (ordre public), the protection of public health or morals or the protection of the rights and freedoms of others".*[271]

The UN Special Rapporteur on the Rights to Freedom of Peaceful Assembly and of Association[272] has stated *"where such restrictions are made, States must demonstrate their necessity and only take such measures as are proportionate to the pursuance of legitimate aims in order to ensure continuous and effective protection of … rights".*[273]

The Special Rapporteur has stated that the exercise of fundamental freedoms should not be subject to previous authorization by the authorities, but at the most to a prior notification procedure, whose rationale is to allow State authorities to facilitate the exercise of the right to freedom of peaceful assembly and to take measures to protect public safety and order and the rights and freedoms of others. Such a notification should be subject to a proportionality assessment, not be unduly bureaucratic and be required a maximum of, for example, 48 hours prior to the day the assembly is planned to take place. Should the organizers fail to notify the authorities, the assembly should not be dissolved automatically and the organizers should not be subject to criminal sanctions, or administrative sanctions resulting in fines or imprisonment.[274]

Successive UN Special Rapporteurs on the situation of human rights in Myanmar have highlighted ongoing concerns about restrictive laws in Myanmar used to arrest and detain peaceful activists, in particular the Peaceful Assembly Law and Section 505(b) of the Penal Code. They have consistently called for the repeal or amendment of these laws to comply with international human rights law and standards. [275]

The villagers applied over ten times to the Sarlingyi police for a permit to organize a peaceful assembly, before setting up protest camps in November 2012 but were refused. This refusal is contrary to international standards, which allow peaceful assemblies to be restricted only for a narrow set of grounds

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267 Amnesty International interviews, Myanmar, 28 March 2014.

268 Article 20.

269 Article 13.

270 Paragraph 1, Human Rights Council Resolution 15/21: The rights to freedom of peaceful assembly and of association, UN Doc. A/HRC/Res/15/21, 6 October 2010.

271 Paragraph 4.

272 The UN Special Rapporteur was appointed by the Human Rights Council to report on violations, where they may occur, gather all relevant information of the rights to freedom of peaceful assembly and of association and make recommendations to ensure their promotion and protection.

273 Report of the Special Rapporteur on the Rights to Freedom of Peaceful Assembly and of Association, UN Doc. A/HRC/20/27, 21 May 2012, para 17.

274 Report of the Special Rapporteur on the Rights to Freedom of Peaceful Assembly and of Association, UN Doc. A/HRC/20/27, 21 May 2012, para 28.

275 See Report of the Special Rapporteur on the situation of human rights Myanmar, Tomás Ojea Quintana, Human Rights Council, UN Doc. A/HRC/25/64, 12 March 2007, p. 7.

and circumstances (above). The requirement to seek authorization rather than just provide prior notification is itself contrary to international standards on the right to freedom of peaceful assembly.

The government has admitted that people were arrested for organizing protests linked to the Letpadaung mine because they had failed to obtain permission under the Peaceful Assembly Law 2011. Some people were also arrested for disobeying the order of a public servant and entering (including through organizing plough protests in) an area restricted under Section 144 of the Code of Criminal Procedure. By arbitrarily arresting these individuals for exercising their rights to peaceful assembly and freedom of movement, the government has violated their human rights.

The government has restricted peaceful assemblies and freedom of movement within the mining area for close to two decades, initially for the S&K mine and then for the Letpadaung mine through the Township authority's renewal of orders under Section 144 of the Code of Criminal Procedure. The government may have a legitimate aim of protecting mining equipment, staff working for the mining companies and in ensuring that people do not access areas which could be dangerous. However, such an aim could be met without restricting access to entire areas, under the threat of criminal penalties. The measures adopted are also not proportionate to the aim of protecting equipment and people and have the effect of prohibiting all forms of assembly or movement in a very large area.

The government must immediate drop all charges brought against persons for organizing or participating in peaceful protests, demonstrations and assemblies including on land restricted under Section 144 of the Code of Criminal Procedure and release all those who have been detained solely for the peaceful exercise of their human rights. It should enable people to exercise their rights to peaceful assembly, demonstrations and association, without imposing a prior permission requirement and threat of criminal penalties when peaceful assemblies are organized without permission. The government should amend the Peaceful Assembly Law to bring it in line with international human rights standards.

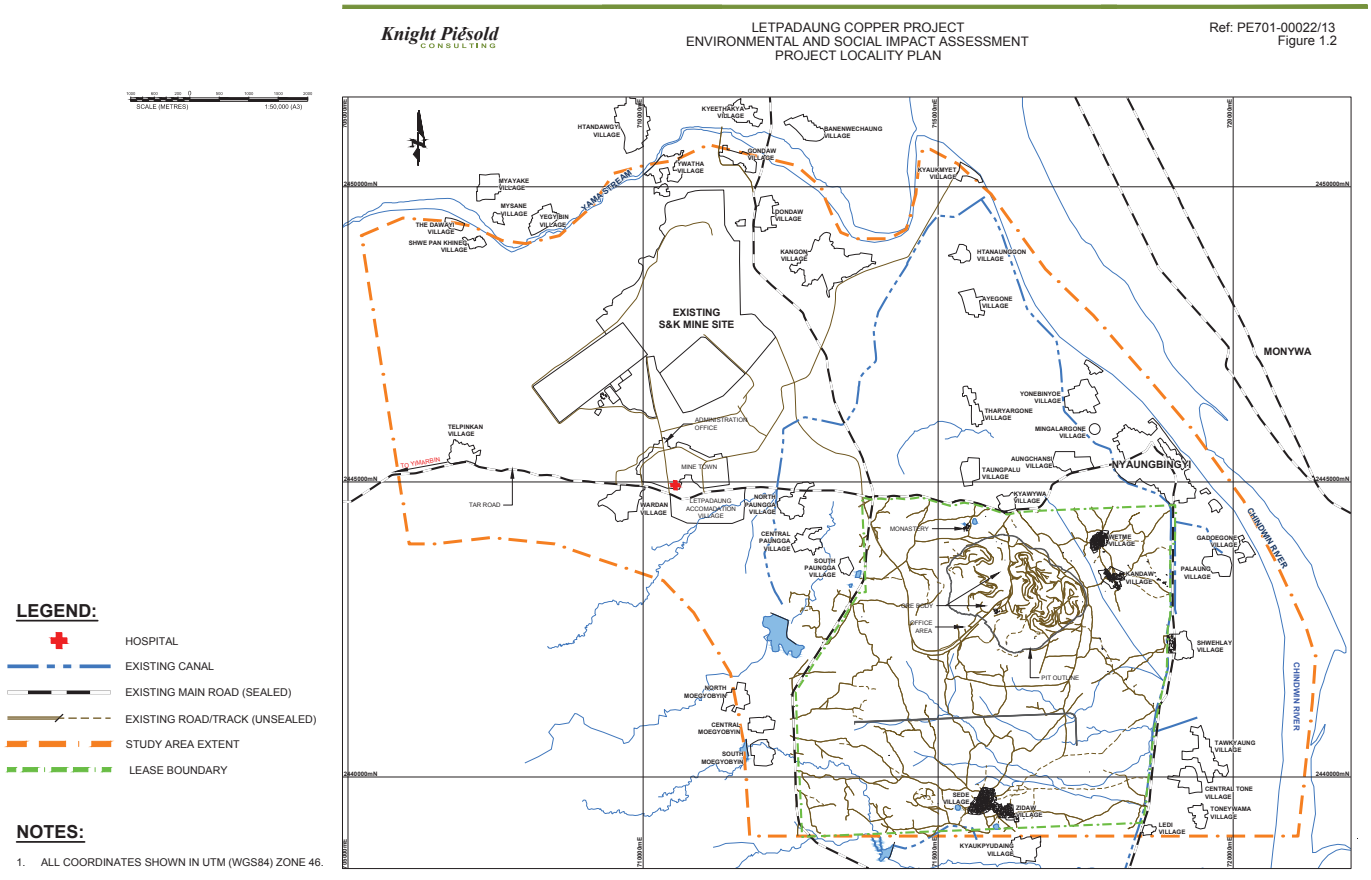

Diagram taken from the Environmental and Social Impact Assessment of the Letpadaung Project, May 2014, prepared by Knight Piésold Consulting for Myanmar Wanbao Mining Copper Limited.

ENVIRONMENTAL PROTECTION: A VOLUNTARY APPROACH

Older mining operations run by Mining Enterprise No. 1 (ME1), a state owned enterprise, caused severe pollution in the area because of discharge of hazardous waste material over a large tract of land and into the Chindwin River in 1995 and 1996. The government allowed Ivanhoe Mines and ME1 to form a joint venture to continue mining in 1996, without ensuring that the pollution was cleaned up. Myanmar had an extremely weak environmental regulatory framework till 2012 and this Chapter examines how the government has failed to monitor the environmental impact of the Monywa mine and a related Sulphuric Acid Factory and the implications for human rights, for close to two decades. The companies have been left to decide what clean up to undertake. Despite the severe environmental damage already caused by the ME1 operations, there has been no independent investigation by the government of serious environmental incidents reported by later mine operators. The Chapter highlights how there has been no comprehensive study of the damage caused to the environment or people despite local communities continuously raising concerns about negative impacts.

BACKGROUND

The S&K mine is, and the Letpadaung mine will be, an open cut (often known as an open pit) mine from which copper ore is extracted. The ore is then broken down by a network of machines known as crushers and placed on a heap leach pad (a lined area where layers are placed one on top of the other in a heap).[276] A sulphuric acid mixture is applied to the ore to dissolve the copper and form a copper laden solution. The copper laden solution is transferred to a solvent extraction and electrowinning plant where copper is extracted from the solution and plated onto electrodes for sale.[277]

Most of the sulphuric acid needed for the S&K mine is supplied by the Moe Gyo Sulphuric Acid Factory operated by the Union of Myanmar Economic Holdings Limited (UMEHL), a few kilometres west of the S&K mine.

There are 26 villages located within five kilometres of the S&K and Letpadaung mines, with a total population of approximately 25,000 people.[278] A large number of people living in the villages rely on agriculture, including seasonal work on farms, for their livelihood. [279] There are no other major industries or manufacturing facilities in the area. As discussed earlier in the Chapter on forced evictions, the villages are extremely poor and the loss of or damage to agricultural land or other natural resources can have substantial negative impacts on people that rely on subsistence agriculture.[280]

MYANMAR'S WEAK ENVIRONMENTAL REGULATORY FRAMEWORK

Myanmar had an extremely weak environmental regulatory framework until the Environmental Conservation Law was adopted in 2012 (though some crucial weaknesses persist, as discussed later in this report).

The 2008 Constitution provided that the government *"shall protect and conserve the natural environment"* (Article 45). A National Environmental Policy was drafted in 1994. The National Commission for Environmental Affairs was created in 1990 to set environmental standards but though it prepared a draft environmental protection law, this law was left pending for adoption for many years.[281]

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276 From 1978 to 1996/97, the S&K mine used a different process termed the flotation method to extract copper, after which the copper was smelted (discussed below).

277 Knight Piésold Consulting. Letpadaung ESIA, (May 2014), n. 60,pp. ii – iv, Myanmar Yang Tse Copper Limited, Safety, Health and Environment Report, 2013 – 2014, pp. 20 – 27.

278 Knight Piésold Consulting. Letpadaung ESIA, (May 2014), n. 60,p. 101. The ESIA acknowledges that an additional 10 villages will also be affected by the project.

279 Knight Piésold Consulting. Letpadaung ESIA, (May 2014), n. 60,pp. 117- 119.

280 Knight Piésold Consulting. Letpadaung ESIA, (May 2014), n. 60,p. 234.

281 The Burma Environmental Working Group, Burma's Environment: People, Problems, Policies, June 2011, p. 18, available at: http://

The legal framework was made up of a patchwork of sector specific laws for mining, forests etc. The Mines Law 1994 provided that the holder of a mineral production permit should make provision for environmental conservation works to mitigate the detrimental effects of the mining operation (Section 12e). The Mines Rules provided further guidance on the environmental conservation works required, including undertaking laboratory tests of liquids, wastes, tailings and fumes; disposing of toxic waste materials through chemical means; backfilling or making safe land damaged during mining operations; and establishing forest plantations or paying compensation for clearing forest land to the Ministry of Forestry. If toxic materials are found in the waste products, which are harmful to living beings, degradation shall be made good by chemical means and systematic disposal shall be made only when it is assured that there is no danger (Rules 109 and 110). The penalty for non-compliance was weak (one year imprisonment or fine up to 10,000 kyats). The Public Health Law, 1972, also provided for requirements for protecting air quality and environmental health but again the penalty was very weak (one year imprisonment or 500 kyats fine or both).

According to the State Law and Order Restoration Council Law 8/95, prior to receiving official approval to extract minerals, gems and precious metals, applicants should conduct an environmental impact assessment. Earthrights International has however previously pointed out that this provision was poorly enforced.[282]

ACID ROCK DRAINAGE AND OTHER ENVIRONMENTAL RISKS

Copper mining, as with other mining projects, carries environmental risks that can have damaging impacts on people who live in the vicinity of such projects, unless these risks are properly managed. The biggest risk associated with copper mining is acid rock drainage. [283]

When sulphides in the waste rock from mining operations are exposed to water and air, it oxidises and forms sulphuric acid. Sulphuric acid can dissolve toxic metals, such as copper, aluminium, cadmium, arsenic, lead and mercury, from the surrounding rock.[284] This mixture of acid, metal and water (acid rock drainage) can seep into and contaminate soil and groundwater. Acid rock drainage can also contaminate surface water bodies even if those water bodies are at a distance from the source of the acid rock drainage. The acidity and the dissolved metals can severely harm or kill fish and aquatic life or cause them to avoid the polluted area. Even in very small amounts, some metals contained in these acidic discharges can be toxic to humans, aquatic life and wildlife. Acid rock drainage can also create long-lasting problems because of the difficulty of cleaning up the damage caused and the potential to contaminate water bodies.[285]

Testing of the Letpadaung copper sulphide deposits, carried out by an environmental consultancy company, Knight Piésold, on behalf of Myanmar Wanbao in 2013, has revealed that they have a high acid forming potential because of the amount of reactive sulphur that is present in the waste rock.[286] The Sabetaung, Kyisintaung and Letpadaung deposits are very similar in nature.[287] There is therefore a high risk of acid rock drainage in the Monywa project as a whole.

The chief sources of acid rock drainage are the waste rock dumps, heap leach pads (places where waste material from mining is deposited) and the mine pits themselves. The Environment and Social Impact Assessment (ESIA) for the Letpadaung mine emphasises that the environmental consequences of acid rock drainage from these sources without adequate mitigation measures are extremely severe.[288]

www.bewg.org/pubs/finish/4/34 (last accessed 25 January 2015).

282 Earthrights International, Mining, Gender, and the Environment in Burma, available at: www.earthrights.org/publication/mining-gender-and-environment-burma (last accessed 25 January 2015).

283 See International Network for Acid Prevention, Global Acid Rock Drainage Guide, available at: www.gardguide.com (last accessed 5 October 2014).

284 Environmental Law Alliance Worldwide (ELAW), Guidebook for Evaluating Mining Project EIAs, 2010, pp. 8 – 9, available at: www.elaw.org/mining-eia-guidebook (last accessed 25 January 2015).

285 Environmental Law Alliance Worldwide (ELAW), Guidebook for Evaluating Mining Project EIAs, 2010, 9 available at: www.elaw.org/mining-eia-guidebook (last accessed 25 January 2015).

286 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 80.

287 Ivanhoe Mines and MICCL, The Letpadaung Project, June 1999, p. 5.

288 The potential consequences could be "catastrophic" – according to the ESIA – if there is toxic release off-site with detrimental impact,

Other risks associated with the mine include contamination of soil through windblown dust, spills of acids or other contaminated liquids, air pollution (particularly emissions of pollutants such as sulphur dioxide and nitrogen oxide) and noise pollution from operation of machinery and transport vehicles.

All of these risks are magnified by the close proximity of the mines and the Sulphuric Acid Factory to the villages and the Chindwin River. The Chindwin River, located quite close to the S&K and Letpadaung mines,[289] is a tributary of the Irrawaddy River, one of Myanmar's main rivers that transverses Myanmar from north to south. Pollution of the Chindwin River could also impact many other downstream communities.

The high risk of acid rock drainage from the mines and the close proximity of the villages to the mines places a higher onus on the companies to adequately manage and mitigate the environmental impacts of the mines and on the government to monitor the situation.

ENVIRONMENTAL IMPACT ASSESSMENTS AND STUDIES

In this chapter, the following Environmental Impact Assessments (EIAs) and studies are referred to:

- **AATA International Inc., Environmental Assessment – Monywa Copper Project, Volume 1, commissioned by Ivanhoe Myanmar Holdings Ltd, March 1996.**
- **Muir Environmental, Environmental and Social Assessment and Management Programme, Commissioned by Ivanhoe Myanmar Holdings; Presented to No1 Mining Enterprise, Ministry of Mines, Government of the Union of Myanmar; March 1997.**
- **Coffey Partners International Pty Ltd, Letpadaung Copper Project Feasibility Study - Water Management and Environmental Monitoring. Report No. G7024/4-A; commissioned by Ivanhoe Myanmar Holdings Ltd., February 1997.**
- **Knight Piésold Consulting, Myanmar Wanbao Mining Copper Ltd Letpadaung Copper Project: Environment and Social Impact Assessment, May 2014.**

The first three documents are not publicly available. Amnesty International asked Ivanhoe Mines for copies of these documents but did not receive a response. Knight Piésold Consulting has summarised or quoted from these documents in the ESIA for the Letpadaung Mine, released in May 2014 and that ESIA is the source of Amnesty International's understanding of the content of these documents.

SEVERE POLLUTION CAUSED BY OLDER ME1 OPERATIONS

"They threw the wastewater, nearly 200 acres of farmland was destroyed and the ecosystem also destroyed. Because of this water - rice, wheat, barley, onion, grams fields - these areas were swamped by wastewater." Villager interviewed by Amnesty International in March 2014 describing the effect of discharge of tailings from the S&K copper mine

In 1978, an agreement for the development of the S&K deposits was signed between Myanmar's state-owned Mining Enterprise No.1 (ME-1) and the Yugoslavia state-owned Copper Institute, RTB-Bor (RTB-Bor Copper Institute).[290] RTB-Bor Copper Institute designed and constructed, for ME1, a refinery (concentrator) for processing the ore. The refinery used an old process to extract the ore, referred to as the flotation concentration method, which generates a lot of tailings (waste material).

and "major" if off-site release is contained with outside assistance and little detrimental impact. Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,Table 7.4 – 7.6, p.219-220

289 The Chindwin River is approximately 2.8 kilometres northeast of the Letpadaung mining project area. See Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 54

290 Myanmar Ivanhoe Copper Company Ltd. (MICCL), Environment, Health & Safety Report 1999/2000, p. 5 (on file with Amnesty International).

Tailings produced at S&K's operations were stored in a tailings storage dam. In 1995, a significant volume of tailings, which contained copper and other heavy and toxic metals, were continuously discharged from the flotation plant.[291] The discharges continued in 1996.[292]

The tailings were discharged over 150 hectares of land east of the mine, including land falling outside of the mine lease area, right next to Dondaw and Kankone villages and into the Yama Stream, which flows into the Chindwin River.[293] The tailings have still not been adequately cleaned up, almost twenty years later.

Copper flotation waste or tailings contain significant amounts of copper together with trace elements of toxic materials such as iron, tin, lead, antimony and arsenic.[294] Copper flotation waste is classified as hazardous waste under the European Directive on integrated pollution prevention and control and the Directive on management of waste from extractive industries.[295]

Ivanhoe Mines had full knowledge of these discharges when it entered into a joint venture with ME1, to form the Myanmar Ivanhoe Copper Company Limited (MICCL), in 1996. Environmental Impact Assessments commissioned by Ivanhoe Mines Holding Ltd. in 1996 and 1997[296] documented the tailings discharges. The 1996 Environmental Impact Assessment (EIA) *"highlighted the existence of an issue with ARD [acid rock drainage] management in 1996 and the need to rationalise the tailings management on the operation. It also described the influence of the operation on the Yamar [sic] Stream."297*

RISKS TO THE LOCAL POPULATION NOT ASSESSED

Till date, there has not been a comprehensive assessment of damage caused by the discharge of tailings in 1995 and 1996 and the impacts this has had on people living near the S&K mine. There is also no information about whether infrastructure left by the older ME1 operations, in particular the flotation plant and tailings dam, which can be a continuing source of pollution have been cleaned up. If any of the companies or the government have undertaken such an assessment, it has not been made public. This is a serious oversight considering that hazardous tailings were discharged for two years by the mine onto land and into the stream and river.

Amnesty International therefore reviewed scientific assessments undertaken of the impacts of pollution caused by flotation tailings ponds in Bor, Serbia, where the same flotation concentration process (as the ME1-Bor venture) was used. These offer some pointers of the kinds of impacts that can arise as a result of such pollution and should have been monitored in the Monywa context. [298]

Negative impacts of discharges from the tailings dams and flotation tailings ponds at Bor include damage to fertile soils, the pollution of water, air and soil with heavy metals, and high dust concentrations in the air. Heavy metals such as lead, zinc, copper and arsenic have been found in the soil and in plants in the Bor region.[299] Researchers have also documented that large areas covered with tailings are a source of mineral dust. The dust from this location, in the form of PM2.5 (fine dust particles) and PM10 (coarse dust particles), is dispersed towards urban areas and areas of fertile land, depending on wind speeds and the time of the year.[300]

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291 MICCL, Environment, Health & Safety Report: 2000 – 2001, on file with Amnesty International (does not contain page numbers). Myanmar Yang Tse Copper Limited (Myanmar Yang Tse), Safety, Health & Environment Report: 2013 - 2014, p. 100.

292 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 53.

293 MICCL, Safety, Health & Environmental Report: 2005 – 2006, p. 42, on file with Amnesty International. Myanmar Yang Tse Copper Limited (Myanmar Yang Tse), Safety, Health & Environment Report: 2013 - 2014, p. 100.

294 I. Mihajlovic, N. Štrbac, P. Đordević,A. Mitovski, Đ. Nikolić and Ž. Živković, 'Optimum conditions for copper extraction from the flotation waste using factorial experimental design', Environment Protection Engineering, Volume 38, No. 4 (2012), 171 – 184, p. 171.

295 Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control and Council Directive 2006/21/EC of 15 March 2006.

296 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 53.

297 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 53.

298 The operations in Bor have been carried out for a much longer period (over a hundred years) and on a far greater scale than the S&K mine. Bor also had a smelter, which was a major source of pollution whereas there was no smelter in the S&K mine. Despite these differences, the studies on Bor give some indication of the types of issues that can arise in relation to pollution caused by the S&K mine and which should be scrutinized further.

299 Economic Commission for Europe, Committee on Environmental Policy, Environmental Performance Reviews: Yugoslavia, United Nations, 2003, p. 107.

300 I. Mihajlovic, et. al, 'Optimum conditions for copper extraction from the flotation waste using factorial experimental design', Environ-

above: **Satellite image of the S&K mine, Dondaw and Kankone (Kangon) villages. It shows part of the area where tailings were discharged in 1995 and 1996, which have left a visible scar on the surface. Some locations or outlines are approximate. Image date 13 May 2014. 22.128652, 95.051885**

The only information available is in the 2014 ESIA commissioned by Myanmar Wanbao for the Letpadaung project. That document summarizes the 1996 and 1997 EIAs.

The 1996 EIA *"…highlighted existing effects that were evident from the operations that had been conducted to date and the impact they were having on key environmental areas, such as the Yamar [sic] Stream and the Chindwin River"*.[301] It found that *"[a]lmost all parameters tested [for the environmental assessment] exceeded US EPA [Environmental Protection Agency] water quality criteria both above and below Yamar Stream. … Some metal parameters (Cr, Cu and Fe302) rose with increased flow rates."*[303] This apparently refers to samples from the Chindwin River above and below the entry of the Yama Stream rather than to the stream itself. The 1996 EIA also noted that samples from the Kangon aquifer (an underground layer of water-bearing rocks which are permeable) and another bedrock aquifer did not comply with the US Environmental Protection Agency's[304] drinking water standards.[305] This is a significant concern as the Kangon aquifer provides underground water supply to the villages around the Letpadaung Mountain.[306]

The 1997 EIA stated, *"[a]t the time of writing the report (1996), copper effluent was being discharged into the rivers from the adjacent Sabetaung and Kyisintaung (S&K) mine site. There was no evidence that this was adversely affecting the river systems and this was probably due to the high level of dilution. However, it was recommended that all future discharges received pre-treatment."*[307] There is no description of the sampling regime and scope of the analyses[308] that supported the

ment Protection Engineering, Volume 38, No. 4 (2012), 171 – 184, p. 172.

301 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 50.

302 Cr (chromium), Cu (copper) and Fe (Iron).

303 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 51. It also stated that seasonal variations in water quality were evident with increases in TSS (total suspended solids) but decreases in TDS (total dissolved solids), conductivity, hardness and alkalinity.

304 The US Environmental Protection Agency sets standards for drinking water which apply to public water systems in the country

305 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 51. Except from two wells used for drinking water, although some standards for these wells were also of a poor standard suggesting treatment of the water would be required for it to be acceptable for human consumption.

306 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,Executive Summary, p. v.

307 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 53.

308 The number and timing of samples (e.g. were they collected in the wet season when dilution could be expected or in the dry when higher levels are most likely to occur), the locations of the sampling sites and other critical information.

© Name withheld

top: **Mounds of sediment from hazardous copper tailings discharged by the Sabetaung and Kyisintaung (S&K) mine in 1995 and 1996. The Myanmar government and the companies that have operated the mine since have failed to ensure that the tailings are fully cleaned up. December 2012**

conclusion that the river systems were not adversely impacted, making it difficult to judge its validity. The summary review of the 1997 EIA also found that groundwater samples that were tested were of low overall quality. There were high levels of trace metals (As, Cr, Cu, Fe and Mn),[309] all of which were higher than US Environmental Protection Agency drinking water quality standards.[310]

After receiving the 1996 and 1997 EIA findings, Ivanhoe Mines should have conducted further analysis to identify the causes of such high levels of trace metals in groundwater samples and the high parasite levels in the fish but appears not to have done so.

HEALTH RISKS OF EXPOSURE TO TAILINGS

As noted above, the 1996 and 1997 EIAs found levels of arsenic, chromium, copper, iron and manganese in groundwater, and the Chindwin River that exceeded US Environmental Protection Agency standards which apply to public water systems in the country. The US Environmental Protection Agency has identified the potential health effects of long-term exposure above the maximum contaminant levels for three of those metals as follows:

- **Arsenic** - skin damage, problems with circulatory systems, may have increased risk of getting cancer
- **Chromium** – allergic dermatitis
- **Copper** – liver or kidney disease (short-term exposure can result gastrointestinal distress)

309 As (arsenic), Cu (copper), Cr (chromium), Fe (iron), and Mn (manganese). The ESIA for the Letpadaung project also recorded that trace metals (As, Cr, Cu, Fe and Mn) occur at higher than guideline values in the Andesite-Dacite Rock Fissure Weak Aquifer, p. 75.

310 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 55.

ARTISANAL MINING OR *DOHTAR*

Earthrights International staff who visited Monywa, more than a decade after the tailings were discharged, documented the practice of artisanal mining (known as dohtar in the Myanmar language). Matthew Smith wrote: *"[l]ocal people at Monywa have complained that they can no longer farm their land due to high levels of sulphuric acid in the soil … pushing some to artisanal mining, which only adds to the degradation that adversely impacted them in the first place … In some cases, the waste is carried manually from the larger mine site or its immediate vicinity and placed in small pools of water. Sulphur is added, then the mixture is boiled. Next, tin milk cans are added, causing a chemical reaction, and the resulting acid slowly dissolves the cans. The process takes approximately 10 days and, when complete, leaves copper ore in a highly toxic pool of water. The copper is removed by hand with little or no safety precautions, and sold to local and Chinese businessmen. There is no clean up."*[311]

Ivanhoe Mines was aware of this artisanal mining and has stated: *"[f]or years, some residents of nearby villages engaged in unauthorized, unregulated hand-mining on the tailings spill area, digging pits in the waste crushed rock and employing crude and hazardous improvised processes to recover small amounts of residual copper that were sold to middlemen buyers to supplement villagers' meagre incomes."*[312]

Amnesty International visited Monywa in March 2014 and the delegation saw a part of the area (near the Pathein-Monywa road) where the tailings were discharged and where there are still some huts of people who undertake artisanal mining. The land is completely barren and degraded with large mounds of sediments dotting the landscape. Amnesty International took two samples of sediments from this area and gave them to the Greenpeace Laboratory at the University of Exeter for testing. The testing established that the sediment is extremely acidic (2.78 pH and 2.68 pH) and contains very high levels of copper (3730 mg/kg dry weight and 1820 mg/kg).

Environmental and health experts consulted by Amnesty International stated that the acidic nature and high copper content of the sediment poses serious health risks for the artisanal miners. Copper from the sediment, at certain concentrations, can also pose health risks for other people if it enters the groundwater that people drink or is found in the mineral dust that people may breathe in.

FAILURE TO ADEQUATELY CLEAN-UP AND MONITOR EFFECTS

Neither ME1 nor the regional and central authorities made any attempts to clean up the tailings, tailings ponds and other infrastructure from the ME1 venture.

MICCL, which ran the S&K mine from 1996 to 2010/2011 and Myanmar Yang Tse, which took over subsequently, have both reported that they have done some clean-up of the areas where tailings were discharged.[313] Both companies reported that they assumed the responsibility to remove the

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311 M. Smith, 'Environmental governance of mining in Burma', M. Skidmore and T. Wilson (eds.), Myanmar: The state, community and the environment, The Australian National University E Press and Asia Pacific Press, 2007, p. 235. Confirmed through phone interviews with Matthew Smith.

312 Ivanhoe Mines Ltd., Monywa Fact File – 2011, (updated December 2012), p. 6, available at: www.turquoisehill.com/i/pdf/Monywa_Fact_File_December_2012.pdf: (last accessed 2 August 2014).

313 See for example, MICCL, Environment, Health & Safety Report: 2000 – 2001 and Myanmar Yang Tse, Safety, Health & Environment

middle: **Mounds of sediment from hazardous copper tailings, off the Pathein-Monywa road, discharged by Sabetaung and Kyisintaung (S&K) mine in 1995 and1996. The tailings pose high health risks for local artisanal miners who manually extract copper from them. March 2014**

old tailings from their lease areas to achieve their ISO 14001 certification.[314] They also 'voluntarily' offered to clean up the areas outside their lease boundary. However, MICCL identified certain pre-existing facilities, such as the old flotation plant area, as an area outside its control. [315] No information was provided subsequently about clean-up or monitoring of areas that MICCL considered to be outside its control, even though these sites may be sources of significant continuing pollution.

In its Safety, Health and Environmental Reports, MICCL described the partial clean-up it undertook of the tailings sediment inside and outside the mining lease areas from 2001 - 2007.[316] According to Myanmar Yang Tse, which took over the S&K mine in 2010/11, as of December 2013, tailings needed to be removed from approximately 153 acres of land. This suggests that MICCL only did a limited clean-up of the total area affected.

MICCL has not provided a full list of locations which it cleaned up and the areas that remained. Nor has MICCL provided any explanation of the methods used to remove the hazardous tailings (the depth to which the sediment was removed and any other methods used to clean the underlying soils) or on whether the company conducted any post-clean-up testing of soil and groundwater.

Myanmar Yang Tse, which was responsible for the mine from 2010/2011, stated that it offered assistance to the local, regional and national authorities to clean up the area but got little or no response. In 2012, the Minister of Mines visited the area and told the company that *"if they wanted to clean up the area, that they would have to directly engage the villagers and negotiate land settle-*

report: 2013 - 2014, p. 100.

314 The ISO 14001 standard is a voluntary standard, developed by the International Organization for Standardization, which requires an organization to adopt an overall environmental management system. It does not monitor the actual environmental performance of the organization. For more details on the standards see www.iso.org/iso/home/standards/management-standards/iso14000.htm.

315 MICCL, Safety, Health & Environment Report: 2005, p. 32, on file with Amnesty International.

316 The list of clean up actions reported by the company include: "cleaning of ore spillage along the old conveyor embankment and transportation of the historical tailings along the Yama Stream has been carried out", Environment, Health & Safety Report: 2000 – 2001; the 2002 Safety, Health & Environment Report stated "development of honey-comb and VAT ponds in tailings pond is in progress. The tailings are reused as base layer and cushion layor [sic] in construction of leach pad"; in 2005-2006, part of the affected area at Mine Town was cleaned-up and reclaimed with local contract workers; old tailings were sent back to the Main Tailings Dam",Safety, Health & Environment Report: 2006, p. 43, in 2006-2007, part of the affected area along the Kyaukmyet Road and in some lease areas was cleaned-up and reclaimed with local contract workers. The reports also described the progress of rehabilitation initiatives involving planting of trees. As of 2007, MICCL stated that 36,600 trees were planted and 33.29 hectares rehabilitated, including an area near the Dam 4 tailing, MICCL, Responsible Mining, Sustainable Growth: Safety, Health and Environmental Management and Community Support Initiatives 2007, p. 44.

ments with them". 317 The company stated that from 2011 to the end of 2013, it sent machines and representatives to remove "hazardous tailings" from villages that requested or allowed the company to do so. The "waste was returned to safe storage facilities within the mine lease". [318]

Despite the clean-up actions reported by the companies, substantial pollution remained in 2013. This was raised by the Letpadaung Investigation Commission, which recommended that the government and the companies remediate the tailings discharge area along the Pathein-Monywa road. In response, the government requested Myanmar Yang Tse to assist with machinery and labour to clean the main area affected by tailings discharges located outside the mine lease area. The company said that it has agreed only to provide the necessary equipment, fuel, and labourers to the authorities but *"[t]he Government will be responsible for all planning and land settlements, and will also be responsible for mitigating complaints and related issues to tailings removal"*.[319]

In January 2014, Myanmar Yang Tse released a news update on its website that it had joined forces with UMEHL to undertake the 'Tailings Reclamation Project'.[320] The tailings were removed from many areas and according to another news update issued by Myanmar Yang Tse in May 2014, about 83% of the total areas has been cleaned up. The company claimed that it and UMEHL had agreed in March 2014, that it if government officials could not negotiate with villagers, who were refusing to be part of the project, in a timely manner, the project would be stopped. On 2 May 2014, the Tailings Reclamation Project was ended. [321]

When Amnesty International visited the area in March 2014, researchers found large mounds of sediment from the tailings along part of the Pathein-Monywa Road. The area was completely barren and degraded (see photographs of the area, included with this report). In subsequent communications with the villagers, Amnesty International learnt that although the tailings sediment has been removed from many areas, as of December 2014, not all the affected areas have been cleaned.

MONITORING OF SUBSEQUENT MINE OPERATIONS: LEFT TO THE COMPANIES

THE OLD MOUNTAIN HAS DISAPPEARED, THE AREA AROUND IT WAS VERY FERTILE PREVIOUSLY AND THE WATER WAS GOOD

- Resident of Monywa Town[322]

MYANMAR IVANHOE COPPER COMPANY LIMITED: 1996 TO 2010/11

Amnesty international reviewed the safety, health and environment reports for the S&K mine published by MICCL covering the period 1999 to 2007. There are no reports publicly available for the 2007 to 2011 period. The reports reviewed use a 'high', 'moderate' and 'low' environmental effect rating to classify incidents. A high risk incident is defined as one that results in regulatory requirements being exceeded, or causes harms to the environment outside the lease; a moderate risk incident is one that causes harm to the environment but is confined to the site; and low is a minor incident involving a small spill or near miss. MICCL's 2007 report included a chart depicting total number of such incidents in the period 1999-2007:[323]

The section below discusses some of the incidents reported by MICCL. As far as Amnesty International is aware, there was no monitoring by the government of any of these incidents, of the efficacy of any clean-up and preventative measures, or of impacts on local communities.

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317 Myanmar Yang Tse, Safety, Health & Environment report: 2013 - 2014, p. 100.

318 Myanmar Yang Tse, Safety, Health & Environment report: 2013 - 2014, p. 100.

319 Myanmar Yang Tse, Safety, Health & Environment report: 2013 - 2014, p. 101.

320 Myanmar Yang Tse, 'MYTCL & MEHL Join Forces in an Environmental Project', 27 January 2014.

321 Myanmar Yang Tse, 'Tailings reclamation project completion', 6 May 2014, available at: http://www.myanmaryangtse.com.mm/latest-news/183-tailings-reclamation-project-completion.html (last accessed 3 February 2015).

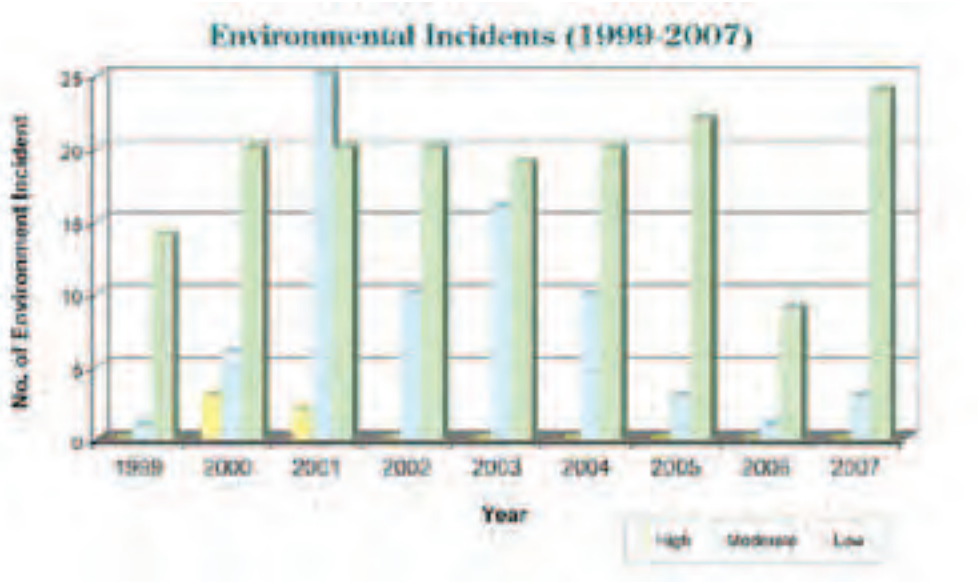
322 Amnesty International interview, Myanmar, 25 March 2014.

323 Myanmar Ivanhoe Copper Company Limited (2007) – Responsible Mining Sustainable Growth. p.31-32

Between 1999 and 2007, a few high risk environmental incidents were reported. For example, in 2001, the company reported a high risk incident where contaminated material from the mine pit was pumped out to an outside drain leading into the Yama Stream.[324] It also reported lower and medium risk incidents, largely involving leaks or spills.[325]

There are aquifers beneath the S&K mining area. As recognised by MICCL itself, the S&K mine has the potential to affect the quantity, quality and flow patterns of groundwater in the aquifers around the project. MICCL stated *"[c]onsequently protection of the aquifer from contamination is a key issue for the operation"*.[326]

In 2002, MICCL reported that due to the extensive mining in the northern part of the Sabetaung pit, it intruded into a shallow semi-unconfined aquifer which lies under the pit and mining operation areas. This caused groundwater to flow from the aquifer into the pit. MICCL stated that the groundwater was pumped out of the mine pit and into a silt trap pond and then into the Yama Stream.[327] Subsequent reports till 2007, which is the last environmental report publicly available for MICCL, confirmed that water continued to flow from the aquifer into the pit.



Amnesty International obtained copies of two monthly internal reports prepared by MICCL for the S&K mine, for December 2003 and January 2004. Both reports stated that *"[f]resh water inflow from Kangon aquifer is intercepted and collected in Sump 555 and pumped out to surface via the silt trap outside the pit"*.[328] The monthly report for December 2003 mentioned that sump 555 was operated for 3,450 hours during the month, and a total of 721,189 cubic metres of water was pumped to out of the mine pit.[329] It is not clear what proportion of this was water from the aquifer but these reports raise two concerns.

Firstly, the risk of acid drainage from contact between the water from the aquifer and the acid forming rocks in the mine pit. This is a particular concern as an earlier study in 1997, commissioned by Ivanhoe Myanmar Holdings Ltd., had revealed that the water quality from the Sabetaung pit had low pH (was acidic) and high copper concentrations.[330] MICCL's approach to controlling the risk of

324 MICCL, Environment, Health & Safety Report: 2000-2001, on file with Amnesty International (no page numbers).

325 MICCL also reported other incidents, which were classified as lower risk involving spills or leaks of copper contaminated solution and hydrocarbon. It claimed that all spills were controlled, contained, cleaned up and rapidly located because of regular patrols by personnel. See for example MICCL, Environment, Health & Safety Report: 2000-2001, on file with Amnesty International (no page numbers).

326 MICCL, Environment, Health & Safety Report: 1999/2000, p. 20 (on file with Amnesty International).

327 MICCL, Safety, Health & Environment Report 2002, p. 22 (on file with Amnesty International).

328 MICCL, S&K Copper Project: Monthly Report for January, 2004, section 2.2, (no page numbers) and MICCL, S&K Copper Project: Monthly Report for December, 2003, section 2.2, (no page numbers), on file with Amnesty International.

329 MICCL, S&K Copper Project: Monthly Report for December, 2003, section 2.4.4, (no page numbers), on file with Amnesty International.

330 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 75.

acid rock drainage was that the freshwater from the aquifer would be diverted to the Yama Stream, through a silt- trap pond and constructed drains, and the water quality monitored before release.[331] The issues with this approach are as follows:

- Until 2005, MICCL's safety, health and environment reports claimed that the water was tested daily; subsequently they stated that the *"water quality is monitored on a regular basis"*,[332] without specifying the frequency.

- The approach relied on MICCL being able to distinguish between contaminated water from the pit, which was pumped into the Overflow Pond,[333] and freshwater from the aquifer which was pumped to the stream, through the silt-trap pond. The company did not explain how the water was tested in the pit to determine whether it was contaminated or fresh water. MICCL reported instances of discharges of water from the Sabetaung pit polluting the overflow drain of the silt-trap pond (which releases into Yama Stream) in 2004.[334] These incidents suggest that the systems for testing water for contamination were not perfect.

- There are also concerns about overflows from the silt trap pond itself, prior to testing. In 2004, MICCL highlighted two incidents where contaminated solution from a silt-trap pond overflowed into an outside drain. There is no information on how much, if any, liquid was discharged into Yama Stream. It is also not clear if this silt-trap pond is where water from the pit is diverted to, or if water is diverted to a different pond but this incident highlights that it is possible for the pond to overflow.

Considering the large amount of water flowing from the aquifer into the pit and then being pumped out to the silt-trap pond and into the stream (and therefore the Chindwin River), MICCL needed very effective systems in place to ensure that all water was tested before discharge from the silt-trap pond, and to prevent overflows. Such incidents and systems should have not been left to the company's discretion alone but also monitored by a government body.

Secondly, the total volume of water being lost from the aquifer and the implications of such loss on groundwater levels in the area are not clear. Reports, up to 2007,[335] mentioned aquifer water from the pit being pumped out into the silt-trap pond and released into the stream suggesting that water continued to flow out from the aquifer into the pit for many years.[336] As described below, one of the key community concerns is the drop in groundwater levels which makes it harder for them to find water when they dig wells for drinking water.

MICCL also reported various other incidents of pollution from its operations, including flooding of a pond, after heavier than normal rain in 2003 and 2004, permitting contaminated water to flow into the wetland.[337] In 2007, MICCL highlighted three moderate risk incidents; one in which the PLS [pregnant leach solution] pond bund broke due to heavy rain, as well as others involving leaks from pipes in the fines screening plant.[338]

MICCL'S LIMITED TESTING OF GROUNDWATER AND SURFACE WATER

As noted earlier, the 1996 EIA, cited by Knight Piésold, highlighted that almost all parameters tested in samples for the Yama Stream and Chindwin River exceeded US Environmental Protection Agency

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331 MICCL, Safety, Health & Environment Report 2004, p. 29 (on file with Amnesty International).

332 MICCL, Safety, Health & Environment Report 2005, p. 35 (on file with Amnesty International).

333 MICCL, Responsible Mining, Sustainable Growth: Safety, Health and Environmental Management and Community Support Initiatives 2007, p.44, add website.

334 MICCL, Safety, Health & Environment Report 2004, p. 29 (on file with Amnesty International). The company stated that it diverted the contaminated liquid back to the pit bottom and cleaned the silt-trap pond.

335 The last publicly available report for MICCL.

336 MICCL, Safety, Health & Environment Report 2006, p. 35 (on file with Amnesty International).

337 MICCL, Safety, Health & Environment Report 2003, p. 23 (on file with Amnesty International). The report contained no information about monitoring or clean-up. MICCL, Safety, Health & Environment Report 2004, pp. 28 - 29 (on file with Amnesty International). In the table of incidents, the company noted two instances when the wetland was contaminated from the overflow pond and once by strong electrolyte solution and stated that the contaminated/electrolyte solution had been pumped back to the tailing/operating pond and fresh water added to the wetland to raise the pH.

338 MICCL, Responsible Mining, Sustainable Growth: Safety, Health and Environmental Management and Community Support Initiatives 2007, p.31.

water quality criteria. It also stated that metal parameters (chromium, copper and iron) rose with increased flow rates. [339] In light of this information, MICCL should have tested the Yama Stream and river regularly to measure any change in these parameters and should have reported such information publicly. MICCL's earlier annual Safety, Health and Environment reports included information on levels of dissolved copper in addition to pH levels, in graphs of results of the testing of water samples collected from Yamar Stream and Chindwin River, but later reports only include pH levels. There is no explanation of why levels of dissolved copper were not included in later reports, nor of whether the samples were tested for other potential pollutants highlighted as concerns in the 1996 EIA.[340]

The company also stated that it had installed boreholes around the S&K mining project to monitor groundwater quality. Water quality sampling was conducted every two months.[341] MICCL identified groundwater contamination in a borehole in 2002 and an increase in sulphate levels in some samples tested in 2002, 2003 and 2004.[342] The contamination was ascribed to factors such as leaks from pipes or sulphate minerals in the rocks surrounding the aquifer but no other analysis was provided of why the results recurred. The 1997 EIA results pointed to high levels of trace metals (arsenic, chromium, copper, iron and manganese) in the groundwater tested, all of which were higher than drinking water quality standards.[343] As with the testing of the river, this should have resulted in MICCL testing for these potential pollutants on a regular basis but from MICCL's reports, it does not appear that the company was testing for parameters other than pH, copper and sulphates.

People in the area rely heavily on groundwater for drinking, cooking and other personal uses. This makes the need for comprehensive monitoring more acute. MICCL should have continued to monitor for trace metals that had been highlighted as a concern in the 1997 EIA. The causes of changes to groundwater in the bore holes should also have been investigated by the authorities, especially considering the information discussed above about the mine infiltrating the aquifer, and not left to the company alone. It does not appear that this was done, other than some limited testing of groundwater in the area by the public health authority, at the request of local villagers (discussed below).

MICCL's reports were published in English and it is not clear what, if any, information was shared with local communities on the environmental incidents that occurred. Although MICCL was responsible for the mine until 2010/2011, the company did not publish any environmental data after 2007.

MYANMAR YANG TSE: 2010/2011 ONWARDS

Myanmar Yang Tse has released two safety, health and environmental reports, covering the periods 2012 – 2013 and 2013-2014. The 2013 – 2014 report referred to six environmental incidents, most of which were leaks of contaminated solutions.[344] Myanmar Yang Tse stated that there was only one incident of environmental concern and consequence in 2012, the collapse of a Waste Dump after an earthquake.

"Following a 6.5 earthquake recorded on the Richter Scale, and 10 minor quakes within a few days period, the foundation earth between the NE Waste Dump failed, and unexpected collapsed. … The increased seismic activity activated a below-ground shift and surface collapse, and the NE Waste Dump and dropped and spilled out approximately 17 metres towards the East."

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339 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 51. It also stated that seasonal variations in water quality were evident with increases in TSS (total suspended solids) but decreases in TDS (total dissolved solids), conductivity, hardness and alkalinity.

340 The reports also contained information on injuries to and levels of acid exposure of workers and dust monitoring.

341 MICCL, Safety, Health & Environment Report 2003, p. 26 (on file with Amnesty International). According to MICCL, "any occurrence of low pH was checked and corrective action was taken immediately"

342 MICCL, Safety, Health & Environment Report 2002, p. 20. This was ascribed to "digging of diversion in the adjacent area. Increased [sic] in total sulfate was also noticed in some monitoring samples". MICCL, Safety, Health & Environment Report 2003, p. 26. MICCL, Safety, Health & Environment Report 2004, p. 32. (All the reports are on file with Amnesty International).

343 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 55.

344 Myanmar Yang Tse, Safety, Health and Environment Report: 2013 – 2014, p. 86.

The Waste Dump contains enormous amounts of waste capable of producing acid rock drainage and which poses a significant risk to the environment. The Waste Dump for the S&K mine is located close to at least three villages and the Yama Stream which leads to the Chindwin River.

The company claimed that due to sound stability engineering, geotechnical surveys and data collection prior to the waste dump creating, *"this incident was contained through mining methodology. Had [Myanmar Yang Tse] not adhered to proper mining and waste dumping procedures, the waste dump may have slide (sic) out into neighbouring villages hundreds of meters."*[345]

The company asserted that there was successful containment, groundwater and aquifers were monitored and there was no damage.[346] It also claimed that the incident had been identified as a very rare event but precautionary measures had been implemented.[347] The report did not explain what these precautionary measures are and also failed to describe the 'mining methodology' used to contain the collapsed Waste Dump.

Like MICCL, Myanmar Yang Tse holds ISO 14001 certification and is audited twice a year on its environmental managements systems. It states that its environmental site management program is based on and monitored with reference to standards set by the National Environmental Protection Council of Australia and Myanmar ME1 legislations.[348] The collapse of the foundation underneath and of the North East Waste Dump in 2012, however, amply demonstrates the gap between the voluntary systems adopted by the company and regulatory oversight that should normally be mandated by the government.

The mining project is located close to the Sagaing fault and is in an earthquake zone. After the collapse of the foundation and of the Waste Dump itself there should have been a detailed investigation by the Myanmar authorities into its collapse, any impacts on the environment and risks to people living in the area. No such investigation appears to have been undertaken. Myanmar Yang Tse noted that an investigation was carried out by Knight Piésold, a consulting firm retained by the company. As discussed in the next chapter, this information was not disclosed or discussed in the ESIA for the Letpadaung mine (despite common ownership of the two mines and the fact that they are both located close to the Sagaing fault), when Knight Piésold examined options for the safety of new Waste Dumps in the event of earthquakes. This is an egregious failure of due diligence and disclosure by Wanbao Mining.

COMMUNITY CONCERNS ABOUT WATER AND OTHER POSSIBLE IMPACTS OF THE PROJECT

There is considerable anxiety amongst the villagers around the project area about the impact of mining on their water, farmlands and health. Villagers interviewed by Amnesty International in March 2014 stressed their concerns about the safety of the water in the wells that they use and the drop in groundwater levels, which makes it harder for them to sink in new wells (as the water level is lower).

"In the past, we only had to dig 30 feet to get water. After the Sabetaung project, when they made a big lake, it reduced our groundwater level. We now have to dig wells to 80 or 90 or 100 feet."[349] Another villager said *"now when we dig wells, the water smells and has a different colour. The plastic bowls we use for the water turn a different colour."*[350] Amnesty International was shown bowls used to collect or store water in homes which are encrusted with a reddish brown layer (see photos).

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345 Myanmar Yang Tse Copper Limited, Responsible Mining 2012- 2013 p. 33.

346 With the exception of "one Secondary Miner Hit pushed along the tailings from its base." It also noted no changes to the aquifer and groundwater to date are recorded.

347 Myanmar Yang Tse Copper Limited, Responsible Mining 2012- 2013 p. 33.

348 Myanmar Yang Tse Copper Limited, Responsible Mining 2012- 2013 pp. 18 and 34.

349 Villager interviewed by Amnesty International, Myanmar, 26 March 2014.

350 Amnesty International interview, Myanmar, 26 March 2014.

TESTING OF GROUNDWATER IN 2003 AND 2012

Villagers in Kankone village who were concerned about the safety of the water that they were using organised for the water to be tested by the public health laboratory in 2003. They also got the water tested in 2012[351]. Amnesty International obtained copies of the test results and requested Dr. Tingay, an environmental scientist with extensive experience of mining projects, to review the results. Some of the wells were tested both in 2003 and 2012 but many of the wells only tested once. The 2003 and 2012 data therefore are not strictly comparable. Dr. Tingay noted that they do however indicate that the water quality in Kankone has deteriorated between 2003 and 2012. The results and the deterioration in water quality over that period in Kankone village clearly point toward the need for a comprehensive study of groundwater in the villages around the project and of surface water.

The ESIA for the Letpadaung mine stated that copper and iron were recorded above detection limits in some surface water samples and traces of iron, magnesium, lead and manganese in individual bore-holes.[352] Considering that the 1997 EIA also revealed high levels of trace metals (arsenic, chromium, copper, iron and manganese) in groundwater tested, it is essential that any study of groundwater also test for these parameters and compare the results.

A villager told Amnesty International that the district authority gave them a purifying machine to use, after 2013, but the water from the machine is not good. *"If you wash clothes with this water, it turns yellow"*. They were also told to boil the water before using it. Another villager stated *"when we cook the rice with water, the rice has a different colour and taste."*

The villagers told Amnesty International they use well water for bathing and washing. A man in his forties noted *"some people also drink from the wells. Those who can afford it, buy purified water for drinking"*. Amnesty International interviewed people, especially daily wage workers, who said they could not afford to buy water and have to drink water from the well, despite tests by the public health laboratory, as noted above in 2012, revealing concerns about the well's water quality. A woman who works occasionally as a daily wage worker said *"I collect water from the wells near my house and don't boil the water. I don't buy purified water as we are daily wage labourers. It costs 500 kyats per jerry can of purified water."*[353] Another man stated *"we drink water from one of the wells, which [was tested and] has problems. Sometimes we boil the water sometimes we don't."* He said that he didn't earn enough to buy purified water.[354]

Some villagers described seeing run-off from the S&K mine area for many years, when it rains, and discharges of reddish water through a drain into the stream. An elderly man described *"when it rained, after some time, I would notice that the water flowing down from Sabetaung was yellow."* Amnesty International also obtained copies of photographs of the waste water pond and areas near the S&K mine site which show runoffs of reddish-orange water.

RESPONSIBILITIES OF ME1, IVANHOE MINES AND WANBAO MINING

ME1 operated the initial S&K mine venture which discharged hazardous tailings over a large area of land and into the river through the stream over a two-year period from 1995 - 1996. It failed to clean up the tailings that were discharged. It did not take action even when it was clear that people were engaged in hand mining the tailings, exposing them to health risks. It did not monitor the impacts of the discharge, in particular any impacts on groundwater and the river, on agricultural land and on the health of people who were exposed to the tailings.

It entered into an agreement with Ivanhoe Mines to operate the S&K mine without specifying responsibilities for remediation of the pollution that the mine had already caused.

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351 The following parameters were analysed: colour, pH, Total solids, Total hardness, Total alkalinity, Calcium, Magnesium, Chloride, Sulphate and Iron.

352 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. v (executive summary).

353 Amnesty International interviews, Myanmar, 26 March 2014.

354 Amnesty International interview, Myanmar, 26 March 2014.

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opposite: **Vessels used to collect water in Kankone village, which is located 500m from the S&K mine site and 200m from the UMEHL sulphuric acid factory. An environmental expert noted that test results indicate that the water quality in Kankone has deteriorated between 2003 and 2012**

above: **A drainage channel containing reddish-orange water which local villagers say comes from the S&K mine, December 2012.**

below: **Blasting operations at the S&K mine, December 2013. The Environmental and Social Impact Assessment of the Letpadaung mine states that blasting generates dust plumes in the area, and that dust is a "significant contributor to respiratory infections" in local communities. 29 December 2012**

Ivanhoe Mines stated that its wholly owned subsidiary, Ivanhoe Myanmar Holdings Ltd., was indemnified by ME1 under the 1996 joint venture agreement for environmental liabilities resulting from activities occurring prior to the date of the agreement.[355] In its fact file on the Monywa project, Ivanhoe Mines stated that it *"publicly deplored and condemned the disinformation tactics used over the years by some critics who falsely claimed that Ivanhoe was associated with certain degraded environmental conditions on and around the Monywa site that, in fact, were created and left untreated by the previous Yugoslavia-Myanmar smelter-and-mine operation. The truth is that Ivanhoe, through its former partnership in the MICCL joint venture, was part of the remedy; but Ivanhoe most certainly did not contribute to the creation of the degraded conditions. The MICCL joint venture did not use the concentrator-smelter complex that was used and left behind by the earlier RTB Bor-ME1 venture."*[356]

Ivanhoe Mines took over a site which was polluted with hazardous waste and entered into a joint venture with ME1, which had operated the venture that caused the pollution. Contrary to Ivanhoe Mines' statement, by virtue of its purchase of the mine it did associate itself *"with certain degraded environmental conditions on and around the Monywa site"*. It cannot distance itself from this pollution, merely by the fact that it was caused by ME1's prior operations. A company cannot buy a facility which is contaminated with hazardous waste and which has already caused considerable damage to the local environment that people rely on and then simply state that it is not its responsibility. The indemnity that Ivanhoe Myanmar Holdings Ltd. obtained from ME1 may give the company protection in the event of certain kinds of legal actions, but cannot be used by a responsible business as a defence for profiting from a situation where its joint venture partner has caused extensive pollution. To suggest otherwise is contrary to well-accepted standards on responsible business operations.

MICCL and its owners, Ivanhoe Mines and ME1, failed to ensure that the areas contaminated with hazardous waste were properly cleaned up. Furthermore, Ivanhoe Mines[357] issued a press release on 17 October 1996 announcing that it would cut the costs of construction and time for construction of MICCL's facilities by making maximum use of the existing process facilities and mining equipment – i.e., those from the former ME1 operation. The President of the company at the time is quoted as saying *"We've come up with an innovative approach to save time and money … We've advanced the timetable for some of the detail engineering and design work. And we've found that we can avoid the purchase of costly new equipment by making maximum use of process facilities and mining equipment that is already on the site. … With the proposed changes, we believe that the required capital investment can be reduced to US$90 million, about $35 million below our earlier estimates."* The press release also went on to say *"[The President said] that cost estimates contained in the study now can be reduced in part by earlier completion of the new mine and by utilization of infrastructure and production equipment at the existing open-pit mining and milling operation."*[358]

There is nothing in the company's subsequent reports suggesting that it decided not to follow this plan. Amnesty International asked Ivanhoe Mines for information on its use of older facilities and equipment and did not receive a response. It therefore appears that Ivanhoe Mines used the mining and production facilities of the old operation and benefitted financially from the use of such facilities. If this is the case, it placed a greater burden on the company to ensure that these facilities as well as any pollution caused by these facilities was cleaned up prior to their use.

As part of the company's due diligence process, prior to taking over the mine, it should have ensured that there was a process in place to stop and remediate the pollution and clean all facilities storing hazardous materials linked to the earlier mining operations. The failure to clean up existing sites within and outside MICCL's lease area also created the risk that, if there was pollution from the MICCL operation, this could exacerbate and amplify the existing negative environmental impacts. No responsible mining company should disregard the risks associated with cumulative pollution.

While MICCL reported that it had partially cleaned up areas inside and outside the mine lease, it

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355 Indochina Goldfields Ltd. (Ivanhoe Mines), 1997 Annual Information Form, p. 23.

356 Ivanhoe Mines, Monywa Fact File: 2011, last updated December 2012, p. 6.

357 The press release was issued by Indochina Goldfields Ltd., Ivanhoe Mines' former name.

358 Indochina Goldfields Ltd. (Ivanhoe Mines), 'Indochina Goldfields announces Accelerated Construction of Large Monywa Copper Mine Drilling Begins on Associated "Golden Halo'', 17 October 1996.

failed to provide a full description of areas that had been cleaned and those that remained unaddressed. Its reports do not include details of testing of soil and groundwater where tailings had been discharged making it difficult to judge the efficacy of the action the company states it took.

Ivanhoe Mines and ME1 were fully aware that artisanal miners were using the copper tailings sediment from the earlier ME1 operations and that the processes being used by the miners to exploit the tailings left by earlier mining ventures were hazardous. Despite this knowledge, ME1 and Ivanhoe Mines did not clean up the area, and the materials remained a risk for anyone who came into contact with them.

The lack of comprehensive environmental data on the impact of the older operations also meant that there was no clear baseline to assess MICCL's own operations. For instance, when MICCL identified in 2002 that there was contamination of certain groundwater samples, it is difficult to judge whether this could have been caused by the tailings, discharges or acid rock drainage from MICCL's operations or other causes. MICCL has reported various environmental incidents, some of them - such as the effect on the aquifer underlying the mine pit and reports of contamination of groundwater – pose serious risks to people living in the area.

Many of these concerns also apply to Wanbao Mining, which, in 2010/2011, also took over a site polluted with hazardous waste without agreeing a process for clean-up and monitoring of the tailings areas as part of its negotiations over the mine. Wanbao Mining's subsidiary, Myanmar Yang Tse, which currently operates the S&K mine reported that it has helped the authorities when they sought its assistance in clearing up all the tailings areas. While this is welcome, as with MICCL, its reports do not include details of any testing of soil and groundwater after the clean-up, making it difficult to judge the efficacy of measures adopted.

ME1, Ivanhoe Mines and Myanmar Yang Tse all failed to monitor the effects of pollution on people living in the vicinity of the mine who may have been impacted by it. No information was shared with local communities on the environmental incidents that were recorded and mitigation measures that were adopted. ME1 and Ivanhoe Mines are both responsible for any pollution caused by their joint venture, the impacts of that pollution and the failure to share information with local communities.

ABOVE THE LAW: UMEHL'S SULPHURIC ACID FACTORY

In 2007 the Union of Myanmar Economic Holdings Limited (UMEHL) set up the Moe Gyo Sulphuric Acid Factory right next to Kankone village. The factory produces 50 tonnes of sulphuric acid daily supplying 98% of the S&K mine's needs.[359] The government appointed Letpadaung Investigation Commission, set up in December 2012, inspected the Sulphuric Acid Factory as part of its investigation into environmental concerns related to the Monywa project. It found that UMEHL had not obtained permission from the Ministry of Industry before setting up the factory and was operating it solely as a business venture set up by UMEHL.[360]

HEALTH RISKS LINKED TO SULPHURIC ACID MANUFACTURING

There is no information on the processes used by the factory to manufacture sulphuric acid but an online database of sulphuric acid plants states it is a sulphur burning factory.[361] Sulphuric acid manufacturing facilities are a significant source of sulphur dioxide and particulate emissions and other pollutants that can have health and environmental impacts. There is also a risk of sulphuric acid mist being released into the atmosphere.[362]

359 Para 47, Final report of the Letpadaung Investigation Commission, unofficial English translation.

360 Paras 47 and 82 (a) (29), Final report of the Letpadaung Investigation Commission,

361 Sulphuric Acid on the Web, Acid Plant Database available at: www.sulphuric-acid.com/sulphuric-acid-on-the-web/acid%20plants/Myanmar-Economic-Holding.htm.

www2.epa.org/enforcement/acid-plant-new-source-review-enforcement-initiative (last accessed 2 November 2014).

Sulphuric acid is very corrosive and can cause harmful effects on the skin, eyes, respiratory and gastrointestinal tracts when there is direct exposure to sufficient concentrations. Breathing sulphuric acid mists may result in tooth erosion and respiratory tract irritation. [363] Sulphur dioxide in high concentrations can affect breathing and may aggravate respiratory and cardiovascular disease. Sensitive populations include asthmatics, individuals with bronchitis or emphysema, children and the elders. Sulphur dioxide is also a primary contributor to acid deposition or acid rain[364] as it slowly forms sulphur trioxide, which reacts with water in the air to form sulphuric acid. Sulphuric acid in the rain contributes to the formation of acid rain.[365] Inhalation, even short-term inhalation, of sulphuric acid causes irritation of the eyes and nose with sore throat, cough, chest tightness, headache, and confusion.[366] There is also evidence that inhalation of sulphuric acid mists may cause an increase in upper respiratory tract cancers.[367] Particulate matter which can be released in the manufacturing process can also contribute to negative health effects and the size of the particles is directly linked to their potential for causing health problems.[368]

© Name withheld

The Sulphuric Acid Factory is located about 200 metres from Kankone village and a short distance away from the local school. It is surrounded by farm lands that are cultivated by local villagers.

International best practice calls for a buffer zone or separation between a facility manufacturing hazardous chemicals and people, as a precautionary approach to ensure human safety. Using the example of regulations in Western Australia the suggested separation distance from a sulphuric acid plant is 2000 to 3000 metres.[369] The local school and other parts of the village are much closer than this recommended distance.

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363 U.S. Department of Health and Human Services, Agency for Toxic Substances and Disease Registry, Toxicological Profile for Sulfur Trioxide and Sulfuric Acid, December 1998, p. 5.

364 United States Environmental Protection Agency website, Acid Plant New Source Review Enforcement Initiative available at www2.epa.org/enforcement/acid-plant-new-source-review-enforcement-initiative (last accessed 2 November 2014).

365 U.S. Department of Health and Human Services, Agency for Toxic Substances and Disease Registry, Toxicological Profile for Sulfur Trioxide and Sulfuric Acid, December 1998, pp. 2 – 3. Acid rain is described as a serious environmental problem by the U.S. Environmental Protection Agency which states that is particularly damaging to lakes, streams, and forests and plants and animals that live in these ecosystems, see www.epa.gov/acidrain.

366 Health Protection Agency (United Kingdom), HPA Compendium of Chemical Hazards: Sulphuric Acid, p. 4,

367 Health Protection Agency (United Kingdom), HPA Compendium of Chemical Hazards: Sulphuric Acid, p. 27.

368 United States Environmental Protection Agency website, Acid Plant New Source Review Enforcement Initiative available at www2.epa.org/enforcement/acid-plant-new-source-review-enforcement-initiative (last accessed 2 November 2014).

369 Environmental Protection Authority, Guidance for the assessment of environmental factors: Separation Distances between Industrial and Sensitive land Uses, No. 3, June 2005, available at: http://www.epa.wa.gov.au/EPADocLib/1840_GS3.pdf (last accessed 25 January 2005).

opposite: **Sign outside the UMEHL Moe Gyo sulphuric acid factory (Moe Gyo means Thunder in English.) Date: 16 August 2013**

above: **Satellite image of the Moe Gyo Sulphuric Acid Factory and Kankone Village, which is about 200m away. Image Date: 13 May 2014. 22.129868, 95.067940**

In March 2014, Amnesty International interviewed villagers who live in the vicinity of the Moe Gyo Sulphuric Acid Factory. They described a strong smell from the factory, which makes them cough and their eyes water. Many villagers complain of respiratory problems, skin problems and irritation in the eyes.[370]

A man in his forties stated: *"sometimes there is a very strong smell from the Sulphuric Acid Factory, people cannot stay in the village at those times. Our eyes tear up and we cough. It depends on the direction of the wind."* A woman who was concerned about the effect of the factory on her children's health said that the entire *"family coughs and their eyes tear up when the smell from the factory is strong. The strong smell comes many times in a day when the factory is running. It operates for 24 hours of the day but has stopped since February."*[371] At the time of Amnesty International's visit to the area in March 2014, the factory had temporarily halted operations because of community protests but operations were subsequently resumed.

An elderly man said he had a problem of coughing when there was a smell from the factory. He said that the villagers *"wanted the acid factory to move because it was built next to the village and the school but were scared to speak during the military government."*[372]

A few of the villagers who were interviewed also described damage to crops in fields adjacent to the factory. One man/woman explained: *"sometimes when the smell is very strong, green plants fall down. They are still green but they fall down. On 29 October 2013, we had a problem in one sesame field and one sunflower field. All the leaves dried up. In the past this area was very fertile but in that year, all the plants dried up after the smell. We complained to the factory and to the township. There was no action taken. The township-level agricultural group acknowledged that the plants had been damaged because of the factory but did not do anything."*[373] The villagers named two farmers whose

370 Amnesty International interviews, Myanmar, 26 March 2014.
371 Amnesty International interviews, Myanmar, 26 March 2014.
372 Amnesty International interview, Myanmar, 26 March 2014.
373 Amnesty International interviews, Myanmar, 26 March 2014.

right: **The sulphuric acid factory operated by the military-owned conglomerate, the Union of Myanmar Economic Holdings Limited (UMEHL). The factory is located close to Kankone village and farmlands. Between 2007 and 2013, UMEHL operated the factory illegally. Date: June 2013**

sunflower fields were affected and one whose sesame crop was affected.

Following this incident in October 2013, soil samples were taken from the sunflower fields where the crops were damaged. These samples were tested by an Advancing Life and Regenerating Motherland (ALARM), an environmental organization, and the Department of Agriculture. The testing revealed very high levels of soluble sulphates in the six samples, all in excess of 200 mg/kg. The highest levels found in two samples were 283.2 mg/kg. ALARM referred to standards used by laboratories in New Zealand for soil tests and interpretation, which consider a level of 50 mg/kg of soil tested to be very high. They stated that the levels found in the soil in the sunflower fields was five times higher.[374]

It is difficult to draw any definitive conclusions about the cause of such high levels of sulphates in the soil because there are no control sites with which to compare results. However, the existing data – the test results - while limited, are a cause for serious concern about the factory and its impacts. There is an acute need for a comprehensive environmental study around the Sulphuric Acid Factory and in adjacent villages. The Director of the Sulphuric Acid Factory, in a meeting with villagers on 3 February 2014 that was recorded on video, also stated that a water sample tested inside the school showed an increase in sulphate content.[375]

The Letpadaung Investigation Commission revealed in March 2013, that the total suspended particulate matter in the air near Kankone village was two times more than the other two areas tested[376]

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374 Eco-Lab Ecological Laboratory, Advancing Life and Regenerating Motherland (ALARM), dated 4 December 2013, on file with Amnesty International.

375 Video of meeting between representatives of Kankone village, the Director of the Moe Gyo Sulphuric Acid Factory, the Minister for Agriculture and the police on 3 February 2014, on file with Amnesty International.

376 The other two areas tested were Letpadaung mine copper project area and the Ywatha village.

and all three areas exceeded the WHO and US Environmental Protection Agency air quality standards. The Commission stated that the increase in population and businesses in the area and the effect of air spreading from the Sabetaung mining project site could be reasons for this difference. They also recommended that the acid dust should be measured in the places close to the copper project, especially the acid factory.[377] This appears not to have been done, or at least the results have not been made public.

FAILURE TO PROVIDE INFORMATION TO THE AFFECTED COMMUNITIES

Amnesty International obtained copies of a two-part video documenting a meeting between representatives of Kankone village, the Director of the Moe Gyo Sulphuric Acid Factory, the Minister for Agriculture and the police on 3 February 2014. These videos capture the villagers' efforts to raise their concerns about the operations of the factory with the management of the factory and the authorities, and to ask for more information.

In the video, the villagers' representatives requested that if the emissions from the factory exceeded international limits, it should be moved to another location or closed. The authorities replied that the process could not be stopped as it is vital for copper production.

The Director of the factory referenced various inspections that been undertaken in 2012 and 2013 of the factory by the divisional health, team, departments of agriculture, regional administration and police, and for its ISO 14001 certification. [378] The villagers emphasized that no one had visited them or asked them any questions. They asked if the inspection reports would be published. The villagers also pointed out that they had previously been promised that they would receive the results of inspections but had not so far. The Minister of Agriculture acknowledged that when he breathed in air around the factory, it was different from elsewhere. He promised that the ISO report would be published and a full explanation given to the villagers.

Despite the commitment made by the Minister for Agriculture, the villagers did not receive copies of any inspection reports.

FAILURE TO HOLD UMEHL ACCOUNTABLE

The President's office announced in May 2014 that the Ministry of Industry gave permission for the Sulphuric Acid Factory to be established on 12 July 2013 (though it had been operational since April 2007). The announcement stated that the factory officials had said that the plant received its ISO certificate in April 2014. *"Moe Gyoe Sulphuric Acid Factory received a certificate that states quality management system, environmental management system and occupational health and safety management system are now meeting international standards"*.[379]

The ISO 14001 standard is a voluntary standard, which requires an organization to adopt an overall environmental management system. It does not monitor the actual environmental performance of the organization. The fact that UMEHL obtained the certification does not mean that it has adequate systems – in practice – to prevent and manage environmental pollution.

UMEHL set up and operated the Sulphuric Acid Factory illegally for six years without permission from the Ministry of Industry. The Factories Act, 1951 requires all owners of factories to obtain permission from the government before setting up and operating a factory. It is a criminal offence under the Act to operate a factory without permission and owners and managers can be sentenced to imprisonment for three months and/or fined.[380] If UMEHL did not obtain permission under the

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377 Final report of the Letpadaung Investigation Commission, paras 82 (a) (19) and (20).

378 The Director commented that a divisional health team had inspected the factory and the village twice. A team of officials from the departments of agriculture, land records and regional administration and police had inspected the factory, village and school in June 2012 and March 2013.

379 President Office, The Republic of the Union of Myanmar, 'Sulphuric Acid Factory receives ISO certificate', 28 May 2014, available at: www.myanmarpresidentoffice.info/en/?q=issues/latpandaung-mountain-mining-project/id-3728 (last accessed 1 November 2014).

380 Section 6 (1) (a), Chapter I, of the Factories Act, 1951 provides that prior permission is required from the chief inspector to build,

Factories Act, 1951 before setting up the Sulphuric Acid Factory, the owners of UMEHL and the manager may have committed an offence. It however appears that, despite the Commission's findings, the government did not open an investigation or take any action against UMEHL.

UMEHL has abused the right to health of people of Kankone village by illegally setting up and operating a factory producing hazardous chemicals, which poses severe risks to people's health and the local environment. UMEHL has never undertaken an environmental and social impact assessment of the factory, nor has it engaged in any consultation with people who are affected by the operations of the factory.

In order to ensure a safe minimum separation distance from people, the government should ensure that the Sulphuric Acid Factory is moved to another location. The operations of the factory should be immediately stopped until a new location is identified and a comprehensive assessment is undertaken in consultation with affected communities. UMEHL should also remediate any negative impacts caused as a result of its factory's operations.

THE GOVERNMENT'S FAILURE TO RESPECT AND PROTECT HUMAN RIGHTS

The government of Myanmar has failed to respect and protect the rights to health and water of the people living in the vicinity of the S&K. Myanmar is a party to the Convention on Elimination of All Forms of Discrimination against Women and the Convention on the Rights of the Child, both of which guarantee the rights to water and health.[381] The Committee on the Rights of the Child has stated that the *"activities and operations of business enterprises can impact on the realization of article 6 in different ways. For example, environmental degradation and contamination arising from business activities can compromise children's rights to health, food security and access to safe drinking water and sanitation. Selling or leasing land to investors can deprive local populations of access to natural resources linked to their subsistence and cultural heritage"*.[382] The Committee has emphasised that *"the obligation to respect also implies that a State should not engage in, support or condone abuses of children's rights when it has a business role itself or conducts business with private enterprises"*.[383] It has said: *"States have an obligation to protect against infringements of rights guaranteed under the Convention and the Optional Protocols thereto by third parties. This duty is of primary importance when considering States' obligations with regards to the business sector. It means that States must take all necessary, appropriate and reasonable measures to prevent business enterprises from causing or contributing to abuses of children's rights. Such measures can encompass the passing of law and regulation, their monitoring and enforcement, and policy adoption"*.[384]

Appropriate measures to protect the rights to health and water require, amongst other things, that governments enact and enforce laws to prevent pollution of air, water and soil by companies. The government has failed to meet any of these requirements in relation to the S&K mine. It failed to put in place a regulatory and monitoring framework to protect people from pollution which can negatively impact their rights to water and health. Even when communities have raised concerns with the authorities (e.g. this has been done repeatedly in relation to groundwater and the Sulphuric Acid Factory) the government has failed to ensure an independent investigation into these concerns. If any governmental agency monitored the performance of MICCL or Myanmar Yang Tse, this information has not been made public.

No action has been taken against UMEHL for setting up a sulphuric acid factory without obtaining permission from the Ministry of Industry and operating it illegally for six years. On the contrary, the government has approved the continuation of the factory in close proximity to people and farms,

operate or extend the factory. Chapter 9 sets out of the punishments for failure to comply with the provisions of the Act and the manager or the factory owner if they are found guilty of offences under the Act can be sentenced to imprisonment or fined or both.

381 Articles 6 and 24, Convention on the Rights of the Child and Articles 12 and 14, Convention on the Elimination of All Forms of Discrimination against Women.

382 Committee on the Rights of the Child, General comment No. 16 (2013) on State obligations regarding the impact of the business sector on children's rights, UN Doc. CRC/C/ GC/16, 17 April 2013, para 19.

383 Committee on the Rights of the Child, General comment No. 16 (2013) on State obligations regarding the impact of the business sector on children's rights, UN Doc. CRC/C/ GC/16, 17 April 2013, para 24

384 Committee on the Rights of the Child, General comment No. 16 (2013) on State obligations regarding the impact of the business sector on children's rights, UN Doc. CRC/C/ GC/16, 17 April 2013, para 28.

without undertaking any kind of an assessment of the risks of its operations.

The government did not take any action to ensure a clean-up of the hazardous copper waste discharged over a large area of land and into the river for almost two decades. Even after the Letpadaung Investigation Commission's report and recommendations, there has not been a full clean-up of the area. ME1, acting on behalf of the government, was a partner in the mining operations but has itself failed to clean up the site or put in a process in place to ensure a clean-up before transferring the mine to a new operation.

Htangawyi
Kyeethakya
Banenwechaung
Gondaw
Ywatha
Myayake
Dondaw
Mysane
The Dawayi
Yegyibin
Shwe Pan Khineg
Kangon
Sulphuric Acid
EXISTING S&K MINE SITE
Telpinkan
Wardan
North Paungga
Central Paungga
South Paun
LETPADA
North Moegyobyin
Google earth

Satellite image of the Monywa mining project area, 13 May 2014, 22.097525, 95.069106. The image shows the locations of the S&K and Letpadaung mines, the UMEHL sulphuric acid factory and some of the surrounding villages. Some locations are approximate. Part of the information for this map is taken from the ESIA for the Letpadaung Project, May 2014, prepared by Knight Piésold Consulting for Myanmar Wanbao Mining Copper Limited

INADEQUATE ASSESSMENT OF THE LETPADAUNG MINE

Myanmar Wanbao commissioned an Environmental and Social Impact Assessment (ESIA) for the Letpadaung copper mine project. Knight Piésold Consulting prepared various draft versions that were published on Myanmar Wanbao's website. The final draft version, dated May 2014, is over 3,000 pages long with all its appendices.[385] It includes an assessment of environmental, social and health impacts and sets outs management and monitoring plans to monitor and mitigate risks. This chapter analyses the adequacy of the ESIA.

Amnesty International requested Dr. Alan Tingay, an environmental scientist with many years' experience in environmental impact assessments of mining and industrial projects, including copper mines, to review the ESIA. This Chapter briefly summarizes Dr. Tingay's findings on the environmental assessment (his detailed analysis of how the ESIA addresses some critical environmental issues has been made available as Annex II of this report). The chapter examines the severe gaps in the health and social impact assessment that was undertaken as part of the ESIA and the consultations that were conducted by Knight Piésold after the ESIA was developed.

SUMMARY OF KEY FINDINGS ON ENVIRONMENTAL ISSUES (SEE ANNEX II FOR DETAILED ANALYSIS)

- The villagers live in close proximity to mine infrastructure that handles acidic waste. This proximity increases people's exposure to dust, noise and other emissions from the project. As a precaution there should normally be a minimum separation or buffer between a mine and inhabited areas. Eight villages are separated from the project boundary by less than 500m and seven of these are less than 500m from a major component of the project that handles acidic waste. Three of the eight effectively have no separation distance at all as they are immediately adjacent to the project boundary and are very close to a waste rock storage facility (Kyawywa, Nyaungbinyi and Shwehlay).

- Although the Letpadaung mine, S&K mine and the Sulphuric Acid Factory have shared ownership, the ESIA did not look at the cumulative impacts of these three interrelated projects on people living in the area. This is a major omission considering the similarities between the Letpadaung and S&K deposits and unresolved community concerns about the S&K mine and the Sulphuric Acid Factory. It is also contrary to the International Finance Corporation safeguards with which the ESIA claims to comply, which require an assessment of cumulative impacts.

- The ESIA does not include the final designs of key infrastructure for waste storage and for processing of the copper ore. This infrastructure poses high risks to the environment and local communities and the final design should have been communicated in the ESIA for public scrutiny. This also means that as yet there is no certainty of how the final design will ensure that mine components can withstand earthquakes, a key concern considering the project is located in an earthquake zone. The ESIA did not disclose that after an earthquake in 2012 the foundation of the waste dump for the S&K mine collapsed. Wanbao Mining should have ensured that this information was disclosed and implications of such a collapse discussed, for the new WRDs that will be constructed for the Letpadaung mine.

- There are significant gaps in the information collected in the ESIA on water supply in the villages and on water quality (the number of sampling and the parameters tested). The gaps in monitoring water quality are inexplicable considering that there is a significant risk that the Letpadaung

385 Myanmar Wanbao made the version dated May 2014 (cover reference PE701-00022/13, described on the document control page as Rev 0, issued as final community consultation findings added) publicly available on its website. The ESIA was initially only available in English but a Myanmar language translation was released on 18 August. Both versions are available at: www.myanmarwanbao.com.mm/en/our-latest-news.html (last accessed 6 October 2014).

Project will contaminate surface and groundwater beyond the project boundaries. Reference is made in the ESIA to various guidelines for both drinking water and environmental water quality. It is emphasised however, that these *"guidelines are used for a preliminary assessment of water quality only. It is not implied the project will be required to meet these guideline levels or that these reference levels should be used as the regulatory framework. More detailed assessment of the impact of any discharge from the Project will be required in later design stages to assess the impact on receiving environments where different water quality requirements may be applicable"*.[386] This is a major concern as the ESIA (which used international standards because Myanmar lacks appropriate standards) is essentially saying that Myanmar Wanbao doesn't have to comply with international standards, without specifying - for the benefit of affected communities – which standards it will be bound by.

- Similar concerns exist about the data on dust and noise levels that was collected for the ESIA. For instance, the ESIA reports that the air quality samples taken during the hot-dry season revealed dust and NOx [nitrogen oxides] levels that exceed IFC upper limits for these parameters.[387] It attributed these increased levels to the region being semi-arid, the use of fires for domestic cooking and the burning of crops and other vegetable matter.[388] It notes *"[d]ust is a significant contributor to respiratory infections in communities located near infrastructure works and impacts the life quality of residents. Visual observations conducted at the Letpadaung site suggest that the level of suspended particles in the air is very high as there is an obvious smoke haze early in the morning. … Existing mining operations in the region also contribute to dust being generated. Dust plumes were observed to disperse over surrounding areas after blasting of the open pit mines had taken place."*[389] The ESIA does not, however, include any data on the dust levels from the S&K mine operations or what the cumulative emissions from both operations will be. It also does not compare the air quality results with any samples taken at a time before the S&K mine was established, which could help determine the contribution of domestic fires and burning of crops. The studies undertaken for the ESIA on noise and dust failed to test the most sensitive locations, close to the project site and as a result according to Dr. Tingay, *"there is very little data relating to most if not all villages that are close to the project area"*.

- The ESIA lacks detailed management and monitoring plans and the commitments are often general rather than specific in content. This is a particular concern as Myanmar does not have a strong environmental legal framework, which sets out what is required in terms of the environmental quality standards with which the project should comply, and how the environmental management plan will be enforced by the authorities. Myanmar also lacks an experienced regulatory authority with an established record of rigorous and independent evaluation, supervision and enforcement that can monitor and enforce these commitments.

SOCIAL AND HEALTH IMPACTS

The ESIA includes a sketchy analysis of the social impacts of the project. The social environment section consists mainly of statistics such as population, gender and age data and a description of existing services. The social impact assessment is dealt with in 13 pages[390] and the health impact assessment in 13 pages.[391] The baseline data used for analysis of the social environment is from a study on the social impact of the mine prepared by UMEHL and a baseline study of the socio-economic conditions in the project area undertaken by the Environment Myanmar Cooperative Company Limited (EMC) in May and June 2013.[392] Only 215 people from 15 villages were interviewed for the EMC baseline study.[393]

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386 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 69.
387 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,Executive Summary, pp. iv – v (executive summary).
388 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,Executive Summary, p. v (executive summary).
389 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 140.
390 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,pp. 249 - 262.
391 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,pp. 263 – 275.
392 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 100.
393 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,Appendix J.

The social issues that are identified are diverse and range from resettlement to cultural heritage. These issues are only analysed in general terms and there are no specific assessments of the implications for each village or on particular groups of people. The solutions (mitigation measures) suggested for the issues identified lack detail and it is not clear which have already been initiated. These measures have not been developed in consultation with the communities involved, as the ESIA was developed prior to the consultations undertaken by Knight Piésold in 2014.

For example, the ESIA mentions that local residents and previous land owners will no longer be able to use the land within the site boundary for farming and wood and herb collection that is important for sustenance and heating.[394] It is proposed that this impact will be mitigated by a Community Natural Resource Management Plan which will *"…include activities to offset the poverty impacts resulting from the land severance"*[395] such as community forestry and development of the non-farming sector. This is no more than a statement of intent with suggestions of a few measures that may help to mitigate the impacts for some of the people affected. There is no clarity on the resources that will be allocated to such a plan and how successful it will be in alleviating the negative impacts identified. As discussed earlier in the Chapter on forced evictions, this is a major concern for women in particular who rely on access to common land for grazing cattle and collection of natural resources, as a source of livelihood and for personal use. The ESIA entirely fails to recognize this negative impact of loss of access to common land and natural resources, on women, and to come up with a concrete solution to mitigate this impact.

Similarly the ESIA states that disruption of leadership structures in the four relocated communities will be *"addressed in the RAP [Resettlement Action Plan] using appropriate community consultation"*.[396] Measures to reduce poverty such as micro-finance are identified as needed but there is no commitment to establish these measures but only *"to support micro-finance initiatives"*.[397] A site survey will be conducted to map and identify cultural sites after the start of construction; and the RAP *"will address a sustainable mechanism for delivering cash benefits (or their equivalent) to the local communities in a manner that will least disrupt the local economy and encourage household saving and investment"*.[398] The weaknesses in the resettlement and RAP have already been discussed in the forced evictions chapter.

The health impact section is based on a 'Rapid Appraisal' Health Impact Assessment and lacks the information required to enable the implications for each village to be considered in any detail.[399] The majority of the health impact assessment section deals with noise and dust emissions. It also very briefly discusses increased safety risks to local populations close to HLPs/WRDs because of blasting, rock falls or slips, explosion or fire; and to road users; risk of increases in workplace injuries; and proliferation of disease causing species because of presence of standing water. In three pages, the ESIA looks at existing health issues and the potential of the Letpadaung copper mine to have a positive impact on health by funding health service facilities and improving, water, sanitation etc. In Amnesty International's view, the ESIA should have had a greater focus on assessing possible negative health impacts that the project may have, particularly as a result of pollution, and clarifying how they will be monitored and prevented.

Existing health issues include those linked to cramped living conditions, shallow wells, variety of food etc. The main health issue linked to the mining project itself is an acknowledgement of respiratory ailments linked to existing air quality. *"Given the existing air quality in the area around the Project site, it is not surprising that there are higher than normal presentations for respiratory ailments like asthma and bronchitis. In the hot-dry season the level of fine particulates in the air is sufficient to cause an adverse reaction to the particles. Similarly the presence of smoke haze will also exacerbate any respiratory tract irritations. Thus, prior to any activity on the Project site, the local atmospheric*

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394 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 105.
395 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 252.
396 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 252.
397 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 275.
398 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 260.
399 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 263.

conditions are already poor and likely influencing the health of that portion of the population that have respiratory sensitivities".[400]

This is at odds with the ambient dust monitoring data in the ESIA that are all within WHO guidelines and again calls into question the reliability of those data.

As discussed earlier, the ESIA had noted that existing mining operations were contributing to dust being generated[401] but had failed to analyse dust emission from the S&K mine in detail. Considering the acknowledgement that there are higher than normal incidences of certain respiratory ailments, it is negligent for the ESIA not to analyse these health issues in greater detail and assess the extent to which the existing S&K mine was contributing to and/or causing such health impacts. Wanbao Mining Limited, which owns both Myanmar Wanbao who commissioned the ESIA and Myanmar Yang Tse which operates the S&K mine, should have ensured that these health impacts were examined in detail and remedial action taken as appropriate. Wanbao Mining has failed in its responsibility to undertake due diligence by becoming aware of a potentially negative impact of its operations and failing to act on it, and this failure casts doubt on the company's intentions to fully assess and address the impacts of the mining project.

The ESIA should also have included more health data on any impacts of pollution of water, because of mining activities and because of emissions from UMEHL's sulphuric acid factory, bearing in mind the concerns that have raised by communities on both these issues.

The ESIA proposes *"that a higher level of data collection will be undertaken over the next twelve (12) months to develop a Health Action Plan".*[402] Further details on the Health Action Plan are included in section 13.6 of the ESIA, which claims that such a plan will be developed within 6 months of project approval. The list of environmental health areas that are listed for consideration in the preparation of the HAP are not clearly related to health risks that may arise due to pollution from the project. There is a general mention of *"respiratory and housing issues such as tuberculosis"* and *"soil and water sanitation diseases such worms, giardiasis, etc."*[403] There is not even a focus on asthma and bronchitis which the ESIA itself has linked to poor air quality.

The Executive Summary of the ESIA states that *"[c]ommunity health will continue to be monitored through monthly visits of mobile clinics to project affected villages. Data gained from the clinics will be monitored and changes in illness patterns will be identified and causes analyzed to establish any link between the Project activities and the health of the community. … In addition, the mobile clinic will continuously monitor the condition of six (6) individuals of various age groups across both gender (three (3) from each gender) to identify long-term changes in health condition and any that are linked to the Project. This will include sampling of bloods and lung capacity to identify any cumulative effects of the Project on health."*[404] There is unfortunately no detail on this monitoring plan in the main body of the ESIA and no information of how a sample of six individuals was decided and how they will be selected. The sample size is too small to enable a proper study and a much larger sample from different age groups should be selected per village.

The ESIA needs to be urgently updated with a comprehensive assessment of health impacts that the mining operations have had so far, as well as those that may occur as a result of the proposed Letpadaung operations. It also needs to include more concrete monitoring plans, with clear demarcation of responsibilities of the company and governmental entities and who will oversee compliance.

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400 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 274.
401 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 140.
402 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 263.
403 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 363.
404 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. xvi – xvii (executive summary).

LACK OF ASSESSMENT OF DIFFERENTIAL IMPACT BY GENDER AND OTHER KEY CRITERIA

The ESIA lacks any analysis of the differential impacts that the mining project has and may have on men and women in the 33 villages. There is no baseline data on gender differences in engagement with farming, collection of natural resources and other trades. The baseline data includes one reference to women: *"a number of village women consistently trade items of groceries and vegetables in Mine Town"*.[405] There is no analysis of tenure arrangements that women currently enjoy, whether they are able to access the compensation provided for acquisition of land, how much of the employment that will be offered in the mining project will be to women. In summary the ESIA contains no analysis of what the gender impacts of loss of agricultural land and other natural resources will be, let alone any mitigation strategies in this regard.

There is also no analysis of impacts on disadvantaged groups; people in any given context who may experience greater barriers to accessing resources or benefits, including because of discrimination. These could include the elderly, people with disabilities as well as their carers, ethnic minorities etc. The ESIA should have included a socio-economic survey to disaggregate these communities and identify potentially disadvantaged groups. It did not. There are two references to elderly people in the summary of consultations, one to elderly care and the second to elderly people who lose land who will not be offered employment. Both of these include remarks indicating that these issues are pending.[406] In the section detailing mitigation measures for relocated people, the ESIA states *"Ethnic minority groups and households residing in the Project area should be identified and researched to determine whether they qualify as "indigenous peoples" under IFC Performance Standard 7 on Indigenous Peoples or as a vulnerable group requiring specialised livelihood assistance."*[407] There is no information on whether this recommendation has been accepted by the company and if such research will be undertaken.

For an ESIA for a project of the scale of the Letpadaung mine, which will result in effects on 36 villages, people in 26 villages losing their land, and four villages being entirely resettled, the social and health assessments are woefully thin and superficial. A far more comprehensive assessment of social and health impacts and concrete mitigation strategies should be undertaken for a mining project of this scale. Without such an assessment the new mining operation – the Letpadaung mine – should not commence operations.

GROSSLY INADEQUATE CONSULTATION ON THE ESIA

There was no consultation with the villagers living in the vicinity of the proposed Letpadaung mine before the production-sharing agreement was entered into and prior to acquisition of land. The ESIA was only undertaken after land was acquired for the project and people were forcibly evicted from their farmlands and homes.

Knight Piésold stated *"[a]s a responsible international mining company, MWMCL [Myanmar Wanbao] announced in June 2012 that it would voluntarily undertake an Environmental and Social Impact Assessment (ESIA) of the Project based on international standards that were then not mandatory in Myanmar."*[408] Despite the Letpadaung Investigation Commission highlighting the need for discussions with communities on the project, the ESIA was developed without any consultation with affected communities.

According to the ESIA, the *"Commission conducted investigations in the period from January 2013 to March 2013 before delivering its report to the Parliament in March 2014. During this period all other consultation with the community was stopped at the request of the Government. … As a result,*

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405 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 103.

406 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,Table 6.8, under 'Summary of Community Consultation (May – August 2013)'.

407 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 251.

408 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. ii (executive summary).

no community consultation was undertaken during the scoping study which lead to the preparation of the terms of Reference for this ESIA".[409] This is however contradicted by information about the teams of Community Development Officers (CSD), appointed by Myanmar Wanbao, consulting people in 2013. If the Community Development Officers could meet with the communities there appears to be no reason why there could not have been consultation on the preparation of the ESIA. The Commission's report was published in March 2013 but consultations on the ESIA were only held a year later, after it had been drafted.

Knight Piésold also stated that *"consultation during the preparation of the ESIA has been hindered by the ongoing disputation regarding land compensation and resettlement. As a consequence, the community has not been able to be informed of the undertaking of the ESIA and the field work associated with it. The ESIA has been developed with very little representative feedback from the community on the issues it considers are significant to the Project or on the management of those issues. This has resulted in:*

- *Staff collecting field data being asked to leave land within the Project area;*
- *Site reference markers being removed making inter-seasonal variations difficult to monitor;*
- *Permanent monitoring points being rendered useless through vandalism;*
- *The inability to leave monitoring equipment in the field for extended periods as good practice baseline definition requires; and*
- *The inability to involve the community in the data collection process in a representative manner."410*

Knight Piésold also stated that in *"a normal community consultation process, the baseline data gained would be discussed with the community and their comments received and considered in its interpretation. This process could not be undertaken as the community was not receptive to such presentations."*[411]

As described earlier Knight Piésold consulted 33 villages in 2014. Four teams of Knight Piésold staff, each consisting of a woman and a man supported by four note-takers and interpreters, split up and visited the villages twice, in March and early April 2014.

Knight Piésold stated that *"villages inside the Project area, which are subject to resettlement, were excluded from the consultation at the request of Government authorities".*[412] The exclusion of people who are among those most adversely impacted by the project (because they will lose their homes and farmlands) starkly demonstrates the chasm that exists between requirements for genuine consultation under international standards and the consultation process undertaken for the Letpadaung mine.

Amnesty International reviewed the report prepared by Knight Piésold on the community consultations that they undertook, which included summaries of discussions in the villages (available as Appendix R). The key weaknesses of this consultation process are described below.

The ESIA document was only available in English at the time the consultation was undertaken and only a summary version of the ESIA in the Myanmar language was made available to the villagers. It is not clear from the report how many copies were distributed and when these summaries were provided to the villagers, but it appears that it may have been at the second visit. In many meetings, the villagers asked for the ESIA and were told that it would only be available in the Myanmar language after two months.[413] They were informed by the Knight Piésold team that any *"person can take the*

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409 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 187.

410 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,pp. 189 - 189.

411 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p.189.

412 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. xiii (executive summary).

413 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,Appendix R, see Appendix F: Village Reports, Consultation Overview, Phase II, Paung Ka Ta (North and Middle).

opportunity of contributing to the report [ESIA] by passing comment on it, although only English versions are available at the Wanbao and MEHL information centres".[414] Amnesty International was in Myanmar in March 2014 and tried to download the full ESIA on multiple occasions in Yangon and Mandalay and was unsuccessful. Even with a better internet connection in Yangon, it was not possible to download the document because of its size.[415] When Amnesty International interviewed villagers living around the project, only one person had seen the ESIA summary.

One of the key requirements of the IFC performance standards to which the ESIA claims to adhere is that effective consultation be *"based on the prior disclosure and dissemination of relevant, transparent, objective, meaningful and easily accessible information which is in a culturally appropriate local language(s) and format which is understandable to Affected Communities"*.[416]

Information on risk, potential impacts on communities and mitigation measures was not shared with the villages in advance of the consultation. Though the information packs and presentations included drawings of some facilities, the environmental risks, particularly the potential impacts of such risks on the communities themselves are not elucidated in the ESIA summary. For example, the ESIA mentions the risk of dust emissions but does not explain what the effects of emissions which exceed international standards could be on communities living in the vicinity of the mine.

The ESIA summary is full of technical detail and would be very difficult for anyone to review and understand in a short time. The ESIA states that *"[g]iven the level of literacy within the community – greater than 50% of people do not have an education and those with an education did not go beyond Year 3 at school"*.[417] This information places a greater burden on those undertaking the consultation to provide information in a form which can be understood by people who are not formally literate. It also points to the ridiculousness of telling people that they can contribute to the ESIA by reading and commenting on a 3200 page long, highly technical document written in English, that they would need to access and read at the companies' offices.

The team conducting the consultations were comprised only of Knight Piésold staff supported by translators and note takers from Myanmar Wanbao. The authorities played no role in conducting the consultations and there was no representation from ministries, who should have oversight of different aspects of the project. Staff from key Ministries, such as the Ministry of Environmental Conservation and Forestry, Mining, and Agriculture and Irrigation, should have been present to present the government's view of risks, mitigation strategies, information on oversight mechanisms, regulatory issues and on the decision-making process.

Amnesty International reviewed all the summary reports prepared by Knight Piésold on the meetings with the villagers in March and April 2014. The organization concluded that Knight Piésold did not clearly explain the environment and human rights impacts that can arise as a result of project to the villagers. It referred to risk management plans set out in the ESIA as well as containment measures, but did not explain what impacts could occur if these failed. Even when the villagers asked specific questions about what the impacts could be if certain kinds of pollutions occurred, Knight Piésold did not spell out the effects that pollution could have and/or possible risks and dangers for people living near sites where the pollution occurs.

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414 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,Appendix R, see Appendix F: Village Reports, Phase 2: Consultation Overview, Toan (Ywar Ma) Village, 4 April 2014, Answer 7.

415 Subsequently, in June 2014, the document was split into multiple files that can be individually downloaded from Myanmar Wanbao's website, presumably to make it easier to download, but a Myanmar version was only made available on 18 August 2014, available at: www.myanmarwanbao.com.mm/en/our-2014-news/41-august-2014/119-esia-report-in-myanmar-translation-.html.

416 IFC Performance Standards on Environment and Social Sustainability, Performance Standard 1, 1 January 2012, p. 8

417 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. xiv (executive summary).

FAILURE TO CLEARLY EXPLAIN RISKS AND POSSIBLE CONSEQUENCES

See for example, some responses by Knight Piésold to the questions raised by people in some of the village consultations.

In the Toan Ywar Ma consultation, dated 18 March 2014: *"Q.3 Kyaw Ywar is currently experiencing problems with dust. If dust from the mine becomes a problem for the village, who will be responsible? A.3 The ESIA report recommends that the mine uses dust suppression techniques to control issues with dust. This can be done by using water suppression, woodland barriers and geotextiles. Wanbao will be responsible for implementing these controls. The company will plant about 200,000 trees around the mine area to act as a screen for noise and dust. Water suppression will be used on the haul roads and in the blasting area. Baseline studies indicated that the air quality samples taken during the hot-dry season displayed dust and nitrogen/oxide levels that exceed WHO and IFC upper limits for this area.* *Therefore there should be little effect on the village itself"* **(emphasis added). This response fail to admit that dust can occur despite these measures, they also do not explain what the consequences of dust emissions could be for the villages. Bizarrely, Knight Piésold appears to suggest that the fact that air quality samples already exceed IFC and WHO guidelines for dust and nitrogen oxide levels in the dry season means that the villages will only be slightly (little) affected by dust from the mine. The ESIA itself acknowledges that the existing air quality is contributing to higher than normal presentations of respiratory ailments. Therefore, additional pollution could exacerbate health issues. Instead of presenting the information on existing health effects in the consultation and the consequent need for the new mine to take additional precautions, Knight Piésold told the villagers that the baseline studies meant that there would be little effects.**

A Lae Ywar consultation overview summary, dated 17 March 2014: *"Q.9(b) Will groundwater be impacted by the project. A. [answer] A groundwater study has been done and this indicates there should be no impact on groundwater quality or levels. Details of the controls such as liners have been provided earlier in the meeting. We have also explained the proposed monitoring program."* **The statement that there should be no impact on groundwater quality or levels is misleading. As noted earlier, the ESIA explicitly states that that acid and metals generation arising from the waste rock is** *"extreme environment risk"* **to groundwater.**[418] **It also says that the risk of contamination of surface and groundwater is high during the operational phase of the project even with mitigation measures in place but *"may be less if all mitigating measures are implemented"* (emphasis added). This is in stark contrast to the Knight Piésold's statements in the consultation that groundwater should not be affected. Knight Piésold did not acknowledge the gaps in the groundwater study, including on the number and locations of monitoring bores tested nor the fact that it itself had recommended additional testing prior to operations commencing. There was also no explanation provided of the concrete measures that would be taken by the company should groundwater be impacted, including to remediate any harm caused.**

As discussed in the earlier analysis of the ESIA's treatment of major environmental challenges such as acid rock drainage, there are still crucial gaps in information on design, mitigation measures and baseline data in the ESIA. Critical components like the design of the WRDs and HLPs, which will determine how successfully the mine can contain acid rock drainage, have not yet been agreed. These gaps in the ESIA were not communicated to the communities in the consultations, nor were they told when they would be filled and if they would be publicly disclosed and consulted upon. This was not done even when villagers asked specific questions about these aspects.

Villagers from A Law Ywar village asked Knight Piésold, on the meeting held in the village on 17 March 2014, if there was a natural disaster management plan to manage the risks of earthquakes, fire and floods. Knight Piésold responded *"… With regards to earthquakes, the waste dumps [WRDs] and HLPs have been designed so that they can withstand earthquakes which are typical in this area. The pit designs will also consider earthquake loading."*[419]

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418 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,pp. 238 and 240.

419 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,Appendix R, see Appendix F: Village Reports, A Lae Ywar consultation

fig 1: **Approximately 18 square kilometers of the mining area near Monywa, Myanmar, were analyzed for major changes in infrastructure and other activity between May 14 and September 22, 2014. Of the 87 structures recorded, 50 were considered completed (roofs finished), 28 in early-stage construction and 9 still under construction. DigitalGlobe September 22, 2014, 22.081°,95.088°**

fig 2: **Within the mine pit area, imagery shows the road has been extended and significant scraping performed. Many large construction/mining vehicles are visible in imagery from September 22, 2014.**

DigitalGlobe, 22.081°,95.088

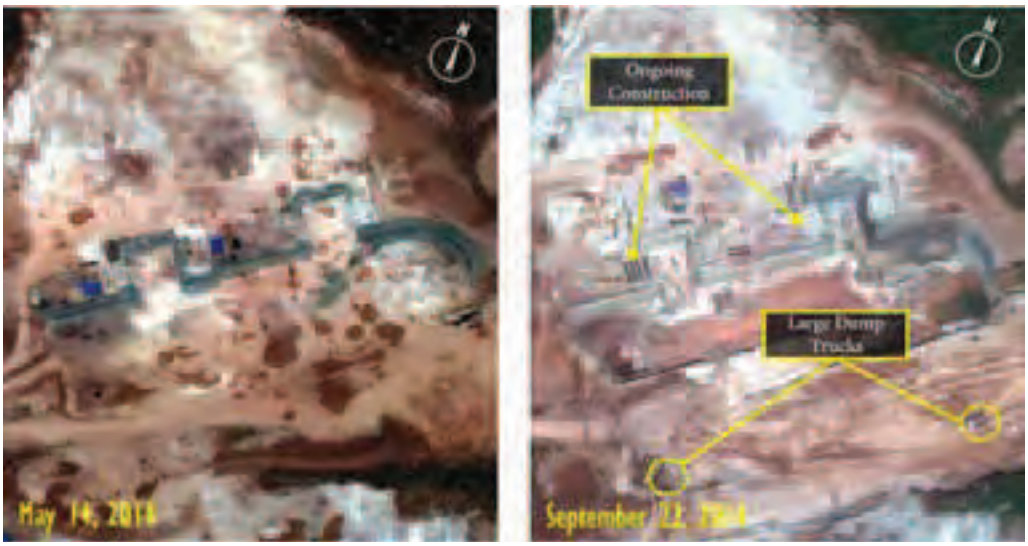

fig 3: **Ongoing construction can be seen in imagery from September 22, 2014. Additional foundation footings are present along with large loaded dump trucks. The function of the large structure cannot be determined at this phase in construction.**

DigitalGlobe, 22.077°,95.092°

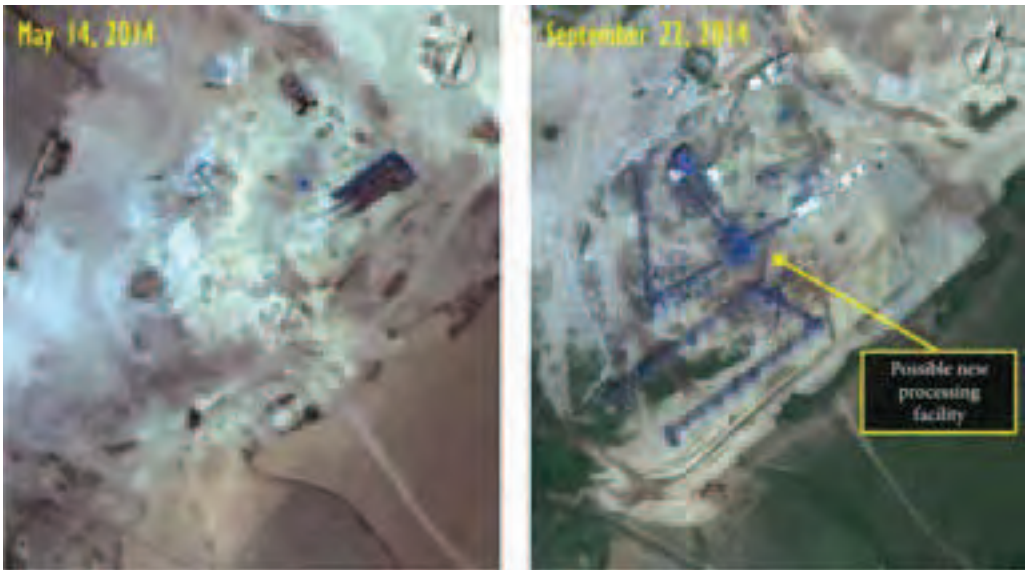

fig 4: **Between May 14 and September 22, 2014 imagery shows infrastructure was erected in the southern portion of the area analyzed. The new structures appear to be a possible processing facility for the mine.**

DigitalGlobe, 22.064°,95.088°

opposite page: **Approximately 18 square kilometers covering the central mining area near near Monywa, Myanmar, were analyzed. Imagery from May 14, 2014 and September 22, 2014 was compared to document changes in infrastructure and newly cleared areas.**

All images © DigitalGlobe.

The claim that the WRDs and HLPs have been designed so they can withstand earthquakes is incorrect. Knight Piésold did not inform people, in its response, that the ESIA only includes options for ensuring the stability of these structures and not a decision about the final design – which is crucial for assessing whether the structures have been designed to withstand earthquakes. It also did not mention that it had recommended that more detailed analyses and monitoring were required.[420]

It is also an egregious omission on the part of Knight Piésold not to have informed the communities that the foundation of the waste rock dump for the S&K mine collapsed after earthquakes that occurred in 2012 and that *"the NE Waste Dump dropped and spilled out approximately 17 metres towards the East."*[421] Knight Piésold was contracted by Myanmar Yang Tse (another wholly owned subsidiary of Wanbao Mining) to investigate the collapse and should have full knowledge of the event.

Amnesty International presented concerns about this omission to Knight Piésold and Wanbao Mining. Only Knight Piésold responded on this point. As noted earlier, it stated that it had conducted engineering assessments, *"completed under contract that included confidentiality clauses"*.[422] It also stated in its reply *"In undertaking the analysis of impacts to the Letpadaung Mine, Knight Piésold undertook to assess seismic risks to the project based on the available design, coupled with the commitments for appropriate detailed design and mitigation. Similarly, the aspects of the community consultation that we were able to conduct were focused on the Letpadaung Mine, its design, and its potential impacts. Although the S&K Mine is proximate to the Letpadaung Mine, the design to be implemented at Letpadaung was assessed on its own merits, as is done in a typical ESIA. For information on the decisions of MWMCL on what information to distribute about the S&K Mine, please contact Myanmar Yang Tse Copper Ltd directly. Knight Piésold was not contracted to provide a public audit of the S&K Mine."*[423] As noted earlier in the previous chapter, Amnesty International considers the Wanbao Mining egregiously failed in its responsibility of due diligence and disclosure by not ensuring that information about the collapse of the S&K mine Waste Dump in 2012 was disclosed and discussed while deliberating options for the safety of new Waste Dumps in the event of earthquakes.

Despite the fact that Wanbao Mining Ltd. is operating the S&K mine and will operate the Letpadaung mine, the feedback from communities about environmental concerns about the S&K mine was not adequately incorporated and responded to. For instance, in the consultation in Moe Kyo Py (North) village, the villagers highlighted the similarity between the two projects and raised concerns about negative impacts of the S&K mine, including on groundwater, leaks after the solution pond broke and about acid. The tables of issues raised in the consultations mention S&K issues in two places but surprisingly not for Moe Kyo Py (North).[424]

As discussed in Chapter on forced evictions, the consultations also failed to address people's concerns about consultation and resettlement, despite the ongoing threat of forced evictions of the communities.

The fact that consultations were undertaken after the ESIA had been developed has also hampered the extent to which the communities' feedback was integrated into the assessment of the project.[425] In a positive step, Knight Piésold organised separate discussions with women affected by the project. The summaries of these meetings powerfully highlight the gendered impact of the project and concerns expressed by women at these meetings about loss of income, grazing land, firewood and other natural resources, and lack of employment opportunities for women.[426] However, as discussed earlier, the ESIA contains no discussion of the gendered impacts of the project. The ESIA did not incorporate the feedback from these women's groups in the final document nor does it provide any reflection on how particular impacts faced by women will be addressed.

overview summary, dated 17 March 2014.

420 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,Appendix S, pp. 14 – 15 and Appendix N, p. ii.

421 Myanmar Yang Tse Copper Limited, Responsible Mining 2012- 2013 p. 33.

422 Letter from Knight Piésold Consulting to Amnesty International, dated 20 January 2015, p. 3, see Annex III.

423 Letter from Knight Piésold Consulting to Amnesty International, dated 20 January 2015, p. 6.

424 The report prepared on the consultation mentioned concerns about the acid spray drift from the S&K mine, which Knight Piésold had repeatedly explained would not arise for Letpadaung because of the use of dippers.

425 The ESIA contains a summary of issues raised in the consultations.

426 See Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,Appendix R, see Appendix F: Village Reports, Ma Gyi Tann consultation overview, date 12 March 2014, summary of Women's group.

Other limitations of the consultations recognised by Knight Piésold itself were that the consultations coincided with seasonal cropping for farmers and that forward notification of meetings did not occur in some cases, limiting participation. They also admitted that the presence of police and other government officials at many meetings, as well as the fact that the local translators were drawn from Myanmar Wanbao or Myanmar Yang Tse staff, may have inhibited responses and the latter raised doubts about Knight Piésold's independence. The ESIA claims that it is complies with IFC standards, but one of the key components of the IFC standards is that disclosure of relevant project information helps Affected Communities and other stakeholders understand the risks, impacts and opportunities of the project. *"The client will provide Affected Communities with access to relevant information… on: (i) the purpose, nature, and scale of the project; (ii) the duration of proposed project activities; (iii) any risks to and potential impacts on such communities and relevant mitigation measures; (iv) the envisaged stakeholder engagement process; and (v) the grievance mechanism."*[427] These requirements have evidently not been met in the ESIA and the consultation process.

Knight Piésold appears to have made a real effort to highlight the need for the project sponsors to regain the trust of the community, especially through retrospective development of an adequate resettlement plan. While this is welcome, it seems blind to other fundamental issues which have led to people's lack of trust, especially the brutal attack by the police on people peacefully protesting against the project in November 2012. The ESIA also paid little attention to the history of concerns about negative environmental and human rights impacts of the S&K mine and the sulphuric acid factory, operated by the project sponsors.

Amnesty International commissioned an analysis of satellite imagery of the mining area from DigitalGlobe, who compared imagery from 14 May 2014 and 22 September 2014 to document changes in infrastructure and newly cleared areas. DigitalGlobe stated that *"[a]pproximately 18 square kilometers were analyzed for major changes in infrastructure and other activity between May 14 and September 22, 2014. Of the 87 structures recorded, 50 were considered completed (roofs finished), 28 in early-stage construction and 9 still under construction. … Within the mine pit area, imagery shows the road has been extended and significant scraping performed. Many large construction/mining vehicles are visible in imagery from September 22, 2014. .. Ongoing construction can be seen in imagery from September 22, 2014. Additional foundation footings are present along with large loaded dump trucks. The function of the large structure cannot be determined at this phase in construction. … Between May 14 and September 22, 2014 imagery shows infrastructure was erected in the southern portion of the area analyzed. The new structures appear to be a possible processing facility for the mine."* This analysis clearly shows that construction for the mine has been proceeding for some time and the area around the Letpadaung deposit is being prepared for mining.

The inadequacies of the ESIA and consultation process would be a concern in any context but particularly so when consultations are occurring in parallel to construction of the mine that is the subject of such consultations. Construction for the project should have been halted till the assessment was undertaken and should only proceed if, after consultations with people, it is clear that all risks that will affect them can be suitably managed.

CONCLUSION

By failing to undertake an adequate environmental, social and human rights impact assessment of the Letpadaung mine and the cumulative impacts of the Monywa project, Wanbao Mining has failed to comply with its responsibility to carry out human rights due diligence to identify, prevent, mitigate and account for how it will address adverse human rights impacts caused by the Letpadaung mine.

Wanbao Mining did not respond to the substantive concerns raised by Amnesty International about the ESIA and consultations organised. In its response, it stated that the *"ESIA version you quote from quite extensively in the report you send us is not the final version, but one as you correct state dates back to May 2014."*[428] Knight Piésold response to substantive issues has been discussed in relevant

427 Para 29, IFC performance standard 1, available at: www.ifc.org/wps/wcm/connect/115482804a0255db96fbffd1a5d13d27/PS_English_2012_Full-Document.pdf?MOD=AJPERES.

428 Letter from Wanbao Mining to Amnesty International, dated 19 January 2015, available at Annex III.

parts of this chapter. It also told Amnesty International that the *"ESIA has been intensively reviewed by a team of specialists and academics appointed by the Myanmar Government. Responses to those comments have been included in the document in updates since the May 2014 ESIA quoted in your letter."*[429] Amnesty International requested Knight Piésold to send us any substantive revisions to the ESIA since the final draft version was made publicly available. Knight Piésold replied to say that the latest version of the ESIA was a work in progress between the proponent and the Government of Myanmar. It could not release this unpublished version but understood it would become a public document in the near future.[430]

In a press release issued on 22 December 2014, Myanmar Wanbao announced that was commencing construction of the Letpadaung project in *"agreement with the Myanmar Government and under its direction"*. It stated that the ESIA *"is in the final approval stage"*. The fact that revisions have been made to the ESIA means very little when these changes and any decisions made on crucial outstanding issues have not been shared by the communities affected by the project. It also underscores the weaknesses highlighted in this chapter about lack of information and consultation with communities.

The weaknesses in the ESIA and consultation process must be urgently addressed by Myanmar Wanbao, UMEHL and the government. People living around the mine need to know that the crucial elements of the environmental management plan for the project are not left to the discretion of the company and based on a voluntary assessment and commitments by the company, which may not be monitored or may be only partially monitored and enforced by the government.

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429 Letter from Knight Piésold Consulting to Amnesty International, dated 20 January 2015, p. 1.
430 Knight Piésold email to Amnesty International, dated 21 January 2015.

A dump truck operating at the S&K mine, November 2012.

PASS THE PARCEL FROM CANADA TO CHINA AND THE MYANMAR MILITARY

In 2010, China North Industries (NORINCO) and Myanmar's military-owned conglomerate, Union of Myanmar Economic Holdings Limited (UMEHL), announced that they had entered into a production sharing agreement for the Monywa project (including both the S&K and Letpadaung mines).

It is not clear how the Monywa project was transferred from Myanmar Ivanhoe Copper Company Limited (MICCL), the joint venture company owned by Ivanhoe Mines and Mining Enterprise No. 1 (ME1), to NORINCO and UMEHL. Ivanhoe Mines had transferred its 50% share in MICCL to a third party Trust in February 2007, shortly before the US, Canada and the EU imposed stronger economic sanctions on Myanmar later in 2007. The Trust and all transactions related to the sale of Ivanhoe Mines' former share of MICCL have been shrouded in secrecy.

This chapter briefly describes the background to these events and the Trust arrangements set up by Ivanhoe Mines. It uses information from US Embassy cables, revealed by Wikileaks, as well as information obtained by Amnesty International through company, registry and other searches. It examines whether Canadian, EU and US economic sanctions may have been breached through the transfer of the project to UMEHL and NORINCO. Amnesty International has not focused on general sanctions but only analysed possible breaches of targeted economic sanctions, which limit the provision of economic resources or technical assistance to designated individuals and entities.

BACKGROUND ON IVANHOE MINES' INVOLVEMENT IN THE MONYWA PROJECT

In March 1994, Ivanhoe Myanmar Holdings Ltd. (Ivanhoe Myanmar Holdings), a company incorporated in the British Virgin Islands, entered into an agreement with Mining Enterprise No. 1 (ME1), a state-owned enterprise, to carry out a "Feasibility Study of Developing, Mining and Processing Mineral Resources within the Monywa Copper Complex in the Union of Myanmar" (Feasibility Agreement).[431] As part of the Feasibility Agreement, Ivanhoe Myanmar Holdings was granted the right to establish the feasibility of developing, mining and processing mineral resources from some or all of the Sabetaung (which includes Sabetaung South), Kyisintaung and Letpadaung copper deposits within the Monywa Copper Complex.[432]

Ivanhoe Myanmar Holdings was owned by Mr. Robert Friedland, Chairman of Indochina Goldfields Ltd. (a Canadian mining company which changed its name to Ivanhoe Mines Ltd. in 1999) through two British Virgin Islands holding companies, Myanmar Management Corp. (then wholly-owned by Mr. Friedland) and Bagan Holdings Ltd. (then owned by Myanmar Management Corp. and Mr. Reggie Tun Maung) (see flowchart on company relationships in the back fold out cover). Reggie Tun Maung was also a director of Indochina Goldfields Ltd.[433]

The Inter Press Service reported in 1996 that Mr. Friedland's move into Myanmar was facilitated by Mr. Reggie Tun Maung, *"who for more than 30 years has been a business consultant for foreign firms wanting to do business in Burma, has close personal connections to the SLORC [State Law and Order Restoration Council]. His son is married to the daughter of [then] SLORC Deputy Prime Minister Vice Admiral Maung Maung Khin."*[434]

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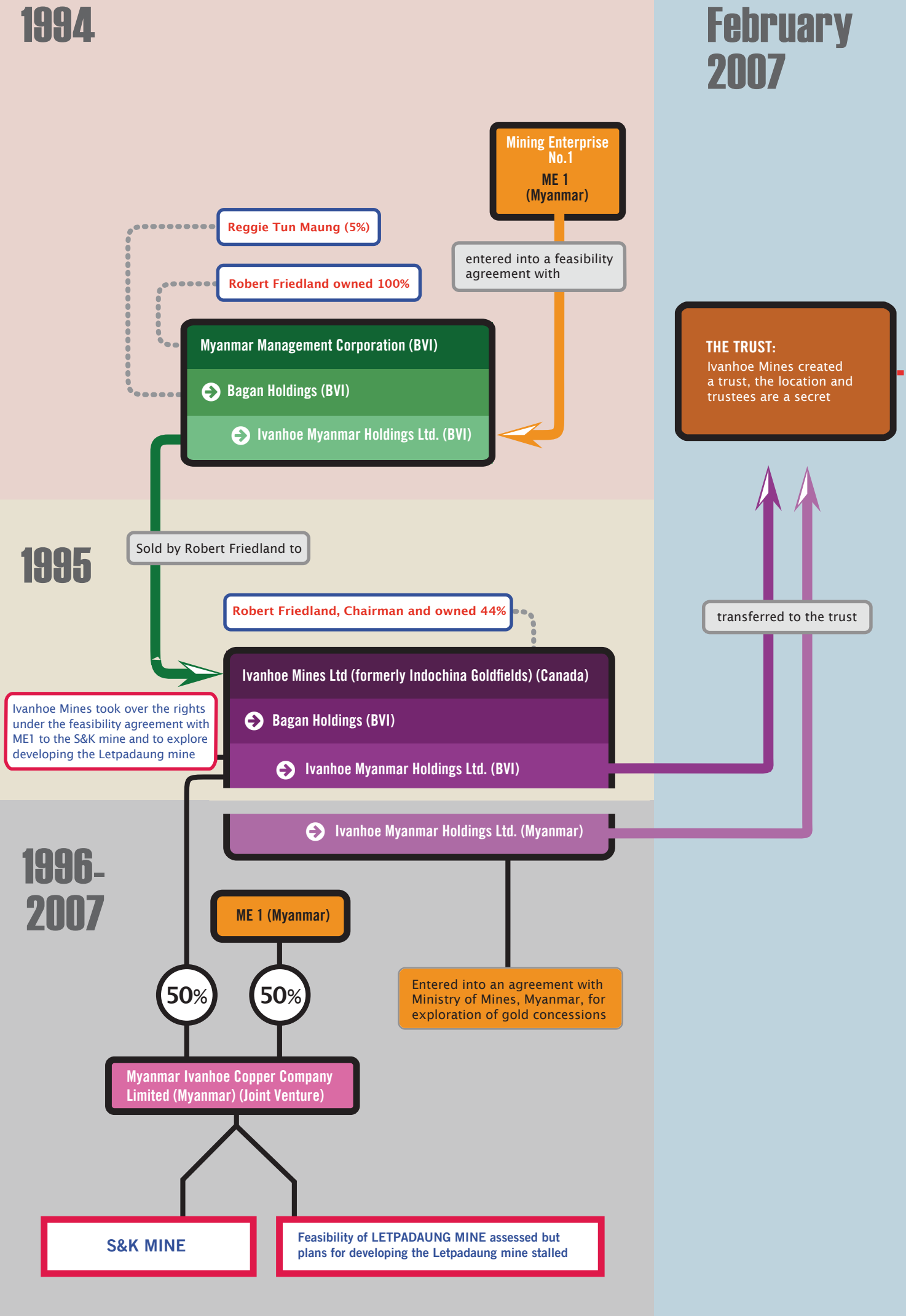
431 Indochina Goldfields Ltd., 1997 Annual Information Form, p. 10.

432 Indochina Goldfields Ltd., 1997 Annual Information Form, p. 11.

433 Indochina Goldfields Ltd., 1997 Annual Information Form, pp. 10 - 11.

434 Inter Press Service, 'ASIA-BUSINESS: Controversial Investor Makes Burma Centrepiece of Asian Plan', 10 December 1996, available at http://www.ipsnews.net/1996/12/asia-business-controversial-investor-makes-burma-centrepiece-of-asian-plan/ (last accessed 2 February 2015).


1994
February 2007
Mining Enterprise No.1
ME 1 (Myanmar)
Reggie Tun Maung (5%)
Robert Friedland owned 100%
entered into a feasibility agreement with
Myanmar Management Corporation (BVI)
Bagan Holdings (BVI)
Ivanhoe Myanmar Holdings Ltd. (BVI)
THE TRUST:
Ivanhoe Mines created a trust, the location and trustees are a secret
1995
Sold by Robert Friedland to
Robert Friedland, Chairman and owned 44%
transferred to the trust
Ivanhoe Mines Ltd (formerly Indochina Goldfields) (Canada)
Bagan Holdings (BVI)
Ivanhoe Myanmar Holdings Ltd. (BVI)
Ivanhoe Mines took over the rights under the feasibility agreement with ME1 to the S&K mine and to explore developing the Letpadaung mine
Ivanhoe Myanmar Holdings Ltd. (Myanmar)
1996-2007
ME 1 (Myanmar)
50%
50%
Entered into an agreement with Ministry of Mines, Myanmar, for exploration of gold concessions
Myanmar Ivanhoe Copper Company Limited (Myanmar) (Joint Venture)
S&K MINE
Feasibility of LETPADAUNG MINE assessed but plans for developing the Letpadaung mine stalled

June 2010 onwards

PASS THE PARCEL:
TIMELINE AND CORPORATE RELATIONSHIPS

Ivanhoe Mines announces trust sold the Myanmar Assets in July 2011 including its 50% stake in the Monywa Copper Project, buyer(s) not disclosed

No information on how UMEHL was able to enter into a production sharing contract in June 2010 if it did not own all the Monwya project and if trust had not yet sold Ivanhoe Mines 50% stake

Union of Myanmar Economic Holdings Limited (UMEHL) (Myanmar)

China North Industries Corporation (NORINCO), China

Wanbao Mining Limited, China

Hong Kong Wanbao Mining Copper Limited

Myanmar Yang Tse Copper Limited

Myanmar Wanbao Mining Copper Limited

Entered into a production sharing contract about the Monywa project (agreement is not public) but appears to cover both the S&K mine and the rights to develop the Letpadaung Mine

operates the mine but production sharing and ownership arrangements not published

ME 1 (Myanmar)

51%

19%

30%

profit allocation subsequent to modification of the production sharing agreement in July 2013

S&K MINE

LETPADAUNG MINE

ANOTHER FRIEDLAND COMPANY, IVANHOE MINES, ENTERS THE GAME

Indochina Goldfields Ltd. (which, as noted earlier, was renamed Ivanhoe Mines in 1999) acquired Ivanhoe Myanmar Holdings by buying all of the shares in its parent company, Bagan Holdings, in two transactions in December 1994 and February 1995.[435]

Indochina Goldfields was therefore able to utilize the rights granted to Ivanhoe Myanmar Holdings under the Feasibility Agreement[436], including to form, through Ivanhoe Myanmar Holdings, a joint venture to develop the Monywa property into an open-pit copper mine if this was justified by the feasibility operations.

Indochina Goldfields, again through Ivanhoe Myanmar Holdings, also entered into agreements with Myanmar's Ministry of Mines in 1995, under which it was granted the right to explore for gold and copper in an area covering approximately 4,282 square kilometers in the vicinities of Monywa and Mandalay and in the Wuntho Massif area.[437] The Monywa mine lease areas were expressly excluded from these – separate – exploitation concessions.[438]

MYANMAR IVANHOE COPPER COMPANY LIMITED

In 1996, Ivanhoe Myanmar Holdings and ME1 formed the joint venture company, MICCL, in which both held a 50% interest.[439] The purpose of the joint venture was to develop, mine, process and market copper cathode from the Sabetaung, Sabetaung South and Kyisintaung (S&K) deposits. The S&K deposit was operated by MICCL.[440] The agreement establishing the joint venture also stated that, based on the results of feasibility operations for the Letpadaung deposit, and if both parties agreed, MICCL would develop the Letpadaung deposit.

Construction of the S&K mining and processing facilities was completed by the end of 1998.[441] MICCL never managed to develop the Leptadaung deposit. At the request of Ivanhoe Myanmar Holdings, Minproc Engineers Limited carried out a feasibility study of the Letpadaung deposit between 1997 and 1998, which concluded that the proposed costs and design of the Letpadaung mine were of a "feasibility standard".[442] Under the terms of the joint venture agreement, Ivanhoe Myanmar Holdings, on behalf of MICCL, was responsible for seeking financing for the development of the Letpadaung deposit.[443] However, Ivanhoe Myanmar Holdings was unsuccessful in arranging financing and Ivanhoe Mines therefore proposed, in 2002, that the development of the mine be funded using money from the S&K mine, and that the production capacity of the S&K mine be extended for this purpose.[444] Although the capacity of S&K was expanded, MICCL was unable to develop the Letpadaung mine due to financing and other problems it had with the Myanmar government.[445]

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435 Indochina Goldfields Ltd., 1997 Annual Information Form, 16 May 1997, p. 11. Under a share purchase agreement dated 22 December 1994, Indochina Goldfields acquired 95% of the issued and outstanding shares of Bagan Holdings from Myanmar Management Corp (MMC). In return, it granted the company a royalty equal to 4% of the pre-tax sale proceeds of Ivanhoe Myanmar Holding's share of mineral products from the project. This royalty was subsequently re-acquired by Indochina Goldfields from Myanmar Management Corp, through the acquisition of all of Mr. Friedland's shares in Myanmar Management Corporation, in March 1996. In return, 5,000,000 shares in Indochina Goldfields were issued to or at the direction of Mr. Friedland. Mr. Friedland directed that 5% of those shares be issued to Mr. Maung (Mr Maung had previously received 5% of the royalty paid to MMC because, when Mr. Maung sold his shares in Bagan Holdings to Indochina Goldfields in February 1995, he received 700,000 shares in Indochina Goldfields and Mr. Friedland agreed to pay him 5% of the MMC royalty).

436 The Feasibility Agreement was amended on 6 March 1995.

437 Indochina Goldfields Ltd., 1997 Annual Information Form, pp. 32. These are referred to as "Myanmar Exploration Agreements" in the company's reports.

438 Indochina Goldfields Ltd., 1997 Annual Information Form, pp. 32 and 34.

439 The Joint Venture Agreement was formally executed on 10 April 1996.

440 Indochina Goldfields Ltd., 1999 Annual Information Form, p. 9.

441 Indochina Goldfields Ltd., 1999 Annual Information Form, p. 10.

442 Indochina Goldfields Ltd., 1998 Annual Information Form, p. 15. Indochina Goldfields Ltd., 1999 Annual Information Form, p. 31.

443 Indochina Goldfields Ltd., 1997 Annual Information Form, p. 12.

444 Ivanhoe Mines Ltd., Renewal Annual Information Form: For the year ended December 31, 2002, p. 28.

445 See for instance, Ivanhoe Mines Ltd. Audited financial statements of December 31, 2006 and 2005, p. 22 where Ivanhoe Mines noted that "The Company is also concerned about the timely approvals for the expansion of the Letpadaung deposit. To date, the expansion of the deposit has been neither approved nor denied by the Government of Myanmar."

SANCTIONS AND OTHER OPERATING DIFFICULTIES

While Ivanhoe Mines was trying to develop the Letpadaung mine, the United States of America (US) imposed additional sanctions on Myanmar in 2003, restricting imports from Myanmar, blocking property of the government of Myanmar in the US and restricting financial services and transactions with designated individuals.[446] The European Union (EU) had also imposed selective economic sanctions on Myanmar in 2000, introducing a freeze on funds belonging to designated persons and banning the export of certain equipment.[447] By the end of 2004, the EU had imposed further sanctions restricting: new investment in Myanmar; the provision of economic resources, financial loans or credit to designated persons; and the provision, to any person in Myanmar, of financing and certain assistance related to military activities and equipment that could be used for internal repression.[448] In 2005, Ivanhoe Mines stated that US sanctions had started to seriously impact the S&K mine's ability to function as a normal business. In its 2005 annual report, filed at the end of March 2006, it reported that both the mine's insurance broker and an off-shore banking institution had terminated their relationship with the mine on account of the sanctions, leading to the mine's operations being shut in March 2006.[449]

In 2004 – 2005, Ivanhoe Mines also reported on difficulties it was having with the government over the Monywa project. The company claimed that MICCL was experiencing difficulties getting import permits from the authorities to bring in equipment that it needed to increase production at the S&K mine, which it was hoping would offset the decline in the quality of ore it had begun to experience in 2005. This, according to Ivanhoe Mines, led to a decrease in production and profits.[450] MICCL also had a dispute with the government about the payment of commercial taxes of 8% on all export sales.[451] Ivanhoe Mines additionally noted that Myanmar was short of the generating capacity necessary to supply sufficient electric power to the Monywa project and that the high leach piles (for waste storage) planned for both the S&K and Letpadaung mines presented technical risks.[452]

IVANHOE MINES LIED ABOUT MICCL'S COPPER SALES

Amnesty International obtained copies of two monthly reports produced by MICCL, dated December 2003 and January 2004. These reports were downloaded by another researcher from MICCL's old website using the Wayback Machine internet archive service.

The reports contain details of MICCL's monthly actual sales of copper. The information in these reports about MICCL's copper sales contradicts statements made by Ivanhoe Mines in filings in Canada[453] and the US,[454] and in a public 'Fact File' document it released containing *"background information on Ivanhoe Mines' role in the Monywa Copper Project between 1996 and 2007"*.[455] In its 2005 and 2006 annual reports (which were filed with the Canadian and US securities regulatory authorities), Ivanhoe Mines stated *"Monywa JVCo* ***sells all of its copper to*** *Marubeni Corporation* pur*suant to a copper sales agreement"* (emphasis added).[456] In the 'Fact File', Ivanhoe Mines stated

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446 See US Department of Treasury, Office of Foreign Assets Control (OFAC), Burma Sanctions Program, p. 3 (and text of Executive Order 13310, 28 July 2003), available at www.treasury.gov/resource-center/sanctions/Documents/burma.pdf (last accessed 29 January 2015). Economic sanctions were initially imposed in 1997.

447 EU Council Regulation No 1081/2000 of 22 May 2000 (OJ L 122/29).

448 EU Council Regulation No 798/2004 of 26 April 2004 (OJ L125/4).

449 Ivanhoe Mines Ltd., Annual Information Form: For the year ended December 31, 2005, p. 60.

450 Ivanhoe Mines, Ivanhoe Mines announces Q3 2006 results, 14 November 2006, p. 4, available at www.turquoisehill.com/i/pdf/2006-11-14_NR.pdf. "During the quarter, S&K operations continued to be hampered by a shortage of supplies, tires and chemical reagents due to delays in obtaining the necessary import permits. Total tonnage moved in Q3'06 decreased by 28% compared to Q3'05. Total cathode production in Q3'06 decreased by 30% due mainly to a 26% decrease in tonnages placed on the heaps and a 37% decrease in copper grades."

451 Ivanhoe Mines Ltd., Annual Information Form: For the year ended December 31, 2005, p. 60 and Audited financial statements of December 31, 2005 and 2004, p. 22.

452 Ivanhoe Mines Ltd., Renewal Annual Information Form: For the year ended December 31, 2004, p. 18.

453 Ivanhoe Mines Ltd., Annual Information Form: For the year ended December 31, 2006, p. 65. See also Annual Information Form: For the year ended December 31, 2005, p. 60 where the company stated "Monywa JVCo sells all of its copper to Marubeni Corporation pursuant to a copper sales agreement" (emphasis added).

454 See https://www.sec.gov/Archives/edgar/data/1158041/000094523407000208/o35617exv1.htm.

455 Available at http://www.turquoisehill.com/i/pdf/Monywa_Fact_File_December_2012.pdf, last updated December 2012. This document is also referred to in Ivanhoe Mines filings before the US Securities and Exchange Commission, see www.sec.gov/Archives/edgar/containers/fix070/1158041/000094523407000603/o37910e6vk.htm

456 Ivanhoe Mines Ltd., Annual Information Form: For the year ended December 31, 2005, p. 60. Ivanhoe Mines, Monywa Fact File – 2011, last updated December 2012, p. 8, available at http://www.turquoisehill.com/i/pdf/Monywa_Fact_File_December_2012.pdf.

*"[u]ntil December 31, 2006, MICCL **sold all of the copper produced at Monywa to Marubeni Corporation**, the original project finance lender, under the terms of a copper sales agreement"* (emphasis added). [457]

The January 2004 monthly report obtained by Amnesty International reveals that MICCL sold 543.024 tonnes of copper to *'local buyers'* in Myanmar from April 2003 to January 2004. This is in addition to the copper that was exported, which is listed under the title 'Export' in the report, and which, from the information included on payments in the report, appears to be part of the Marubeni contract.

The list of whom the copper was sold to reads like a who's who of the Myanmar security forces and its establishments. MICCL sold 100 tonnes of copper to the Office of Defence Service Industry. This seems to refer to the Directorate or a unit within the Directorate of Defence Industries, better known as Ka Pa Sa, abbreviated from Karkweye Pyitsu Setyoun, which is under the direct control of the Ministry of Defence. Ka Pa Sa is made up of twelve distinct industries, the largest of which makes weapons, transport and tools for Myanmar's armed forces.[458]

Copper was also sold to an entity described as the 'Shan State National Army'[459], a number of military intelligence units, the Special Branch of the police, the No.11 Light Infantry Division, and various state-owned enterprises in which the military has a significant stake such as Myanmar Gems Enterprise. Also on the list of buyers is the Union Solidarity and Development Association (USDA), an organization created in 1993 to mobilise political support for the military government.[460] USDA is suspected of involvement in human rights abuses including the crackdown on peaceful demonstrators and Buddhist monks and nuns during the Saffron Revolution in 2007 and an attack on Daw Aung San Suu Kyi.[461] See Annex I for an extract from the January 2004 monthly report with names of purchases, volumes of copper purchased and the price paid.

Amnesty International reviewed previous Ivanhoe Mines filings concerning copper sales and found various inconsistencies in the information it provided.

In its filing with the Canadian securities regulatory authorities in 1999, Ivanhoe Mines summarized the terms of the Copper Sales Agreement with Marubeni as follows:

> *"Except for certain copper purchased by the government of Myanmar, Marubeni will purchase all copper cathode produced by the Monywa Copper Project during the term of the Copper Sales Agreement. The Monywa Joint Venture will grant to the government of Myanmar an option to purchase not more than 10% of copper cathode produced during each calendar year."* [462]

In subsequent filings from 2000-2004, Ivanhoe Mines stated *"[t]hroughout the term of the copper sales agreement, Marubeni has the exclusive right to market copper produced from the Monywa Copper Project throughout the world."*[463]

As noted above, Ivanhoe Mines stated in its 2005 and 2006 annual reports, filed with the Canadian and US securities regulatory authorities, and in its 'Fact File', that all of the copper produced at Monywa was sold to Marubeni. Considering the long list of local buyers that MICCL was selling copper to, as per the two internal monthly reports described above, MICCL clearly did not sell *"all of*

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457 Ivanhoe Mines, Monywa Fact File – 2011, last updated December 2012, p. 8, available at http://www.turquoisehill.com/i/pdf/Monywa_Fact_File_December_2012.pdf.

458 A. Selth, Burma's Armed Forces: Power Without Glory, Eastbridge, 2001, p. 141.

459 The entry in both the December 2003 and January 2004 reports reads 'Shan State National Army'. Human Rights Watch in its 2002 report on Child Soldiers in Myanmar, "My Gun was as Tall as Me", p. 58, referred to the Shan State National Army as a "breakaway group formed by former Mong Tai army officer Garn Yod after the MTA surrendered in 1996, but made a ceasefire agreement shortly thereafter. Estimated armed strength fewer than 1,000" available at: www.hrw.org/reports/2002/burma/Burma0902.pdf. Amnesty International was unable to confirm who the Shan State National Army referred to in the MICCL report is and if it is the group by Human Rights Watch described. The information in this chapter, including about copper sales, was presented to Ivanhoe Mines (Turquoise Hill Resources) but there was no response from the company.

460 A. Selth, Burma's Armed Forces: Power Without Glory, Eastbridge, 2001, p. 81.

461 See http://burmacampaign.org.uk/images/uploads/NDD_-_A_Violent_Past_to_a_Brutal_Future.pdf

462 Indochina Goldfields Ltd., 1999 Annual Information Form, p. 27. This arrangement carried on till 31 December 2006.

463 Ivanhoe Mines, Renewal Annual Information Form: For the Year ended December 31, 2001, p. 29. This statement is also repeated in its 2002, 2003 and 2004 filings.

its copper" or *"all of the copper produced at Monywa"* to Marubeni. Ivanhoe Mines statements in its 2005 and 2006 annual reports filed with the US and Canadian regulatory bodies and in its 'Fact File' are therefore incorrect and misleading.

Even if the local buyers listed in the sales reports undertook purchases on behalf of the government, as stated in the summary in the 1999 filing of the copper sales agreement with Marubeni, this would not be consistent with the phrase in later filings that *"all of its copper"* or *"all of the copper produced at Monywa"* were sold to Marubeni.

As noted in the 1999 summary of the copper sales agreement, the government of Myanmar had an option to purchase 10% of the copper produced by MICCL. If the government chose to exercise this option and Marubeni only purchased the remaining copper produced by MICCL, this should have been acknowledged in Ivanhoe Mines' 2005 and 2006 annual report and 'Fact file'. Instead, these statements imply that only Marubeni purchased copper produced by MICCL. Ivanhoe Mines' statement, in its filings after 2002, that *"Marubeni has the exclusive right to market copper produced from the Monywa Copper Project throughout the world"* also gives the impression that ONLY Marubeni was selling the copper produced from Monywa throughout the world [which includes Myanmar].

The sale of copper by MICCL to Myanmar security forces and related establishments also raises issues around breaches of sanctions related to Myanmar. Article 1a of EU Regulation 1211/2003 of 7 July 2003 states: *"Without prejudice to the powers of the Member States in the exercise of their public authority, providing Burma/Myanmar with technical training or assistance related to the supply, manufacture, maintenance or use of arms and related material of all types, including weapons and ammunition, military vehicles and equipment, paramilitary equipment, and spare parts for the aforementioned, shall be prohibited."* Article 5 of the Regulation also states: *"The participation, knowingly and intentionally, in related activities, the object or effect of which is, directly or indirectly, to promote the transactions or activities referred to in Articles 1 and 1a or to circumvent the provisions of this Regulation, shall be prohibited."*

Ivanhoe Mines held its interest in MICCL through two British Virgin Islands entities (Bagan Holdings and Ivanhoe Myanmar Holdings). While the British Virgin Islands is not considered to be a part of the European Union for the purposes of EU legislation, in July 2004 the UK extended to its overseas territories, including companies incorporated under the laws of those territories, a similar legal prohibition to the EU Regulation on providing assistance to Myanmar.[464] Section 5 of the UK law states: *"Any person who, except under the authority of a licence granted by the Governor under this article, directly or indirectly provides to any person, entity or body in, or for use in, Burma any assistance, advice or training related to military activities or to the provision, manufacture, maintenance or use of any restricted goods shall be guilty of an offence under this Order, unless he proves that he did not know and had no reason to suppose that the assistance, advice or training in question was to be provided to a person, entity or body in, or for use in, Burma [emphasis added]."465 Assistance is widely defined to mean "any form of assistance including technical assistance, financing and financial assistance"*.

If the copper supplied by MICCL was used by the Myanmar military and related entities listed above for military activities or the manufacture, maintenance or use of any restricted goods, this could amount to "assistance" as defined in Section 5 of the UK law. If so, the parent companies of MICCL in the British Virgin Islands (who were subsidiaries of Ivanhoe Mines) may have committed an offence under UK law (as applied to the British Virgin Islands) on the basis that they provided such assistance "indirectly" through MICCL.

THE COMPLETELY OPAQUE SALE OF IVANHOE MINE'S MYANMAR ASSETS

In March 2004, Ivanhoe Mines announced that it had retained two international investment banks, *"to review strategic alternatives of Ivanhoe's interest in the Monywa project".* Ivanhoe Mines also re-

464 The Burma (Restrictive Measures) (Overseas Territories) Order 2004, s 1(2) and 5.

465 Restricted goods are identified in Part I of Annex 1 of the Export of Goods, Transfer of Technology and Provision of Technical Assistance (Control) Order 2003 made under the Export Control Act 2002 and equipment that might be used for internal repression as listed in Schedule 3.

vealed in 2006 that it was negotiating the sale of a significant portion of its interest in the S&K mine to a Korean corporation (the transaction was never completed).[466]

On 18 October 2006, Ivanhoe Mines announced that it had formed a strategic partnership with Rio Tinto to develop Ivanhoe Mines' Oyu Tolgoi copper-gold mining complex in Mongolia. In the press release Ivanhoe Mines stated that it had *"previously announced that it is restructuring the company to enhance asset value for shareholders and generate capital for the development of Oyu Tolgoi and its core Mongolian assets. As part of this restructuring, and as a condition of this transaction, Ivanhoe [Mines] is negotiating the divestiture of its joint venture interest in the Monywa Copper Project in Myanmar."*[467]

THE MONYWA TRUST

Further information emerged in March 2007, when Ivanhoe Mines declared that it had established the Monywa Trust, an independent third party trust, and transferred ownership of its Myanmar assets to the trust. *"The sole purpose of the Monywa Trust is to facilitate the future sale of the Myanmar Assets to one or more arm's length third parties who do not constitute Excluded Persons."*[468]

Excluded persons *"means a contractually defined class of restricted persons identified as being prohibited from purchasing the Myanmar Assets from the Monywa Trust, which includes IVN [Ivanhoe Mines], Rio Tinto, and their respective directors, officers and affiliates and citizens or residents or entities controlled by citizens or residents of Myanmar or the United States"*.[469] In other public documents the company clarified that this restriction protected Ivanhoe Mines, Rio Tinto and the Trust and ensured that the process would not involve a breach of the sanctions relating to Myanmar.[470]

A wholly owned subsidiary of the Monywa Trust, referred to as Trust Holdco, issued a promissory note to a subsidiary of Ivanhoe Mines as consideration for the 'purchase' of the Monywa assets. According to Ivanhoe Mines, the promissory note entitled it to *"receive cash proceeds realized upon the future sale of the Myanmar Assets plus 50% of any cash generated by the Monywa Copper Project that is available for distribution to the project participants but remains undistributed at the time of any such sale, less certain contractually specified deductions, including any fees and expenses incurred in carrying out the sale."*[471] Ivanhoe Mines also declared that it *"retains no ownership interest in the Myanmar Assets, directly or indirectly, except as a creditor of Trust Holdco pursuant to the promissory note"* and that it *"no longer had any representation on the MICCL board after its interest was acquired by the Monywa Trust in February 2007."*[472]

Under the Monywa Trust arrangements disclosed by Ivanhoe Mines, Trust Holdco's mandate was to engage one or more qualified third parties (Sale Service Providers) who were not 'excluded persons'. Such 'sale service providers' would be responsible for identifying and soliciting interest from possible purchasers who are not excluded persons and to negotiate and facilitate the sale. The sale service provider(s) would then be entitled to receive a fee equal to an unspecified percentage of the sale proceeds. Trust Holdco would be wound up following the sale, after paying the sale service provider(s) and other expenses and using the remaining proceeds to repay the promissory note held by Ivanhoe Mines' subsidiary.[473]

Ivanhoe Mines has never disclosed the jurisdiction in which the Monywa Trust was set up,[474] where

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466 Ivanhoe Mines Ltd., Monywa Fact File – 2011, (updated December 2012), p. 8, available at www.turquoisehill.com/i/pdf/Monywa_Fact_File_December_2012.pdf (last accessed 2 August 2014).

467 Ivanhoe Mines Ltd., 'Ivanhoe Mines and Rio Tinto form strategic partnership to develop Mongolian Copper-Gold resources', 18 October 2006, p. 5, available at www.turquoisehill.com/i/pdf/2006-10-18_NR.pdf (last accessed 2 August 2014).

468 Ivanhoe Mines Ltd., Annual Information Form: For the year ended December 31, 2006 (dated 30 March 2007), p. 64.

469 Ivanhoe Mines Ltd., Annual Information Form: For the year ended December 31, 2006 (dated 30 March 2007), p. 4. It also included Robert Friedland, the founder and former Chairman of Ivanhoe Mines.

470 Ivanhoe Mines Ltd., Monywa Trust, 2011, p. 2, available at www.turquoisehill.com/s/monywatrust.asp (last accessed 3 August 2014).

471 Ivanhoe Mines Ltd., Annual Information Form: For the year ended December 31, 2006 (dated 30 March 2007), p. 64.

472 Ivanhoe Mines Ltd., Annual Information Form: For the year ended December 31, 2006 (dated 30 March 2007), p. 64. Ivanhoe Mines, Monywa Fact File – 2011, last updated December 2012, p. 10, available at http://www.turquoisehill.com/i/pdf/Monywa_Fact_File_December_2012.pdf.

473 Ivanhoe Mines Ltd., Annual Information Form: For the year ended December 31, 2006 (dated 30 March 2007), pp. 64 - 65.

474 See Mizzima, 'Ivanhoe Mines receives $103 million from Monywa Mine sale', 5 August 2011, available at http://archive-2.mizzima.

Trust Holdco was incorporated or which of its subsidiaries held the promissory note. It never made public the agreement setting up the Monywa Trust or any other agreements that it entered into with the Trust. It did not disclose the name of the Trustees or the Sale Service Provider or how much the Sale Service Provider was paid to negotiate and facilitate the sale. It merely reported subsequently that 'Trust Holdco' engaged a Sale Service Provider in March 2007 who was engaged in discussions with potential purchasers.[475] Ivanhoe Mines also stated in a separate public document that it had taken *"the necessary steps to satisfy itself that the trustee was in fact a major, bona fide, third-party, independent entity with an established reputation for providing arm's-length commercial services to a significant number of international trusts."*[476] Ivanhoe Mines never substantiated this claim.

As of 31 December 2007, Ivanhoe Mines *"reviewed the carrying value of the Myanmar Assets and determined that it was prudent to record a $134.3 million write-down, thereby reducing the value in its financial statements to nil. Although IVN [Ivanhoe Mines] is hopeful that a sale may occur at some point in the future, it was determined that IVN's non involvement in the Monywa copper Project operations since it was transferred to the Monywa Trust, the lack of knowledge of the project's current activities and the fact that no sale has been achieved in almost a year since the asset was transferred to the Monywa Trust, indicate that the carrying value of the investment is impaired."*[477]

Canadian Friends of Burma, an NGO, questioned the validity of the write-down.[478]

In its subsequent filings, Ivanhoe Mines merely summarized the Trust arrangements as an *"investment held for sale"* and did not include any other information on MICCL or the progress of the sale. It also noted in its 2006-2007 financial statements that it had modified how this investment would be accounted for *"due to an inability to exercise significant influence"*.[479] Ivanhoe Mines reported receiving a dividend of US$ 15 million from MICCL in the first quarter of 2007, which it claimed was received before the creation of the Monywa Trust.[480] Ivanhoe Mines also revealed in August 2007 that Trust Holdco had received a dividend of US$ 6.6 million from MICCL, that the Trust had used these funds to reduce the amount owed to Ivanhoe Mines under the outstanding promissory note and that this amount had been received by Ivanhoe Mines in July 2007 (it is not clear if this payment was made directly to Ivanhoe Mines or to the subsidiary to whom Trust Holdco had issued the promissory note).[481]

TRUST HOLDCO: A VARIABLE INTEREST ENTITY

In May 2010, the US Securities and Exchange Commission (SEC) wrote to Ivanhoe Mines about the 2009 financial accounts it had filed with the US regulator, asking the company to identify the 'variable interest entities'[482] that it consolidated in its accounts and to disclose information on them in accordance with US accounting rules.[483] Broadly, US accounting rules require companies to disclose information on variable interest entities if the reporting company has the right to receive benefits from the variable interest entity that are potentially significant to that entity (for example, as in this case, by being entitled to the proceeds of sale of the relevant entity's assets). The US rules were introduced following various US financial scandals in the early 2000s.[484] In a letter of response to the SEC, Ivanhoe Mines stated that *"Trust Holdco [the wholly-owned subsidiary of the Trust that then held the Myanmar Assets]*

com/business/5729-ivanhoe-mines-receives-103-million-from-monywa-mine-sale.html (last accessed 4 August 2014).

475 Ivanhoe Mines Ltd., Progress on the journey to realize value: Financial Statements December 31, 2007.

476 Ivanhoe Mines Ltd., Monywa Trust, 2011, p. 2.

477 Ivanhoe Mines Ltd., Annual Information Form: For the year ended December 31, 2007, p. 71.

478 Canadian Friends of Burma, 'Transfer of Ivanhoe's Burmese assets to weapons firm must be probed', 20 June 2011.

479 Ivanhoe Mines Ltd. Audited financial statements of December 31, 2007 and 2006, section 5 of the notes to the consolidated financial statements. It stated that it ceased accounting for the investment held for sale under the equity method and would now account for it under the cost method.

480 Turquoise Hill (formerly Ivanhoe Mines), Monywa Fact File – 2011, p. 10.

481 Ivanhoe Mines, Second Quarter Report: June 30, 2007.

482 A 'variable interest entity' is not a subsidiary of the reporting company – it is an entity over which the reporting company has financial control through a mechanism other than holding the majority of its shares or voting rights (e.g., through a contract).

483 Letter from the SEC to Ivanhoe Mines Ltd, dated 27 May 2010, available at www.sec.gov/Archives/edgar/data/1158041/000000000010029623/filename1.pdf (29 January 2015).

484 F. Norris, "Accounting Rules Changed to Bar Tactics Used by Enron", The New York Times (16 January 2003), available at www.nytimes.com/2003/01/16/business/accounting-rules-changed-to-bar-tactics-used-by-enron.html (29 January 2015).

***is a variable interest entity of which the Company [Ivanhoe Mines] is the primary beneficiary via the promissory note"*.**[485] **However, it challenged the SEC's position that it should provide additional information in its accounts, stating that Trust Holdco had no impact on Ivanhoe Mines' financial position and it therefore did *"not believe applying the expanded disclosure requirements…would provide material information to investors and users of the financial statements"*. In the letter to the SEC, Ivanhoe Mines simply defined "Trust Holdco" as "a company wholly-owned by the Trust" but did not provide any more information about that company or the Trust, such as their names or in what country they were incorporated. The SEC appears to have simply accepted this minimal information and Ivanhoe Mines' statement that Trust Holdco had no impact on its financial position, stating in a letter of August 2010 that it had no further comments on the 2009 accounts.**[486]

In 2007, Canada imposed stronger economic sanctions against a specified list of individuals as well as entities in Myanmar directly or indirectly operated or controlled by the government or other listed official bodies.[487]

The US added MICCL (also known as Monywa JVCO) to its list of specially designated nationals from 2009.[488] This meant that any assets that MICCL held in the US could be frozen and that US companies, nationals and permanent residents could not be involved in any transaction with MICCL or anyone else on the specially designated nationals list.

In November 2007, the EU imposed stronger sanctions with respect to Myanmar, banning EU companies and nationals from providing financial assistance, loans or credit to or making new investments in certain listed entities including MICCL. The UK created various criminal offences for infringements of the EU sanctions in April 2008 and extended the sanctions and related offences to its overseas territories (including the British Virgin Islands) in November 2009.[489]

On 3 August 2011, Ivanhoe Mines issued a public statement announcing that the Trust had sold the Myanmar assets and that Ivanhoe Mines had received US$103 million in payment of the promissory note issued by Trust Holdco when Ivanhoe Mines transferred the Myanmar assets to the Trust in February 2007. The statement said *"Ivanhoe Mines had no involvement in discussions between the Monywa Trust and its service provider with potential purchasers or with the ultimate sale of the interest."*[490]

In another public document, Ivanhoe Mines stated that, in July 2011, the Monywa Trust had informed it that: *"the Trust finally had completed the sale of the Trust's Myanmar interests, including the 50% stake in the Monywa Copper Project"*.[491] The Trustee of the Monywa Trust advised Ivanhoe Mines that s/he had received advice from leading legal counsel in relevant jurisdictions to ensure that the sale was in compliance with relevant legislation – in particular, legislation relating to 'international sanctions' against Myanmar. According to Ivanhoe Mines, the Trustee had also advised it that the *"purchaser of the Myanmar Assets from the Monywa Trust warranted that it was not an 'excluded person,' as described above, and it was not subject to any relevant sanctions. The purchaser further warranted that it was not acting as an agent or trustee for an excluded person, or a person subject to relevant sanctions – and it was not purchasing the assets with a view to reselling them to an excluded person, or a person subject to relevant sanctions"*.[492]

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485 Letter from Ivanhoe Mines Ltd to the SEC, dated 25 June 2010, available at www.sec.gov/Archives/edgar/data/1158041/000095014210001082/filename1.htm (29 January 2015).

486 Letter from the SEC to Ivanhoe Mines Ltd, dated 12 August 2010, available at https://www.sec.gov/Archives/edgar/data/1158041/000000000010046029/filename1.pdf (last accessed 29 January 2015).

487 Special Economic Measures (Burma) Regulations, 13 December 2007, as notified in Canada Gazette, part II, Vol. 141, no. 26.

488 Office of Foreign Assets Control, Changes to the list of Specially Designated Nationals and Blocked Persons since January 1, 2009, p. 3, available at http://www.treasury.gov/resource-center/sanctions/SDN-List/Documents/sdnew09.pdf (last accessed 3 August 2014).

489 Common Council Position 2007/750/CFSP of 19 November 2007 (OJ L 308/1); Council Regulation No 194/2008 of 25 February 2008 (OJ L 66/1); The Export Control (Burma) Order 2008; The Burma (Restrictive Measures) (Overseas Territories) Order 2009.

490 Ivanhoe Mines Ltd., 'Ivanhoe Mines receives proceeds of US$103 million from Monywa Trust', 3 August 2011, available at www.turquoisehill.com/s/news_releases.asp?ReportID=469714 (last accessed 3 August 2014). In the notes to its Audited financial statements of December 31, 2011 and 2010, Ivanhoe Mines also recorded that the "receipt of the $103.0 million has been recorded as a gain on settlement of note receivable as the note receivable had a carrying value of $nil" (see section 11).

491 Ivanhoe Mines Ltd., Monywa Trust, 2011, p. 1, available at http://www.turquoisehill.com/i/pdf/RoleofMonywaTrustAugust31-2011.pdf

492 Ivanhoe Mines Ltd., Monywa Trust, 2011, p. 3, available at http://www.turquoisehill.com/i/pdf/RoleofMonywaTrustAugust31-2011.pdf.

WIKILEAKS REVELATIONS

Ivanhoe Mines has repeatedly stated since February 2007, when its Myanmar assets were transferred to the Trust, that it had no involvement in MICCL following the transfer or in the subsequent sale by the Trust of Ivanhoe Mines' former interest in MICCL. However, US diplomatic cables, published by Wikileaks on 1 September 2011, included information which indicated that Ivanhoe Mines continued to be involved in negotiations for the sale of the 50% stake and in the operations of MICCL. The cables, sent by the US Embassy in Yangon, described conversations that took place in 2008 and 2009 with Glenn Ford, Acting General Manager of MICCL since 2007, and Andrew Mitchell, a geologist appointed by Ivanhoe Mines, who sat on the board of MICCL. Key extracts from the US diplomatic cables are reproduced below; they describe conversations with Glenn Ford and Andrew Mitchell and relevant comments from US Embassy staff.

A US Embassy Cable from 2008 stated *"Ford told us that South Korean-owned … made a bid, [for Ivanhoe Mines Ltd.'s partnership in MICCL] but the GOB [government of Myanmar] refused to approve the sale in 2007. For the past year [2007], Ivanhoe has been negotiating through regime crony Tay Za with a consortium of three Chinese companies – WanBo [sic] Copper, Norinco Copper, and Aluminum Corporation of China (Chalco) -- that want to purchase its contract. Ford informed us that the negotiations are going well and that the Minister of Mines has indicated the GOB will approve the sale. He opined that the consortium's connections to Tay Za play a pivotal role in the negotiations with the GOB."*[493]

Another cable from 2009 said *"Glenn Ford, Acting Director of MICCL, informed us that initial negotiations were positive; however, once the consortium approached ME-1 about the sale, the Ministry of Mines informed Ivanhoe it could only sell its shares to ME-1. This arrangement forces Ivanhoe to pay to the GOB both capital gains tax, set at 40 percent, and a corporate tax of 10 percent … According to Andrew Mitchell, Ivanhoe representative in Burma …While it would be easier and more profitable to negotiate directly with the Chinese, Ivanhoe is afraid the GOB would block the sale. In early 2008, Ivanhoe and ME-1 agreed on a USD 100 million purchase price. However, ME-1 lacked the money to pay Ivanhoe directly -- it needed to sell MICCL first (technically selling what it did not own). In September 2008, ME-1 began negotiating with the Chinese consortium over the purchase of MICCL, using regime crony Tay Za as a broker. Ford told us the Chinese agreed to pay USD 250 million for the mine and equipment, USD 50 million to Tay Za in consulting fees, and an additional USD 100 million to upgrade the mine …During a recent meeting with Mitchell and Ford, the Managing Director of ME-1 lamented the GOB's decision to prohibit Ivanhoe from selling directly to the Chinese … Both Ford and Mitchell surmise the sale of MICCL will be complete by mid-2009, assuming ME-1 agrees to consortium's terms. Per the joint venture agreement, ME-1 has the right to assume control over the mine should the mine be out of operation for one year; MICCL shut down operations last April [2008] but produced 20,000 tons of copper in September. According to Ford, Ivanhoe Headquarters instructed him to produce a small amount of copper every six months to prevent the one-year timeframe from elapsing. Ford and Mitchell will travel to Nay Pyi Taw the week of January 12 to meet with ME-1 about the sale"*. [494]

Ford also told the US Embassy, as recorded in a cable in mid-2009, *"that Lu Lu, working on Tay Za's behalf acts as liaison with several Chinese companies interested in acquiring MICCL's shares in the Monywa copper mines"*. Embassy officials were also told by another source that *"Lu Lu, who has close ties to the senior management of Chinese firm Norinco …is the mastermind behind Tay Za's involvement in the arms trade. According to … Lu Lu introduced Tay Za to Norinco officials and has secured several business agreements between Htoo Trading and Norinco, including a partnership for a gold mine in Mandalay Division and a broker contract for Norinco's planned purchase of MICCL."*[495]

Ford confirmed to the US Embassy, as per a cable from July 2009, that MICCL *"resumed operations in May [2009], after halting operations more than a year ago … Ford urged the USG to remove*

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493 Embassy Rangoon, 'Burma: Ivanhoe trying to divest, shuts mine', 26 September 2008, reference ID: 08RANGOON763, para 5.
494 Embassy Rangoon, 'Burma: Sale of Ivanhoe Mine Delayed", 9 January 2009, reference ID: 09RANGOON20, paras 2, 3 and 5.
495 Embassy Rangoon, 'Burma: Sanctioning Tay Za's Right-hand Man', 24 June 2009, reference ID: 09RANGOON386, paras. 5, 7.

MICCL from the targeted sanctions list, noting that MICCL does not provide political support to the regime. … Although OFAC [the US Office of Foreign Assets Control] added MICCL to the targeted sanctions list in late 2008, it took MICCL over six months to approach the Embassy about filing an appeal. Perhaps Ford delayed his request because he believed MICCL would successfully sell the mine to the Chinese …Ford and his staff, who had been our key sources of information in the mining sector, have been reluctant to meet with us since OFAC targeted MICCL's operations. Ford initially rebuffed our requests for a meeting after news broke about MICCL's resumption of operations, and he continues to encourage foreign businessmen, particularly in the oil and gas sector, to not meet with Embassy personnel, lest they end up on OFAC's targeted sanctions list."[496]

Tay Za is described in US diplomatic cables as the *"Burmese regime's number one crony"* who *"enjoys the good favor of"* General Than Shwe.[497] Tay Za and many of his companies are still on the US specially designated nationals list and were at that time on EU/UK and Canadian designated entities lists. Tay Za is the CEO and managing director of the Htoo group of companies, which operates in tourism, property development, oil, agro-industries, aviation and other retail sectors.[498] Amnesty International wrote to Tay Za asking for his comment on the Wikileaks revelations but did not receive a response.

Canadian Friends of Burma and various journalists drew attention to the information revealed by Wikileaks to challenge Ivanhoe Mines' claims that it had no involvement in MICCL after February 2007. Canadian Friends of Burma called for investigations into breaches of Canadian and US sanctions.[499] The NGO also stated that, based on information from the MICCL website which was available till the end of 2011 but appeared not to have been updated since 2010, Andrew Mitchell continued to serve as a board member of MICCL until at least 2010, three years after the transfer of Ivanhoe's Burmese assets to the Trust. They further asserted that: *"[w]hile Ivanhoe claimed to be in the dark about MICCL's activities after the blind trust was created the MICCL website showed that as recently as 2010 [one of] Ivanhoe's Executive Vice-President, …remained a director of MICCL along with Mitchell representing Bagan Copper Holdings, the entity formerly known as Ivanhoe Myanmar Holdings Limited, (the British Virgin Islands based holding firm that held Ivanhoe's stake in MICCL). Oddly enough Ivanhoe ignored [the Vice-President's] continued role with MICCL failing to mention it in any financial reports or corporate filings published after 2007."*[500]

Although Ivanhoe Mines repudiated earlier news reports that it still held any interest in MICCL[501] it has never commented on the information contained in Wikileaks revelations about its continued involvement with the operations of MICCL and negotiations over the sale of the stake in MICCL.

Amnesty International contacted both Ivanhoe Mines (now Turquoise Hill Resources) and Andrew Mitchell to ask for their comments on the Wikileaks revelations. Turquoise Hill Resources did not respond.

Andrew Mitchell replied to say that:

"Concerning the [Wikileaks] "quotes" from Mr Ford and me, it was customary in the early days of the Trust to refer to the Trust as Ivanhoe in private conversations, because that was how Mining Enterprise 1 and the Mines Ministry referred to it and because the name MICCL remained. The joint venture partners for over 12 years had been ME1 and Ivanhoe, and Ivanhoe remained a convenient informal term for the non- ME1 partner. Mr Ford was occasionally present when Bagan were discussing the sale, Bagan would have referred to Ivanhoe from habit, and Ford frequently

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496 Embassy Rangoon, 'Burma: Ivanhoe Joint Venture Resumes Operations', 16 July 2009, reference ID: 09RANGOON445, paras 1,4,5 and 6.

497 Embassy Rangoon, 'The Burmese Regime's Number One Crony: Tay Za', reference id 07RANGOON328, paras 1 and 13.

498 Embassy Rangoon, 'The Burmese Regime's Number One Crony: Tay Za', reference id 07RANGOON328,p aras 1 – 4, see also The Irrawaddy, 'Tracking the tycoons', September 2008, Vol. 16, no. 9, available at www2.irrawaddy.org/article.php?art_id=14151.

499 See for example, Mizzima news, 'Critics Decry Norinco's Outlay on Ivanhoe's Burmese Mine', 31 August 2010, available at: www.bnionline.net/index.php/news/mizzima/9278-critics-decry-norinco-outlay-on-ivanhoes-burmese-mine.html (last accessed 4 August 2014) and Canadian Friends of Burma, 'Wikileaks: Junta Crony Brokered Ivanhoe's Burma Sale to Chinese Arms Firm', 16 March 2012, Burma Partnership, available at: www.burmapartnership.org/2012/03/wikileaks-junta-crony-brokered-ivanhoes-burma-sale-to-chinese-arms-firm/ (last accessed 4 August 2014).

500 Canadian Friends of Burma, 'Wikileaks: Junta Crony Brokered Ivanhoe's Burma Sale to Chinese Arms Firm', 16 March 2012.

501 See for example, Ivanhoe Mines Ltd., Open Letter to Mizzima News, Reference: Corrections required to address false reporting by Mizzima News on Ivanhoe Mines' former interest in the Monywa Copper Project, Myanmar, 5 June 2009, available at: www.turquoisehill.com/i/pdf/IVN_open_letter_to_Mizzima_News_Jun_5_09.pdf (last accessed 4 August 2014).

did not realise that by Ivanhoe, Bagan was meant ["Bagan" refers to Bagan Copper Holdings, British Virgin Islands, which was known as Ivanhoe Myanmar Holdings until July 2005. Bagan Copper was previously a subsidiary of Ivanhoe Mines and was transferred into the Trust in February 2007. It was therefore one of the companies through which the Trust held its interest in MICCL].

I would be extremely surprised if Ivanhoe itself communicated with Ford about running the mine or anything else. In my experience after early 2007 Ivanhoe were scrupulous in not communicating with Bagan or govt concerning the mine or Myanmar in general. ME1 could use whomever they liked to negotiate the sale to the Chinese. Bagan had no control over matters initiated by govt."

He also said that the statement that MICCL produced 20,000 tons of copper in September [2008] is false and wildly unrealistic as its highest monthly production was not over 3,000 tons.[502]

Amnesty International considers that Dr. Mitchell's comment about the volume of copper produced by MICCL is a fair one but the organization could not check the figure referred to in the cable to confirm it. However, the issue is not the volume of copper produced but whether Ivanhoe Mines was instructing the Acting General Manager of MICCL about copper sales, after it had publicly stated that it had no involvement in MICCL.

While it is possible that the Trust was referred to as Ivanhoe in private conversations as described by Dr. Mitchell, it is difficult to reconcile this with Mr. Ford's specific reference to *"Ivanhoe Headquarters"*[503] and also other statements to the US Embassy such as *"Ivanhoe has been covering the mine's operating costs since 2006, estimated at more than USD 50 million, but it is no longer willing to do so"*.[504] It does not seem very feasible that these statements were actually referring to the Trust rather than Ivanhoe Mines, especially given that he had worked for MICCL in other roles prior to the Trust being created.

Dr. Mitchell also stated that he *"became a director of Bagan [Copper Holdings] early in 2007, after being informed that Ivanhoe Mines had placed the mine in a Trust. From some time in 2007 onwards my salary was paid by the Trust, not by Ivanhoe. …In 2007 I was asked to remain a Director of MICCL for Bagan pending sale of the mine by the Trust. The sale was initially expected to take a year or so, one reason for the delay was changes in the composition of the Chinese buying consortium. … I resigned in May 2011 and left Myanmar before the sale of Bagans [sic] share of the mine to the Chinese was completed. My recollection is that no Ivanhoe Vice -President attended or participated in any way in any MICCL board meeting from about March 2007 onwards."*[505]

The Wikileaks revelations reflect conversations between Dr. Mitchell and the US Embassy in Yangon. Dr. Mitchell sat on the board of MICCL as a representative of Bagan Copper Holdings, the company through which the Trust held its shares in MICCL.

Dr. Mitchell has not denied the information ascribed to him in the US Embassy cables, published by Wikileaks[506] and shared by Amnesty International with him for comment. This includes the information that he and Glen Ford "*were meeting with ME1 about the sale"*[507] and details about Tay Za's role *"as a broker"* in the negotiations. It is therefore clear that in his role on the Board of MICCL, on behalf of the Monywa Trust, Dr. Mitchell had detailed knowledge of the status of negotiations.

Dr. Mitchell has also not denied that Glenn Ford told the US Embassy that the *"Chinese agreed to pay …USD 50 million to Tay Za in consulting fees"*[508] (this information was included in Amnesty International's letter to him). He also confirmed in his response that Bagan's share of the mine was

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502 Letter from Dr. Andrew Mitchell to Amnesty International, dated 15 January 2015.

503 Embassy Rangoon, 'Burma: Sale of Ivanhoe Mine Delayed", 9 January 2009, reference ID: 09RANGOON20, para 5.

504 Embassy Rangoon, 'Burma: Ivanhoe trying to divest, shuts mine', 26 September 2008, reference ID: 08RANGOON763, para 6.

505 Letter from Dr. Andrew Mitchell to Amnesty International, dated 15 January 2015.

506 The cable quoted Andrew Mitchell, described as "Ivanhoe representative in Burma" as saying that "[w]hile it would be easier and more profitable to negotiate directly with the Chinese, Ivanhoe is afraid the GOB would block the sale. In early 2008, Ivanhoe and ME-1 agreed on a USD 100 million purchase price. However, ME-1 lacked the money to pay Ivanhoe directly -- it needed to sell MICCL first (technically selling what it did not own). In September 2008, ME-1 began negotiating with the Chinese consortium over the purchase of MICCL, using regime crony Tay Za as a broker."

507 Embassy Rangoon, 'Burma: Sale of Ivanhoe Mine Delayed", 9 January 2009, reference ID: 09RANGOON20, para 5.

508 Embassy Rangoon, 'Burma: Sale of Ivanhoe Mine Delayed", 9 January 2009, reference ID: 09RANGOON20, para 3.

sold to the Chinese (i.e., NORINCO and Wanbao Mining). It can therefore be concluded that, at the very minimum, the Trust was aware that ME1 was negotiating with a Chinese consortium that involved NORINCO and Wanbao,[509] that Tay Za played a pivotal role in these negotiations and that the Trust was aware that he would be paid for acting as a broker for the sale. The relevance of this information to potential breaches of EU, US and Canadian sanctions is discussed below.

INFORMATION OBTAINED BY AMNESTY INTERNATIONAL THROUGH COMPANY SEARCHES

Amnesty International obtained a copy of a bridge funding agreement between Rio Tinto South East Asia Limited, acting as the lender, and Turquoise Hill Resources (known as Ivanhoe Mines till 2012) which was the borrower.[510] The agreement, dated 23 August 2013, includes a structure chart for Turquoise Hill Resources as of 22 August 2013.

The structure chart lists Bagan Holdings, incorporated in British Virgin Islands, as a subsidiary of Turquoise Hill Resources. It notes that Bagan Holdings is *"being dissolved" and that it holds a "note for Myanmar assets formerly held Myanmar project which was transferred to Asteroth Limited, which was transferred into a Trust [sic]"*. It also lists Sentinel Holding Company, incorporated in Barbados, as another subsidiary. It notes that Sentinel Holding is the *"Protector Company for the Myanmar Trust"*.

Amnesty International carried out corporate searches in the British Virgin Islands and Barbados to obtain all available information on Bagan Holdings Ltd, Asteroth Limited and Sentinel Holding Company Ltd.

The British Virgin Islands, which is a British overseas territory, is notorious for its corporate secrecy, offering a high level of anonymity that can be easily exploited for criminal purposes.[511] Information that would commonly be available publicly in the UK, such as financial statements and names of subsidiaries, directors and shareholders, is not available publicly for companies registered in the British Virgin Islands. The only documents held on public record are the Memorandum and Articles of Association and the name of the registered agent who holds all the confidential information on the company. There is no online register of this information (as there is in the UK). It is therefore difficult to find even basic information about British Virgin Islands companies and it can be impossible to find out who actually owns such companies.

THE PROTECTOR COMPANY AND THE MONYWA TRUST

The Turquoise Hill Resources structure chart lists Sentinel Holding Company as a subsidiary of Ivanhoe Mines and states that it was incorporated in Barbados and is the *"Protector Company for the Myanmar Trust"*. Amnesty International's research indicates that Sentinel Holding was incorporated in October 2007, just over six months after the Myanmar Assets had been transferred to the Monywa Trust.[512] A protector company is essentially an entity which oversees a Trust and, based on the powers given to it under the Trust document, can remove a trustee or take other corrective action if the Trustee fails to operate the Trust in accordance with its terms.

Company search results obtained by Amnesty International reveal that a director nominated by Ivanhoe Mines sat on the board of Sentinel Holding until 2012. That director was replaced on the board by the General Counsel, Copper Group, Rio Tinto.

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509 Embassy Rangoon, 'Burma: Ivanhoe trying to divest, shuts mine', 26 September 2008, reference ID: 08RANGOON763, para 5.

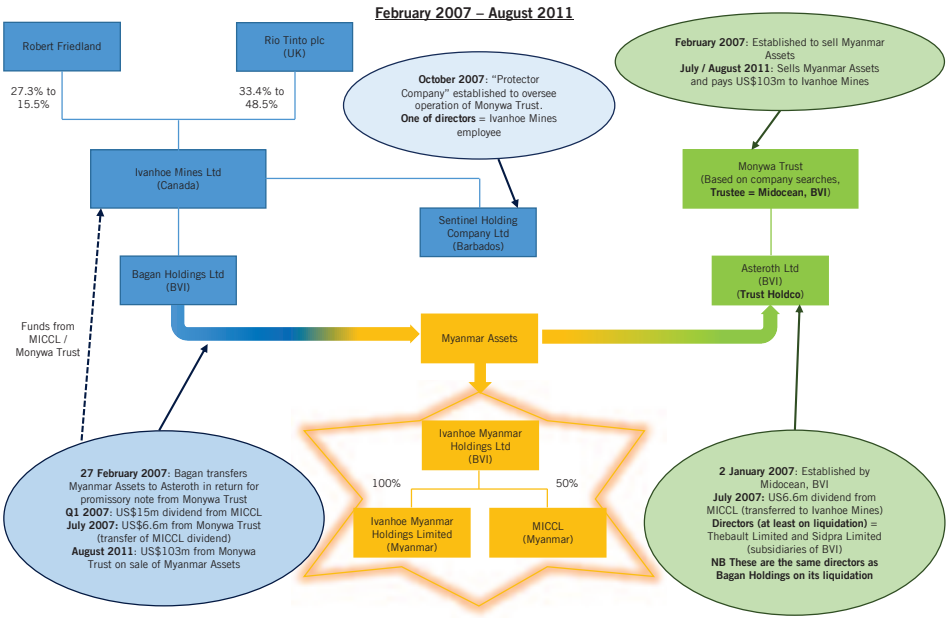
510 US Dollar 600,000,000 Medium Term Secured OT Bridge Funding Agreement, dated August 23, 2013, between Turquoise Hill Resources Ltd (as Borrower) and Rio Tinto South East Asia Limited (as Lender), available at http://www.infomine.com/index/pr/PB/35/17/PB351725.PDF (last accessed 12 December 2014).

511 See Global Witness, www.globalwitness.org/campaigns/corruption/anonymous-companies.

512 Sentinel was established by a Barbados-based services company called Chancery Corporate Services, which has historically provided corporate services to the Barbados companies through which Robert Friedland holds his interest in Ivanhoe Mines (now Turquoise Hill Resources).

The fact that a protector company was set up to oversee the Trust and that a Director from Ivanhoe Mines remained on the board of this company (and therefore had oversight of the Trust's activities) has never been publicly disclosed by Ivanhoe Mines. To the contrary Ivanhoe Mines has repeatedly emphasised in its public filings that the Trust was an independent third party Trust. In Amnesty International's view, the Trust cannot be described as an independent third party trust because of the oversight that Ivanhoe Mines continued to have over the Trust through the protector company and also because of the relationship between Ivanhoe Mines and Midocean Management and Trust Services Limited, discussed below, which Amnesty International believes operated the Trust.

The Monywa Trust Structure Chart
(based on information obtained by Amnesty International through company searches)



A TANGLED WEB OF RELATIONSHIPS

Based on the information in the August 2013 Turquoise Hill structure chart, it appears that the shares in Ivanhoe Myanmar Holdings were transferred to Asteroth Limited (Asteroth) by Bagan Holdings, a wholly-owned subsidiary of Ivanhoe Mines. In return Asteroth issued a promissory note to Bagan Holdings. Asteroth was then transferred into the Monywa Trust. These details have never previously been made public. The structure chart does not say where Asteroth was incorporated and Amnesty International therefore checked various jurisdictions for a company named Asteroth Limited.

Company searches[513] by Amnesty International in the British Virgin Islands revealed that a company called Asteroth Limited was incorporated by Midocean Management and Trust Services (BVI) Limited in January 2007 (shortly before the Myanmar Assets were transferred to the Trust).[514] Midocean is authorised to provide trust services in the British Virgin Islands.[515] It is part of the Maitland Group, which provides trust services to companies and high net-worth individuals.[516] Company filings show that, when Asteroth was dissolved in December 2013, the liquidator was an employee of Midocean and its directors at the time were also subsidiaries of Midocean.[517] Company filings also show that Midocean was a registered agent for Asteroth from its incorporation to its dissolution.

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513 All documents obtained from these searches are on file with Amnesty International.

514 According to company information obtained by Amnesty International from the BVI,

515 BVI Financial Services Commission, 'Banking and Fiduciary Services', available at http://www.bvifsc.vg/en-us/regulatedentities/bankingandfiduciaryservices/classitrustlicencesregisteredagentstatus.aspx (last accessed 12 December 2014).

516 Maitland, 'Legal Information', available at http://www.maitlandgroup.com/legal-information/ and Maitland, 'Services', available at http://www.maitlandgroup.com/services/ (last accessed 12 December 2014).

517 Thebault Limited and Sidpra Limited are subsidiaries of Midocean and are also authorised to provide trust services in the BVI. BVI Financial Services Commission, 'Banking and Fiduciary Services', available at http://www.bvifsc.vg/en-us/regulatedentities/bankingandfiduciaryservices/classitrustlicencesregisteredagentstatus.aspx (last accessed 12 December 2014).

All of this suggests that Asteroth Limited in the British Virgin Islands is the Asteroth Limited referred to in the August 2013 Turquoise Hill structure chart and that Midocean was the 'third party' that operated the Monywa Trust. Amnesty International put this conclusion to Midocean, Turquoise Hill and Rio Tinto and asked for any comments or clarifications. It received no response from Midocean or Turquoise Hill and Rio Tinto did not refute this conclusion in its letter of response.

Although Ivanhoe Mines repeatedly emphasized in its public filings that the Trust was an independent third party trust, company searches by Amnesty International reveal a relationship between Midocean and Ivanhoe Mines that started five years before the Trust was established and continued until 2013.

Company filings obtained by Amnesty International from the British Virgin Islands show that Midocean had provided corporate services to Ivanhoe Mines since 2002. In February 2002, it became registered agent for Bagan Holdings (the subsidiary of Ivanhoe Mines that transferred the Myanmar Assets to the Trust and held the promissory note issued by Trust Holdco) and Myanmar Management Corp. (the company through which Robert Friedland originally held his interest in Bagan Holdings). These filings also show that Midocean remained registered agent until Bagan Holdings and Myanmar Management Corp were dissolved in, respectively, December 2013 and March 2005.

The Turquoise Hill structure chart shows that Bagan Holdings remained a subsidiary of Ivanhoe Mines until 2013.[518] BVI company records show that, when Bagan Holdings was dissolved in 2013, its directors (which were companies that were subsidiaries of Midocean) were the same as the directors of Asteroth (a company within the "independent third party trust"). These records also show that Bagan Holdings was dissolved by Midocean in December 2013, the same month that Midocean dissolved Asteroth.

In September 2004, Midocean also become the registered agent of Bagan Copper Holdings Ltd. Bagan Copper (formerly known as Ivanhoe Myanmar Holdings) was one of the companies through which Ivanhoe Mines held its interest in MICCL and, according to the August 2013 Turquoise Hill Resources structure chart, was transferred into the Trust in February 2007. Midocean remained the registered agent of Bagan Copper until July 2011 (the month in which the Myanmar Assets, which had formerly belonged to Ivanhoe Mines, and which were transferred to the Trust, were sold). Thereafter a company called Offshore Incorporations became the registered agent of the company.[519]

WHAT HAPPENED TO THE COMPANY THAT HELD IVANHOE MINES' GOLD EXPLORATION ASSETS?

In 1995, Ivanhoe Myanmar Holdings Limited (Ivanhoe Myanmar) (a Myanmar company that was a wholly-owned subsidiary of Ivanhoe Mines, not to be confused with Ivanhoe Myanmar Holdings Ltd, British Virgin Islands) was granted the right to explore for gold in an area covering approximately 4,282 square kilometers in the vicinities of Monywa and Mandalay and in the Wuntho Massif area.[520] Ivanhoe Mines subsequently reported that Ivanhoe Myanmar was focusing particularly on the exploration of the Modi Taung gold discovery in central Myanmar.[521] However, Ivanhoe Myanmar and Modi Taung are not mentioned in any annual report filed by Ivanhoe Mines after 2004 and Ivanhoe Mines never explained what happened to this company or the gold discovery. Public documents from Myanmar show that Ivanhoe

518 The August 2013 Turquoise Hill structure chart shows Bagan Holdings as a wholly-owned subsidiary of Ivanhoe Mines (by then Turquoise Hill Resources). By virtue of its ownership of over 50% of Ivanhoe Mines, Rio Tinto plc also listed Bagan Holdings as a subsidiary in its 2012 and 2013 filings with the UK companies registry.

519 Offshore Incorporations subsequently dissolved Bagan Copper Holdings in August 2013. According to company documents obtained by Amnesty International in Hong Kong, the individual who was appointed liquidator of Bagan Copper Holdings also runs a corporate service provider in Hong Kong called A-Pass Secretaries Limited. In April 2011, A-Pass established a company in Hong Kong called Ivanhoe Myanmar Holdings Limited. That company was dissolved in February 2012. Shortly after the incorporation of the Hong Kong based Ivanhoe Myanmar Holdings Limited, the director of the company was changed to Ian Wootten. Ian Wootten had previously been a director of MICCL and is currently a director of the companies through which Robert Friedland holds his remaining interest in Turquoise Hill Resources (formerly Ivanhoe Mines) (Newstar Holdings SRL, Newstar Securities SRL, Australian Bulk Minerals LLC and Goldamere Holdings SRL).

520 Indochina Goldfields Ltd., 1997 Annual Information Form, pp. 32. These are referred to as "Myanmar Exploration Agreements" in the company's reports.

521 See, for example, Ivanhoe Mines Ltd, Annual Information Form for the year ended December 31, 2004, p. 62.

Myanmar was dissolved in January 2014.[522] What happened to this company and Modi Taung between 2004 and 2014 is unclear.

In public filings concerning the sale of its assets in Myanmar to the Trust, Ivanhoe Mines states that "all of the Myanmar Assets" were transferred to the Trust.[523] Ivanhoe Myanmar should therefore have been transferred to the Trust in February 2007, as part of the sale to the Trust of Ivanhoe Mines 'Myanmar Assets'. Amnesty International asked Dr. Andrew Mitchell, who was on the board of MICCL until 2011, whether Ivanhoe Myanmar (including its interest in the Modi Taung gold project) was transferred to the Trust as part of the Myanmar Assets. He told Amnesty International in response that *"'The Modi Taung gold project was expropriated by govt [government] at the end of 2004 and physically taken over by govt [government] soon afterwards in early 2005. Modi Taung was not a mine, it was a gold discovery, a potential mine. IMHL [Ivanhoe Myanmar] was in effect transferred to the Trust in early 2007. I don't know what happened to IMHL subsequently"*.[524]

Dr. Mitchell stated that Ivanhoe Myanmar was transferred to the Trust along with its British Virgin Islands namesake and that Modi Taung was expropriated by the Myanmar government in 2004. However Robert Friedland, the former Chairman of Ivanhoe Mines informed Amnesty International that *"[a]ll of the Myanmar Assets, including Ivanhoe Myanmar Holdings Limited (Myanmar) and the exploration licenses for Modi Taung, were conveyed into the Trust structure"*.[525]

It is however unclear, therefore what happened to Ivanhoe Myanmar after it was transferred to the Trust and whether the company still held an expropriation license at the time of the transfer. There is also no information on the sale of the company or any asset that it may have held. Ivanhoe Mines has provided very limited information on this, simply announcing in July 2011 that *"the Trust finally had completed the sale of the Trust's Myanmar interests, including the 50% stake in the Monywa Copper Project"*.[526] This would imply that Ivanhoe Myanmar had also been sold in July 2011. However, this then raises serious questions about why the company was only dissolved in 2014, who the company was sold to in July 2011 and what happened to the company between then and January 2014.

The official public notice of liquidation of Ivanhoe Myanmar lists Ian Wootten as President at the time of its dissolution. Ian Wootten had previously been a director of MICCL[527] and, according to company information obtained by Amnesty International, since July 2011 has been a director of the Barbados companies through which Robert Friedland holds his remaining interest in Turquoise Hill.[528] Company filings also show that, around July 2011, Ian Wootten became a director of a Hong Kong based company called Ivanhoe Myanmar Holdings Limited (Ivanhoe Hong Kong), which was incorporated in April 2011 and dissolved in February 2012. It is unclear why Ivanhoe Hong Kong was set up and who its ultimate owners were (the Hong Kong filings list its shareholder as a company incorporated in the British Virgin Islands, meaning it is not possible to trace its ultimate beneficial owner(s)). Amnesty International asked Mr. Wootten to explain why he was President of Ivanhoe Myanmar when it was dissolved, why Ivanhoe Hong Kong was established, whether it bought any of the Myanmar Assets and who its shareholders were. Mr. Wootten has not responded.

522 On file with Amnesty International.

523 Ivanhoe Mines Ltd., Annual Information Form: For the year ended December 31, 2007, p. 13.

524 Letter from Dr. Andrew Mitchell to Amnesty International, dated 15 January 2015.

525 Letter from Robert Friedland to Amnesty International, 30 January 2015, see Annex III.

526 Ivanhoe Mines Ltd., Monywa Trust, 2011, p. 1.

527 See http://web.archive.org/web/20071120214929/http://www.miccl.com.mm/Contacts.asp.

528 Newstar Holdings SRL, Newstar Securities SRL, Australian Bulk Minerals LLC and Goldamere Holdings SRL.

NEW PRODUCTION SHARING CONTRACT BEFORE SALE OF MICCL ANNOUNCED

China North Industries Corporation (NORINCO) and UMEHL entered into a production sharing contract for the Monywa project on 3 June 2010. This information was reported by Democratic Voice of Burma and picked up by other media as well as by Canadian Friends of Burma.[529] Ivanhoe Mines responded to one of the news reports and stated *"Ivanhoe Mines has been assured by the Monywa Trust that at this time the independent, third-party trustee has not reached any agreement for the sale of the Trust's 50% interest in the Monywa Copper Project in Myanmar."*[530] However the Environment and Social Impact Assessment for the Letpadaung mine as well as other information published by Myanmar Wanbao confirms that the production sharing contract was signed on 3 June 2010, *"witnessed by the Prime Minister of China and the Prime Minister of Myanmar"*.[531]

NORINCO and UMEHL therefore entered into the production sharing contract for the Monywa Project, MICCL still held the rights to the Monywa project and related assets. This raises serious questions about how NORINCO and UMEHL were able to enter into an agreement for the Monywa project when MICCL still held these rights, the role of the Trust and Ivanhoe Mines in reaching that agreement and their knowledge of these transactions. Presumably such an agreement could not have been concluded without some arrangement being made about the 50% interest in MICCL (then held by the Monywa Trust) and the interest and related assets that MICCL held in the S&K and Letpadaung mines.

The Trust and Ivanhoe Mines were fully aware at this stage that the project involved UMEHL, which should have been excluded from any sale as per the terms of the Trust (the Trust was prohibited from selling the Myanmar Assets to entities controlled by citizens or residents of Myanmar), and that UMEHL was on the US, Canadian and EU economic sanctions lists. As mentioned above, Ivanhoe Mines had also established a protector company, Sentinel Holding Company, to oversee the operation of the Trust. As such, even if the Trust's 50% interest in MICCL and its underlying interests and assets were sold to NORINCO directly, the Trust and Ivanhoe Mines had full knowledge that, as a result of the agreement between UMEHL and NORINCO, UMEHL would benefit from a transfer of an economic resource – the right to the Monywa project and related assets (without which it would be impossible to operate the mines).

Even if an intermediary represented itself as a purchaser of MICCL, the Trust and Ivanhoe Mines should have been aware that NORINCO and UMEHL had entered into the agreement with the approval of the Myanmar and Chinese governments for the development of the Monywa Project, making it very unlikely that the government would approve another purchaser. The mere fact that, according to the Trust, warranties were provided by the purchaser would not excuse the Trust and Ivanhoe Mines' lack of due diligence. This is discussed in more detail in the following paragraphs, which consider whether these actions breached various international sanctions.

POSSIBLE BREACH OF EU SANCTIONS / UK LAW WITH RESPECT TO MYANMAR

In July 2011, when according to Ivanhoe Mines the Monywa Trust sold the Myanmar Assets, extensive EU sanctions were in place with respect to Myanmar under EU Regulation 194/2008 of 25 February 2008, renewing and strengthening the restrictive measures in respect of Burma/Myanmar and repealing Regulation (EC) No 817/2006. EU Regulations automatically become part of the law

529 DVB, 'China weapons giant to mine Burma', 24 June 2010, available at: https://www.dvb.no/news/china-weapons-giant-to-mine-burma/10433 (last accessed 23 December 2014) and Mizzima, 'Canada urged to probe Ivanhoe over 'arms-for-copper' deal', 30 June 2010, available at: http://archive-2.mizzima.com/news/world/4069-canada-urged-to-probe-ivanhoe-over-arms-for-copper-deal.html (last accessed 23 December 2014).

530 Bloomberg, 'Ivanhoe Mines comments on Monywa project in Myanmar', 5 August 2010 available at: www.bloomberg.com/apps/news?pid=newsarchive&sid=aSJJXkB9b4xk (last accessed 23 December 2014).

531 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. ii (executive summary).

of EU Member States. The UK also created various criminal offences for infringements of the EU Regulation in June 2009 and extended similar sanctions and offences to the British Virgin Islands in November 2009.[532]

Article 11 of the 2008 EU Regulation states:

"1. All funds and economic resources belonging to, owned, held or controlled by the natural or legal persons, entities and bodies listed in Annex VI shall be frozen.

2. No funds or economic resources shall be made available, directly or indirectly, to or for the benefit of the natural or legal persons, entities or bodies listed in Annex VI.

3. The participation, knowingly and intentionally, in activities the object or effect of which is, directly or indirectly, to circumvent the measures referred to in paragraphs 1 and 2 shall be prohibited.

4. The prohibition set out in paragraph 2 shall not give rise to liability of any kind on the part of the natural or legal persons or entities concerned, if they did not know, and had no reasonable cause to suspect, that their actions would infringe this prohibition."

"Funds" and *"economic resources"* are broadly defined – *"economic resources"* includes *"assets of every kind, whether tangible or intangible, movable or immovable, which are not funds but may be used to obtain funds, goods or services"*.

Annex VI of the 2008 Regulation (as amended) included Tay Za (who had been subject to such sanctions since April 2004) and UMEHL (who had been subject to such sanctions from August 2009). Therefore the EU regulations and equivalent UK criminal laws (which were extended to the British Virgin Islands) made it an offence for a company in the UK or British Virgin Islands to make an economic resource or funds available directly or indirectly to either Tay Za (from 2004) or UMEHL (from 2009).[533]

Ivanhoe Mines has publicly stated that, on the sale of the Myanmar Assets, it received assurances from the Monywa Trust that the sale was compliant with "international sanctions".[534] However, information obtained by Amnesty International would appear to show that, in connection with the sale of the Myanmar Assets, funds and/or economic resources were made available, directly or indirectly, to or for the benefit of Tay Za and UMEHL in breach of EU economic sanctions and equivalent UK criminal law.

With respect to Tay Za, as noted above, US Embassy cables quote the Acting General Manager of MICCL, who stated that Ivanhoe Mines was negotiating through Tay Za with a consortium of three Chinese companies, including NORINCO and Wanbao; that *"the consortium's connections to Tay Za play a pivotal role in the negotiations with the GOB [Government of Myanmar]"*; and that *"the Chinese agreed to pay USD 250 million for the mine and equipment, USD 50 million to Tay Za in consulting fees, and an additional USD 100 million to upgrade the mine."* [535]

As noted earlier, based on information available from company searches, Amnesty International believes that the Trust was established in the British Virgin Islands and that the Trust held the Myanmar Assets through another British Virgin Islands company called Asteroth Limited. Section 10 of the UK law applicable to the British Virgin Islands states:

- A person shall not make funds or economic resources available, directly or indirectly, to or for the benefit of a listed person unless authorised by a licence granted under article 14.

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532 The Burma/Myanmar (Financial Restrictions) Regulations 2009; The Burma (Restrictive Measures) (Overseas Territories) Order 2009.

533 The Burma/Myanmar (Financial Restrictions) Regulations 2009; The Burma (Freezing of Funds and Economic Resources) Regulations 2004; The Burma (Restrictive Measures) (Overseas Territories) Order 2004; The Burma (Restrictive Measures) (Overseas Territories) Order 2009.

534 Ivanhoe Mines, 'Independent trust acquired ownership of Ivanhoe Mines' former interest in Monywa Copper Project in 2007', p. 3, available at http://www.turquoisehill.com/i/pdf/RoleofMonywaTrustAugust31-2011.pdf (last accessed 23 December 2014).

535 Embassy Rangoon, 'Burma: Sale of Ivanhoe Mine Delayed", 9 January 2009, reference ID: 09RANGOON20, para 3.

- A person who contravenes the prohibition in paragraph (1) shall be guilty of an offence under this Order.

- In proceedings for an offence under this article, it is a defence for a person to show that they did not know and had no reasonable cause to suspect funds or economic resources were being made available, directly or indirectly, to or for the benefit of a listed person."

A *"listed person"* is defined as anyone listed in Annex VI, as modified from time to time, of the 2008 EU Regulation (which, as noted above, included Tay Za from April 2004 and UMEHL from 2009).[536]

As discussed above, Dr. Mitchell, who sat on the board of MICCL on behalf of the Trust, has not denied the information ascribed to him in the US Embassy cables, published by Wikileaks[537] and shared by Amnesty International with him for comment. This includes the information that he and Glenn Ford *"were meeting with ME1 about the sale"*[538] and details about Tay Za's role *"as a broker"* in the negotiations. Dr. Mitchell has also not denied that Glenn Ford told the US Embassy that the *"Chinese agreed to pay …USD 50 million to Tay Za in consulting fees"*[539] (this information was included in Amnesty International's letter to him). He also confirmed in his response that Bagan's share of the mine was sold to the Chinese (i.e., NORINCO and Wanbao Mining).[540]

It can therefore be concluded that, at the very minimum, the Trust was aware that ME1 was negotiating with a Chinese consortium that involved NORINCO and Wanbao,[541] that Tay Za played a pivotal role in these negotiations and that the Trust was aware that he would be paid for acting as a broker for the sale.

The Trust therefore knew that Tay Za would receive payment in connection with the sale of the Myanmar Assets. Under the UK law (as applied to the British Virgin Islands), it is an offence to make funds or economic resources available, directly or indirectly, to or for the benefit of listed persons (which included Tay Za). If Tay Za was paid for his services, the Trust may have committed an offence under UK law (as applied to the British Virgin Islands) on the basis that it made funds or economic resources available to Tay Za either directly (because the purchase price payable to the Trust (and then transferred to Ivanhoe Mines) was reduced to allow for the payment of fees to him) or indirectly (because NORINCO paid Tay Za).

A similar argument applies to UMEHL on the basis that, as discussed above, it benefitted from the transfer to NORINCO and Wanbao of the rights to the Monywa project and associated assets (without which it would have been impossible to operate the mines). Ivanhoe Mines stated, in August 2010, that it had contacted the Trust when NGOs and journalists had highlighted concerns about announcements that UMEHL and NORINCO had entered into a production sharing agreement about the Monywa project in June that year.[542] As discussed above, the Trust was also aware through Dr. Mitchell that ME1 was negotiating with a Chinese consortium which included NORINCO and Wanbao. If the Trust sold the 50% stake in the Monywa project to NORINCO, when it knew of the production sharing agreement with UMEHL, it may have committed an offence under UK law (as applied to the British Virgin Islands) on the basis that it made an economic resource available, indirectly, to UMEHL.

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536 S. 2, The Burma (Restrictive Measures) (Overseas Territories) Order 2009.

537 The cable quoted Andrew Mitchell, described as "Ivanhoe representative in Burma", as saying that "[w]hile it would be easier and more profitable to negotiate directly with the Chinese, Ivanhoe is afraid the GOB would block the sale. In early 2008, Ivanhoe and ME-1 agreed on a USD 100 million purchase price. However, ME-1 lacked the money to pay Ivanhoe directly -- it needed to sell MICCL first (technically selling what it did not own). In September 2008, ME-1 began negotiating with the Chinese consortium over the purchase of MICCL, using regime crony Tay Za as a broker."

538 Embassy Rangoon, 'Burma: Sale of Ivanhoe Mine Delayed", 9 January 2009, reference ID: 09RANGOON20, para 5.

539 Embassy Rangoon, 'Burma: Sale of Ivanhoe Mine Delayed", 9 January 2009, reference ID: 09RANGOON20, para 3.

540 "I resigned in May 2011 and left Myanmar before the sale of Bagans [sic] share of the mine to the Chinese was completed".

541 Embassy Rangoon, 'Burma: Ivanhoe trying to divest, shuts mine', 26 September 2008, reference ID: 08RANGOON763, para 5.

542 "Ivanhoe Mines has been assured by the Monywa Trust that at this time the independent, third-party trustee has not reached any agreement for the sale of the Trust's 50% interest in the Monywa Copper Project in Myanmar", see Bloomberg, 'Ivanhoe Mines comments on Monywa project in Myanmar', described as a reformatted version of a press release issued by Ivanhoe Mines and received via electronic mail and the release was confirmed by the sender, 5 August 2010 available at: www.bloomberg.com/apps/news?pid=newsarchive&sid=aSJJXkB9b4xk (last accessed 23 December 2014).

RIO TINTO'S ROLE IN THE TRUST AND SALE OF THE MYANMAR ASSETS

Rio Tinto plc first invested in Ivanhoe Mines in 2006 and, since January 2012, has held over 50% of its shares. Rio Tinto plc is incorporated in the UK and originally held its shares in Ivanhoe Mines through a UK subsidiary, Rio Tinto International Holdings Limited. Rio Tinto has had representatives on the board of Ivanhoe Mines since October 2006, appointing half of the board by the time of the sale of the Myanmar Assets in July 2011. At the time of the sale of the Myanmar Assets, it held 46.5% of the shares in Ivanhoe Mines.

The Monywa Trust was established by Ivanhoe Mines as a condition of Rio Tinto's original acquisition of shares in Ivanhoe Mines. Under terms of that acquisition, if Ivanhoe Mines had not sold its Myanmar Assets by February 2007, Rio Tinto had the right to require it to transfer those assets to the Trust.[543] Rio Tinto was therefore instrumental in the establishment and structure of the Trust. This was also confirmed by Robert Friedland in his response to Amnesty International: *"[t]he fact is, and it is a matter of public record, that the creation of the Monywa Trust structure was dictated entirely by Rio Tinto as a condition of its significant equity investment in the Company. In this regard, I refer you to the October 2006 Private Placement Agreement between the Company and Rio Tinto. If the Company had failed to create the Monywa Trust and transfer ownership of the Myanmar Assets to it, Rio Tinto had the contractual right to do so on the Company's behalf "on terms and conditions satisfactory to Rio Tinto in Rio Tinto's sole discretion".*[544]

Company searches by Amnesty International also reveal that an employee of Rio Tinto sat on the board of the protector company for the Myanmar Trust, Sentinel Holding Company Ltd, between 2012 and 2013, replacing an Ivanhoe Mines staff member.

All of this makes it difficult to believe that Rio Tinto was unaware of the protector company and Ivanhoe Mines' ongoing oversight of the Trust through the protector company. It also makes it implausible that Rio Tinto was unaware of the jurisdiction in which the Trust was set up or of the fact that UMEHL and NORINCO had entered into a production sharing agreement for the Monywa Project in 2010, particularly given that this was information in the public domain and to which Ivanhoe Mines had publicly responded.

Amnesty International presented the above information to Rio Tinto for comment. Rio Tinto responded stating: *"It was, and remains, our understanding that the measures required by Rio Tinto and put in place by Ivanhoe on the disposal of the Myanmar asset were fully compliant with all applicable laws giving effect to sanctions. Rio Tinto was not aware of any facts or circumstances that would suggest any non-compliance with those laws at the time of, or prior to, the* ***apparent divestment*** *of the interest in mid-2011. Since we moved to majority ownership of TRQ [Turquoise Hill Resources] in January 2012, and assumed management of the company in April 2012, neither Rio Tinto nor the new TRQ management team has become aware of any such facts or circumstances (other than the media speculation to which you have referred)"* (emphasis added).[545]

As the Monywa project is now owned by UMEHL and NORINCO and a divestment of the Myanmar assets held by the Trust had clearly occurred, Amnesty International takes Rio Tinto's reference to the *"apparent divestment of the interest in mid-2011"* to mean that the divestment may not have occurred in July 2011 as publicly announced by Ivanhoe Mines.[546] Numerous organizations have repeatedly queried how NORINCO and UMEHL were able to enter into an agreement relating to the Monywa project, when the Trust had not yet sold the stake in the project. This underscores the need for a full disclosure of all transactions related to the divestment of the interest, when exactly they took place, and to whom the Myanmar assets were sold.

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543 Private Placement Agreement, dated 18 October 2006, between Ivanhoe Mines Ltd and Rio Tinto International Holdings Limited, Section 11.1 and Schedule D available at https://www.sec.gov/Archives/edgar/data/863064/000102123106000568/b841390ex99b.htm (last accessed 12 December 2014).

544 Letter from Robert Friedland to Amnesty International, dated 30 January 2015, please see Annex III.

545 Letter from Rio Tinto to Amnesty International, dated 12 January 2015.

546 Ivanhoe Mines Ltd., Monywa Trust, 2011, p. 1.

Rio Tinto's response to Amnesty International largely focuses on the period from January 2012 onwards, the date from which Rio Tinto obtained majority control over Turquoise Hill Resources (formerly Ivanhoe Mines). However as the largest shareholder in Ivanhoe Mines in 2011, and given its key role in the establishment and structure of the Trust, at the point when Ivanhoe Mines announced the sale of the stake in MICCL, Rio Tinto had a responsibility for the actions of the company related to the sale. It is highly unlikely that Rio Tinto, which appointed half of Ivanhoe Mines' Directors in 2011, was unaware of concerns about the divestment of the stake in the Monywa project, especially after Ivanhoe Mines responded publicly to news about the UMEHL-NORINCO agreement.

Due diligence in this regard would include, at a minimum, seeking assurances as to who was involved in the sale and related negotiations. Wikileaks published the US Embassy cables in September 2011, describing Ivanhoe Mines continuing involvement in 2008 in the operations of MICCL and negotiations over the sale and Tay Za's role in facilitating the negotiations. The information in the cables was extensively highlighted by NGOs and the media in 2012. Rio Tinto also nominated one of its employees to the board of the protector company set up to oversee the Trust in 2012. At this point, if not before, Rio Tinto should have initiated a thorough investigation into the Wikileaks revelations and other information that became available to it through its role in Ivanhoe Mines.

CIRCUMVENTION OF SANCTIONS

Rio Tinto's role in the establishment and structure of the Trust also gives rise to serious questions with respect to breaches of EU sanctions and equivalent UK laws.

Article 11(3) of EU Regulation 194/2008 of 25 February 2008, renewing and strengthening the restrictive measures in respect of Burma/Myanmar and repealing Regulation (EC) No 817/2006, prohibits participation *"knowingly and intentionally, in activities the object or effect of which is, directly or indirectly, to circumvent the measures referred to in paragraphs 1 and 2"*. There is also an equivalent criminal offence under UK law, including with respect to its overseas territories (such as the British Virgin Islands).[547] While the provision in the EU Regulation requires knowing and intentional involvement in activities, the circumvention of the sanctions does not need to be the object of those activities – if the effect of participating in certain activities is to circumvent the sanctions, this is sufficient for the relevant law to be breached.

If the Trust breached sanctions by making an economic resource directly or indirectly available to Tay Za and/or UMEHL through the sale of the Myanmar Assets, as discussed above, this also raises serious questions for Rio Tinto about whether they were knowingly involved in activities which had the object or effect of circumventing sanctions. It also raises similar questions for Bagan Holdings (the subsidiary of Ivanhoe Mines that transferred the Myanmar Assets to the Trust and held the promissory note issued by Trust Holdco).

Rio Tinto was instrumental in the establishment and structure of the Trust because it was a key element of its original acquisition of shares in Ivanhoe Mines.[548] As such, if it knew, or should have known with reasonable due diligence, that the Trust arrangements were being used to make an economic resource or funds available directly or indirectly to Tay Za and/or UMEHL, it may have been involved in activities the effect of which is to circumvent sanctions in violation of UK law.

A similar argument applies to Bagan Holdings and the USD103 million paid by the Trust under the promissory note on the sale of the Myanmar Assets. Bagan Holdings may have been involved in activities whose object or effect was the circumvention of sanctions in violation of UK law (as applied in the British Virgin Islands) if it knew, or should have known with reasonable diligence, that in

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547 S. 9, The Burma/Myanmar (Financial Restrictions) Regulations 2009; S. 12, The Burma (Restrictive Measures) (Overseas Territories) Order 2009.

548 Schedule D to the Private Placement Agreement stated: "By no later than 1 February 2007, Ivanhoe shall have completed a divestiture or sale of all of the Myanmar Assets to a third party that is not an Affiliate of Ivanhoe, failing which Rio Tinto shall have the option, at any time after 1 February 2007 pursuant to the Put Agreement, to cause Ivanhoe to put all of the Shares to the Trust in consideration for the Agreed Amount. The purchase price for the Shares will be satisfied by the delivery of the Note by the Trust to Ivanhoe. Under the Put Agreement, Ivanhoe will be entitled to additional compensation from the Trust equal to a percentage (to be negotiated but not less than 50%) of the proceeds from any future sale of the Shares by the Trust that exceed the then outstanding amount of the Note." Schedule D also set out the purpose of the Trust, the conditions under which it was to be established and provided that the Myanmar Assets could not be sold to an "Excluded Person". See https://www.sec.gov/Archives/edgar/data/863064/000102123106000568/b841390ex99b.htm.

connection with the Trust arrangements or the receipt by Bagan Holdings of the amount due on the promissory note, funds were made available to Tay Za and/or UMEHL. An example of this would be if the purchase price payable to Bagan Holdings was reduced to cover Tay Za's fees, even if such fees were paid by NORINCO.

The UK and British Virgin Islands' authorities should investigate all transactions around the Trust's sale of Ivanhoe Mines' former 50% share in MICCL and other assets in Myanmar to assess if sanctions or other regulations have been breached by the Trust, Rio Tinto, Bagan Holdings or any UK or British Virgin Islands nationals who were involved in these transactions.

POSSIBLE BREACH OF CANADIAN AND US SANCTIONS WITH RESPECT TO MYANMAR

Section 5 of the Canadian Special Economic Measures (Burma) Regulations, 13 December 2007, as notified in Canada Gazette, part II, Vol. 141, no. 26[549] provides:

"No person in Canada and no Canadian outside Canada shall…(d) make any property or any financial or other related service available, directly or indirectly, for the benefit of a designated person."

Designated persons were listed in the schedule and included Tay Za and UMEHL.[550]

The regulations entered into force on 13 December 2007, after the Trust was created by Ivanhoe Mines and the Myanmar Assets transferred to the Trust. Ivanhoe Mines has previously stated that it *"had no involvement in discussions between the Monywa Trust and its service provider with potential purchasers or with the ultimate sale of the interest."*[551] However, as per the information from US Embassy cables, released by Wikileaks, Ivanhoe Mines was negotiating with a consortium of Chinese companies (including NORINCO and Wanbao) through Tay Za in 2007 - 2008 [the cable says the past year].[552] Dr. Mitchell, who served on the board of MICCL on behalf of the Trust, has said in a letter of response to Amnesty International that it was customary in the early days of the Trust to refer to the Trust or Bagan Copper (the subsidiary through which the Trust held its interest in MICCL) as 'Ivanhoe'. This information is difficult to believe because of Glenn Ford's specific reference to 'Ivanhoe Headquarters'[553] and also in reference to his statement *"Ivanhoe has been covering the mine's operating costs since 2006, estimated at more than USD 50 million, but it is no longer willing to do so"*.[554] It does not seem very feasible that these statements were actually referring to the Trust rather than Ivanhoe Mines.

If the US Embassy cables are read as they are, and Ivanhoe Mines used Tay Za's services to negotiate the sale and Tay Za was then paid for those services (even if by NORINCO rather than Ivanhoe), this could contravene Section 5 (d) of the Canadian law because property was made available for the benefit of Tay Za, a designated person, either directly (because Ivanhoe Mines paid Tay Za or the purchase price payable for the Myanmar assets was reduced by the money paid to Tay Za) or indirectly (because NORINCO paid Tay Za).

If Dr. Mitchell is right and the US Embassy cables refer to the Trust or Bagan Copper as Ivanhoe, the involvement of Tay Za and UMEHL in the sale of the Myanmar Assets may still trigger Ivanhoe Mines' responsibility under the Canadian sanctions legislation because of its relationship with the Trust and its knowledge of the sales process.

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549 Available at: http://laws-lois.justice.gc.ca/eng/regulations/SOR-2007-285/20071213/P1TT3xt3.html, these regulations were amended in 2012.

550 Section 2 and Schedule (entry no. 33 and 82).

551 Ivanhoe Mines Ltd., 'Ivanhoe Mines receives proceeds of US$103 million from Monywa Trust', 3 August 2011, available at www.turquoisehill.com/s/news_releases.asp?ReportID=469714 (last accessed 3 August 2014). In the notes to its Audited financial statements of December 31, 2011 and 2010, Ivanhoe Mines also recorded that the "receipt of the $103.0 million has been recorded as a gain on settlement of note receivable as the note receivable had a carrying value of $nil" (see section 11).

552 Embassy Rangoon, 'Burma: Ivanhoe trying to divest, shuts mine', 26 September 2008, reference ID: 08RANGOON763, para 5.

553 Embassy Rangoon, 'Burma: Sale of Ivanhoe Mine Delayed", 9 January 2009, reference ID: 09RANGOON20, para 5.

554 Embassy Rangoon, 'Burma: Ivanhoe trying to divest, shuts mine', 26 September 2008, reference ID: 08RANGOON763, para 6.

Information obtained by Amnesty International shows that the Trust was not independent of Ivanhoe Mines – the company retained oversight of the Trust through a protector company and, as detailed in the company searches section above, also had a prior and ongoing relationship with Midocean who operated the Trust.

As discussed in the earlier section on breaches of EU sanctions and UK laws, at the very minimum, the Trust was aware that ME1 was negotiating with a Chinese consortium that involved NORINCO and Wanbao,[555] that Tay Za played a pivotal role in these negotiations and that the Trust was aware that he would be paid for acting as a broker for the sale. Ivanhoe Mines and the Trust were also aware that NORINCO and UMEHL had entered into a partnership over the Monywa project, because as discussed earlier, Ivanhoe Mines had responded publicly to concerns raised by NGOs and others when the UMEHL-NORINCO production sharing agreement about Monywa was announced in June 2010. [556] As such, even if the sale was made to NORINCO, Ivanhoe Mines was aware that property – the 50% stake in MICCL – would be made available indirectly for the benefit of UMEHL (because it benefitted from the transfer of the mining rights associated assets, without which it would have been impossible to operate the mines).

Taking all of this into account, Ivanhoe Mines may have breached Section 5 (d) on the basis that, through its oversight of the Trust and its failure to regulate the Trust's sale of the 50% stake in MICCL despite its knowledge of the sales process and its relationship with the Trust, it made property available directly or indirectly for the benefit of UMEHL or Tay Za.

US ECONOMIC SANCTIONS

The US sanctions programme prohibits US persons (individuals and entities) from transferring, paying, exporting, withdrawing or otherwise dealing in the property or interests of an individual or entity on Office of Foreign Assets Control's (OFAC) list of Specially Designated Nationals and Blocked Persons (SDN List). The US added MICCL (also known as Monywa JVCO) to its list of specially designated nationals from 2009.[557] **UMEHL, Tay Za and ME1 were also on the SDN list at the time of the sale (and remain on the list to this day).**

US persons are defined as *"U.S. citizens and permanent resident aliens regardless of where they are located, all persons and entities within the United States, all U.S. incorporated entities and their foreign branches."* Some of the individuals involved in transactions related to the sale of the Myanmar Assets may have been US citizens. If any US nationals were involved in any of the activities identified above around transactions with Tay Za, the sale of the 50% stake in MICCL or in dealing with MICCL itself after 2009, they may have breached US sanctions.

CONCLUSION

All the information collected by Amnesty International leads to the conclusion that Ivanhoe Mines set up a Trust to allow it to sell its stake in MICCL in a manner which would enable it to evade any public scrutiny and applicable and future sanctions related to Myanmar. Ivanhoe Mines has attempted to exploit legal loopholes in multiple jurisdictions to keep the Trust and all transactions related to the sale of the 50% stake in MICCL and other Myanmar Assets shrouded in secrecy.

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555 Embassy Rangoon, 'Burma: Ivanhoe trying to divest, shuts mine', 26 September 2008, reference ID: 08RANGOON763, para 5.

556 "Ivanhoe Mines has been assured by the Monywa Trust that at this time the independent, third-party trustee has not reached any agreement for the sale of the Trust's 50% interest in the Monywa Copper Project in Myanmar", see Bloomberg, 'Ivanhoe Mines comments on Monywa project in Myanmar', described as a reformatted version of a press release issued by Ivanhoe Mines and received via electronic mail and the release was confirmed by the sender, 5 August 2010 available at: www.bloomberg.com/apps/news?pid=newsarchive&sid=aSJJXkB9b4xk (last accessed 23 December 2014).

557 Office of Foreign Assets Control, Changes to the list of Specially Designated Nationals and Blocked Persons since January 1, 2009, p. 3, available at http://www.treasury.gov/resource-center/sanctions/SDN-List/Documents/sdnew09.pdf (last accessed 3 August 2014).

It did not respond to the Wikileaks revelations, and the serious implication of those revelations, which was that Ivanhoe Mines continued to be involved in MICCL and negotiations for the sale and used Tay Za as a broker for the sale. It benefitted to the tune of USD103 million from the sale of the Myanmar assets. Turquoise Hill Resources (formerly Ivanhoe Mines) should disclose the identities of the Trustee(s), the details of the sale and its involvement in any transactions related to the sale of its former stake in MICCL.

The Canadian, US, UK and British Virgin Islands authorities should investigate all transactions around the sale of Ivanhoe Mines' Myanmar assets to the Trust and, and to subsequent owners, to assess if sanctions or other regulations have been breached by the Trust, Ivanhoe Mines, subsidiaries of Ivanhoe Mines, directors of Ivanhoe Mines or other individuals. The UK authorities should also investigate Rio Tinto's involvement in any breaches of UK law linked to these transactions.

The US and Canadian authorities should also investigate Ivanhoe Mines' failure to disclose the existence of the protector company, the relationships between Ivanhoe Mines and Midocean Management and Trust Services Limited, and other material information in its public filings.

People have been passed around from one set of companies to another, with each company refusing to take responsibility for the harm caused by the last and doing yet more damage to the communities that live with mining and its impacts on a daily basis. It is high time that the Myanmar, Canadian and UK governments bring the companies responsible to account and compel public disclosure of information that the companies have managed to keep hidden from affected communities for so long.

LEGAL REFORMS SINCE THE LETPADAUNG PROJECT WAS SET UP

The Government of Myanmar has undertaken some reforms of its land and environmental laws since the Letpadaung project was set up. While it is positive that these reforms have been undertaken, as discussed in greater detail below, they do not go far enough. People still lack protection against forced evictions and other human rights violations linked to land acquisition for commercial or other uses. Myanmar also lacks adequate environmental standards and the technical capacity to regulate the environmental impacts of extractive and other environmentally sensitive projects, leaving it to the companies to determine how they manage these projects. This approach is deeply flawed, leaves people at risk of human rights abuses by companies and denies them the ability to hold companies accountable and obtain effective remedies.

REFORMS TO THE LAND LAWS FAIL TO GUARANTEE LEGAL SECURITY OF TENURE

The government repealed the Land Nationalisation Act, 1953 and adopted the Farmland Law and the Vacant, Fallow and Virgin Lands Management Law in 2012. The state remains the original owner of all lands, despite these legal reforms, and retains the right to 'resume' possession of the land in the interest of the state or the public. People are given the 'right to farm' lands designated for farming under the Farmland Law (Section 3d). The government can however 'rescind' this right if conditions, including on types of crops that can be grown, are not met. This Law now gives people the right to sell, lease or transfer the right to farming in accordance with certain conditions (Sections 9 and 12). It expressly states that these rights do not extend to any surface or sub-surface mineral, oil and gas resources (Section 3d).

The Farmland Law and Farmland Rules sets up a registration system in which farmers have to apply for a land use certificate from the newly created Farmland Administration Bodies and then register these certificates with the Settlement and Land Records Department on payment of fees (Sections 4 and 6). If a farmer breaches the conditions of use, such as by leaving the farm fallow (not growing crops), the Farmland Administration Body can, after making an enquiry, pass an order for the payment of a fine, requiring the farmer to utilise the farm land in the prescribed manner, to evict the farmer from the farm land, or to remove buildings built without permission (Section 19). It is a criminal offence for a farmer or any other person to fail to comply with an order issued by the Farmland Administrative Body (including an order of eviction), and s/he can be sentenced to imprisonment for a term between six months to two years and fined between three hundred thousand kyat to five hundred thousand kyat (Sections 35 and 36).

Farmers are entitled to receive compensation if their farmland is repossessed by the government. The Farmland Law states that suitable compensation and indemnity must be provided and that improvements made by the farmer to the farm must be compensated (Section 26). The Farmland Rules, 2012 provide some guidance on how compensation must be calculated. However, if the Farmland Administration Body revokes a farmer's rights to farm, s/he will not be entitled to compensation (Section 27).

The Farmland Law offer considerable scope for abuse by the authorities because of the all-encompassing discretionary powers given to the Farmland Administration Body. This risk is exacerbated by the complex land tenure system in Myanmar and weaknesses in land mapping and registration systems.[558] Lands that people are currently farming, especially using shifting cultivation according to traditional farming practices where some land is left fallow, may be classified as vacant, virgin or fallow land.[559] Many farmers lack documents which record their land tenure claims[560] and only 20% of land has been registered in Myanmar.[561] The Vacant, Fallow and Virgin Lands Management Law, 2012 regulates vacant and fallow land (land that was previously cultivated and then abandoned by the tenant) as well as virgin land (defined as new land or woodland which has previously not been cultivated). The Vacant, Virgin and Fallow Lands Management Law recognises that farmers are already using vacant, virgin and fallow lands without formal recognition from the government and, along with the Farmland Law, provides an avenue for them to obtain land use certificates.[562] The main focus of the Vacant, Virgin and Fallow Land Management Law is also on making land available for large scale commercial agriculture, livestock and poultry farming, aquaculture and mining projects (Sections 4 and 10). However, the vast majority of Myanmar's farmland is cultivated by small-scale farmers who may find it harder to register their land because of lack of documentation and complex registration systems. Foreign investors, who have obtained permission from the Myanmar Investment Commission in line with the 2012 Foreign Investment Law, can apply for a right to use vacant, virgin and fallow lands (Section 12).

The Central Committee for the Management of Cultivable Land, Fallow Land and Waste Land decides on the use of vacant, virgin and fallow lands and, like the Farmland Administration Body, has very broad powers and discretionary authority. Neither law includes any provision for a judicial appeal against decisions of the administrative bodies though this option seems to be more clearly ruled out under the Farmland Law, which states that the decision made by the Region or State Farmland Administration Body is final (Section 25).[563] The Farmland Law also states that no suit, prosecution or other proceedings shall lie [can be brought] in court against any member of the Farm Administration Body for any action carried out in conformity with the Farmland Law or Rules (Section 40). The Vacant, Fallow and Virgin Lands Management Law makes it a criminal offence for anyone to encroach on, obstruct the owner or a person working on the land with the authorisation of the owner, or to fail to comply with an eviction order (Sections 27, 28 and 29). These provisions create a significant risk of arrests and imprisonment of farmers who resist evictions (including through peaceful protests) from land that they are cultivating but which is treated as vacant, fallow or virgin land.

The laws do not prohibit forced evictions nor do they set out the safeguards, as required under international law, that must be complied with prior to evictions from any category of land or land use. At present, many people, especially small scale farmers and women headed households, suffer from insecurity of tenure[564] and remain at risk of forced evictions when land is acquired or 'repossessed' by the government for commercial projects.

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558 Myanmar Centre for Responsible Business, Myanmar Oil & Gas Sector-Wide Impact Assessment (SWIA), p.100, chapter on land available at: www.myanmar-responsiblebusiness.org/pdf/SWIA/Oil-Gas/09-Land.pdf (last accessed 18 January 2015).

559 Myanmar Centre for Responsible Business, Myanmar Oil & Gas Sector-Wide Impact Assessment (SWIA), p. 102.

560 R. B. Oberndorf, Legal Review of Recently Enacted Farmland Law and Vacant, Fallow and Virgin Lands Management Law: Improving the Legal & Policy Frameworks Relating to Land Management in Myanmar, Food Security Working Group's Land Core Group, November 2012, p. 9.

561 Organisation for Economic Cooperation and Development (OECD), OECD Investment Policy Reviews: Myanmar 2014, p. 43, available at: www.oecd.org/daf/inv/investment-policy/Myanmar-IPR-2014.pdf.

562 Section 25, Vacant, Fallow and Virgin Land Management Law and Section 34 Farmland Law.

563 There is no provision for appeals at all in the Vacant, Fallow and Virgin Lands Management Law, 2012.

564 The OECD Investment Policy Review concludes that land tenure "remains insecure for most smallholder farmers for a wide range of reasons: 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", OECD, OECD Investment Policy Reviews: Myanmar 2014, p. 43. The United States Agency for International Development (USAID) has also noted that "[r]ights held by women-headed households are particularly vulnerable to loss to male family members, local elites and commercial interests", USAID Country Profile: Property Rights and Resource Governance – Burma, 2013, p. 2.

REFORMS TO ENVIRONMENTAL LAWS: ADEQUATE ENVIRONMENTAL STANDARDS STILL NOT IN PLACE

The Environmental Conservation Law, 2012 establishes a broad framework for environmental protection, by setting out the duties and powers of the Ministry of Environmental Conservation and Forestry (the Ministry). The Law requires the Ministry to put in place environmental quality and conservation standards; rules for waste management and disposal, requirements for polluters to pay; and a *"prior permission scheme"* for business that can cause environmental impacts. It is positive that the Law empowers the Ministry on these issues, but disappointing that it itself sets out very few substantive requirements to regulate certain kinds of pollution and activities that can cause environmental harm (for example, in relation to waste disposal and management).[565]

The Ministry has to adopt various rules and notifications to give practical effect to the Law's provisions (for example requirements for Environmental Impact Assessments) but progress in this regard has been slow. The Ministry promulgated the Environmental Conservation Rules on 5 June 2014. The Rules provide more details on the powers of and procedures that will be followed by the Environment Conservation Committee formed under the Environmental Conservation Law, 2012.[566] The Rules however still do not set out substantive requirements in relation to waste disposal, pollution of air, water and soil, or other actions which can be prejudicial to health or create a nuisance.

Section 7d of the Environmental Conservation Law states that the Ministry will prescribe environmental quality standards including on emissions, effluents, solid wastes, processes and procedures etc. The Environmental Conservation Rules clarify that the Ministry can notify these standards [through publication in the gazette], with the approval of the Union government and the Committee. It provides that the Ministry will determine categories of hazardous wastes and set requirements for businesses to treat solid and hazardous wastes, including by setting up facilities individually or collectively. The Ministry is yet to adopt these environmental quality standards, which is a serious concern in relation to ongoing extractive projects and those that are in the process of being set up. The Rules also note that the Ministry will determine which categories of businesses will be required to carry out an Environmental Impact Assessment. It also sets out procedures that have to be followed by certain businesses which require prior permission from the Ministry because of their potential environmental impact.

The Ministry has drafted an Environmental Impact Assessment Procedure,[567] which identified the criteria for types of economic activities which will determine whether a business needs to undertake a lighter Initial Environmental Examination or an Environmental Impact Assessment. It sets out the requirements for both categories of assessments as well as processes for their review and approval. The draft notification spells out post approval monitoring and compliance requirements. It places requirements on the project proponents to undertake timely disclosure of information about the proposed project to the public and civil society and hold public consultations, but these requirements are limited in scope and do not spell out the Ministry and the government's responsibilities to ensure disclosure and genuine consultations. Despite repeated promises to do so, the Ministry has not yet issued this notification and these procedures are not currently in force.

Environmental experts from Myanmar and international experts engaged with the environmental law reform process have also informed Amnesty International that the Ministry still lacks the technical capacity to independently monitor and assess large and complex extractive projects. The lack of adequate standards and technical capacity represents a very serious gap in protection for communities whose human rights will continue to be at risk until the government puts in place an adequate framework to protect people against pollution caused by businesses and provide remedies when negative impacts occur.

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565 Sections 28 to 30 set out some prohibitions including the operation of a factory without prior permission, if such a requirement applies and also that people cannot import, produce, store or trade materials which can cause environmental impacts which are prohibited. Chapter XIII sets out offences and penalties.

566 Amongst other things the Rules set out that the Ministry, with the approval of the Environmental Conservation Committee can determine the amount of compensation required from a person or entity that causes environmental damage (Section 30). It also sets up an environmental management fund, which will be funded by income from the state, compensation obtained from polluters and also contributions that may be sought from business engaged in extraction, trade or use of natural resources (Sections 30 and 31).

567 On file with Amnesty International.

CONCLUSION

The Government of Myanmar is responsible for the serious human rights violations that have taken place at the Monywa project over many years. It has forcibly evicted people and has failed to put in place safeguards to protect mine-affected communities from environmental pollution which can impact their rights to water and health, amongst other rights. It has shown an unwillingness to monitor corporate activity or to hold companies accountable for the harm their operations cause.

The companies involved also bear responsibility. Despite a history of human rights violations surrounding the mine, a Canadian company, and subsequently a Chinese company, have invested without undertaking appropriate due diligence to ensure that past abuses were remediated and future abuses prevented. They have profited from abuses that they knew or should have known were happening, and have, in certain cases, themselves abused rights by participating in forced evictions or failing to remediate environmental pollution.

The system that enabled the transfer of the Monywa project to a business venture that involved Myanmar military interests, without any transparency as to how such a sale occurred, is emblematic of the lack of accountability that exists around allocations of concessions and contracts in the extractive industry in Myanmar.

The people of Myanmar must not see a resource curse unfold as it has done in so many other countries where powerful economic interests profit from a context in which regulation is weak, the government is unwilling to hold powerful political interests accountable and there is little or no transparency. The home states of multinational corporations must ensure that these corporations do not unjustly enrich themselves at the expense of Myanmar's poorest people. The home states of companies involved in the Monywa project – Canada and China – have failed to do this.

The Monywa project is a cautionary tale. The government of Myanmar needs to urgently act to prevent further human rights abuses and to provide an effective remedy for the human rights abuses that people have already suffered. The government must put in place adequate legal frameworks on land acquisitions, environmental protection and the policing of protests before signing off on any further large-scale projects that will impact human rights. It must also be willing to monitor, regulate and provide remedies against companies and investigate its own officials. As the Monywa project starkly demonstrates, self-regulation by companies is not the answer.

The government of Myanmar has taken some positive steps forward and there are people within the government who are committed to the reform process. However, much more needs to be done if investment in Myanmar is to be an effective means of improving the lives of poorer people in the country. This cannot happen unless the government is willing to ensure that human rights are protected and abusers accountable.

Home state governments must establish mandatory requirements for companies to undertake due diligence prior to investing or undertaking business operations in Myanmar. The seriousness of the ongoing human rights situation in Myanmar and the lack of adequate national safeguards underlines the importance of enhanced human rights due diligence by companies investing in the country.

RECOMMENDATIONS TO THE GOVERNMENT OF MYANMAR

The recommendations below require action by several ministries and by Parliament, and in some cases, recommendations will require cross-ministerial action.

- Immediately halt the construction of the Letpadaung mine and suspend the project until the environmental and human rights concerns about the project are resolved in genuine consultation with all affected people.

- End forced evictions and ensure that no evictions are undertaken unless all procedural safeguards required under international human rights law have been put in place. Revoke Section

144 orders that are currently operational in the mining areas.

- Require Myanmar Wanbao and its joint venture partners to address the shortcomings in the Letpadaung ESIA, including through sharing final designs of key infrastructure for public scrutiny and to undertake a comprehensive assessment of the environmental, social and human rights impacts in consultation with all affected people.

- Require Myanmar Yang Tse to undertake a full assessment of existing pollution at the S&K site and clean it up. The process should be transparent, subject to independent monitoring and accomplished as fast as is technically feasible. Ensure that any negative impacts caused by the S&K mine are addressed before proceeding with the Letpadaung mine.

- Clean up all contamination outside the S&K mine site.

- Require UMEHL to move, as a matter of urgency, the Moe Gyo Sulphuric Acid Factory to a location where it is at a minimum safe distance from inhabited areas and with full disclosure of all safety measures to be taken prior to, during and post the move. In the interim, stop the operations of the factory as a precaution.

- Investigate and take action against UMEHL for setting up and operating a sulphuric acid factory in breach of national laws.

- Investigate and prosecute, in accordance with international standards for fair trials, any officials who were involved in the use of incendiary white phosphorus munitions against peaceful protesters on 29 November 2012, and anyone else who provided assistance to the police.

- Undertake a comprehensive, independent, impartial investigation into all reports of excessive use of force by the police against peaceful protesters and prosecute, in accordance with international standards for fair trials, those responsible. Instruct the Chief of the Myanmar National Police to initiate a thorough review of police tactics and the use of force and firearms during arrest and during public order policing, with a view to ensuring that they meet international standards.

- Immediately drop all charges brought against persons for organizing or participating in peaceful protests, demonstrations and assemblies and release all persons who have been imprisoned solely for the peaceful exercise of their human rights.

- Ensure that all victims have access to effective remedies and reparation. Reparation may include, amongst other things, compensation for people whose homes and farms have been damaged and who suffered injuries inflicted by the police, medical rehabilitation for those who require it, clean-up of pollution, and adequate relocation.

- Adopt and enforce legislation prohibiting forced evictions and which sets down safeguards which must be complied with prior to any eviction being undertaken, in conformity with international human rights standards, including the UN Basic Principles and Guidelines on Development-Based Evictions and Displacement.

- Urgently strengthen environmental safeguards to ensure that people are protected against pollution of water, air and soil by extractive and manufacturing industries. Increase the technical capacity of the Ministry, seeking international cooperation and assistance as necessary, to independently assess and monitor environmental impacts.

- Amend the Peaceful Assembly and Peaceful Procession Law to bring it into compliance with international human rights standards and repeal Section 505(b) of the Penal Code.

- Become a party to the International Covenant on Economic, Social and Cultural Rights, the International Covenant on Civil and Political Rights, the Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment, and the related Optional Protocols.

RECOMMENDATIONS TO THE COMPANIES

- Wanbao Mining and UMEHL should make a public commitment to suspend plans for extending the project area and construction for the Letpadaung mine until human rights and environmental concerns are resolved in genuine consultation with affected communities.

- Myanmar Wanbao and UMEHL should ensure that conditions in the resettlement villages where people have already been relocated comply with international standards on adequacy of housing and that people who have been evicted from their homes and farmlands receive adequate reparation, including full compensation for all losses, and restitution of land wherever possible.

- Wanbao Mining should address the shortcomings in the ESIA, including through sharing final designs of key infrastructure and undertaking a comprehensive assessment of environmental, social and human rights impacts in consultation with all affected people.

- Myanmar Yang Tse should undertake an assessment of existing pollution at the S&K site and clean it up. It should remediate any negative impacts caused by current and past operations in consultation with affected communities.

- UMEHL should relocate the Moe Gyo Sulphuric Acid Factory, fully disclose and remediate any negative impacts caused by its operations. In the interim, it should stop its operations as a precaution.

- Turquoise Hill Resources (Ivanhoe Mines) should disclose all the information it holds on pollution from the S&K mine and clean-up undertaken by MICCL. It is responsible for compensating people for environmental damage and forced evictions linked to its joint venture and should put aside funds for such compensation and engage with the government of Myanmar to ensure that compensation is paid.

- Turquoise Hill Resources (Ivanhoe Mines) and Rio Tinto should disclose all transactions related to the Trust and divestment of its Myanmar Assets.

- All the companies should ensure that they have put in place processes to ensure human rights due diligence, in line with the UN Guiding Principles on Business and Human Rights.

RECOMMENDATIONS TO THE GOVERNMENT OF CHINA

- Immediately engage with Wanbao Mining and call on it to ensure remedies and reparation for human rights abuses that its subsidiaries are involved in related to the Monywa project.

- Institute legal and policy reforms to require companies domiciled or headquartered in China to carry out adequate human rights due diligence throughout their global operations. Set out mandatory requirements for enhanced due diligence prior to a company undertaking any investment or operations in Myanmar.

RECOMMENDATIONS TO THE GOVERNMENT OF CANADA

- Investigate all transactions around the sale of Ivanhoe Mines' Myanmar Assets to the Trust, and to subsequent owners, to assess if economic sanctions or other regulations have been breached by Ivanhoe Mines or Canadian nationals involved in these transactions.

- Investigate Ivanhoe Mines' failure to disclose the protector company, the relationships between Ivanhoe Mines and Midocean Management and Trust Services Limited and other material information, in its public filings and related documents.

- Immediately engage with Turquoise Hill Resources to ensure that it complies with the recommendations above.

- Institute legal and policy reforms to require companies domiciled or headquartered in Canada carry out adequate human rights due diligence throughout their global operations. Set out mandatory requirements for enhanced due diligence prior to a company undertaking any investment or operations in Myanmar.

- Ensure that victims of human rights abuses caused or contributed to by Canadian companies, which are operating abroad, have access to remedy in Canada, through the creation of a mining ombudsperson and access to Canadian courts.

RECOMMENDATIONS TO THE GOVERNMENTS OF THE UNITED KINGDOM AND OF THE BRITISH VIRGIN ISLANDS

- Investigate all transactions around the sale of the 50% stake in MICCL as well as Ivanhoe Mine's other assets in Myanmar to assess if sanctions or other regulations have been breached by the Trust, Ivanhoe Mines' subsidiaries in the British Virgin Islands, Rio Tinto, or any UK or British Virgin Islands nationals who were involved in these transactions.

- Institute legal and policy reforms to require companies domiciled or headquartered in the United Kingdom or the British Virgin Islands to carry out adequate human rights due diligence throughout their global operations. Set out mandatory requirements for enhanced due diligence prior to a company undertaking any investment or operations in Myanmar.

- Establish a central and publicly available registry containing full and regularly updated details of the beneficial ownership of all British Virgin Islands' and UK entities, including trusts.

RECOMMENDATIONS TO THE GOVERNMENT OF THE UNITED STATES OF AMERICA

- Investigate all transactions around the sale of the 50% stake in MICCL as well as Ivanhoe Mine's other assets in Myanmar to assess if sanctions or other regulations have been breached by any US nationals who were involved in these transactions.

- Investigate Ivanhoe Mines' failure to disclose the protector company, the relationship between Ivanhoe Mines and Midocean Management and Trust Services Limited and other material information, in its US public filings.

- Institute legal and policy reforms to require companies domiciled or headquartered in the United States of America to carry out adequate human rights due diligence throughout their global operations. Set out mandatory requirements for enhanced due diligence prior to a company undertaking any investment or operations in Myanmar.

RECOMMENDATIONS TO ALL GOVERNMENTS

- Institute legal and policy reforms to require companies domiciled or headquartered in the country to carry out adequate human rights due diligence throughout their global operations. Set out mandatory requirements for enhanced due diligence prior to a company undertaking any investment or operations in Myanmar.

- Put in place safeguard measures to ensure that any state support, including through export credits, insurance support or diplomatic support, is made conditional upon the company carrying out adequate human rights due diligence in relation to its operations.

ANNEX I: MICCL'S COPPER SALES

Extract from MICCL, S&K Copper Project: Monthly Report for January 2004. Details of copper sales to local buyers between April 2003 to Jan 2004 (names of individuals have not been included)

Name	Per tonne (USD)	Total tonnes	Total (USD)
No. 12, Military of Intelligence	3,000	19.999	59,997
Directorate of Communication	3,000	0.098	294
No. 11, Light Infantry Div. Inn Dine	3,000	3.000	9000
Shan State NPLO	3,000	5.001	15,003
Shan State National Army	1,882.48	50.000	94,124
Myanma Machine Tools	3,000	150.000	450,000
Myanmar Gems Enterprise	3,000	0.500	1,500
USDA – Thahton	3,000	2.000	6,000
No. 1, Defence Service Intelligence	1,969.89	20.000	39,397.8
Office of Defence Service Industry	3,000	100.000	300,000
Myanmar Petrochemical Enterprise	3,000	7.000	21,000
No. 1, Defence Service Intelligence	3,000	10.000	30,000
Special Branch	2,113.91	20.000	42,278.2
No. 26, Military of Intelligence	3,000	3.000	9,000
Myanma Ceramic Enterprise	3,000	2.000	6,000

ANNEX II: DETAILED ANALYSIS OF THE ESIA

Amnesty International requested Dr. Alan Tingay, an environmental scientist with many years' experience in environmental impact assessments of mining and industrial projects, including copper mines, to review the ESIA prepared by Knight Piésold Consulting for Myanmar Wanbao.[568] Dr. Tingay's analysis of how the ESIA addresses some critical environmental issues has been made available in full along with this report and his key findings are discussed below.

LACK OF A BUFFER ZONE

The project area lies in the midst of several villages, many of which are located at the edge of the project boundary. Based on the maps provided in the ESIA the approximate separation distancesbetween the villages and the project are as follows:

Location	Name	Distance (m)	Closest Structure (CS)	Distance to CS (m)
North	Kyawywa	0	Waste Rock Dump No.1	<100
	Nyaungbinyi	0	Waste Rock Dump No.1	<100
	Taungpalu	250	Waste Rock Dump No.1	700
	Aungchansi	700	Waste Rock Dump No.1	900
East	Shwehlay	0	WRD 1 + Sedimentation Pond	50
	Tawkyaung	500	Wastewater Reservoir	500
	Central Tone	250	Wastewater Reservoir	250
	Toneywama	600	Wastewater Reservoir	600
	Ledi	50	HLP Leachate Treatment	350
South	Kyaukpyudaing	250	Heap Leach Pad No.2	250
West	North Paungga	1000	Waste Rock Dump No.2	1100
	Central Paungga	750	Waste Rock Dump No.2	850
	South Paungga	200	Waste Rock Dump No.2	300
	North Moegyobyin	750	Heap Leach Pads No.1 & 3	850
	Central Moegyobyin	400	Heap Leach Pads No.1 & 3	500
	South Moegyobyin	400	Heap Leach Pads No.1 & 3	500

568 Myanmar Wanbao made the version dated May 2014 (cover reference PE701-00022/13, described on the document control page as Rev O, issued as final community consultation findings added) publicly available on its website. The ESIA was initially only available in English but a Myanmar language translation was released on 18 August. Both versions are available at: www.myanmarwanbao.com.mm/en/our-latest-news.html (last accessed 6 October 2014).

The villagers live in close proximity to mine infrastructure that handles acidic waste. This proximity increases people's exposure to dust, noise and other emissions from the project. Dr. Tingay commented that it *"is generally considered prudent to provide a minimum separation distance or buffer zone between a mine and processing plant and nearby houses. This is a precautionary approach to mitigate social impacts and to protect industry from complaints and controversy about operational effects that were not identified in an ESIA. The modelling of emissions may suggest that environmental standards may be achieved at a lesser distance than the guideline distance but in such cases the buffer provides a safety margin. This is appropriate given the uncertainty involved in predictive modelling."*

The ESIA often refers to Australian regulations. Therefore, taking the example of Western Australian legislation, relevant suggested minimum separation distances prescribed there for industries are[569]:

- Metal leaching and processing – 500m.
- Open cut mining – 1500 to 3000m

Eight of the villages in the table above (out of a total of 16) are separated from the project boundary by less than 500m and seven of these are less than 500m from a major component of the project such as a waste rock dump or heap leach pad. Three of the eight effectively have no separation distance at all as they are immediately adjacent to the project boundary and are very close to Waste Rock Dump No.1 (Kyawywa, Nyaungbinyi and Shwehlay).

The villages that are close to waste rock dumps and heap leach pads will be subject to noise and lights from heavy haulage equipment, other machinery and plant on a continuous basis for several years as the very large dumps and heaps are constructed. According to Dr. Tingay, it is almost certain that these villages will be significantly disturbed by these activities.

If the 1500m minimum separation distance from an open cut mine and associated operations is applied to the Letpadaung mine then it does not have a minimum separation from any of the villages on the list.

The ESIA does not discuss this issue and only states that a 100m buffer zone should be considered along the perimeter to comply with noise limits.[570] It also suggests a vegetation buffer to be planted as a mitigation measure to reduce dust and noise levels and protect habitat.[571]

Knight Piésold, in its response to Amnesty International, stated that though there is no specific discussion of buffer zones the proximity of people to the project is recognized and was considered in various aspects of the project.[572] It also said *"[t]here are many examples where operating mines of this nature are located immediately adjacent to towns. For example, the Super Pit Gold Operations at Kalgoorlie in Western Australia."*[573] Dr. Tingay commented that the strategies referred to by Knight Piésold *"may reduce the severity of impacts but will not necessarily achieve acceptable conditions in the villages closest to the operations. The effectiveness of the strategies (e.g. in attenuating noise) has not been assessed with site specific baseline data and predictive modelling. The reference to the Kalgoorlie Super Pit is irrelevant as it is a gold mine with a completely different process which doesn't involve very large scale heap leaching."*

The close proximity of people to the project and the lack of an appropriate buffer make the management of the risks of acid rock drainage, noise, dust and other pollution all the more necessary.

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569 Environmental Protection Authority, Guidance for the assessment of environmental factors: Separation Distances between Industrial and Sensitive land Uses, No. 3, June 2005, available at: www.epa.wa.gov.au/EPADocLib/1840_GS3.pdf (last accessed 25 January 2005).

570 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 351.

571 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 214.

572 Limiting the area of land required for the project; Development of the waste dumping procedure which requires the development of an external bund on each lift to act as a noise and light buffer; Use of drippers on the HLPs to prevent acid mist generation; Construction of walls between the site boundary and the SX - EW plant to stop acid mist, noise emissions and light spread; and The construction of a vegetated barrier around the site.

573 Knight Piésold Consulting, Letter to Amnesty International, dated 20 January 2015, p. 4, see Annex III.

ACID ROCK DRAINAGE

Knight Piésold conducted a geochemical assessment of waste rock from boreholes distributed across the Letpadaung pit. The assessment revealed high levels of reactive sulphur in the waste rock and low acid neutralising capacity, except in some discrete zones.[574] *"The portion of sulfur that was present as reactive sulfide materials was very high, averaging over 2%, which equates to an average maximum potential acidity of approximately 60kg of sulfuric acid which can be produced per tonne of waste…71% of the samples were found to be potentially acid forming and only 29% of the samples found to be non-acid forming. …The combination of potential acid forming capacity and the solubility of metals within the waste rock suggests there properties represent a significant environmental risk once the waste rock is exposed to the environment unless managed carefully."*[575] The ESIA also notes that acid and metals generation arising from the waste rock is an *"extreme environmental risk"* to groundwater, surface water and to water that potentially may be discharged from the project area.[576] Particular areas of concern are seepage from the heap leach piles and waste rock dumps to groundwater, and dirty water run-off and effluent from the camp, plant area, pit, waste rock and HLP area to surface waters.[577]

Dr. Tingay stated that the "emphasis in the ESIA on the critical requirement to mitigate the risk of ARD through design, and management and monitoring measures conforms to contemporary best practice standards. It is not sufficient however to describe and advocate mitigation measures, there also has to be a high level of confidence that the measures will be implemented. Minimum requirements for establishing this degree of confidence include:

- Comprehensive reviews of the environmental performance of equivalent projects
- Detailed engineering design with independent validation
- Specific prescriptions of management, monitoring and response measures
- An analysis of environmental and social consequences of worse-case scenarios for failure of containment measures
- Legally binding commitments by the proponents that specify the design, management and monitoring that will be implemented, and
- An established practice of independent regulatory oversight."

In Dr. Tingay's opinion *"[t]he information content of the ESIA does not meet any of these requirements satisfactorily".*

FAILURE TO ASSESS CUMULATIVE IMPACTS

The ESIA does not review the environmental performance of the nearby Sabetaung and Kyisintaung (S&K) Mine.[578] In Dr. Tingay's view, this omission is a major deficiency considering the S&K mine involves equivalent deposits of copper, waste composition, processing, management and monitoring. The extent to which the S&K mine has successfully contained acid rock drainage is therefore highly relevant for the Letpadaung project. All the more so because local communities have highlighted concerns about the environmental impact of S&K mine, as discussed in the previous chapter, including the damage caused by discharge of effluent by the ME1 mining operations in 1995 and

574 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 80.

575 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 80.

576 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,pp. 238 and 240.

577 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,pp. 219 - 220.

578 The ESIA includes an extremely brief section (about four pages) on the cumulative impacts of the S&K and Letpadaung mines and the Sulphuric Acid Factory. The information is organized under the headings water resources, biodiversity, land acquisition and resettlement, changes in land use, traffic, air quality and noise. There is no analysis of environmental performance or any data on the existing facilities. See Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,pp. 232 – 236.

1996. The ESIA should have investigated these concerns and the efficacy of systems at the S&K mine as this is pertinent for the Letpadaung mine. If there have been system failures then there is an opportunity to specify how these will be prevented in the Letpadaung Project and/or to maintain or build on those systems and processes which have been successful. Such an assessment is also important for consultations with local villages about the proposed Letpadaung mine, whose objection to the project is based, in part, on their experience of environmental damage caused by the S&K mine.

The ESIA discloses that *"[t]he cumulative impacts of this project are closely linked to the nearby S&K mine…[and]…can be managed as there is common ownership between the two Projects"*[579] However despite this, the ESIA provides little information about the operation of the S&K mine up to the present time and its impacts on surface and groundwater.

The ESIA also does not assess environmental risks and performance of risk management systems of the nearby Moe Gyo sulphuric acid factory, despite the fact that it will supply acid for the Letpadaung project's needs and is owned by Myanmar Wanbao's partner in the joint venture.

The ESIA stated that it has been developed in accordance with the International Finance Corporation (IFC) performance standards. IFC performance standard 1 on management of environmental risks, with which the ESIA claims to comply, provides *"[w]here the project involves specifically identified physical elements, aspects, and facilities that are likely to generate impacts, environmental and social risks and impacts will be identified in the context of the project's area of influence. This area of influence encompasses, as appropriate:*

- *the area likely to be affected by: (i) the project… and the client's activities and facilities that are directly owned, operated or managed (including by contractors) and that are a component of the project ..*
- *Associated facilities, which are facilities that are not funded as part of the project and that would not have been constructed or expanded if the project did not exist and without which the project would not be viable.*
- *Cumulative impacts… that result from the incremental impact, on areas or resources used or directly impacted by the project, from other existing, planned or reasonably defined developments at the time the risks and impacts identification process is conducted."*

As noted earlier, the UN Guiding Principles on Business and Human Rights (UN Guiding Principles) require companies to undertake human rights due diligence. The UN Guiding Principles stress that human rights due diligence should cover "adverse human rights impacts that the business enterprise may cause or contribute to through its own activities, or which may be directly linked to its operations, products or services by its business relationships"[580]

These concerns were raised with Knight Piésold and Wanbao Mining. Knight Piésold responded to say that *"[t]he historic impacts of the S&K mine and the Moe Gyoe sulphuric acid factory were considered where they were relevant to the establishment of the Letpadaung mine. Both operations are currently ISO 14001 certified and their existing impacts were considered in the discussion of the impacts in the ESIA. For example, the change from the wobbler irrigation system to dripper irrigation of HLPs resulted from assessment of performance of the S&K operation."*[581] This response does not address the substantive concerns raised and also raises the question as to whether Wanbao Mining also changed the wobbler system in the S&K mine as a result of this conclusion.

The ESIA's failure to assess the cumulative environmental impacts of the S&K mine, the proposed Letpadaung mine and the sulphuric acid factory which are located in close proximity to each other undermines its credibility. All three projects are located in a relatively small geographical area inhabited by numerous villages and people who could be substantially impacted by acidic discharges

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579 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p.xvii (executive summary).

580 Principle 17, UN Guiding Principles on Business and Human Rights, available at: http://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf

581 Knight Piésold Consulting, Letter to Amnesty International, dated 20 January 2015, p. 4, see Annex III.

and other pollution from these projects. Myanmar Yang Tse and Myanmar Wanbao are wholly owned by the same parent company, Wanbao Mining, and UMEHL is Myanmar Wanbao's joint venture partner. Myanmar Wanbao and Myanmar Yang Tse also share the same senior manager as Mr Geng Yi is the Chairman and Managing Director of both companies. With such centralised management, the failure to ensure an assessment of the existing project and cumulative impacts of both projects becomes even more inexplicable. Wanbao Mining has failed to exercise adequate due diligence through its failure to require a comprehensive assessment of cumulative impacts, risks and risk mitigation strategies for the S&K and Letpadaung mines and the sulphuric acid factory.

WASTE ROCK DUMPS

The Letpadaung Project will generate an estimated 30 million tons of waste rock each year. This equates to approximately 1 billion tons of waste over the 33 year predicted life of the mine.[582] The waste will be placed in three waste rock dumps (WRDs) during the first 19 years of operation (690 million tons) and then as backfill into sections of the mined out pit (256 million tons). The dumps will range in height from 85 to 150m.[583]

The three WRDs will be located within the project boundaries (see diagram x). The WRDs are located on the plain adjacent to the Chindwin River and on alluvial (river-derived) deposits which contain underground water that is in contact with the river and probably the source of some village water supplies.[584] It is therefore critical that the aquifer is protected from acid rock drainage from the WRDs, especially considering that an estimated 70% of the waste may contain potentially acid forming material.[585]

Knight Piésold was commissioned by Myanmar Wanbao to undertake a preliminary design of the WRDs. This document is appended to the ESIA (appendix N) and the information in the ESIA is derived from this study.[586]

The ESIA states that the upper section of clay (upper Quaternary clay layer) in the aquifer *"has the potential to form a low permeability base and hydraulically isolate and protect the alluvial aquifer from contaminated seepage emanating from the WRDs"*.[587] However in the Preliminary WRDs Design document (appendix N), Knight Piésold said this would only be the case *"if the upper clay layer is continuous otherwise the shallow depth to groundwater may make it vulnerable to contamination"* (emphasis added).[588] No explanation is provided in the ESIA on how a conclusion was drawn that the clay layer was continuous and/or sufficient to protect the aquifer from contaminated seepage from the WRDs despite the shallow depth of groundwater.

Knight Piésold noted that *"[t]he villages of Nyaungbingyi, Gadogone and Palaung …may have water bores/wells and are potentially at risk from changes in groundwater quality that may result from the seepage from the waste rock dumps"*.[589] This risk is not mentioned in the main body of the ESIA and no explanation has been provided on why it is no longer material and what mitigation strategy, if any, will be adopted to prevent possible contamination of groundwater that the three villages rely on, including for drinking and personal use.

The ESIA details the requirements that should be taken into account for the WRD design and for the handling and placement of waste rock to reduce the risk of acid generation and metal leaching.[590]

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582 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. iii (executive summary).

583 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 160 and p. iii (executive summary).

584 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 72.

585 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 80.

586 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 160.

587 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 160.The ESIA also notes that the aquifer comprises an upper section of clay with a thickness of 4-6m in test bore holes and the lower section is deposits of sand and gravel with a thickness from 12.1-50.1m. It has high permeability and storage properties and the depth to the water table in the dry season ranges from 0.65-19.12m.

588 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,Appendix N, p. 9.

589 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,Appendix N, p. 11. Knight Piésold stated that mining below the groundwater table will result in reversal of the groundwater flow direction to the Letpadaung pit. However, "it is possible that not all groundwater flowing beneath the waste rock dumps will be captured by the pit dewatering operation and that some groundwater may continue to flow north-east toward the Chindwin River".

590 See Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,pp. 161, 163.

Dr. Tingay underscores that *"the design, construction, management and monitoring of large-scale WRDs in order to achieve a high level of containment of wastes that pose an extreme risk to the environment are complex issues and should be finalised as part of the ESIA so that they are available for public scrutiny. This is especially the case when public confidence in the project may be ambivalent. The ESIA however, contains only preliminary design details of the waste dumps … [leaving them] at the discretion of the proponents rather than independently validated and required by the regulatory authorities. These decisions may also not be subject to public review."*

According to the ESIA *"[t]he approaches to control of ARD were [are] to be defined at final design stage after further testing of the waste has been conducted"*.[591] The consultants note in the Preliminary WRD design document that *"[a]s a preliminary design, this report considers the main design principles to address physical and chemical stability and makes recommendations for further work considered necessary to complete a detailed design. Incorporation of these design features into the overall waste dump design with optimisation for stored volume is the responsibility of MWMCL [Myanmar Wanbao]"*.[592]

There also are a number of significant unresolved design issues that are not discussed in the main body of the ESIA but are specified in the Preliminary WRDs Design report. These include issues such as geotechnical conditions in the proposed waste dump locations and more detailed analysis of stability during predicted earthquakes.[593] Knight Piésold highlights that these gaps in information require site investigations and more detailed analyses. [594] There is no discussion in the ESIA on when these investigations will be conducted and how the design, siting or other factors relating to the waste dumps will or can be modified if major issues arise from these proposed enquiries. The ESIA does not provide any timeframe for when the final designs for the WRDs will be prepared and shared.

Disturbingly the ESIA did not disclose that after an earthquake in 2012 the foundation of the waste dump for the S&K mine collapsed.[595] This omission would be egregious in any context but particularly when Knight Piésold was retained by Myanmar Yang Tse, which shares a parent company with Myanmar Wanbao, to investigate the collapse of the waste dump. Wanbao Mining should have ensured that this information was disclosed and implications of such a collapse discussed for the new WRDs that will be constructed for the Letpadaung mine.

There are also substantial issues associated with the disposal of waste rock by backfilling it into a portion of the mine pit which is proposed after year 19. These are described in the ESIA as *"unique ARD management challenges"*.[596] In the Preliminary WRDs Design document, Knight Piésold stated that in-pit disposal of waste rock is addressed separately by Myanmar Wanbao but the ESIA does not contain any details of reports or studies done by the company on this issue. It only outlines a broad description of possible challenges of in-pit disposal in three paragraphs.[597] It states that *"[a]ppropriate mitigation controls will be required if the pit lake water quality is predicted to be poor to ensure outflows to off-site groundwater or surface water resources are not likely to occur"*. It does not detail what these mitigation controls are, how they will be implemented and contains no specialist technical reports on the subject. The ESIA therefore fails to outline a strategy for how the high ARD risks related to plans to dispose waste rock as a backfill in the mine pit will be managed.

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591 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 59.

592 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 59.

593 Some of the significant unresolved design issues and gaps in information identified by Knight Piésold in the Preliminary WRD Design document (appendix N, pp. i – iii) include: Geotechnical conditions in the proposed waste dump locations are "poorly understood" due to a lack of site investigations, Initial modelling of stability during predicted earthquakes is "marginal" and more detailed analyses are required, Data on the physical and geo-chemical properties of the waste are limited, A materials balance based on up-to-date site investigation is "urgently needed" to confirm the availability of sufficient suitable material for encapsulation of the waste and the closure cover system, and There are "some uncertainties" as to whether the areas designated for the WRDs are large enough for the volume of waste rock that will be generated and "[o]ptimisation of storage volumes and necessary footprint areas is urgently needed".

594 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,Appendix N, pp. i – iii.

595 Myanmar Yang Tse Copper Limited, Responsible Mining 2012- 2013 p. 33.

596 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 162. The ultimate objective is to submerge the waste in water to effectively eliminate leaching of metals by excluding the availability of oxygen from the air. Before this can be done however, the "waste will be exposed for a number of years and acid generation and metal leaching will occur" (p. 163). During this time, the seepage must be collected and either treated or used in the process in order to prevent outflows to groundwater.

597 When the top of the waste reaches to within 10m of the predicted groundwater level after mine closure, dumping must stop and the pit allowed to fill with water to fully submerge the waste. While this is happening the water must be dosed with lime to raise the pH to around 10 or 11 to precipitate and immobilise metals. The dosing stops when the wastes are submerged but if the pit lake becomes acidic at any time the metals may be remobilised.

HEAP LEACH PADS (HLPS)

There are similar gaps in the assessment of environmental risks associated with heap leaching.[598] The ESIA details the basic design features for two heap leach pads, HLP1 and HLP2. Each will have basal areas of 3.46km² (total 6.92km²) and completed heights of 84m. The dimensions of a third heap leach pad, HLP3, which will be commissioned after 14 years of operation, are not specified.[599] The basal areas are very large by global standards and may possibly be some of the largest in the world.[600] As a result, one of the challenges will be managing and storing the run-off of large volumes of water from the heaps after storms or heavy rain (the design capacity of the stormwater pond is 4,000,000m3)[601]. Also, as Dr. Tingay highlights, the larger the pads the greater is the potential for accidental release of acidic water, with elevated levels of metals, to the surrounding environment due to inadequate design of the containment facilities and deficient construction and management.

Key components of the design of HLPs to reduce ARD and leakage of leachate include:

- Bulk excavation to create a pad that will enable gravity flow of leachate to solution channels.
- Placement and compaction of a low permeability clay layer above the pad.
- Installation of a synthetic smooth geomembrane (high-density polyethylene or HDPE for short) on the clay layer.
- Placement of a fine grained soil (sand) protective layer over the membrane.[602]

Dr. Tingay states that the engineered elements of these HLPs are by no means fail-safe. Issues associated with heap leaching include the effect of extreme loads on the liners (a synthetic barrier which is meant to protect the underlying soil and groundwater from contamination), slope stability and earthquake response, zones of overstress on liners near drainage pipes under high loads, and temperature effects (due to exothermic leaching) especially with respect to liner puncturing.[603] Geomembranes (high-density polyethylene sheets at the base of the HLPs) also may have defects or be punctured during construction and it is recommended that both expert inspection and geo-electric surveys be made as part of quality control.[604]There is no reference to geo-electric surveys in the Letpadaung project ESIA.

HLPs are identified in the ESIA as a significant potential sources of groundwater contamination. The risk assessment concludes that there is a high risk of off-site contamination of groundwater and surface water even with mitigation measures. Dr Tingay comments that this is supported by the literature on HLPs.

The ESIA discloses *"[t]o minimise the impacts of ARD it was proposed that surface water infiltration should be minimised and all subsurface water and pit water be collected and either redirected through the heap leach circuit or process plant or sent to evaporation ponds. The heap leach pads were proposed to be provided with double liner systems and leak detection systems and the process*

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598 Heap leaching is an industrial process to extract copper from the ore, in which the crushed ore is placed on a lined pad (to try and create an impermeable barrier to protect the underlying soil), sulphuric acid is dripped or sprinkled on the ore and percolates through the heap, leaching out the copper. The solution is drained into a pregnant solution pond and the diluted acid solution is reused in the process. New layers of crushed ore are stacked on the ore that has already been processed till the heap reaches it maximum height.

599 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 165.

600 C. Reichardt, Heap Leaching and the Water Environment--Does Low Cost Recovery Come at a High Environmental Cost? (2008), available at www.imwa.info/docs/imwa_2008/IMWA2008_008_Reichardt.pdf.

601 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 169.

602 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,pp. 148 - 149.

603 A.J. Breitenbach, and M.E. Smith, Overview of geomembrane history in the mining industry. Proceedings of the 8th bi-annual meeting of the International Geosynthetics Society (8IGS), 2006, Japan available at: www.ausenco.com/uploads/papers/64061_Overview_of_Geomembrane_History_in_the_Mining_Industry.pdf.

604 See B. Forget, A.L. Rollin, and T. Jacquelin, Impacts and limitations of quality assurance on geomembrane integrity, 2005, available at: www.geosynthetica.net/Uploads/ForgetRollinJacquelin.pdf. Dr. Tingay states that geo-electric surveys are implemented together with expert inspection of geomembrane liners after installation in order to detect defects. One study found that inspection and surveys detected only 0.2 leaks per hectare of covered HDPE membrane but some of the defects were large and would not have been detected by inspection alone. Research on valley fill heap leach operations found however, "that the typical frequency of defects …after conventional construction quality assurance, are 1 to 8 per ha" (Breitenbach, A.J. and Smith, M.E., P.E. Overview of geomembrane history in the mining industry, Section 3.4). If these numbers are applied to the area of HLP1 and HLP2 of the Letpadaung Project the total frequency of defects would be 138 (0.2/ha), 692 (1/ha) or 5,536 (8/ha).

plant provided with segregated drainage systems to ensure accidental release was not discharged. Subsequent design studies suggested the use of a double liner system be avoided as the two HDPE layers adjacent to each other would reduce the slope stability of the heap leach pads"[605]

The potential for groundwater contamination in the event of a leak is high, as water can be found 0.8m below ground level (groundwater levels were recorded at the beginning of the dry season ranging from 0.8 to 16.5m, average 7.2m).[606] The fact that a double liner was considered desirable but could not be used because it would compromise slope stability highlights the design issues with the HLPs which are not addressed by the ESIA. The consultants do not explain how the risk of groundwater contamination will be managed without a double liner system.

There also is no mention in the ESIA of uncertainty regarding the long term effectiveness of liners. While containment of metal leachates for periods longer than 20 years has been demonstrated there is no data on long-term performance. [607]

Knight Piésold conducted an HLP Designs Option Study, attached as Appendix S to the ESIA, which deals with the foundations of the HLPs and the stability of the heaps during earthquakes. Dr. Tingay considers this Appendix to be of particular importance *"as it illustrates the issues, assumptions and uncertainties involved in the design of these very large scale structures that have to be contained in order to prevent environmental and social impacts. Unfortunately, the reasons for this study, the approach and assumptions and the findings are not discussed in the main body of the ESIA."* This means that these issues have not been fully resolved by the ESIA and community members have no information on decisions on how these risks will be adequately managed.

The International Seismological Centre database was accessed by Knight Piésold using a 500 km radius circular search criteria to obtain information concerning earthquake events that have occurred between January 1900 and the present. Earthquakes are measured on the Richter magnitude scale starting from M 0 – 10, M 5 – 5.9 is considered moderate, M 6 – 6.9 strong and cause a lot of damage in very populated areas, and above 8 are great earthquakes that can totally destroy communities.[608] The search indicated that 5,847 earthquakes between M0.4 and M 8.0 have occurred within 500 km of Letpadaung. Between 1927 and 1956, six M7.0+ earthquakes occurred near the right-lateral Sagaing Fault, resulting in severe damage in Myanmar including the generation of landslides and the loss of 610 lives. The records also show that at least fifteen M7.0 earthquakes have occurred in Myanmar in the past 100 years.[609]

A search of the USGS database earthquake lists 406 earthquakes within 200 km of the Letpadaung site that have been recorded between 1973 and 2013, including one M7.0 and one M6.8, and 44 events at magnitudes between M5.0 and M5.9. The most recent earthquake was a M4.7 event that occurred on the 20th July 2013, about 70 km south-west from Letpadaung. The closest earthquakes in proximity of the site were a M4.0 event that occurred approximately 3.6 km from the site and a M4.1 that was approximately 9.1 km of the site.[610]

There are villagers who live close to the base of the HLPs (e.g. Kyaukpyudaing village is 250m away from HLP2 and Central and South Moegyobyin villages are 500m away from HLP1 and HLP3), who could be severely impacted if the HLP collapsed or became unstable after an earthquake, and through any related contamination of soil and water. Knight Piésold emphasised *"the existence of communities that will be in proximity with the toe [base] of the HLPs forces the consideration that the HLPs are high hazard facilities."*[611]

The Knight Piésold study assessed four options for mitigating this problem with the foundations of

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605 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 56.

606 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 76.

607 N. Touze-Foltz, J. Lupo, and M, Barroso, Geo-environmental Applications of Geo-synthetics. Keynote Paper, Proceedings EuroGeo 4, (2008) Edinburgh, Scotland.

608 See www.geo.mtu.edu/UPSeis/magnitude.html (last accessed 6 October 2014).

609 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,Appendix S, pp. 7 - 8.

610 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 82, Appendix S, pp. 7 - 8.

611 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,Appendix S, p. 10.

the HLPs based on modelling the effects of hypothetical earthquakes.[612] The modelling involves a number of assumptions and predictions and was also limited to the design life of the mine (33 years) and not the indefinite post closure period.[613] One of the options was discarded and three options were detailed.[614]

The ESIA did not conclude which option would be adopted but it is recommended in Appendix S that further work should be carried out during construction to confirm the assumed material parameters and to verify the geo-technical conditions, and that geo-technical monitoring instruments be installed. As with the WRDs the ESIA does not resolve the complex issues and uncertainties around the design of the HLPs. It fails to outline a concrete way forward to mitigate the risks of locating extremely large HLPs in an area subject to earthquakes. Shifts and collapses of HLPs and WRDs following an earthquake could have enormous consequences for the local environment and neighbouring communities. The failure for the ESIA to resolve these issues points to the incomplete nature of the ESIA and the failure to share information with communities on the concrete plans that have been agreed by the company to manage critical risks.

Dr. Tingay emphasises that the *"issues and uncertainties become even more critical after mine closure when the heaps effectively will be equivalent to the waste rock dumps."*

WATER

The existing surface water flows in the Letpadaung area have two main components: run-off from the Letpadaung hills and flow of water from catchments to the west towards the project area. [615] These supply water to the south, north and north-west of the project area. Streams that flow east from the hills are intercepted by a regional irrigation canal. The catchments of the principal streams are shown in ESIA Appendix D Figure 3.1.

These catchments provide water to three major community dams inside and beyond the southern boundary of the site. Catchments draining *"to the north and northwest provide run-off to a number of small dams which local communities use to supplement dry season water requirements"*.[616] Other large dams to the west of the site are apparent on various figures in the ESIA (e.g. Figure 4.2). The ESIA states *"[d]ownstream of the Project, surface water flowing to dams from local creeks is used primarily for subsistence agriculture, domestic purposes and livestock watering."*[617]

The social data in the ESIA indicates that domestic water is sourced mainly from dams and shallow wells and some tube wells (cased bores), and approximately 11% of the households surveyed obtained water from their own wells in the rainy season and from nearby tube wells in the dry season.[618]

According to the ESIA, improvements to water supplies are an important issue for North Paungga, Mingalargone, Kyawywa, and North Moegyobyin and is an issue at Kandaw, Taungpalu, South Paungga, Telpinkan and Dondaw.[619] Whether these concerns relate to water quality is not mentioned. There is a statement however, that *"[s]ome shallow wells, such as those in Taungpalu, are not used due to local concerns that the water is contaminated with mineral deposits. Consequently, these villagers fetch water from nearby tube-wells, which stay full in the dry season"*.[620] This village is close to the northern boundary of the project area.

The ESIA acknowledges *"status of the water supply in the villages is not precisely known and more*

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612 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,Appendix S, pp. 14 - 15.

613 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,Appendix S, p. 9.

614 1. Excavating 8m of clay at the toe of the HLPs and replacing it with compacted gravel (involves large scale excavation and fill); 2. Reducing the slope of the heaps by increasing the width of the benches (involves loss of storage capacity); and 3. The original design (which was considered unsatisfactory) but with a double-sided textured geomembrane.

615 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 67. See also Appendix D.

616 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 67.

617 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 239.

618 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 128.

619 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,pp. 128 - 129.

620 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 128.

information is needed on the type of infrastructure and its utilisation is needed for all the communities near the Project."[621] This is a critical deficiency considering the villagers' concerns about the impact of mining activities on the water they rely on for drinking and personal use. There is no explanation provided on why Knight Piésold did not collect more information on this crucial issue as part of its assessment.

The ESIA states the quantity and quality of the water flows in the surface catchments is not known.[622] Baseline water quality data is provided only for the Chindwin River and nine other locations (a very small number for a project of this scale). Knight Piésold itself only monitored water quality at sampling points and from monitor bores around the proposed Heap Leach Pads 1 and 2.[623] This is also the most recent data available as testing was done at the end of the dry season in February 2013. Knight Piésold otherwise relied on older studies, including the Non Ferrous Metal-Kunming Survey and Design (Institute) Co (NFMKSDI) 2011 Hydrogeology Survey commissioned by Myanmar Wanbao. For the river quality, it relied on testing done by Coffey Partners in 1997 for Ivanhoe Mines and the NFMKSDI survey in 2011.

The NFMKSDI survey had a very limited number of sampling points (nine) to test surface water quality. The frequency and timing of sampling are not described. The ESIA reported that *"[s]even of the nine samples contain copper above the detection level (0.01 mg/L) but below the adopted guideline value (0.3 mg/L)."* No explanation was provided for why copper levels were elevated at these points. The ESIA noted that the *"surface water samples were only analysed for three metals: copper, iron and lead. The analysis suite has been expanded to a suite which includes the IFC Environmental Guidelines (IFC, 2007) as a minimum. First results of this expanded sampling will be available prior to commencement of works in the Project area."*[624]

Works have already commenced in the project area as acknowledged by the ESIA itself[625] but there is no information provided on whether such expanded sampling was conducted and what the results were. Dr. Tingay commented that *"the ESIA should at least include replicated samples from all villages that are relatively close to the boundaries of the project and especially those that are to the south, east, north and north-west in the direction of surface and groundwater flows. The supplies should be sampled, analysed and interpreted using internationally recognised procedures and water quality criteria for drinking water."*

The gaps in monitoring water quality are inexplicable considering that there is a significant risk that the Letpadaung Project will contaminate surface and groundwater beyond the project boundaries. According to the ESIA the risk of contamination of surface and groundwater is high during the operational phase of the project even with mitigation measures in place but *"may be less if all mitigating measures are implemented"* (emphasis added).[626] The risk is due to the potential for seepage from the heap leach pads and waste rock dumps into the soil, groundwater and surface water. In order to reduce this risk complex and comprehensive design, operational procedures, management and monitoring, described or referred to in the technical appendices of the ESIA, will have to be strictly followed.[627]

In its response to Amnesty International, Knight Piésold specified that *"[w]ater sampling by MWMCL [Myanmar Wanbao] was limited by access to sites and damage to boreholes within the project area. A more extensive borehole sampling programme is being reviewed in the discussions between MWMCL and the Myanmar government agencies following review of the ESIA by the review team. This network of boreholes will add to the hydrogeology database for the site."*[628] This response appears to acknowledge Dr. Tingay's analysis of the limitations of the water sampling to date. There is no infor-

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621 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 128.

622 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 67.

623 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 76, Appendix E and Figure 4.2.

624 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 70.

625 "Currently within the Project lease area early works activities are being carried out alongside working farms with farmers and livestock present" and "The first blasting took place on October 9th, barely a week after the September 30th deadline." Presumably the dates referred to are for 2013 considering that the final ESIA was released in May 2014. Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,pp. 376 and 194. See also the analysis of satellite imagery later in this chapter which highlights the amount of construction undertaken.

626 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 219.

627 See for example Appendix P, section 5.5.

628 Knight Piésold Consulting, Letter to Amnesty International, dated 20 January 2015, p. 4.

mation about when the more extensive borehole sampling programme will be undertaken and this is a clear gap, considering as discussed in the last chapter and in the consultation section below, the project's impacts on groundwater are a key community concern.

Dr. Tingay states *"essentially the pollution control strategy involves measures that, it is hoped, will be sufficient to ensure that surface waste water discharges meet specified criteria at points of discharge around the project area and at the limit of mixing zones between the discharge points and nominated distances downstream. For groundwater, the criteria will apply to samples from a series of monitoring bores around the perimeter of the site. If the criteria are not met corrective action will be taken. This strategy is not fail-safe and there may be considerable differences between theory and practice, given the complexity of managing acid rock drainage and other potential sources of pollution from the project, and the difficulties that may be involved in implementing effective corrective action."*

The risk of acid rock drainage is due to the high levels of metals in the ore and waste rock (and potentially dust) and the potential for these to leach both by contact with water and by the process of acid rock drainage. This means that in addition to process water and waste rock, all run-off water from the operations may contain elevated levels of metals.

The risk of contamination is greater for localities to the south, north and north-west of the project area which, as described earlier, receive surface run-off from catchments in the Letpadaung hills, and for groundwater in the alluvial plain to the east of the project area.

This risks are exacerbated because of the chemical composition of the waste rock (rock which is removed in the mining process to provide access to the ore) from the Letpadaung deposit. The results of analyses of waste rock are provided in Appendix P of the ESIA. High levels of fourteen elements were found in at least one of the samples. These elements included arsenic, cadmium, copper, lead and selenium. The levels are described as *"highly enriched"*. An additional four elements were *"significantly enriched"* in at least one of the samples and these included manganese and mercury. A further six elements were *"slightly enriched"* in at least one of the samples and included uranium.[629] All the elements named can have health implications in drinking water above certain levels. The ESIA also reported that the testing had revealed that some of these metals are readily soluble, especially under acidic conditions.[630]

The presence of these elements and the risk of metal leaching into groundwater and surface water highlights the potential for pollution that could impact people's access to drinking water and health, if run offs and acid rock drainage are not properly managed. All of these elements should therefore have been included in any assessment of drinking water sources near the S&K mine and for the Letpadaung mine. However, as described earlier, the baseline surface water quality results for the project are only based on analysis of three metals: copper, iron and lead. [631]

No monitoring program of aquatic ecosystems in the region of the project site is described in the ESIA. Instead it is proposed to monitor wastewater at points of discharge and at the limit of mixing zones (areas where effluent discharges undergo initial dilution) and water in the Chindwin River. Dr. Tingay stated *"[w]ith this approach it will not be possible to determine the effects on downstream ecosystems if the discharge exceed the criteria at any time, due to lack of baseline data. A comprehensive monitoring program would include chemical analyses of the waste water emissions at the points of discharge and at the end of any mixing zone*[632]*, and chemical and biological data from locations at several distances downstream."*

The criteria or guidelines that will be used to determine environmental water quality also need to be

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629 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,Appendix P, pp. 26 – 27.

630 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 238.

631 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 70.

632 The term "mixing zone" generally applies to a defined area around an effluent discharge where the management goals of the ambient waters do not need to be achieved and environmental values may not be protected. The length of mixing zones needs to conform to internationally accepted standards and not be set to enable compliance with environmental water quality guidelines (as is often the case in developing countries). They should be small in area and are not appropriate for the management of substances that bio-accumulate or of particulates, or to discharges that affect the whole width of a watercourse. The emissions also should not cause toxicity or irreversible harm to fish or other aquatic vertebrates in the zone.

specified and to conform with internationally accepted criteria in order to be credible. Reference is made in the ESIA to various guidelines for both drinking water and environmental water quality. It is emphasised however, that these "guidelines are used for a preliminary assessment of water quality only. It is not implied the project will be required to meet these guideline levels or that these reference levels should be used as the regulatory framework. More detailed assessment of the impact of any discharge from the Project will be required in later design stages to assess the impact on receiving environments where different water quality requirements may be applicable".[633] This is a major concern as the ESIA (which used international standards because Myanmar lacks appropriate standards) is essentially saying that Myanmar Wanbao doesn't have to comply with international standards, without specifying - for the benefit of affected communities – which standards it will be bound by.

NOISE, DUST AND OTHER EMISSIONS

DUST AND NITROGEN OXIDE EMISSIONS

The ESIA reports that the air quality samples taken during the hot-dry season revealed dust and NOx [nitrogen oxides] levels that exceed IFC upper limits for these parameters.[634] It attributed these increased levels to the region being semi-arid, the use of fires for domestic cooking and the burning of crops and other vegetable matter.[635]

It notes *"[d]ust is a significant contributor to respiratory infections in communities located near infrastructure works and impacts the life quality of residents. Visual observations conducted at the Letpadaung site suggest that the level of suspended particles in the air is very high as there is an obvious smoke haze early in the morning. … Existing mining operations in the region also contribute to dust being generated. Dust plumes were observed to disperse over surrounding areas after blasting of the open pit mines had taken place."*[636] The ESIA does not, however, include any data on the dust levels from the S&K mine operations or what the cumulative emissions from both operations will be. It also does not compare the air quality results with any samples taken at a time before the S&K mine was established, which could help determine the contribution of domestic fires and burning of crops.

Results are reported for two monitoring stations in the general region of the Letpadaung project which indicate levels of PM_{10} (coarse dust particles) and $PM_{2.5}$ (fine dust particles) that exceed World Health Organization (WHO) Guidelines. The WHO has highlighted that there are well documented adverse impacts of inhaling these particles (on a short-term and long term basis) on respiratory health. Susceptible groups with pre-existing lung or heart disease, as well as elderly people and children, are particularly vulnerable.[637]

Dust levels of 82µg/m³ (PM_{10}) (24 hour average) are reported for two monitoring stations in the dry season compared to the WHO Guideline of 50µg/m³. Similarly dust levels of 58 µg/m³ and 78 µg/m³ ($PM_{2.5}$) are reported while the WHO Guideline is a maximum level of 25 µg/m³. The locations of these stations is not specified.

Knight Piésold also conducted predictive modelling on dust levels based on results from eight monitoring stations during both the dry and wet seasons. Dr. Tingay has identified the following methodological concerns about the modelling and data provided in the ESIA and the attached modelling study (Appendix M to the ESIA).

There is no reference in the modelling study to the two high PM_{10} levels recorded in the dry season that are referred to in the ESIA. Instead the considerably lower results from the eight monitoring

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633 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 69.

634 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,Executive Summary, pp. iv – v (executive summary).

635 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,Executive Summary, p. v (executive summary).

636 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 140.

637 WHO, Health Effect of Particulate Matter: Policy Implications for countries in eastern Europe, Caucasus and central Asia, 2013, p. 6.

stations in the dry season are used as baseline ambient conditions.[638] There is no explanation of the discrepancy between the two sets of data, raising the question of whether the sampling data used in the modelling adequately represents the existing background conditions.

No predictive modelling of $PM_{2.5}$ levels (fine particles) is provided even though they were measured at the eight monitoring stations. The rationale for this omission was that PM_{10} is "…seen as an air quality impact indicator for extractive open pit mining activities [and] was considered the most relevant characteristic to be managed".[639] It is the case that most of the dust generated by mining activities is PM_{10} or larger but fine particles are also produced and it is international best practice to measure both. It therefore would be prudent for the proponents to assess $PM_{2.5}$ in detail.

The sampling design should ideally include monitors located at 'sensitive receptors' such as villages.[640] No monitoring equipment was sited in villages close to the northern and north-eastern boundaries of the project area. The potential significance of this omission is apparent in Figure 10.1 which shows the modelled maximum 24 hour mean concentration for PM_{10}. In this figure, concentrations between 25 and 50µg/m³ primarily extend to the east and north of the site and include several villages. There are also areas where the modelled concentrations are between 50 and 100 µg/m³ and therefore exceed the WHO Guideline. These include or are very close to Kyawywa, Palaung and Gadegone villages. There is no mention of this in the ESIA, there are simply statements to the effect that the predicted concentrations at the sampling sites are less than the WHO Guideline.

No information is provided in the ESIA regarding the background monitoring programme other than the location of the samplers. Such information is critical for determining whether the sampling is representative. There is no description of the rationale for selecting the sampling sites, the duration of the sampling, whether the sampling was continuous or intermittent, the type and accuracy of filters used in the equipment, or the weather conditions during the sampling period. The background levels of dust also can be expected to be highly variable both in terms of geographical locations and time periods and the sampling must be sufficient to take account of this.[641] The full data set from the monitoring program therefore should be included in the ESIA.

Knight Piésold stated in its response to Amnesty International that the *"dust modelling was conducted by a Myanmar consultant on behalf of MWMCL [Myanmar Wanbao]. Knight Piésold was provided with the monitoring data to undertake the modelling component of the assessment. The high readings recorded that are referenced in the ESIA were recorded during the investigations of the Special Investigation Commission and were excluded from modelling due to the lack of information on location and duration of sampling. The data collection was requested to be conducted at the most sensitive site in each location. The site selection for the baseline monitoring looked to use the same sites for noise, vibration and air quality monitoring to enable security of equipment to be maintained. Sites selected were also limited by the unrest in the area and the ability to access villages"*.[642] As with water, this response appears to confirm the limitations in data collection and that the criterion for selection of sites was where equipment could be secured rather than what would be required for a sound sampling design. Dr. Tingay notes, *"there is very little data relating to most if not all villages that are close to the project area"*.

NOISE

There are similar concerns with the assessment of noise levels in the ESIA which concludes that from *"the modelling results there will be no increase in noise from the Project above allowable*

638 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,pp. 265-266 and Appendix M.

639 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 264.

640 In this case, monitors were sited in Ntandawgyi (north of the S&K mine), Ayegone (4km north of the project boundary) and Central Moegyobyin (west of the project boundary). Monitoring station no.2 also may have been located in in a village close to the south-eastern corner of the project boundary but the location of this station is different in Figures 4.13 and 10.1 and its actual position is therefore uncertain.

641 In general, the reliability of the data increases with the duration of sampling and when there is significant variability in background levels, sampling may be necessary for weeks or months. See in this regard, Environment Agency, UK, Technical Guidance Note (Monitoring) M8: Monitoring Ambient Air, May 2011, available at: www.gov.uk/government/uploads/system/uploads/attachment_data/file/301188/TGN_M8_Monitoring_Ambient_Air.pdf (last accessed 27January 2015).

642 Knight Piésold Consulting, Letter to Amnesty International, dated 20 January 2015, p. 5, see Annex III.

standards".[643] The assessment is based on background data collected at ten locations and computer modelling of predicted noise levels propagated by the project. The data is presented in Section 10.2 and Appendix M of the ESIA and the noise modelling results are also shown on Figure 10.2.

As with the dust emissions, Dr. Tingay has concerns about the design of the assessment, in particular on the representativeness of the data collected for the modelling and the failure to compare modelled results with operational data from the S&K mine. He notes that for assessment purposes it is generally required that background and predicted noise levels must be collected and estimated at or near the nearest residence. The ESIA does not include a statement that this was done. He also highlights that the measurement of noise in the ESIA is limited and lacks the detail that generally is required for assessment of a large-scale project involving heavy machinery and a 24 hour operation.

There is no rationale provided in the ESIA for the choice of villages as monitoring stations. The majority of the monitoring stations were in locations that are distant from the project area rather than residences closest to the sites. It appears also from the data reported that sampling may have occurred only for one day at each monitoring site.[644] If this is the case, it raises questions about the reliability of the data collected.

The ESIA states that background noise levels obtained at sensitive receptors during the wet season exceeded the IFC standards for noise emissions. This was attributed to the effect of rainfall on iron roofs and wind in vegetation surrounding the buildings at the sampling sites. It was noted that movement of people, animals and vehicles/equipment in the vicinity of the sites may also have contributed to the high readings.[645] A few of the records are extreme such as 97dB(A) (as loud as a chainsaw) recorded at Htandawgyi (Station 7) between 0700 and 0800 hours. Heavy rain could have contributed to these extremely high noise levels but if so, these factors should have been clearly recorded and the data discarded or compared to other days in the wet season without continuous heavy rain.

There is no explanation provided about why the noise levels recorded at the major regional centre of Monywa were generally lower than in the villages and other locations assessed in the ESIA.

The Organisation for Economic Cooperation and Development (OECD) standard for residential areas close to highways with significant traffic noise is used in the ESIA for assessment of areas close to roads.[646] It is questionable whether this standard is relevant as it normally applies to major roads with a heavy volume of vehicles. For example, in Western Australia adjustments are made (i.e. the standards are less stringent) for traffic noise for major roads (more than 15,000 vehicles on average per day) and secondary roads (6,000 to 15,000 vehicles on average per day). In the section on modelling of dust pollution, it is estimated that there will be an average daily traffic of 160 vehicles on a paved road closest to the study area. While this is only indicative, it falls considerably short of the kind of traffic anticipated by the OECD standard. This indicates that an inappropriate standard for assessing the noise results obtained at sampling stations close to vehicle traffic has been used – and that the impact of road noise from the project where there is relatively little traffic noise at present, may be considerably more significant than is predicted.

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643 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 269.

644 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,Appendix M, Table 4, p. 7. Only one noise level for each time interval at each of the 10 monitoring sites is provided for each season.

645 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,Executive Summary, p. v.

646 Stations 1, 2 and 5 were apparently chosen as they were close to major roads. However there is little difference between the noise levels at these locations in the dry season and at other locations that were not near major roads (e.g. Station 7). The levels were higher at Stations 2 and 5 in the wet season but not compared to the level at Station 7 in the village of Htandawgyi. This would imply that there was no difference between the noise levels generated by traffic on the major roads in the dry season and those recorded in villages and other locations and that there was more traffic during the wet season. In order to answer such questions it is necessary to provide information on traffic volumes and type during the period of sampling (contextual data).

LACK OF DETAILED MANAGEMENT AND MONITORING PLANS, IMPACTS OF POLLUTION AND LEGALLY BINDING UNDERTAKINGS

The management and monitoring plans in the ESIA are very brief and are described as "Outline" plans. There is no description of potential pollution scenarios in the consequence analysis that forms part of the risk assessment. The information in the ESIA on design and management measures is mostly general rather than detailed in content. They are measures that will reduce the risk of environmental impact if they are implemented.

The list of commitments in the ESIA[647] is preceded by a statement that these are what *"MWMCL [Myanmar Wanbao] will be expected to adopt in order to manage and mitigate potential impacts"*. [648]

The commitments also are often general rather than specific in content, e.g. *"MWMCL [Myanmar Wanbao] will not allow contaminants to permeate into the groundwater through the use of adequate foundation lining in the HLPs, ore stockpiles, waste rock dumps and temporary storage facilities"*.[649] This type of commitment can only be evaluated if it specifically refers to detailed design studies and management and monitoring plans especially in the context of high risk of environmental impact. No such detailed plans are provided in the ESIA.

Knight Piésold, in its response to Amnesty International, stated the *"commitments listed in the document will be included as legally binding requirements in the project approval, issued by the Union Government of Myanmar and regulated by an independent monitoring team appointed by the Government."*[650]

While this is welcome, it does not alleviate concerns about the lack of specific and detailed commitments, management and monitoring plans. These concerns are also exacerbated by the lack of a strong environmental legal framework in Myanmar, setting out what is required in terms of the environmental quality standards with which the project should comply, and how the environmental management plan will be enforced by the authorities. Myanmar also lacks an experienced regulatory authority with an established record of rigorous and independent evaluation, supervision and enforcement that can monitor and enforce these commitments.

647 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,pp. 368-376.
648 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 368.
649 Knight Piésold Consulting, Letpadaung ESIA, (May 2014), n. 60,p. 368.
650 Letter from Knight Piésold Consulting to Amnesty International, dated 20 January 2015, p. 6.

ANNEX III: RESPONSES FROM COMPANIES AND INDIVIDUALS

RioTinto

12 January 2015

Audrey Gaughran
Director, Global Thematic Issues
Amnesty International
Peter Benson House
1 Easton Street
London WC1X 0DW

Dear Ms Gaughran,

Thank you for sharing the section of your forthcoming report on the Monywa Copper Mine Project in Myanmar. We do not propose to comment on the details of your research given the short time-frame but would note that we do not agree with a number of your assertions or the conclusions you seek to draw from them.

As a condition of investing in Ivanhoe, now Turquoise Hill Resources (TRQ), Rio Tinto required the divestment of Ivanhoe's interests in Myanmar, and if not immediately possible, that the interests be placed into an independent trust pending disposal. There were further restrictions regarding to whom the interests could be sold, so as to ensure compliance with applicable sanctions laws.

It was, and remains, our understanding that the measures required by Rio Tinto and put in place by Ivanhoe on the disposal of the Myanmar asset were fully compliant with all applicable laws giving effect to sanctions. Rio Tinto was not aware of any facts or circumstances that would suggest any non-compliance with those laws at the time of, or prior to, the apparent divestment of the interest in mid-2011. Since we moved to majority ownership of TRQ in January 2012 and assumed management of the company in April 2012, neither Rio Tinto nor the new TRQ management team has become aware of any such facts or circumstances (other than the media speculation to which you have referred).

The conditions which Rio Tinto placed on Ivanhoe's disposal of the Myanmar asset also illustrated our recognition of the importance of meeting the high social, environmental and human rights standards to which we are committed.

Yours sincerely,

Sam Walsh

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20 January 2015

Amnesty International
International Secretariat
Peter Benenson House, 1 Easton Street
London WC1X ODW, United Kingdom

Dear Ms. Gaughran

RE: AMNESTY INTERNATIONAL'S INVESTIGATION INTO THE MONYWA COPPER MINE PROJECT

Thank you for the opportunity to respond to your investigation into the Monywa copper mine project. Knight Piésold Pty Limited (Knight Piésold) understands your concerns regarding the environmental conditions and the status of the community.

Knight Piésold was engaged to compile the Environmental and Social Impact Assessment (ESIA) for the Letpadaung Copper Mine within the Monywa copper mining complex in January 2013 by Myanmar Wanbao Mining Copper Limited (MWMCL). At that time, we recognised the need to address complex issues within a country that is developing its approval systems and to deliver better outcomes for the overall community. We anticipated that there would be challenges to meet these needs. However, we were encouraged by the recognition of the Special Investigation Commission, chaired by Daw Aung San Suu Kyi, that the Letpadaung Mine is important for the future development of the country if it was undertaken in a sustainable manner.

Since 2013, we have been working to deliver an ESIA for the project, consistent with international standards where appropriate, which has relied on input from a number of Myanmar and expatriate experts. The ESIA has been intensively reviewed by a team of specialists and academics appointed by the Myanmar Government. Responses to those comments have been included in the document in updates since the May 2014 ESIA quoted in your letter. Knight Piésold is continuing to work with MWMCL and the Government of Myanmar to further revise the ESIA to deliver positive benefits to the overall community while seeking to reduce adverse impacts.

A number of challenges to this goal exist as you have identified in your letter. We are however optimistic that the evolution of community consultation and environmental assessment in Myanmar has benefited from the ongoing Letpadaung ESIA process. Knight Piésold continues to amend the Final ESIA as further comments are received, and is committed to work with our client during the ongoing process of implementation.

In your letter to us, you posed four questions. We have responded to each question in the attached Appendix A.

We trust that this answers your questions on the ESIA and clarifies our role in compiling the ESIA, and we will continue to work on the challenges of this important project.

Yours sincerely,
KNIGHT PIÉSOLD PTY LTD

DAVID MORGAN
Managing Director

Knight Piésold
CONSULTING

Appendix A

Question 1
Please provide us with the data that was collected for the ESIA on the number of people, from each village, who will lose their land because of the Letpadaung project? Please also provide us with the data for people who work on other people's lands and will lose their jobs once the land is acquired as well as the numbers of people who will be affected by loss of common land and access to natural resources.

Response
These data were collected by a different consultant under contract to MWMCL that will presumably have included confidentiality clauses. The data were summarized and provided to Knight Piesold for inclusion in the ESIA. Requests for copies of these data should be forwarded directly to MWMCL.

Question 2
Please share a copy of the investigation carried out by Knight Piésold into the collapse in 2012 of the foundation and NE Waste Dump at the S&K mine. Please clarify how this investigation assessed potential impacts of the collapse of the waste dump on communities who were or may be affected? Were the findings of this investigation or its conclusions and recommendations shared with the affected communities? If so, when and through what means?

Response
Knight Piésold was requested to review the geotechnical and hydrogeologic systems at the Sabetaung and Kyisintaung (S&K) Mine. Our scope was specific to engineering assessments, and did not include community consultation. These engineering assessments were completed under contract that included confidentiality clauses. Requests for copies of our reports or a description how the information in the report was disseminated should be forwarded directly to Myanmar Yang Tse Copper Limited, the operator of the S&K mine.

Question 3
Amnesty International considers the ESIA for the Letpadaung mine to be inadequate and incomplete for the reasons outline above. If you disagree with our analysis of the weaknesses of the ESIA, please provide us with relevant evidence to the contrary.

Response
We note that the themes referred to in Question 3 are based on the input of an anonymous reviewer and are categorised under the following paraphrased headings:

- Buffer Zone
- Acid Rock Drainage
- Review of Regional Projects
- Waste Rock Dumps
- Heap Leach Pads
- Water
- Noise, Dust and Other Emissions
- Management and Monitoring Plans
- Social and Health Impacts

We have maintained this structure in our response below.

Knight Piésold CONSULTING

Buffer Zone

No specific discussion of the buffer zones is included in the ESIA. However, the proximity of people to the project is recognized and has been considered in:

- Limiting the area of land required for the project;
- Development of the waste dumping procedure which requires the development of an external bund on each lift to act as a noise and light buffer;
- Use of drippers on the HLPs to prevent acid mist generation;
- Construction of walls between the site boundary and the SX - EW plant to stop acid mist, noise emissions and light spread; and
- The construction of a vegetated barrier around the site.

There are many examples where operating mines of this nature are located immediately adjacent to towns. For example, the Super Pit Gold Operations at Kalgoorlie in Western Australia.

Acid Rock Drainage

The level of detailed prescription and analysis described in the comments will be prepared as part of the environmental management program and associated management plans which will form the ISO 14001 certified environmental and social management system which has been committed to by MWMCL in the ESIA.

The commitments made will form part of the legally binding project approval prepared by the Union Government of Myanmar and monitored by a government-appointed independent monitoring team.

Review of Regional Projects

The historic impacts of the S&K mine and the Moe Gyoe sulphuric acid factory were considered where they were relevant to the establishment of the Letpadaung mine. Both operations are currently ISO 14001 certified and their existing impacts were considered in the discussion of the impacts in the ESIA. For example, the change from the wobbler irrigation system to dripper irrigation of HLPs resulted from assessment of performance of the S&K operation.

Waste Rock Dumps

The preliminary design of the waste rock dumps is part of the ESIA, hence its inclusion in the appendices. It is expected the recommendations made in it will be taken up by MWMCL in the detailed design of the project. Design of the in-pit backfilling and questions related to it should be directed to MWMCL.

The soil conditions on the site are described in geotechnical studies undertaken for MWMCL by Southwest Non-ferrous Kunming Design Institute Co. Ltd.

Groundwater monitoring associated with the waste rock dumps has been revised and is subject to current discussions with the Myanmar government agencies.

Heap Leach Pads

All questions relating to the engineering design of the heap leach pads should be referred to MWMCL as Knight Piésold has had no input into the design or construction method, aside from the stability review that was undertaken.

Knight Piésold
CONSULTING

The stability study assessed the operating period only as the structural features of the heap leach pads will be changed during mine closure and should be subject to re-assessment as detailed mine closure plans are developed.

Water

Water sampling by MWMCL was limited by access to sites and damage to boreholes within the project area.

A more extensive borehole sampling programme is being reviewed in the discussions between MWMCL and the Myanmar government agencies following review of the ESIA by the review team. This network of boreholes will add to the hydrogeology database for the site.

MWMCL has committed to continuously upgrade the groundwater model for the pit to enable a better understanding of its performance as pit dewatering data become available.

All surface water generated on the site will be stored and used for heap leaching and other work processes. The main flow from the west will be diverted around the site to continue to supply village dams, as described in the surface water management plan appended to the ESIA.

There is also a commitment made by MWMCL to the Myanmar government agencies for joint monitoring of the impacts on the Chindwin River with the S&K mine at 7 common sites up- and down-stream of the operations.

Noise, Dust and Other Emissions

The dust modelling was conducted by a Myanmar consultant on behalf of MWMCL. Knight Piésold was provided with the monitoring data to undertake the modelling component of the assessment. The high readings recorded that are referenced in the ESIA were recorded during the investigations of the Special Investigation Commission and were excluded from modelling due to the lack of information on location and duration of sampling.

The data collection was requested to be conducted at the most sensitive site in each location.

The site selection for the baseline monitoring looked to use the same sites for noise, vibration and air quality monitoring to enable security of equipment to be maintained. Sites selected were also limited by the unrest in the area and the ability to access villages.

Management and Monitoring Plans

The commitments listed in the document will be included as legally binding requirements in the project approval, issued by the Union Government of Myanmar and regulated by an independent monitoring team appointed by the Government.

The regulatory authority is expected to be the Ministry of Environmental Conservation and Forestry.

The ISO 14001 certified environmental and social management system will include detailed management and monitoring plans.

Knight Piésold
CONSULTING

Social and Health Impacts

References in the appraisal of the social and health impacts to the Community Natural Resource Management Plan appear to be taken out of context. This plan is only proposed to address the replacement of natural resources lost through loss of access to the Letpadaung Hills. The land severance referred to is severance to access to the hills, not land over the whole site as implied in your investigation report.

The RAP has been revised in the ESIA which takes into account the comments of the review team and includes recommendations to undertake community consultation consistent with the requirements of the IFC, which will account for a range of deficiencies in processes used to date.

Collection of detailed health data in villages was hampered by access and the willingness of individual people to be involved in the interview process at the time data were collected.

Knight Piésold was only able to work with the data made available to it in undertaking the assessments of these impacts, and it is noted in the ESIA as being less than ideal.

Question 4
Amnesty International considers it be an egregious omission by Knight Piésold and Wanbao Mining not to disclose the collapse of the waste rock dump for the S&K mine in 2012, following an earthquake and that this fact, as well as Knight Piésold's role in investigating the collapse was not disclosed in the ESIA and to communities in the consultations conducted by Knight Piésold. Please clarify why this information was not disclosed and if Knight Piésold was instructed or directed in anyway by Wanbao Mining or its subsidiaries not to disclose this information and what is Knight Piésold's view on the ethics of such an approach?

Response
In undertaking the analysis of impacts to the Letpadaung Mine, Knight Piésold undertook to assess seismic risks to the project based on the available design, coupled with the commitments for appropriate detailed design and mitigation. Similarly, the aspects of the community consultation that we were able to conduct were focused on the Letpadaung Mine, its design, and its potential impacts. Although the S&K Mine is proximate to the Letpadaung Mine, the design to be implemented at Letpadaung was assessed on its own merits, as is done in a typical ESIA.

For information on the decisions of MWMCL on what information to distribute about the S&K Mine, please contact Myanmar Yang Tse Copper Ltd directly. Knight Piésold was not contracted to provide a public audit of the S&K Mine.

LETTER FROM DR. ANDREW MITCHELL, BOARD MEMBER OF MYANMAR IVANHOE COPPER COMPANY LIMITED (MICCL) FROM 2007 TO MAY 2011, TO AMNESTY INTERNATIONAL (RECEIVED BY EMAIL)

[redacted]

15 January 2015

Mr A Gaughran
Amnesty International

Ref TC ASA 16/2015.006

Dear Mr Gaughran

Thank you for your letter received yesterday.
I have a few comments.

1. Concerning the "quotes" from Mr Ford and me, it was customary in the early days of the Trust to refer to the Trust as Ivanhoe in private conversations, because that was how Mining Enterprise 1 and the Mines Ministry referred to it and because the name MICCL remained. The joint venture partners for over 12 years had been ME1 and Ivanhoe, and Ivanhoe remained a convenient informal term for the non- ME1 partner. Mr Ford was occasionally present when Bagan were discussing the sale, Bagan would have referred to Ivanhoe from habit, and Ford frequently did not realise that by Ivanhoe, Bagan was meant.

I would be extremely surprised if Ivanhoe itself communicated with Ford about running the mine or anything else. In my experience after early 2007 Ivanhoe were scrupulous in not communicating with Bagan or govt concerning the mine or Myanmar in general. ME1 could use whomever they liked to negotiate the sale to the Chinese. Bagan had no control over matters initiated by govt.

The statement that MICCL produced 20,000 tons of copper in September is false and wildly unrealistic. The highest monthly production during MICCL's operation at Monywa was not over 3,000 tons. This was at or near the capacity of the electrowinning plant. Above 2,500 tons per month was unsustainable. MICCL operated when it could, shutdowns occurred because of restrictions imposed by govt.

2. I became a director of Bagan early in 2007, after being informed that Ivanhoe Mines had placed the mine in a Trust. From some time in 2007 onwards my salary was paid by the Trust, not by Ivanhoe.

3. In 2007 I was asked to remain a Director of MICCL for Bagan pending sale of the mine by the Trust. The sale was initially expected to take a year or so, one reason for the delay was changes in the composition of the Chinese buying consortium.

4. I don't recollect whether it was Ivanhoe Myanmar Holdings Limited or Ivanhoe Myanmar Holdings Ltd. The Modi Taung gold project was expropriated by govt at the end of 2004 and physically taken over by govt soon afterwards in early 2005. Modi Taung was not a mine, it was a gold discovery, a potential mine. IMHL was in effect transferred to the Trust in early 2007. I don't know what happened to IMHL subsequently, I resigned in May 2011 and left Myanmar before the sale of Bagans share of the mine to the Chinese was completed.

My recollection is that no Ivanhoe Vice -President attended or participated in any way in any MICCL board meeting from about March 2007 onwards.

Yours sincerely

Andrew Mitchell

January 30, 2015

Audrey Gaughran
Director, Global Thematic Issues
Amnesty International
Peter Benenson House, 1 Easton Street
London, WC1X 0DW
United Kingdom

Subject: Monywa Copper Project

Dear Ms. Gaughran:

I have now had the opportunity to read and carefully consider your letter dated January 12, 2015 with respect to your "investigation into human rights concerns around the Monywa copper project".

Although you refer to Annex A as containing your "findings that relate directly" to me as an individual, most of Annex A, in my view, is devoted to reciting a selective account of the corporate history of Turquoise Hill Resources Ltd. (formerly Ivanhoe Mines Ltd. and Indochina Goldfields Ltd., which I will refer to as the "Company", to avoid confusion) and its involvement in the Monywa Copper Project, based on historical securities filings and other public disclosure by the Company.

Having resigned on April 17, 2012, as a director and the Chief Executive Officer of the Company, I have had no involvement in its affairs for almost three years. The Company severed all connection to what you refer to in Annex A as the "Myanmar Assets" almost four years ago, when the assets were sold by the Trust that was created in 2007 to facilitate their disposal. Thus, I am at a loss to understand the point of the story that Annex A purports to tell in relation to a supposed examination of what you state to be “human rights concerns”.

It is far from clear to me how this narrative and the questions presented in your letter have any relevance to such an investigation. I perceive a fishing expedition, the purpose of which, at least as it relates to me, would appear to involve adding two parts innuendo to two parts insinuation and suggesting that the answer is five.

I have no interest in contributing to an exercise in sensationalism. I do, however, wish to set the record straight with respect to a number of matters touched upon in Annex A and I do expect these points to be fairly and accurately reflected in whatever it is you decide to publish pertaining to these matters.

As noted above, I have not been a director or officer of the Company for almost three years and, as such, my access to the Company's corporate and business records is no better than yours. Thus, the statements that I am about to make are based solely on the public record and my own personal knowledge and recall of relevant events.

The first point I wish to emphasize, in light of Amnesty International's recently published accusations of human rights abuses at the Letpadaung mine, is the absence from Annex A of any reference to the fact that there was never any development or mining of the Letpadaung deposit during the time that the Company was involved in the Monywa Copper Project. This is a matter of public record and is referenced in the Monywa Fact File posted on the Company's website. Although the Company carried out various studies to establish the feasibility of developing Letpadaung, no agreement was ever reached to proceed with that development and the Company never obtained any rights to develop or carry out mining at Letpadaung. It would be misleading and unfair of Amnesty to omit to state this fact in the context of any discussion of Letpadaung in your report.

I also take issue with Amnesty's characterization of the Monywa Trust structure, which implies that it was devised solely as a means to obfuscate the ownership of the Myanmar Assets and create the false impression that the Company had divested itself of the Myanmar Assets while nonetheless secretly maintaining control. If this is your theory, then it is simply wrong.

The fact is, and it is a matter of public record, that the creation of the Monywa Trust structure was dictated entirely by Rio Tinto as a condition of its significant equity investment in the Company. In this regard, I refer you to the October 2006 Private Placement Agreement between the Company and Rio Tinto. If the Company had failed to create the Monywa Trust and transfer ownership of the Myanmar Assets to it, Rio Tinto had the contractual right to do so on the Company's behalf "on terms and conditions satisfactory to Rio Tinto in Rio Tinto's sole discretion".

It is also a matter of public record that it was an express contractual term that the Myanmar Assets could not be sold by the Trust to any "Excluded Person", which was defined as "Ivanhoe, Rio Tinto, Robert M. Friedland, their respective Affiliates, any person related to any of them and any person that is a resident of Myanmar or that is Controlled by a resident of Myanmar". Furthermore, neither the trustee nor any of the beneficiaries of the Trust could be Excluded Persons.

The Company was never secretive about its ownership of the Monywa Copper Project. Indeed, much of what you include about it in Annex A is taken directly from the Company's public disclosure record. However, the statement in Annex A that the "original feasibility agreement has never been made public" is untrue. That agreement, among others, was available for public inspection at the Company's head office during the Company's initial public offering of common shares in June 1996. See page 88 of the Company's prospectus dated June 12, 1996.

But for Rio Tinto's insistence that the Company dispose of the Myanmar Assets through the Trust structure, the Company was under no other legal compulsion to divest and it is more likely than not that it would have retained ownership of the Myanmar Assets pending the opportunity to maximize their value for the benefit of the Company's shareholders – which is, of course, one of the fiduciary obligations of directors of public companies.

As the then Chief Executive Officer and a director of the Company, I oversaw the negotiation of the Private Placement Agreement with Rio Tinto, including the requirement for the creation of the Monywa Trust structure and the conveyance to it of the Myanmar Assets. However, I had no direct involvement in the implementation of the trust arrangements and, as such, have no personal knowledge of the finer details.

All of the Myanmar Assets, including Ivanhoe Myanmar Holdings Limited (Myanmar) and the exploration licenses for Modi Taung, were conveyed into the Trust structure and, thereafter, the Company's only connection to the Myanmar Assets was as the holder of the promissory note received in exchange. The Company retained no interest in the Myanmar Assets nor had any interest in any other assets in Myanmar. The Company had no right to oversee or otherwise involve itself in the trustee's efforts to dispose of the Myanmar Assets. As a creditor, the Company did receive periodic reports from the trustee and its agents as to the status of their efforts to locate a buyer and complete a sale.

I played no role in the sale of the Myanmar Assets by the Trust. I received nothing of value, directly or indirectly, in connection with the sale. As a shareholder of the Company, I indirectly realized a benefit as a result of the Company having received payment on the promissory note, but it was not one that was disproportionate to the benefit that also was realized by every other shareholder of the Company.

Having sought my input, I expect that you will fairly and accurately reflect all of these facts in any report pertaining to these matters that Amnesty International intends to publish.

Yours truly,

Robert M. Friedland
Chairman

150 Beach Road
25-03 The Gateway West
189720 Singapore

Ms. Audrey Gaughran
Director of Global Thematic Issues
Amnesty International - International Secretariat
Peter Benenson House, 1 Easton Street,
London WC1X ODW, United Kingdom
19 January 2015

Re: Amnesty International's investigation into the Monywa Project

Dear Ms. Gaughran,

We are writing with reference to your letter dated the 11 January 2015.

We understand from your letter that Amnesty International travelled to Myanmar to carry out their investigation into our project in March 2014 and your letter stated that you "interviewed, individuals affected by the project, activists and lawyers". We had sincerely hoped that you had also gotten in touch with us so you can get a more accurate and less biased picture from all sides as to the situation. This, we feel, would have made your investigation fairer and more factual rather than one that relies a great deal on perception and hearsay.

We were also quite surprised that you had also released a press statement in November 2014 demanding that "***The construction of the Letpadaung mine must be halted immediately until a thorough environmental and social impact assessment has been carried out, which genuinely consults all the people affected.***" We were disappointed that you would make such sweeping statements, and had reached such conclusions without ever approaching us for information or basing any of this on hard fact rather than on unsubstantiated claims. We find your letter to be based almost entirely on errors and inaccuracies, which has led your organisation to make wholesale unjustified and baseless accusations against our company. We must say that we find this conduct to be unprofessional and highly unfair.

We would like you to know that we have had an ESIA carried out by the internationally renowned and respected Australian consultancy, Knight Piesold. The ESIA has taken over two years to prepare and review, and it was based on community consultations and followed an exhaustive process. During the consultation process a number of environmental and technical issues were raised and these issues were able to be addressed and resolved. The ESIA has gone through extensive reviews for over one year by the Review Team organized by the Ministry of Environment Conservation and Forestry consisting of 45 top environmental and social experts as well as Ministries, NGOs and community representatives in the country and who have paid site visit to similar projects in the Western Australia. Knight Piesold have prepared the ESIA using International Finance Corporation's

(IFC) standards as a good practice guide to the achievement of sound environmental, social and health outcomes from the Project's implementation. Furthermore, the ESIA version you quote from quite extensively in the report you send us is not even the final version, but one as you correctly state dates back to May 2014.

Moreover, we would like you to know that since your team's visit in March 2014, our relationship with the community had been steadily improving. Starting with the ESIA consultations in March, and continuing with a multi-stakeholder consultations involving Mining Enterprise No. 1 (ME1) under Ministry of Mines and Myanmar Economic Holdings Limited (MEHL), ourselves, and which were overseen by the government, the project has been reaching out to its surrounding community. We have gauged community's acceptance for the project and also gauged their interest in receiving regular and predictable payments in the shape of a "contribution payment". And 71% of impacted villagers consulted in 35 villages had supported the project. And in 27 villages, amongst these 35, and where the multi-stakeholder teams were allowed to carry out door-to-door consultations with the impacted villagers the project received an overwhelming 91%. We should also point out to you that the contribution payments design was shaped through our community consultations. It was the villagers who originally said that they would like to have regular and predictable payments until they receive a Wanbao job. However, if they decline a Wanbao job, they would receive the contribution payment for the lifetime of the project. The contribution payments range from $70- $120 per month depending on how many jobs the landowner is entitled to. These payments would be in addition to the land compensation provided which ranges 1,825,000Ks to 3,250,000Ks per acre depending on the type of land.

As I am sure you are aware the Myanmar Government set up the Special Investigation Commission and the Implementation Committee (IC) afterwards to make sure that its recommendations are enacted. To date there have been 33 regular meetings of the IC involving ministers from a whole variety of ministries, all stakeholders involved in the project, regional government, environmental expert and others. This has been a very transparent process. We would like to inform you that we have followed the IC recommendations made to us to the letter, and we have always consistently asked the police to comply with international standards on the use of force. As we all know the police is independent governmental authority, we strongly refute your accusations made about us with regard to police matters and refer you to the relevant Myanmar authorities to direct

your question to. We understand that the Myanmar Police have received European Union (EU) training within the past two years. This is something that we have hugely welcomed.

In closing, we care a great deal about our community, and we will continue doing all that is possible to reach out to them and help them maximise developmental returns from the Letpadaung project.

Yours Sincerely,

Ma Weiguo

Executive Vice President

Wanbao Mining Ltd.

I WANT TO HELP

WHETHER IN A HIGH-PROFILE CONFLICT OR A FORGOTTEN CORNER OF THE GLOBE, **AMNESTY INTERNATIONAL** CAMPAIGNS FOR JUSTICE, FREEDOM AND DIGNITY FOR ALL AND SEEKS TO GALVANIZE PUBLIC SUPPORT TO BUILD A BETTER WORLD

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OPEN FOR BUSINESS?

CORPORATE CRIME AND ABUSES AT MYANMAR COPPER MINE

With the dismantling of economic sanctions, foreign investors are looking to enter Myanmar and the country is keen to show that it is now open for business. In particular, Myanmar's vast wealth of natural resources presents an attractive opportunity for multinational oil, gas and mining companies.

However, safeguards to protect communities affected by extractive activities are not yet in place, and the military remains closely involved with business activity in Myanmar. Foreign corporations doing business in the country face a high risk of colluding in human rights abuses if they do not take effective preventative action.

These risks are starkly illustrated by the example of one major mining operation - the Monywa copper project in central Myanmar, which has involved Chinese and Canadian mining interests. The project includes the notorious Letpadaung mine, which has sparked protests. In 2012 police used white phosphorus, a highly toxic and explosive substance, against peaceful protesters, an act amounting to torture, which is a crime under international law. In 2014 one woman died and several other people were injured when police opened fire on protesters.

Since its inception the Monywa project has been built on a foundation of forced evictions, environmental pollution and a lack of transparency. Thousands of people have been driven from their homes without adequate compensation or relocation. Hazardous waste discharged from the mine during the 1990s has still not been fully cleaned up, exposing people to serious health risks. Thousands more people are at risk of losing their homes and livelihoods in ways that violate international human rights law.

This report highlights wider structural issues - including the absence of a legal framework to protect people who are highly dependent on land for their livelihoods. It also highlights the involvement of companies in illegal activity. Investment can bring benefits to the people of Myanmar, but only if the existing abuses and the future risks are effectively addressed. The Myanmar government must investigate and remedy past abuses at Monywa, and impose stronger legal safeguards for the future. Investment in Myanmar must not come at the expense of the human rights of people living there; it is vital that home State governments require companies entering Myanmar to carry out enhanced due diligence.

Index: ASA 16/003/2015
February 2015

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