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Multifaceted: Governance and Conflict Risks in Myanmar's Ruby Industry

Mia Newman

SUMMARY

"Burmese rubies" are world renowned, commanding record sale prices on international markets. However, relatively little revenue from rubies appears to be contributing to Myanmar's national budget. While discussions on gemstone sector reforms have thus far largely focused on jade, little is known about the ruby sector and its role in the country's economy. This background paper consolidates information on the ruby industry and identifies linkages to broader challenges of peace and reform. As such it aims to contribute to the emerging debate within Myanmar on the conflict-sensitive management of the gemstone trade and its revenues.

Section I summarizes information about the main ruby production sites in Mogok and Mong Hsu. Section II briefly outlines the governance structure for gemstones in Myanmar, including taxation, the role of the state-owned Myanmar Gems Enterprise (MGE), and steps toward reform. Section III explains the role of the military and armed groups in the ruby sector, through mine ownership, the historical practice of concession granting in exchange for ceasefires, and other channels of influence. The section also provides a comparison of the ways in which Myanmar's ruby dynamics are similar or different to the ones identified in its jade sector. Finally, section IV provides further analysis and considerations for Myanmar, including suggestions for further research, promoting transparency and responsible sourcing, better integrating the conflict-financing role of gemstones and natural resources into peace dialogues, and encouraging a conversation on future distribution of natural resource benefits and responsibilities.

INTRODUCTION: CONTEXT AND MOTIVATION

Myanmar is famous for its rubies, and indeed the designation "Burmese ruby" has become a synonym for the highest quality rubies. As of 2007, an estimated 90 percent of rubies on world markets came from Myanmar,[1] though Mozambique has recently emerged as a major rival supplier. Myanmar's best rubies break records at international auctions, yet the citizens of Myanmar receive only a fraction of this wealth.[2] Potential reasons for this include: the combined effects of widespread corruption and cronyism; informal and personal network-based industry practices; a lack of value-adding expertise; and a policy environment in which many regulations are either notably absent or prohibitively burdensome.

1 Russell Shor and Robert Weldon, "Ruby and Sapphire Production and Distribution: A Quarter Century of Change," *Gems & Gemology* 45, no. 4 (Winter 2009): 239.
2 Emma Irwin, *MEITI Gemstone Sector Review* (World Bank, 2016), 42.

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Recent developments present new opportunities for Myanmar's ruby sector. For 13 years Myanmar's jade and gemstones were under sanctions from the United States, due to their links to the country's military government. However, these sanctions were lifted in October 2016, a new democratic government is considering reforms for the sector, and State Counsellor Daw Aung San Suu Kyi is eager to build the country's jewelry industry. Moreover, Myanmar's gemstones have generally received less scrutiny than the jade sector, which has had publicized connections to conflict actors, Chinese interests and major tycoons.

But the ruby sector is not without its challenges. Tax evasion is ubiquitous, and one estimate suggests that 60 to 80 percent of Myanmar's gemstones are never formally declared. Mining has also become increasingly mechanized but has operated with inadequate government oversight, allowing environmental damage and other local impacts.[3] These challenges present major risks for international businesses considering how to responsibly source Myanmar's gemstones.

Myanmar is also home to several long-running civil wars, some of which have been driven by conflict over the control of natural resources. The military has interests in the ruby industry, and implicit and explicit links are suggested between the sector and other armed groups. The dynamics and actors that have plagued the jade industry have strong parallels in the ruby sector (as shown by the diagram on page 10). However, discussions over the governance of gemstones have largely been excluded from ongoing peace negotiations. The people of Myanmar deserve to benefit from their natural resource wealth, but unfortunately most of the benefits of the ruby sector seem to remain in the hands of those with access to arms and influence.

This paper aims to consolidate available information about the ruby industry and explore its links to the broader challenges of securing peace and reform. In doing so, it aims to help broaden the scope of emerging conversations on conflict-sensitive management of the jade trade and its revenues, as well as discussions of responsible sourcing for all of Myanmar's resources.

Methodology note. The background paper draws on a desk review of existing and publicly available English-language research, Extractive Industries Transparency Initiative (EITI) reports and government data, and limited stakeholder interviews conducted from Yangon. A short paper cannot cover all the complexities of Myanmar's gemstone sector nor of its long-running conflicts. Moreover, detailed or validated information on the sector is rare. Rather, the research shared here is intended to offer pathways for further inquiry. Additionally, the research focuses on rubies because their fame makes them particularly valuable, but these dynamics likely apply to Myanmar's other high-quality gemstones—such as amber and amethyst in Kachin State, or other Mogok gems.

I. KEY LOCATIONS IN MYANMAR'S RUBY INDUSTRY: MOGOK AND MONG HSU

Mogok

Myanmar is best known for its Mogok rubies, which display the fluorescent, deep red "pigeon's blood" color that made Burmese rubies famous. The Mogok hills are also home to other high-quality gemstones, including spinel, peridot and sapphires—but rubies are its most celebrated: as of 2009, more than 90 percent of rubies that surpassed USD 50,000 per carat at Christie's auctions were sourced in Mogok.[4] Mogok is located in Mandalay Division, in a small finger of land that reflects a historical administrative choice to separate it from the surrounding Shan State. Thus,

3 Irwin, MEITI Gemstone Sector Review, 7 and 45–47.
4 All but 12 of 150 rubies over USD 50,000. Shor and Weldon, "Ruby and Sapphire Production and Distribution," 239.

though it has been governed as a part of central Myanmar, it has many ethnic groups in common with Shan State, unlike the mainly Burman rest of Mandalay Division,[5] and the former military government faced opposition there.[6] Access to the town has been restricted in the past, and foreigners continue to require a government permit to enter.

Figure 1. Map of Myanmar

5 Richard Hughes, "World Sources: Burmese Ruby & Sapphire | Pt. 4," *Ruby & Sapphire*, last modified 7 March 2013, http://www.ruby-sapphire.com/r-s-bk-burma4.htm.
6 Personal communication with several Mogok residents.

Mogok has a centuries-old tradition of small-scale gemstones mining. The arrival of large companies in recent decades has led to increased mechanization, particularly as rubies in the surface soils have become rarer and deeper shafts have been required to access deposits in the marble layers. Miners—often migrant workers—are hired by these companies, paid by salary or share of rubies found. Meanwhile groups of informal miners also comb through the companies' cast-off gravel. Known as handpickers or kanase, these groups have historically been made up of women and children, but increasingly scarce jobs have pushed more men into these informal and controversial mining roles.[7] With the July 2016 suspension of license renewals, more local miners have turned to informal mining—a common complaint of many mine owners who consider this theft of their resources.[8]

Mogok rubies and other gemstones are sold in local markets and through trusted networks of traders, complicating efforts to trace rubies back to the mine. Traders meet in the daily gems market to review stones that other brokers have purchased from the surrounding mines. Stones are then often cut and polished in Mogok before being sent on to jewelry makers—often also originally from Mogok—in Yangon or abroad.[9] Others in the industry note that Myanmar's cutting and polishing industry is not yet able to cut to high international standards, and so some stones are re-cut after export. It is also suggested that the highest quality gemstones are never shown on the public market and are instead sold to private and trusted brokers by the mine owners.[10]

The primary international markets for Mogok's gems appear to be Thailand and China, particularly Hong Kong. From these hubs, rubies enter the international market; industry members suggest that New York's market may be the main destination.[11] India is also a key destination country for Myanmar's rubies, especially those from Mogok, though often at higher volumes and lower qualities than the other destinations.[12]

Mong Hsu

Somewhat less well-known, but more prolific in lower-quality gemstones, is the region of Mong Hsu in Shan State.[13] Local legend holds that Mong Hsu's rubies were discovered in the early 1990s by a former Mogok miner who was bathing in the river of his hometown and recognized rough rubies among the river pebbles at his feet.[14] Mong Hsu quickly became one of the chief sources for the world ruby market, especially for small (under 3 carat) stones.[15]

Even less is known about Mong Hsu's recent ruby operations than Mogok's, both because it is located in an area of active conflict (discussed further in later sections) and because much of its product goes directly to Thailand. Mong Hsu's raw rubies are not as fine as Mogok's, and must be "heat treated" before being suitable to set into jewelry. In their rough form, the red gemstones contain a deep violet core, but heating the stone at extremely high temperatures has been found to significantly improve their color and clarity.[16] Thailand is the regional hub for heat treatment facilities, notably

7 Irwin, *MEITI Gemstone Sector Review*, 78.
8 Personal communication, ruby industry members, July 2017.
9 Personal communication, Mogok trader, August 2017.
10 Irwin, *MEITI Gemstone Sector Review*, 55 and 48.
11 *Ibid*.
12 Personal communication, Mogok trader, July 2017.
13 There are many English spelling variants—most often otherwise spelled Mongshu or Mineshu
14 Hughes, "World Sources: Burmese Ruby & Sapphire | Pt. 4."
15 Richard Hughes and Olivier Galibert, "Mong Hsu Ruby | Flux Healing Treatment," *Ruby & Sapphire*, last modified 29 January 2014, http://www.ruby-sapphire.com/foreign-affairs.htm.
16 The need for treatment decreases the price that Mong Hsu rubies can command. Occasionally, and more controversially for market buyers, heat treatment also can include a process that "fills" or "heals" the internal fissures of Mong Hsu rubies with a flux of glass or borax—which, when discovered, significantly reduces the value of the treated gem. See also Hughes and Galibert, "Mong Hsu Ruby | Flux Healing Treatment."

the city of Chanthaburi, which means that Thailand is the chief destination for Mong Hsu rubies.[17] One expert estimates that 99 percent of Chanthaburi's rubies in the early 2000s originated in Mong Hsu.[18] All sources agree that Myanmar's domestic heat treatment facilities lag behind those of Thailand, though at least one major ruby company has built its own center.[19] Members of the Myanmar gemstone industry still note that Thai traders are virtually the only buyers for Mong Hsu products.[20] It is suggested that Thai traders arrive directly in Mong Hsu to buy the gemstones and arrange for them to be smuggled overland[21]—perhaps through networks already established for the Golden Triangle's illicit drug trade.[22] Others suggest Thai traders attend the national emporiums to buy the rough stones there.[23]

II. GEMSTONE GOVERNANCE IN MYANMAR

The challenges of Myanmar's ruby sector are best understood in the context of the country's broader gemstone governance challenges and reforms. Gemstones are inherently difficult to govern, as they are easily smuggled and their market value is highly subjective, depending on taste and expertise. Moreover, rubies are part of a highly decentralized global market for colored gemstones, in which it is difficult to establish the supply chain controls that have been attempted for diamonds, for example. The industries in both Mogok and Mong Hsu are no exception. Both are highly reliant on systems of trusted networks, and traders make valuable deals without formal contracts; members of the networks are hesitant to reveal their sources or buyers to others.[24] The number of intermediaries involved is also likely to complicate efforts to trace Myanmar's gems back to their origin.

The difficulty in governing gemstones in Myanmar is compounded by a confusing legacy of laws and regulations. The most relevant law for the ruby industry is the Gemstone Law, which was issued in 1995 and amended in 2016. A new law is being debated in parliament at the time of writing. (For further discussion, see NRGI's *Governing the Gemstone Sector: Considerations for Myanmar*.)

Like Myanmar's other natural resources, jade and gemstones are primarily overseen by a state-owned enterprise that also participates in commercial activities. The Myanmar Gems Enterprise (MGE) is responsible for licensing and most tax collection, as well as jointly managing official sale venues like the emporiums alongside the main industry body.[25] It also operates through production sharing contracts with many private firms, from which it receives shares of profits. MGE has limited capacity to adequately oversee the large jade and gemstone sector; it tends to provide most oversight to companies with which it has joint venture agreements. However, in 2016, 98 percent of production permits went to private companies rather than joint ventures with MGE, which an EITI gemstone report suggested means that in practice they are able to operate "essentially without oversight" and are "free to choose how they produce, what they declare, and whether or not this goes through formal channels."[26] Even where revenues are

17 This could also be connected to the brokering networks of the Shan diaspora that left Mogok and Shan State last century but remained close to the gemstone business. See FK Lehman (Chit Hlaing), "The Central Position of the Shan/Tai as 'Knowledge Brokers' in the Inter-Ethnic Network of the China-Burma (Myanmar) Borderlands." (School of Oriental and African Studies, University of London, 2007), https://eprints.soas.ac.uk/5293/2/10chithlaing-shan_paper.pdf.
18 Hughes and Galibert, "Mong Hsu Ruby | Flux Healing Treatment."
19 See Ruby Dragon Jade & Gems company website: http://www.rubydragongroup.com/gemstones.html .
20 Personal communication, ruby industry members, July 2017.
21 Irwin, *MEITI Gemstone Sector Review*, 52.
22 Personal communication, Myanmar civil society stakeholder, August 2017.
23 Personal communication, ruby industry stakeholder, August 2017.
24 Irwin, *MEITI Gemstone Sector Review*, 48.
25 "Ministry of Natural Resources and Environmental Conservation: Duties."
26 Irwin, *MEITI Gemstone Sector Review*, 7.

properly collected, a majority of the funds are permitted to remain in MGE's operating bank accounts, rather than being paid into public coffers. (See NRGI's *Gilded Gatekeepers* for more on these "Other Accounts.")

Myanmar's gemstone governance also makes it difficult for international companies to legally participate in the sector. In terms of the production or extraction of gemstones, the 2016 amendments uphold a ban on any foreign participation and set a 20 percent royalty rate at the site of extraction for jade, rubies, sapphires and diamonds. This is at least two times the royalty rate for gemstones in other countries, and combined with the past export ban, incentivizes smuggling.[27] Export of rough stones was also previously banned in an attempt to protect the domestic industry. While the ban was lifted in the 2016 amendments, processes for legal export of rough gemstones remain unclear.[28] The legal structure does permit mining companies to sell their gems at the Jade and Gemstone Emporiums in Nay Pyi Taw or to traders, after paying MGE the extraction royalty.[29] However, while the emporiums are supposedly the main forum for these international gem sales, most ruby trading does not happen there; instead those events mainly draw Chinese brokers for jade.[30]

Limited oversight and regulatory transparency contribute to the fact that there is no estimate of the value of Myanmar's ruby industry. Myanmar's rubies regularly break records at international auctions—in 2015, the 15-carat "Crimson Flame" sold at Christie's Hong Kong auction for a world record of USD 1.2 million per carat.[31] But sale and production numbers reported from government agencies vary widely. Most government figures also lump both jade and gemstones together, because they are jointly regulated and sold, making disaggregation of government figures for rubies difficult. Myanmar's other gemstones are likely not as lucrative as the country's jade sector, but the MGE data published through EITI included no estimate of the value of rubies extracted. Although MGE data indicates that the country produced at least 400,000 carats of rubies each year in 2013–2015, gemstones' value per carat is too subjective to determine an overall sector value.[32]

In 2014, Myanmar became a member of the Extractive Industries Transparency Initiative (EITI), an international multi-stakeholder transparency system that promotes better accountability for natural resources. However, only 30 jade and gemstone companies were included in the country's first EITI report, which covered the fiscal year 2013/2014; just four of those companies included their gemstones licenses, while the others reported jade alone. These companies were selected based on a threshold of MMK 10 billion (USD 7.3 million) of official sales at the Jade and Gemstone Emporiums, rather than selecting those who are responsible for most production or sales to traders outside of the emporiums. Because the emporium is not the main destination for gemstone sales, using emporium data as EITI criteria means the initiative provided almost no additional transparency for the gemstone sector. Myanmar's EITI stakeholders suggest that the threshold will be changed to capture more jade and gemstone companies for future reports.

27 NRGI research, 2017.
28 Irwin, *MEITI Gemstone Sector Review*, 2017, 55.
29 *Ibid.*, 40.
30 For example, only 326 of the 6,887 lots at the August 2017 emporium were for gemstones, with the bulk of sales being for the high-value raw jade boulders. Gemstone sales made up only EUR 3.07 million of the EUR 515 million from that Emporium's sales. See Chan Mya Htwe, "Jade Sales at 54th Gem Emporium down Due to Poorer Quality," *Myanmar Times*, 14 August 2017, http://www.mmtimes.com/index.php/business/27245-jade-sales-at-54th-gem-emporium-down-due-to-poorer-quality.html.
31 Christie's, "The Crimson Flame Ruby Sets a World Auction Record at Christie's Hong Kong," press release from 1 December 2015, http://www.christies.com/about-us/press-archive/details?pressreleaseid=8190&lid=1&mob-is-app=false.
32 Irwin, *MEITI Gemstone Sector Review*, 98 and 40.

In another reform, the new government suspended renewals of jade and gemstone licenses in July 2016, while awaiting the development of reforms to improve governance of gemstone mining and reduce its social and environmental impacts. While demonstrating the government's commitment to reforming the sector, the suspension of licensing has presented hardships for local communities and migrant workers reliant on mining for their livelihoods. Informal reports are that more than 80 percent of Mogok's mines have had to cease operations, and the local industry has stepped up its government advocacy to restart permitting.[33]

III. MYANMAR'S RUBY INDUSTRY: NATURAL RESOURCES AND CONFLICT

Reforming Myanmar's gemstone governance systems is important not only because of its potential for more equitable development, but also because of its links to Myanmar's internal conflicts. Good resource governance can help ensure that efforts to extract these resources benefit the country's citizens; by contrast, natural resource wealth is too often implicated in corruption and conflict. So-called "lootable resources"—or natural resources that are highly valuable but small enough to be easily extracted and smuggled—are especially prone to fueling war economies. However, these resources, which require localized low-skill labor, also have the best potential among national natural resources to offer development benefits to local communities.[34]

Rubies and conflict actors in Myanmar

Though natural resources have not always been the central focus of Myanmar's conflicts, reports from national and international groups have linked trades in extractive resources like jade or timber to the financing of some of its wars. A 2015 Global Witness report on Myanmar's jade trade outlined the longstanding economic connections between the military and ethnic armed groups that exert control over the jade mining areas of Kachin State, as well as the links between the jade trade, Chinese business interests and Myanmar tycoons who are connected to the former military regime. The report argued that these financial relationships—while not necessarily motivating the ongoing war—do compromise efforts to negotiate a peaceful settlement that would take control of these areas from military and ethnic armed groups and bring them under the control of the civilian government.

While the rest of Myanmar's gemstone sector has not been as explicitly tied to conflict as jade, the highly opaque ruby industry does have links to conflict and merits further review as part of the peace process, sector reform and responsible sourcing efforts. The following sections outline the main ways in which Myanmar's rubies may be linked to conflict actors and pose challenges to the peace process, based on available public information, including: (1) the connections of the Myanmar military to the ruby sector; (2) the history of trading ceasefires for mining concessions; and (3) active violence that renders the trade itself conflict-affected.

33 Ko Ko Kyaw, "Mogok Residents Seek Amendments to Gemstones Law," *Myanmar Times*, 17 August 2017, http://www.mmtimes.com/index.php/national-news/mandalay-upper-myanmar/27308-mogok-residents-seek-amendments-to-gemstones-law.html.

34 Michael L. Ross, "Oil, Drugs, and Diamonds: The Varying Roles of Natural Resources in Civil War," in *The Political Economy of Armed Conflict: Beyond Greed and Grievance*, eds Karen Ballentine and Jake Sherman (Lynne Rienner Publishers, 2003), 55. For a fuller description of the mechanisms by which natural resource wealth affects conflict dynamics—whether onset, duration or intensity, see Michael L Ross, "How Do Natural Resources Influence Civil War? Evidence from Thirteen Cases," *International Organization* 58, no. 1 (Winter 2004): 35–67.

1. Myanmar's military and the ruby industry

From years of military rule, Myanmar's military (Tatmadaw) remains deeply embedded in the country's economy, including the ruby industry. Successive military governments oversaw waves of socialism and privatization; throughout, the Tatmadaw's connections to the country's economy have been designed both to sustain the army as an institution and to reward the service of its members. It also made military connections a pathway to economic success in Myanmar and created a third pillar of power for the Tatmadaw alongside its political and military dominance. Even as democratization and political reforms continue in Nay Pyi Taw, the Tatmadaw still generally operates independently of civilian oversight, both in its economic activities and its management of Myanmar's conflicts.

Military-affiliated companies have been key actors in the ruby industry. Mong Hsu is surrounded by areas of Shan State that have long been contested by the Tatmadaw, ethnic armed groups such as the Shan State Progress Party/Shan State Army-North (SSPP/SSA-N) and Restoration Council of Shan State/Shan State Army-South (RCSS/SSA-S), and both pro- and anti-government militia. However, word-of-mouth reports indicate the mines of Mong Hsu have since been primarily consolidated under military control. Though ethnic armed groups have also mined there, they have done so with the explicit or implicit oversight of the Tatmadaw.[35] Meanwhile in Mogok, more formal ownership has embedded the military into the local economy. The government had a monopoly on jade and gemstones since the 1980s; the military government transferred their plots from direct control to the ownership of a military conglomerate, Union of Myanmar Economic Holdings Limited (UMEHL), in 1995.[36]

UMEHL and Myanmar Economic Corporation (MEC) are the largest military-affiliated conglomerates, and both hold significant ruby mining licenses. Both were established in the 1990s, housed within the Defense Services branch to serve as the "economic arm of the Myanmar military."[37] They are not formally state-owned enterprises, but rather have operated as semi-formal extensions of the military, with attending privileges and previous exemptions from tax and audit systems. The companies have their own operations, as well as wholly or partially owned subsidiaries and numerous joint ventures with private companies. While the impact of these companies' revenues on the military's overall budget or that of its directorates remains poorly understood,[38] a U.S. diplomatic cable in 2009 named UMEHL's operations "key components of the elaborate system of patronage the regime uses to maintain power."[39]

In 2016, UMEHL applied to become a public company, selling its Defense Services-owned shares to the current and former military personnel who make up its other shareholders.[40] UMEHL also began paying taxes by 2012, becoming one of the country's top taxpayers in 2015 and 2016.[41] What this means for its operations, influence and transparency remains unclear, though it seems the company's

35 Personal communication, civil society stakeholder, August 2017.
36 "Long Wait On for Global Value Add Players to Enter Gem Market," Myanmar Gems, accessed 16 November 2017, http://www.myanmargems.com/gemmarket.htm.
37 *Myanmar First EITI Report* (Myanmar Extractive Industries Transparency Initiative, 2016), 48–49.
38 Adam Smith International, *Institutional and Regulatory Assessment of the Extractive Industries in Myanmar* (The World Bank, 2015), 83; Global Witness, Jade: Myanmar's 'Big State Secret' (2015), 50–52.
39 WikiLeaks cable cited in Michael Peel, "Myanmar: The Military-Commercial Complex," *Financial Times*, 2 February 2017, https://www.ft.com/content/c6fe7dce-d26a-11e6-b06b-680c49b4b4c0.
40 Clare Hammond, "Military-Owned MEHL Applies to Become Public Company," *Myanmar Times*, 1 April 2016, http://www.mmtimes.com/index.php/business/19799-military-owned-mehl-applies-to-become-public-company.html.
41 "IRD Honours Top Tax Payers," *Eleven Myanmar*, 11 April 2017, http://www.elevenmyanmar.com/business/8799; Aye Thidar Kyaw, "Annual List of Top Taxpayers Shows Payments Rising," Myanmar Times, 22 March 2016, http://www.mmtimes.com/business/19586-annual-list-of-top-taxpayers-shows-payments-rising.html.

revenues continue to reward and protect military personnel. As of early 2017, all leaders of the company remained men of military rank.[42] Meanwhile, MEC still sits within the Quartermaster General's office in the Defense Services department and remains one of the most secretive bodies in the Myanmar economy.[43]

As in the jade industry, UMEHL has served as an unofficial gatekeeper for private companies seeking access to the best plots and access to licenses.[44] According to previous NRGI research, UMEHL holds "significant de facto licensing power via the ability to partner with private companies to develop mines over which UMEHL holds a formal license." However, the degree of their oversight and day-to-day involvement is less certain.[45]

Military-affiliated companies also directly hold significant shares of ruby mining licenses. As of 2014, 20 percent of licenses in the ruby mining areas of Mogok and Mong Hsu were held by four known military-affiliated companies alone—three UMEHL subsidiaries and MEC.[46] Though the data do not specify, this figure may not include their joint ventures with private firms.[47] UMEHL generally operates in the ruby sector through its wholly owned subsidiary, the Myanmar Ruby Enterprise, as well as in numerous joint ventures. There are also 10 other "Gems and Jewellery" companies registered to the same address as the Myanmar Ruby Enterprise in the national Directorate of Investment and Company Information (DICA) records, some of which share publicly listed directors with the main Myanmar Ruby Enterprise and with each other. (See Figure 2.) This suggests that these may be affiliated companies operating under different title, a practice that would allow them to secure additional licenses without drawing further attention as transparency increases in the sector. According to MGE in 2016, MEC now also directly holds 95 licenses in Mogok and Mong Hsu.[48] Given the number of these military company partnerships, the share of revenues that military affiliates receive from the ruby trade could be higher than is immediately apparent.

Further, the opaque mechanisms for licensing reinforce the military's influence.[49] As noted above, MGE retains a significant amount of discretion for permit allocation, especially for its joint venture projects, and maintains the authority for monitoring enforcement of existing laws. Though the political transition has changed the leadership of MGE, it is still mainly staffed by individuals who were put in place by the military government. Despite an apparent will to reform, MGE faces significant capacity challenges to adequately oversee the sector, as well as a legacy of past practice in which the institution was mainly accountable to the military.

42 Peel, "Myanmar: The Military-Commercial Complex."
43 Maung Aung Myoe, *Building the Tatmadaw: Myanmar Armed Forces Since 1948* (Singapore: ISEAS Publishing, 2009), 182.
44 Personal communication, Mogok ruby industry sources, August 2017.
45 Patrick Heller and Lorenzo Delesgues, *Gilded Gatekeepers* (Natural Resource Governance Institute, 2016), 20.
46 Myanmar Ruby Enterprise, Dana Theidi Star and Thit Par Sann. Excludes the small, individually held permits that Mogok began issuing recently to long-time residents. *Myanmar First EITI Report* (Myanmar Extractive Industries Transparency Initiative, 2016), Appendix.
47 *Myanmar First EITI Report* (Myanmar Extractive Industries Transparency Initiative, 2016), Appendix.
48 Irwin, *MEITI Gemstone Sector Review*, 22.
49 For more information, see the following NRGI Briefing: Maw Htun Aung and Paul Shortell, "Mineral and Gemstone Licensing in Myanmar" (Natural Resource Governance Institute, 2016), https://resourcegovernance.org/analysis-tools/publications/mineral-and-gemstone-licensing-myanmar.

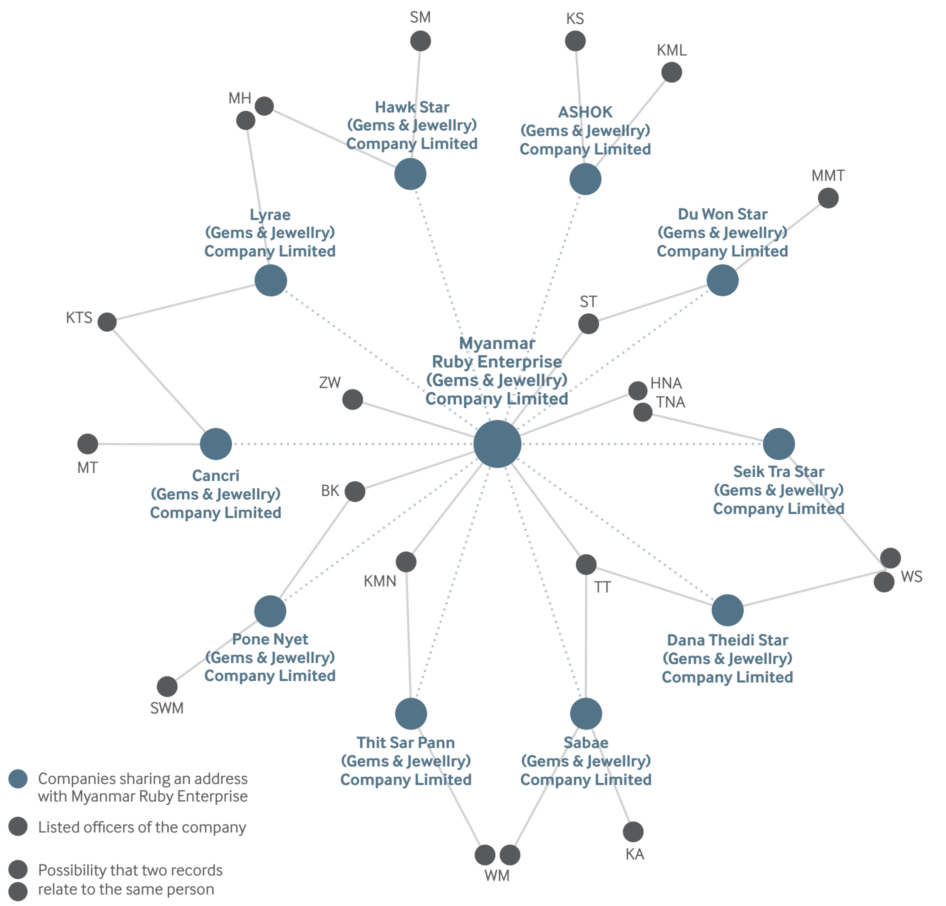

Figure 2. Myanmar Ruby Enterprise and affiliates (officers and affiliated companies).

Compiled using public data from Myanmar's Directorate of Investment and Company Information (DICA). The data used for this figure was publicly available on DICA website at the time of research.

2. Rubies and other armed groups: Trading concessions for ceasefires

Though likely the largest single actor within the ruby sector, the military is not the only conflict-affected stakeholder in the sector. Concessions for economic activities have been part of the tactics used by the military to bargain for ceasefires or other compromises[50]—ruby mines were one such bargaining chip. Whether the proceeds from such ruby mining directly finance armed group activities, the precedent of co-optation by economic concession is problematic. It removes incentives for political dialogue or social compromise, ties the economic fate of the ethnic group to its cooperation with the military, and creates unstable equilibrium. One scholar suggests that fighting intensified in the late 2000s because of the military's desire to renegotiate the economic deals struck in the ceasefires of the 1990s.[51]

The Pa-O National Organization (PNO) is one such ethnic armed organization granted ruby mines as part of its 1991 ceasefire deal with the Tatmadaw. The PNO set up Jade Dragon Gems and its subsidiary Ruby Dragon Jade and Gems Company.[52] Nay Win Tun, who has run the company since, became a member of parliament on behalf of the PaO and was the lead drafter of the 2016 Gemstone Law amendments that currently govern the sector.[53] Ruby Dragon mines in both Mong Hsu and Mogok, also operating through its gemstone subsidiary Loi Mine Nagar Gems. They run both private mines and joint ventures with MGE. The PNO now oversees a self-administered zone,

50 See, for example, Kevin Woods, "Ceasefire Capitalism," *The Journal of Peasant Studies* 38, no. 4 (2011): 747–770.
51 Vanda Felbab-Brown, *Myanmar Maneuvers* (United Nations University Centre for Policy Research, April 2017), 2.
52 Ko Htwe, "PaO Seek Party Registration," *The Irrawaddy*, 5 April 2010, http://election.irrawaddy.com/news/240-pao-seek-party-registration.html.
53 Global Witness, *Jade: Myanmar's 'Big State Secret,'* 67.

while the armed wing became a military-aligned militia.[54] Though no longer in active conflict, these concessions bind the economic viability of the PaO to their ties to the military; indeed, Ruby Dragon grew closer to the military in the years of their operation, famously gifting an enormous jade boulder to the military in 2000.[55]

Meanwhile, the experience of the SSPP/SSA-N demonstrates the fragility of Tatamadaw-granted concessions. Little public documentation of their interests in the gemstone sector is available, but several sources suggest that they were granted ruby mines under the terms of their verbal ceasefire agreement with the Tatmadaw in 1989.[56] These concessions were likely around Mong Hsu, also one of the SSPP/SSA-N's main military headquarters. However, their ceasefire eventually broke down and was renegotiated within a 2012 written ceasefire agreement, without concessions.[57] That ceasefire has also been repeatedly broken,[58] including clashes as recently as August 2017 between the SSPP/SSA-N and the Myanmar military around Mong Hsu.[59] Interviews from Yangon have not been able to confirm whether those ruby mines are still providing revenues to the SSPP/SSA-N, or whether they have since lost ownership.

3. Rubies and other armed groups: Violence around contested mines and trade routes

There has also been more active violence around ruby mining areas, though it has not been explicitly linked to the ruby trade in publicly available information. In addition to recent clashes between the SSPP/SSA-N and the military around Mong Hsu, there have been reports in the last several years of fighting between the RCSS/SSA-S and the military around the same area. This is despite RCSS being one of the original signatories to the Nationwide Ceasefire Agreement and to a 2012 bilateral ceasefire with the military. This indicates the unstable nature of deal-making in these areas. The RCSS/SSA-S has also reportedly conducted business in gemstones and jewelry under the company name Shan Taung Tan Cherry since 2012, though no public ruby associations for that company have been found in this research.[60]

Additionally, some roads from Mogok pass through Shan State, and local traders report fears of transit on those roads due to the risk of armed group attacks or robbery. The new road from Mogok to Pyin Oo Lwin is one of those areas, where drivers who are not known to these groups (and thus have not paid them) are supposedly at risk. One report suggests this is due to fighting between the Tatmadaw and the Ta'ang National Liberation Army (TNLA).[61] Similarly, others note concerns about the roads to China from Mogok that pass through Kyaukme, Lashio and Muse (in Shan State) due to armed group activity—whether attacks or bribe demands.[62]

Rubies from Mong Hsu are also rumored to travel on the same routes used for drug trafficking in the Golden Triangle, thus intersecting with Wa and other militia activities.[63] However, no one has yet offered concrete evidence that supports these claims.

54 Buchanan, John. *Militias in Myanmar* (The Asia Foundation, 2016), 20
55 Wai Moe, "Nay Win Tun: Burma's Gem Stone Tycoon," *The Irrawaddy*, 31 October 2007, http://www2.irrawaddy.com/article.php?art_id=9164.
56 Myanmar Peace Monitor, *Deciphering Myanmar's Peace Process: A Reference Guide* (Burma News International, 2014), 57.
57 "Agreement between the State-Level Peace-Making Team and the Shan State Progressive Party/Shan State Army."
58 See, for example, ALTSEAN-BURMA, "Tatmadaw troops start assault on a Shan State Army-North (SSA-N) camp at Red Ruby Mountain, Monghsu, Shan State," 11 June 2014, as cited in "Ethnic Issues Chronology 2014," accessed 23 August 2017, http://www.altsean.org/chronology/chronology2014/ethnicIssueschronology2014.htm.
59 Sai Aw, "Renewed Fighting Erupts," *Shan Herald Agency for News*, 23 August 2017, http://english.panglong.org/2017/08/23/renewed-fighting-erupts-between-burma-army-and-ssppssa-in-mong-hsu.
60 Myanmar Peace Monitor, *Deciphering Myanmar's Peace Process*, 185.
61 Hla Hla Htay, "Myanmar's Elusive Gift from God," *Agence France-Presse*, 17 February 2017, https://correspondent.afp.com/myanmars-elusive-gift-god.
62 Personal communication, Mogok industry members, July and August 2017.
63 Personal communication, Myanmar civil society stakeholders, August 2017.

Conflict rubies?

As noted above, a 2015 Global Witness report highlighted the links between Myanmar's jade and the long-running conflict in Kachin State. Several of the actors, motivations and mechanisms that are known in the jade sector are also echoed in rubies.

As of 2014, nearly a third of companies licensed to operate in ruby-producing areas of Mong Hsu or Mogok were also licensed for jade production.[64] All four of the companies meeting the revenue threshold for the first EITI report who were listed with gems permits were mainly attending the emporium because of their jade sales.

The military-affiliated companies are of course also a common actor—the same companies UMEHL and MEC that dominate Mogok and Mong Hsu for rubies are also the companies that together had USD 283 million in jade sales over 2013 and 2014.[65]

Several of the companies named in the Global Witness report as "crony companies"—large companies that became close to the military government in the past decades—are similarly important players in rubies:

- Asia World is linked to two of the four gemstone companies that met the 10 billion kyat threshold for the first EITI report: Wai Family Gems and Wai Aung Gabar Gems. Asia World owns 60 percent of Wai Family Gems, according to the ownership information disclosed in the first EITI report, and Wai Family Gems in turn shares three company directors and an address with Wai Aung Gabar Gems.[66]
- Kanbawza (KBZ), now the conglomerate that owns the largest bank in Myanmar, got its start in the ruby mines of Mong Hsu, and continues to keep the business as a legacy—though it makes up a much smaller share of their business now. They claim to have stopped their jade extraction in Kachin State.[67]
- Ruby Dragon does business in the ruby sector through at least one subsidiary, Loi Mine Nagar Gems, and is affiliated to a PaO ceasefire group that is also discussed further in this report.

Comparing conflict links within the value chain: Jade and rubies

	Kachin State jade	Mogok rubies	Mong Hsu rubies
Ownership	*Contested territory*—1994 loss of jade mines were blow to Kachin Independence Army (KIA) that contributed to a 17-year ceasefire; since 2011 when fighting resumed, the territory has once again become a source of conflict.	*Significant military influence*—UMEHL has significant control over high-quality plots, both in terms of its direct mining and its influence over who can receive licenses.	*Significant military influence and possible contested territory*—reports suggest mostly direct military or military-affiliated ownership of mines, as well as military-controlled concessions granted to ethnic organizations—e.g., SSPP, PNO.
Mine site	Local Tatmadaw tax small-scale miners to provide "protection."[68] Meanwhile, Kachin Independence Organization (KIO) taxes production semi-formally, at 10 percent. Informants notify them of big discoveries; they then send an invitation to pay and offer a receipt at the end.[69]	Research for this paper did not surface reports of protection money or EAO taxes required to mine in Mogok. Such payments are unlikely in Mogok, which does not have active armed groups operating nearby.	As noted elsewhere, information about Mong Hsu's ruby mines is much harder to find. Research for this paper did not surface reports of protection money or taxes for mining in Mong Hsu.
Transport/ Trade	Checkpoints are manned by commanders from both KIA and Tatmadaw—they demand a price (subject to negotiation) to pass, with free pass for high-ranking generals' trucks.[70]	Stakeholder reports suggest that the new road from Mogok south to Pyin Oo Lwin and northeast to China, both directions via Shan State, is dangerous due to unknown armed groups active along the road who demand payments and/or pose a threat to drivers.	Stakeholder reports suggest that overland route to Thailand is through territory and border crossings controlled by armed groups (government-aligned militia and ethnic armed organizations) and therefore likely involves transit payments.

64 Myanmar Extractive Industries Transparency Initiative, *Myanmar First EITI Report* (2016), Appendix.
65 Global Witness, *Jade: Myanmar's 'Big State Secret,'* 40.
66 http://www.dica.gov.mm/en/company/wai-aung-gabar-gems-company-limited and http://www.dica.gov.mm/en/company/wai-family-gems-company-limited
67 Global Witness, *Jade: Myanmar's 'Big State Secret,'* 58.
68 Fabienne Bernhardt, *Natural Resources and Peacemaking: The Link Between Myanmar's Jade Wealth and the Civil Conflict in Its Northern Borderlands* (Institut des Hautes Études Internationales et de Développement, 2017), 67.
69 Transparency and Accountability Network for Kachin State (TANKS), *Beyond Liability: Preliminary Report on Jade Mining,* 31–33.
70 Bernhardt, *Natural Resources and Peacemaking,* 33, and TANKS, *Beyond Liability* (n.d.), 31–33.

IV. CONSIDERATIONS

Myanmar's rubies are just one example of the links between Myanmar's natural wealth and its conflicts. But as with Myanmar's other natural resources, ruby wealth could become part of national and local development, rather than serving as a reward for violence or a stumbling block to peace negotiations. There remains much more to learn about the sector, but the following themes should be considered when prioritizing further research and plans for reform.

Better understand the role of rubies in Myanmar's conflicts and economy.

The research conducted for this background paper suggests that too little is known or sufficiently understood to adequately propose concrete ways forward. In addition to the broader themes and considerations outlined in the following sections, several specific areas of research to improve ruby industry analysis include:

- *Estimate the value of the ruby sector.* This is needed both in terms of what the sector contributes to the licit and illicit economy today, and what its future potential might be. This could also be strengthened by a better geological understanding of the prospects for future discoveries.
- *Further explore the nature of the industry in Mong Hsu.* This is the ruby area where the most active conflict is ongoing. Consultation with local communities in ruby-producing areas is essential, in order to understand the sector's role in the local economy and opportunities for improving future management.
- *Map the companies affiliated to ethnic armed groups and their role within the ruby industry.* Military-affiliated companies are somewhat better known, and are certainly dominant players within the industry, but opaque concession practices indicate that historical ownership patterns for ethnic armed groups should also be better understood.

Promote further transparency and accountability in the gemstone sector, including rubies.

The scarcity of information about Myanmar's gemstone sector also hampers oversight or improvements. Much-needed oversight—from government actors, civil society and international business—will require more transparency. In particular, given the growth of responsible sourcing pressures, Western companies will likely push to avoid feeding into a conflict economy by purchasing from a company that is contributing to a war effort. Meanwhile, Chinese companies in particular are increasingly aware that their practices could draw local hostility in Myanmar. This should not be interpreted to mean Myanmar's rubies should be avoided entirely on international markets, but rather should be part of future responsible sourcing and due diligence practices that contribute to Myanmar's development rather than its wars. Transparency and accountability could be improved by taking steps to:

- *Promote transparent management of licensing and tax revenues.* Transparency is required for all stakeholders to understand the interests of those involved in the gemstone trade, including beneficial ownership, and to end the current insider-based system for accessing gemstone revenues.
- *Expand the scope of EITI reporting for gemstone companies.* While EITI presents important opportunities for improved transparency and accountability in Myanmar's natural resources, its current implementation has missed this opportunity for the gemstone sector. This could be addressed by expanding the number of gemstones companies covered by EITI reports by moving beyond

emporium data alone—for example, by including permitting and production data, and by lowering revenue thresholds.

- *Use international responsible sourcing requirements to push for greater transparency.* Further research should explore what specific information about revenues and beneficial ownership would sufficiently assure international companies considering entry into Myanmar's ruby sector. One possibility could be to explore a traceability scheme, designed to generate more value for gems with known provenance. While decentralization and informal trading networks would make a full Kimberley Process analog more difficult in colored gemstones, the Responsible Jewellery Council announced in 2016 that it intends to expand its certification program to include colored stones,[71] and mine of origin should be possible to ascertain for some portion of Myanmar's gems.

Support stakeholders addressing the economic implications of peace negotiations, particularly the role of gemstones in financing conflict.

Powerful actors are financially embedded in Myanmar's current practices, with armed forces behind them; even with a newly elected government, active fighting has been at its highest in decades. This leaves few incentives for reforms such as civilian government oversight over the industry or creating a role for ethnic communities and local governments in sector governance. While rubies are not the primary contributor to military budgets, they are part of the economic system that could push armed actors to resist the political or economic compromises required in peace negotiations.[72] Current discussions could better accommodate the relationship between peace and gemstone wealth; specifically, they should aim to:

- *Ensure affected communities and civil society stakeholders can participate in discussions on both peace and gemstone sector management.* For the peace process to better incorporate the role of natural resources in financing conflict, it requires more dialogue with the communities and civil society members who are focused on these respective challenges. For example, a coalition of civil society groups recently released a statement outlining principles for natural resource management within the 21st Century Panglong peace negotiations.[73] However, too often peace dialogues are divorced from the conversations in Nay Pyi Taw about technical reform of natural resource management, despite natural resources formally being a theme in the peace negotiations.

- *Incorporate the role that gemstones play in financing conflict actors into discussions of security sector reform.* Discussions of security sector reform should expand to include a review of how companies affiliated to armed actors operate within the country, and especially in natural resource extraction in ethnic areas. Stakeholders should be aware of possible resistance to demilitarizing the economy, but should also acknowledge that some military-affiliated companies may already be stepping towards reform.

71 "RJC to Expand Scope to Include Colored Stones," *National Jeweler,* 22 March 2016, http://www.nationaljeweler.com/diamonds-gems/social-issues/4047-rjc-to-expand-scope-to-include-colored-stones.

72 Many of Myanmar's armed actors in these areas—both military and non-state—are not necessarily or entirely profit motivated. Natural resources can also be deeply tied, ideologically and politically, to local identity, with jade in Kachin State being a prominent example. Meanwhile, the military believes it may be the only force capable of keeping this diverse country from fracturing and has viewed economic integration as a practical tool in that effort. (See David Steinberg, "Burma/Myanmar: The Role of the Military in the Economy," *Burma Economic Watch* 1 (2005), 53.)

73 Myanmar Alliance for Transparency and Accountability (MATA), "The 21st Century Panglong Process Must Set a New Approach for Natural Resource Management," last modified 23 May 2017, https://www.facebook.com/permalink.php?story_fbid=1504539409616416&id=672103292860036.

Engage in dialogue and planning for future gemstone sector management.

Similarly, peace dialogues in Myanmar are likely to outline future systems for sharing both the revenues from and the responsibilities for natural resource management. Like many of Myanmar's rich natural resources, rubies and other gemstones are extracted from areas often populated by ethnically diverse communities that may feel disconnected from the government and wary of the military. Many potential models exist for better distributing the management and benefits of natural resources, both current and future discoveries—but all require dialogue and oversight. Key steps in developing these models would include:

- *Define a comprehensive, conflict-sensitive system for managing benefits and responsibilities in the ruby sector.* Managing these resources is best discussed as part of a broader conversation about representation and equitable development—including weighing adverse local environmental and social impacts against possible revenues, making decisions about who should receive benefits from mining and trade, and ensuring that protective policies are enforced. For more, see NRGI's 2016 *Sharing the Wealth: A Roadmap for Distributing Myanmar's Natural Resource Revenues* and 2018 *Natural Resource Federalism: Considerations for Myanmar*.

- *Encourage peace stakeholders to include rubies and other gemstones within their plans for natural resource management.* Some groups in Kachin State have become increasingly focused on natural resource revenue sharing as a result of longstanding grievances over how the jade sector has been exploited; however, communities around ruby and other colored gemstone mines have mostly not been so vocal or organized. Including negotiation topics around gemstone wealth and reform within the peace dialogues would be an important way to ensure better and more inclusive ruby sector management in the long term.

- *Ensure that peace dialogues move beyond past concession-granting practices.* It is important to recognize that better resource sharing does not simply mean trading concessions for ceasefires. The legacy of mines having been used as non-political settlements with armed groups remains problematic. Despite this use of natural resources to bring a détente to active fighting, it has made the ruby trade one more source of contested income that is dependent on the military for access, and set a precedent for economic rather than political concessions in peace talks. It also biases the mining licensing process, setting additional obstacles for companies with better practices to acquire licenses on their merits. Positive peace will involve widening the access to benefits from the ruby trade, not merely suspending the fighting to allow the extraction of resources for the benefit of a few.

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Mia Newman wrote this paper when she worked on a short-term assignment with the Natural Resource Governance Institute (NRGI) in Myanmar from June to September 2017.