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Exploring Intersections of Trafficking in Persons Vulnerability and Environmental Degradation in Forestry and Adjacent Sectors

*Case Studies on Banana Cultivation and
Informal Logging in Northern Burma*

August 2020



This report was made possible through the generous support of the United States Department of State's Office to Monitor and Combat Trafficking in Persons (J/TIP). The opinions expressed herein are those of the author(s) and do not necessarily reflect the views of the United States Department of State.



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Verité, Inc.
44 Belchertown Road
Amherst, MA 01002 USA
verite.org

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This report was written by Max Travers, who served as Lead Researcher on the report with Joe Falcone. Field research for the two case studies was carried out by Htoi Awng Htingnan and Yamin Shwe Zin. Allison Arbib edited the report. Stephanie Leombruno performed background research and assisted in the write up of findings. Lawrence David, Julie Sobkowitz Brown, and Carrie Schwartz assisted with design and layout of the reports. Erin Klett provided oversight and management of the broader initiative.

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Acronyms

AAC:	Annual Allowable Cut
ATIPD:	Anti-Trafficking in Persons Division
BGF:	Border Guard Force
CBTIP:	Central Body for Suppressing Trafficking in Persons
CF:	Community Forestry
CFI:	Community Forestry Instruction
CFUG:	Community Forest User Group
CSO:	Civil Society Organizations
EAO:	Ethnic Armed Organization
ECD:	Environmental Conservation Department
EIA:	Environmental Impact Assessment
EIAD:	Environmental Impact Assessment Division
EMP:	Environmental Management Plan
EUTR:	European Union Timber Regulation
FAO:	Food and Agriculture Organization
FD:	Forestry Department
FDG:	Focus Discussion Group
FSC:	Forest Stewardship Council
HHP:	Highly Hazardous Pesticide
ICLS:	International Conference of Labour Statisticians
IDP:	Internally Displaced Person
IEE:	Initial Environmental Examinations
ILO:	International Labour Organization
J/TIP:	Office to Monitor and Combat Trafficking in Persons (U.S. Department of State)
KIA:	Kachin Independence Army
KIO:	Kachin Independence Organization
KNU:	Karen National Union
LSECNG:	Land Security and Environmental Conservation Networking Group
MCCSAP:	Burma Climate Change Strategy and Action Plan

MEITI:	Myanmar Extractives Industries Transparency Initiative
MFCC:	Myanmar Forest Certification Committee
MIC:	Myanmar Investment Commission
MIL:	Myanmar Investment Law
MIR:	Myanmar Investment Rules
MMK:	Currency of Burma
MOALI:	Ministry of Agriculture, Livestock and Irrigation
MOLIP:	Ministry of Labor, Immigration and Population
MONREC:	Ministry of Natural Resources and Environmental Conservation
MTE:	Myanmar Timber Enterprises
MTLAS:	Myanmar Timber Legality Assurance System
NCA:	Nationwide Ceasefire Agreement
NGO:	Non-Governmental Organization
NRC:	National Registration Card
NTFP:	Non-timber Forest Product
OSH:	Occupational Safety and Health
PCD:	Pollution Control Division
PEFC:	Programme for the Endorsement of Forest Certification Schemes
PFE:	Area of Permanent Forest Estate
PPD:	Plant Protection Division
PPE:	Personal Protective Equipment
TIP:	Trafficking in Persons
USDOL:	U.S. Department of Labor
VFV:	Vacant, Fallow and Virgin (as designated under VFV Lands Management Law)
VPA:	Voluntary Partnership Agreement

Executive Summary

Previous research in the field of human rights and development has examined how the use of exploited labor – including labor as the result of human trafficking – can contribute to deforestation. There is a parallel field of literature that documents the impact that environmental degradation and deforestation can have on human populations. What both of these spheres lack, however, is documentation of the specific patterns of labor exploitation, human trafficking, and child labor experienced by workers directly involved in forestry and/or adjacent sectors, as well as the means by which deforestation can create vulnerabilities to human trafficking.

The following executive summary presents findings from two case studies conducted in Burma¹ on the intersection of labor, environmental, and social risks in sectors linked to deforestation. To ground an understanding of the intersection of human vulnerability and deforestation within the specificities of the political, social, and economic contexts of Burma, Verité carried out original research in two different sectors: large scale agribusiness in the form of banana plantations in Kachin State and informal logging in northern Burma. This research in Burma is part of a larger Verité exploratory project to examine the intersection between environmental degradation and vulnerability to trafficking in persons and other labor abuses through a set of case studies in different sectors and geographies.

In both case studies, Verité conducted interviews with workers and expert informants, triangulating information with thorough literature reviews. A qualitative approach to this research, undertaken by culturally competent researchers, allowed for holistic description of the nature of risk to trafficking in persons and associated forced labor or other labor abuses, and the relationship of those abuses to the local environmental context encountered by communities. It allowed interviewed workers and experts to describe, in their own words, the factors that pushed them to seek their jobs, the factors that compelled them to accept exploitive working conditions, and the links to implications of environmental degradation on their community's survival.



Forests are critically important to the rural population in Burma. They protect farmland, supply food and firewood, and provide direct employment in the forestry sector. At the same time, these forests

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have been under notable threat, with Burma having the third highest rate of deforestation globally.² The population in Burma is highly vulnerable, living in the context of a long history of internal armed conflict, high levels of poverty and landlessness or displacement, and an emerging democracy still struggling

with human rights abuses. While environmental degradation and vulnerability to trafficking in persons in Burma have been well documented, there is less understanding on how the two forces intersect in specific contexts.

Labor, Social, and Environmental Risks in Banana Cultivation in Kachin State

Verité's field research in the Kachin State banana plantation sector found a variety of exploitative working conditions present among workers, some of which amount to forced labor indicators. Violations of Burma labor laws related to employment contracts, occupational safety and health (OSH), minimum wage, hours of work, and paid time off, were also detected.

For more information on labor risk findings, see the **Assessment of Working Conditions on Banana Plantations** section in the full report. Findings are summarized below.

- There are multiple avenues for **recruitment and hiring** on banana plantations. Among interviewees, workers reported both direct hiring as well as hiring through a labor broker, although use of a broker was less common among interviewed workers. Fifteen out of 18 interviewees interacted directly with company management to obtain their jobs, with most hearing about the employment opportunity through friends, family, or acquaintances.
- Verité research found evidence of **deception** on the part of employers when informing workers of the terms of their employment, regardless of their mechanism of recruitment or hiring. All permanent workers reported that they were not adequately informed about the tasks that they would be required to perform prior to beginning work. Many of the permanent workers interviewed, who receive the vast majority of their salary only after the 10-month cultivation and harvest cycle, reported deception around the total amount of wages they could earn.
- A confluence of several conditions related to hours and wage arrangements on plantations—including long hours and abusive overtime requirements without consent, financial penalties, wage deductions, and wages that are withheld until the end of the year—create situations where workers have **limited freedom to terminate their work contracts**. The wage system utilized on

plantations, in which permanent workers receive the majority of their salary after 10 months and are subject to numerous wage deductions throughout the year, has the effect of coercing workers into accepting exploitative labor conditions such as excessive overtime and a lack of freedom of movement. Permanent workers have little choice but to remain at the plantation until the close of the harvest as leaving would mean they forfeit their annual salary.

- Monthly **wages are low** for permanent workers on banana plantations and appear to stretch the limits of legality. While waiting for their annual salary, permanent workers reported receiving a monthly “food allowance” stipend, which the majority of workers reported as insufficient to cover basic living costs. Among all permanent workers interviewed, the monthly earnings fell short of the nationally required minimum wage.³
- Deductions and **financial penalties** were found to further reduce already low wages and compound vulnerability. The threat of salary deductions that would be required to cover wages for a day laborer was used to compel excessive overtime hours from permanent workers. Further, permanent workers were responsible for the costs of herbicides and pesticides. However, workers did not purchase their own chemicals and therefore cannot select lower-priced options; instead, these inputs were purchased by the employer without participation from the worker. Costs for inputs were then deducted from permanent workers’ wages, often without full accounting.⁴ Permanent workers reported financial penalties for perceived infractions such as damaged plants, damaged tools, overuse of water, or taking rests judged to be excessive by managers.
- Permanent workers appeared to be particularly vulnerable to **excessive overtime** that was not previously agreed upon with their employer. All permanent worker interviewees reported that wage deductions (or the threat of wage deductions) are used coercively to compel workers to work high levels of overtime; as noted above, the refusal to work overtime or to complete an unrealistic assigned amount of work results in the mandatory use of hired day laborers to

WORKERS PACKAGE BANANAS FOR EXPORT TO CHINA



complete tasks, the costs of which are deducted from permanent workers' yearly salaries.⁵ All 13 of the permanent workers interviewed reported regularly working in excess of eight hours per day without overtime compensation throughout the year while 11 reported that they consistently worked seven days per week without taking a day off for rest, contrary to Burma law.⁶ Six of these 13 workers were not informed of the number of hours or the number of days they were expected to perform in a standard workday or week prior to beginning work.

- All interviewees said that they were under constant **surveillance** by their employers. Although Verité interviews found that permanent workers were generally able to leave the plantation premises at night, most permanent workers stated that they were not allowed to leave during the daytime without permission. Although they are not physically barred from leaving the plantation, the threat of forfeiting the annual salary deters workers from challenging these restrictions.
- In some cases, **national registration cards** (NRCs) were reportedly **withheld** as a means to control worker movement. NRCs are essential in Burma and are necessary for attending school, travelling throughout the country, opening a bank account, and accessing medical services.⁷
- Nearly all informants reported being **exposed to potentially harmful pesticides and herbicides**. Of 18 workers (including permanent, seasonal, and day workers) interviewed by Verité,⁸ all but two had carried out manual pesticide and herbicide application. Pregnant women and children under 18 also reportedly manually apply pesticides on some plantations, in violation of Burma law.⁹ Some workers reported experiencing dizziness, respiratory issues or vomiting. Some workers also reported being aware of miscarriages of plantation workers. Workers typically had some level of knowledge that chemical application would be required on the job; at the same time, workers often lacked insight into the exact nature of tasks required prior to beginning employment and were not provided training on how to avoid risks.
- There is evidence of **verbal harassment** of plantation workers on the part of their supervisors. Many of the respondents reported that supervisors would shout and swear at them if they were not satisfied with their work or if they were seen as taking too many breaks. Fourteen of 18 workers reported experiencing verbal abuse by a supervisor in the form of swearing and/or yelling. Although no informants reported experiencing physical or sexual assault first-hand, this reportedly does occur on some plantations. Four workers reported either witnessing **sexual harassment** of other workers or hearing about such harassment second-hand.
- Verité also identified evidence of **child labor**, including worst forms of child labor, as being present in the banana sector, as the majority of worker interviewees reported that children under 18 (including those younger than 14) were working on plantations and in many cases, were applying pesticides or working in areas which had recently been fumigated. Verité believes this type of employment constitutes the worst forms of child labor as it meets the ILO definition for “work which, by its nature or the circumstances in which it is carried out, is likely to harm the health, safety or morals of children.”¹⁰

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In addition to these labor findings, several findings relating to intersections with environmental and social factors were also identified, including documented evidence of involuntary acquisition of community land by plantation companies. This includes numerous instances of plantations being developed on vacated IDP land.¹¹ According to a report by LSECNG, a coalition of 11 Kachin-based civil society organizations (CSOs), among local community members who rented their land to banana plantation companies, 59 percent did so due to pressure, threat, deception, or land grabbing.¹² Unregulated pesticide use on banana plantations in Kachin State has also led to severe impacts on community health and livelihoods. Farmers interviewed by Verité, some of whom were formerly employed on banana plantations, recounted people in their village getting sick after inhaling pesticides, which they could identify by its pungent smell.¹³ There are media reports of locals bleeding and fainting, and some needing hospitalization, when exposed to the pesticides on the plantations where workers were spraying.¹⁴ In extreme cases, community members and workers have died due to suspected exposure to pesticides, including one incident in which two young children of plantation workers, aged five and six, died after inhaling pesticides associated with the banana plantations near Gwi Htu Village.¹⁵

Water pollution is a critical concern for residents. In addition to drinking water, communities rely on the local water supply to fish and care for livestock. In 2019, local media documented a case of two streams near a 500-acre banana plantation becoming contaminated, which resulted in the fish in those streams dying. Dead fish were also found in wells closest to streams that local villagers used for drinking water.¹⁶ LSECNG also documented several incidents of human and animal illness due to agrochemical exposure: cows dying after drinking water downstream from plantations, pigs

PESTICIDES ARE APPLIED TO BANANA PLANTS IN KACHIN STATE



dying after eating banana flowers, and villagers developing respiratory problems.¹⁷ Among the rural population in Waingmaw, over 30 percent of households have access to water through unprotected sources, leaving them vulnerable to pesticide contamination.¹⁸

Deforestation and environmental degradation associated with plantations pose significant risk to local livelihoods and food security. Most households living near banana plantations rely on subsistence agriculture for survival. As banana plantations are a monocrop, the soil in and around plantation areas begins to degrade after seven years, according to Kachin-based plantation companies, and requires several years to recover.¹⁹ Villagers interviewed perceived negative impacts on soil fertility and crop yields caused by agrochemical use on neighboring plantations. Other impacts include loss of access to traditional forest lands, decreased crop yields, and the inability of livestock to freely graze. New expansion of plantations into forest areas can also decrease the amount of wood available for fuelwood as well as other productive forest uses, contributing to vulnerability.²⁰

Combined, the rapid spread of banana plantations and subsequent loss of family and communal land has left some community members with little choice but to migrate internally to other parts of Burma or China for employment, or to work on banana plantations with exploitative labor conditions. Both civil society experts and local community members contend that the negative impacts banana plantations have on local livelihoods act to push some to migrate in search of employment.²¹ Additionally, the plantations' existence on land formerly occupied by internally displaced persons (IDPs) represents a significant barrier to this vulnerable group returning to their customary land and maintaining previous livelihoods in the future. Civil society experts interviewed noted that community members who lost access to their land because of plantation expansion were more likely to seek employment in China.²²

In order to address and improve labor conditions in banana plantation sector in Kachin State, Verité has prepared a set of recommendations for the Government of Burma, Civil Society Organizations (CSOs), and Companies. For more, see the **Conclusion and Recommendations** section. These recommendations are intended to ensure better environmental and livelihood outcomes for community members in areas in and around banana plantations, as well as to ensure that all workers in the banana plantation sector are afforded with their full labor rights in compliance with Burma labor laws.

MAN WALKS THROUGH BANANA PLANTATION. KACHIN STATE



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Labor, Social, and Environmental Risks in Small-Scale Informal Logging in Northern Burma

In the [Informal Logging in Northern Burma](#) case study, Verité conducted field research to assess labor conditions in small-scale informal logging occurring within government-controlled areas of Sagaing Region, Shan State, and Kachin State. The field research identified a number of serious labor rights abuses in the informal logging of teak and rosewood varieties.

Most significantly, the research identified high incidences of labor conducted by children under 18, including worst forms of child labor. All workers interviewed by Verité reported having witnessed children under the age of 18 employed in informal logging on at least two occasions. Verité believes this type of employment constitutes the worst forms of child labor as it meets the International Labor Organization (ILO) definition for “work which, by its nature or the circumstances in which it is carried out, is likely to harm the health, safety or morals of children.”²³ For more information on labor risk findings, see the [Findings on Labor Conditions for Workers in Small-Scale Informal Logging in Northern Burma](#) section in the full report.

Verité field research identified the following related to labor conditions, which are summarized below:

- **Children under 18 participating in hazardous tasks** such as using chainsaws to fell trees – Multiple worker interviewees reported witnessing children under 18 operating chainsaws, as well as children involved in hazardous tasks such as carrying heavy loads and working in extreme weather.
- **Children under 18 using “yaba” (methamphetamine) and/or heroin** while present at logging camp sites – Several interviewees noted that drug use is so severe that it can shorten life expectancy of children involved in the logging sector.
- **High incidences of injuries and occasional fatalities** while working in the informal logging sector – The majority of informants had previously witnessed accidents which resulted in severe injuries, such as those requiring the amputation of limbs, or death. Interviewees reported that they conducted logging activities without any protective equipment such as helmets, utility uniforms, safety glasses, or work boots.
- **Workers and their families are unlikely to receive financial compensation** if the worker is injured or killed – Among workers interviewed who had witnessed accidents, the majority reported that victims or their families received no compensation. The illicit nature of the work leaves workers and their families with few avenues for recourse.

LOGS TRANSPORTED VIA RIVER BARGE IN BURMA



Verité field research found that workers are driven to logging by a variety of economic factors including a lack of viable livelihood options, and in part contribute to environmental degradation and associated impacts, which limits the ability of surrounding communities to access forest products and benefit from protective functions of the forests. Workers interviewed by Verité stated that they

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relied on forests for their daily income and for additional food for their families. In Katha (Sagaing) and Htigyaing (Sagaing) Townships, where the majority of Verité interviews took place, over logging (particularly in the 1990s and 2000s) has played a strong role in rapid deforestation, which has had effects on the livelihoods of communities.²⁴

Environmental activists interviewed by Verité from Htigyaing, Kawlinn, and Katha (all in Sagaing Region) noted productive uses of the forests for firewood, bamboo,

bamboo shoots, orchids (plants), and small-scale hunting, among others. In the past, communities in and around these areas could acquire forest products more easily without significant investment. Now, however, it is difficult to access these products without traveling far distances. According to the stakeholders interviewed, there is a general sentiment among communities that life is more difficult than in the past due to lost access to productive forest products and extreme heat and dryness, making it more difficult to farm.²⁵

A PREVIOUSLY FORESTED HILLSIDE IN NORTHERN BURMA, NOW BARREN DUE TO DEFORESTATION



Environmental activists contend that environmental factors played at least a role in community members migrating to other forest areas, as well as domestically and abroad for work opportunities. Some logger interviewees also noted instances of community members migrating abroad for work. Among the domestic sectors noted by informants were jade mining in Hpakant, Kachin State and agricultural plantations in Kachin State, including banana plantations in Waingmaw Township.²⁶ Both of these sectors have been associated with forced labor and general labor exploitation.

Verité has also prepared a set of recommendations intended to address and advance better labor outcomes in the informal logging sector, with specific recommendations for the Government of Burma, Myanmar Timber Enterprises (MTE) and Subcontracted Companies, CSOs, and Countries Importing Timber and Wood Products from Burma. For more, see the **Conclusion and Recommendations** section. Labor and human rights violations can persist deep in supply chains, hidden even from social compliance and government enforcement programs. It is vital that these stakeholders take urgent action to combat these risks.



Photo © Hkun Li

Introduction

This report presents findings from two case studies conducted in Burma as part of a larger exploratory research project undertaken by Verité in 2018-2019, with the aim of examining the linkages between environmental degradation and vulnerability to trafficking in persons (TIP) and other labor abuses.

While linkages have been noted previously,²⁷ a detailed research base on the nature and mechanisms of the connection is lacking, as well as the examination of the potential for collaboration or integration between the spheres of environment and labor. Verité's exploratory research aims to contribute to this knowledge gap through a set of case studies in different geographic locations, sectors, and contexts to illustrate potential links between environmental degradation in the context of active deforestation and vulnerability to TIP and other labor abuses.

The project had three objectives:

- Develop an analytical approach for examining and documenting the relationship between TIP vulnerability and other labor abuse and environmental degradation in forests and adjacent sectors.
- Conduct qualitative, comparative research in deforestation hot spots that examines and documents the relationship between environmental degradation and TIP risk.
- Build awareness of the connection between forest-linked environmental degradation and TIP both in relevant geographies and topical civil society networks.

Two countries were identified for research, Burma and Mozambique, based on large volumes of export of tropical roundwood, high rates of deforestation, evidence of illegal logging and the potential for TIP risk, a lack of existing research, and feasibility and safety of access to research locations. Two case studies were then selected within each country. In Mozambique,²⁸ research focused on illegal logging in Tete Province and road construction in Niassa Province. In Burma, case studies were conducted on banana cultivation in Kachin State and informal small-scale logging in Sagaing Region, Shan State, and Kachin State. These case studies were selected to provide a diverse set of illustrative examples of potential intersections between labor vulnerability and environmental degradation building on previous JTIP-supported frameworks for assessing country- and sector-based risk for trafficking in persons.ⁱ

While the specific working conditions and environmental factors identified in banana plantations and informal logging vary, both case studies highlight vulnerable rural populations, lacking viable employment or livelihood opportunities, driven by survival to accept work with exploitative conditions. The vulnerability and desperation of these workers, as well as individuals in surrounding communities, have been further heightened by forest loss and concomitant environmental degradation, such as impacts on soil and water quality, that limited prospects for subsistence and small-scale agriculture, a previous pillar of food security and basic livelihood provision. The bind facing these rural populations then tightens further: to survive, they must accept poor labor conditions in existing sectors, likely further contributing to environmental degradation, or attempt to migrate to other regions or countries, facing the well-documented host of risks inherent in labor migration.

ⁱ For further information on country- and sector- based approaches to understanding trafficking in persons risk, see www.responsiblesourcingtool.org/understandrisk.

Methodology

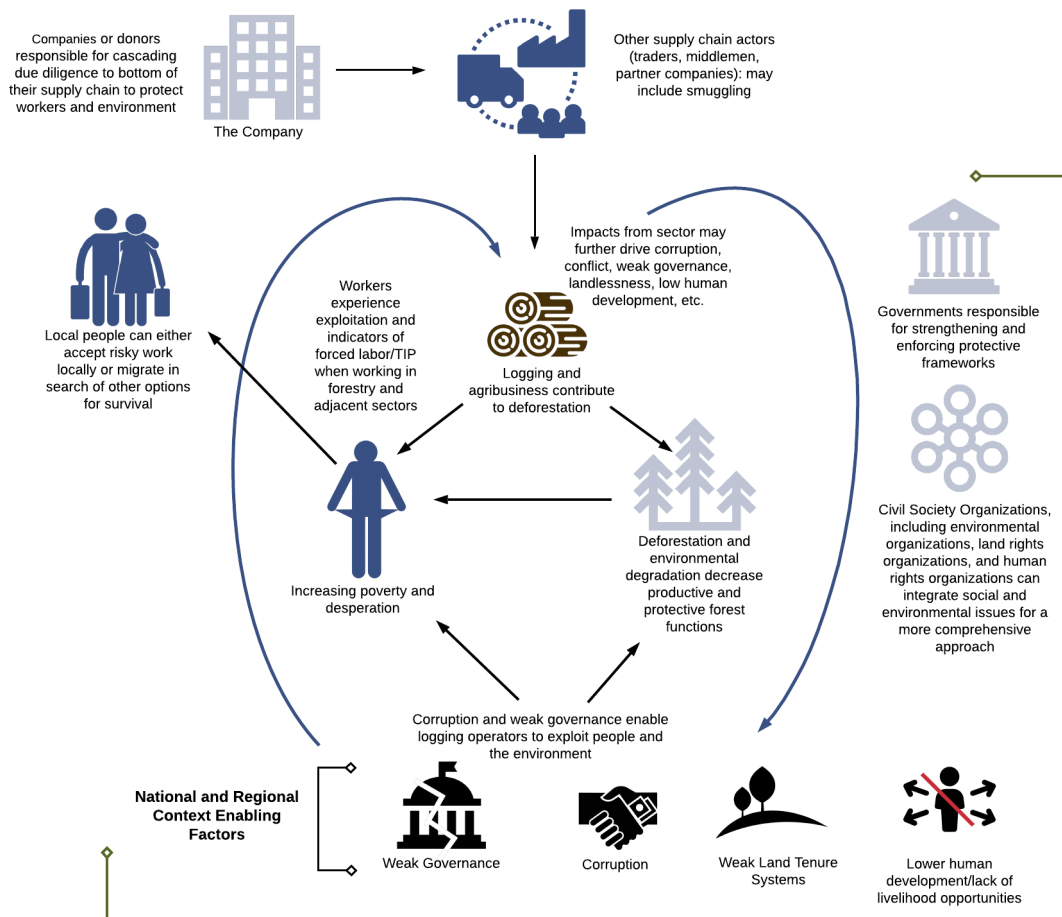
Analytic Framework

One objective of this study was to develop an analytical approach for examining and documenting the relationship between vulnerability to TIP and other labor abuses and environmental degradation in forests and adjacent sectors. Researchers framed several related questions for exploration, including:

- For workers within targeted supply chains, what working conditions exist?
- Do these workers experience indicators of trafficking in persons and associated forced labor?
- What root cause factors at the geographic and sectoral levels contribute to both trafficking vulnerability and deforestation?
- How does previous or ongoing deforestation increase vulnerability to trafficking in persons or other abuses?

The overarching framework below provides a visual representation of these multilayered dynamics and their intersections.

FIGURE 1. MAPPING THE LINKS BETWEEN LABOR VULNERABILITY AND ENVIRONMENTAL DEGRADATION IN FORESTRY



The first level of risk in the matrix is tied to contextual factors at both the national and regional levels that drive worker vulnerability as well as deforestation/environmental degradation; these are factors tied to the geographic locations where workers live and where work is taking place.

These geographic contextual factors can be divided into two primary groups. The first group includes factors tied to the overarching issue of weak governance. These factors enable operators in the research target sectors (commercial banana plantations and informal logging) to conduct business without sufficient regard for impact on human and environmental outcomes. These factors tend to be highly interrelated. For example, in the case of Burma, the longstanding and ongoing conflict (civil war between the Burma military and Ethnic Armed Organizations) is a central driver of risk on multiple fronts: weak governance, gaps in protective legal frameworks such as those addressing labor and land rights, inadequate enforcement of laws, and corruption. Details on these national and regional factors are provided in two places in this report: the country background sector describes relevant contextual factors at the national level, while the background sections embedded within each case study further describe how these factors play out in the region of study.

Conflict — and resulting weak governance — has also more directly contributed to human vulnerability in the affected areas. It has left many individuals and communities displaced, without access to traditional lands and livelihoods. At the same time, there are few formal sector employment options available. In such conditions, communities face pervasive poverty and low human development outcomes, high rates of internal displacement and landlessness, and a labor pool with an overall lack of viable livelihood options. The presence of these factors creates a population with severely limited economic options: either accept the high-risk conditions of work in whatever sectors are locally available (in these case studies, work on commercial banana plantations or in informal logging) or migrate elsewhere (in the Burma context, typically to China, Thailand, or Malaysia) to seek employment.ⁱⁱ Either option can leave individuals and families vulnerable to exploitation and, in some cases, to trafficking in persons. This report describes identified factors contributing to the vulnerability of workers and community members at both the national level (in the Country Background section) as well as at the regional level in both case studies.

Working conditions — including any specific indicators of forced labor identified — experienced by individuals in target sectors that contribute to deforestation and environmental degradation are presented in the Labor Findings sections of each case study. In addition to the conditions experienced by workers in the target sectors, when relevant, the case studies also provide information from secondary sources on trafficking vulnerability for the individuals who are pushed to migrate out of case study regions.

Pressure to enter into vulnerable work is compounded by past and ongoing deforestation and environmental degradation. As the environmental integrity of forested areas is further and further compromised (often as a direct result of sectors with exploited workers), local communities lose both the protective and productive functions of forests that have supported their survival. Soil and water can become polluted and unable to support subsistence agriculture. The erosion of soil and extreme weather events can also lead to food insecurity. Without these supports for basic survival, the pressure on workers

ii Many of the reported trafficking cases from these regions, particularly in Kachin State, are spurred by brokers promising jobs in China to young women.

to enter vulnerable work further increases. This report provides details on the role of forested areas at the national level as well as regional information specific to each case study. Where applicable, researchers also sought information from community members to better understand the impact that deforestation and environmental degradation has had on their wellbeing and livelihood options.

To map out which recommendations could be made to a range of stakeholders for mitigating negative impacts on the planet and people, this analytic framework also seeks to present the types of actors and institutions that are positioned to either enable or interrupt these dynamics. Each case study concludes with recommendations for stakeholder groups on potential approaches for disrupting the downward spiral of environmental degradation and human vulnerability.

Trafficking in Persons and Forced Labor Definitions

Verité bases its definition of trafficking in persons on the 2000 United Nations' *Protocol to Prevent, Suppress and Punish Trafficking in Persons Especially Women and Children*, also known as the *Palermo Protocol*. This protocol contains the internationally recognized definition of trafficking in persons, which includes forced labor:

“The recruitment, transportation, transfer, harbouring or receipt of persons, by means of the threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation. Exploitation shall include, at a minimum, the exploitation of the prostitution of others or other forms of sexual exploitation, forced labour or services, slavery or practices similar to slavery, servitude, or the removal of organs.”²⁹ This definition includes three elements – the acts, the means, and the ends – that together constitute trafficking in persons.

The definition of trafficking in persons under Burma law is aligned with the Palermo Protocol definition of trafficking. The Anti Trafficking Law of Burma defines Trafficking in Persons as: “the recruitment, transportation, transfer, sale, purchase, lending, hiring, harbouring or receipt of persons after committing any of the following acts for the purpose of exploitation of a person with or without his consent:

1. **threat**, use of force or other form of coercion;
2. **abduction**;
3. **fraud**;
4. **deception**;
5. **abuse of power** or of position taking advantage of the vulnerability of a person;
6. **giving or receiving of money** or benefit to obtain the consent of the person having control over another person.”

Under the law, the term “exploitation” includes “receipt or agreement for receipt of money or benefit for the prostitution of one person by another, other forms of sexual exploitation, forced labour, forced service, slavery, servitude, debt-bondage or the removal and sale of organs from the body.”

Verité also relies on International Labor Organization (ILO) Convention 29 which defines forced labor as “all work or service which is exacted from any person under the menace of any penalty and for which the said person has not offered himself voluntarily.”³⁰

Application of ILO’s Forced Labor Indicators

In order to evaluate the risk of forced labor and the underlying practices that contribute to risk, Verité analyzed for the existence of the ILO’s forced labor indicators presented in the *Guidelines Concerning Measurement of Forced Labour* published in 2018 by the International Labour Organization and the International Conference of Labour Statisticians (ICLS).³¹ The ICLS Guidelines, in conjunction with earlier guidance on indicators provided by the ILO,³² outline specific indicators which can contribute to conditions of involuntary work and threat or menace of penalty, the two primary components of forced labor.³³ These indicators can also demonstrate the “means” element utilized for trafficking in persons as defined under the Palermo Protocol such as “threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person....”

The indicators provided by the ICLS guidance are as follows:

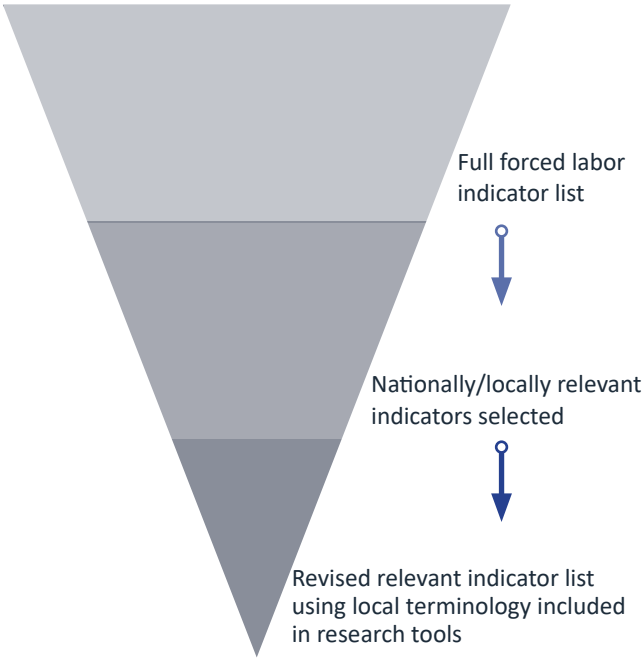
Indicators of involuntary work*	Indicators of threat and menace of any penalty**
<ul style="list-style-type: none"> → unfree recruitment at birth or through transaction such as slavery or bonded labor; → situations in which the worker must perform a job of different nature from that specified during recruitment without a person’s consent; → abusive requirements for overtime or on-call work that were not previously agreed with the employer; → work in hazardous conditions to which the worker has not consented, with or without compensation or protective equipment; → work with very low or no wages; → work in degrading living conditions imposed by the employer, recruiter, or other third-party; → work for other employers than agreed; → work for longer period of time than agreed; and → work with no or limited freedom to terminate work contract 	<ul style="list-style-type: none"> → threats or violence against workers or workers’ families and relatives, or close associates; → restrictions on workers’ movement; → debt bondage or manipulation of debt; withholding of wages or other promised benefits; → withholding of valuable documents (such as identity documents or residence permits); and → abuse of workers’ vulnerability through the denial of rights or privileges, threats of dismissal or deportation.³⁴
<p>**coercion used to impose work on a worker against a person’s will</p>	
<p>*any work taking place without the free and informed consent of the worker</p>	

The indicator approach can be applied to identify an individual case of forced labor or to understand which indicators are present across a given population of workers. The research presented here focused on identifying which, if any, indicators of forced labor are present in the given sectors under study, how these indicators operate in practice, and what contextual issues enable the presence of vulnerability to and presence of risk factors for forced labor.

Selecting Forced Labor Indicators Framework

To ensure that the indicators used in the research framework and tools were relevant to the Burma context, Verité undertook a process of generating a national list of relevant indicators, following the guidance provided by the International Labor Organization.³⁵ After starting with the full list of forced labor indicators as listed above, each was validated against a review of existing secondary source information (desk research). Verité then sought input from experts to determine which indicators should be included in the research framework and which local terminology should be used, if any.

FIGURE 2. REVIEW PROCESS WITH EXPERTS



Research Process

The research process took place in three primary phases: preparatory work, field research, and analysis and validation of findings.

FIGURE 3. RESEARCH PROCESS



In selecting countries for study, Verité selected Burma and Mozambique based on a variety of factors,

including large volumes of export of tropical roundwood, high rates of deforestation, evidence of illegal logging and the potential for TIP risk, a lack of existing research, and feasibility and safety of access to research locations. Research in each country and for each case study began with a preliminary phase of expert consultations and a review of existing secondary source information (desk research), including national surveys, censuses, and reports on TIP from NGOs and international organizations. Relevant laws, government initiatives, and data from existing international programs to combat TIP were also reviewed.

Verité completed the Situation Assessment research between July – December 2018, with stakeholder consultations in Yangon, Mandalay, Sagaing Region, and Kachin State. The information gathered was used to select specific communities for further field research within each case study region as well as to identify specific issues related to interventions and policy options for potential exploration during the Field Research phase.

Based on these results, Verité further refined field research tools to be used in the Field Research phase, including a worker interview questionnaire to assess the presence of forced labor indicators and general labor conditions, such as worst forms of child labor. The Situation Assessment also identified issues related to access, logistics, seasonal timing and availability of workers, and security for consideration in developing an engagement strategy during the Field Research phase.

Field research for the [Banana Plantations in Kachin State case study](#) was performed primarily between March – April 2019 and September – November 2019, with field site visits to Myitkyina and Waingmaw Townships in Kachin State. In total, 18 banana plantation workers were interviewed as part of this case study. Field research for the [Informal Small-Scale Logging case study](#) was performed between March–April 2019, with field site visits in three different townships within Burma – Htigyaing Township and Katha Township in Sagaing Region and Nawngkhio Township in Shan State. A total of 11 workers were interviewed as part of this case study, with nine workers interviewed during the Field Research phase and two workers interviewed during the Situation Assessment phase, from Mohnyin and Myitkyina Townships in Kachin State, respectively.

Verité utilized both structured and semi-structured qualitative interview tools to elicit narrative information from workers and other expert informants. Interview tools were constructed to provide insight into individual experiences as well as perceptions on the nature of conditions for others working in the sector. In each case study, researchers attempted to select a range of informants representing the diverse backgrounds and experiences of workers present. The information is presented in narrative form, using direct quotes from respondents when available to ground this framework in individual experiences.

In total, 72 expert stakeholders were consulted as part of the research process for the present report. Stakeholders represented a balance of perspectives, including civil society representatives and activists working in the areas of conservation and land management, trafficking in persons, labor, migration, human and indigenous rights, environment, and humanitarian work; labor unions and other worker-based organizations and; academics, including labor, human rights, and environmental experts. Verité facilitated

focus group discussions (FDG) with 11 community members on the effects of banana plantations to their communities. A full breakdown of stakeholder interviews is provided in *Annex 7: List of Stakeholders Interviewed*. Further details on the specifics of sampling and interview processes are provided in each case study.

While the findings are qualitative in nature, when possible, this analysis provides quantitative details on the number of interviewed workers reporting a given phenomenon to illustrate broader trends and themes in findings. Security concerns precluded long sojourns in target research areas; instead, researchers sought to conduct rapid interviews in areas that would provide sufficient privacy and anonymity for interviewees. The context provided by local and international expert informants throughout the process was critical to validating themes emerging from individual worker interviews.

Due to the largely qualitative nature of data and purposive sampling techniques used, findings are not representative at a national or sector level. This rapid appraisal research was not intended to determine prevalence of labor violations, but rather to uncover risks that should be further explored by more in-depth research. These limitations are counterbalanced by the strengths of a qualitative approach. The narrative data emerging from worker and key informant interviews provided insight into the primary issues as perceived by each interviewee. The qualitative nature of this research lent itself particularly well to research focusing on vulnerability to labor exploitation; many interview topics are extremely sensitive, and a robust analysis of vulnerability is highly situation-specific and dependent on deep descriptive detail. Researchers have been able to capture in detail the experiences of groups of workers on banana plantations in Kachin state and in informal small-scale logging in northern Burma, some of whom endured highly concerning labor abuses. Triangulation of these findings through review of relevant literature and interviews with local experts suggests that the experiences of workers interviewed were not isolated or unusual. Additional in-depth research would be required to document the prevalence of the labor abuses found here in a more precise and conclusive manner.

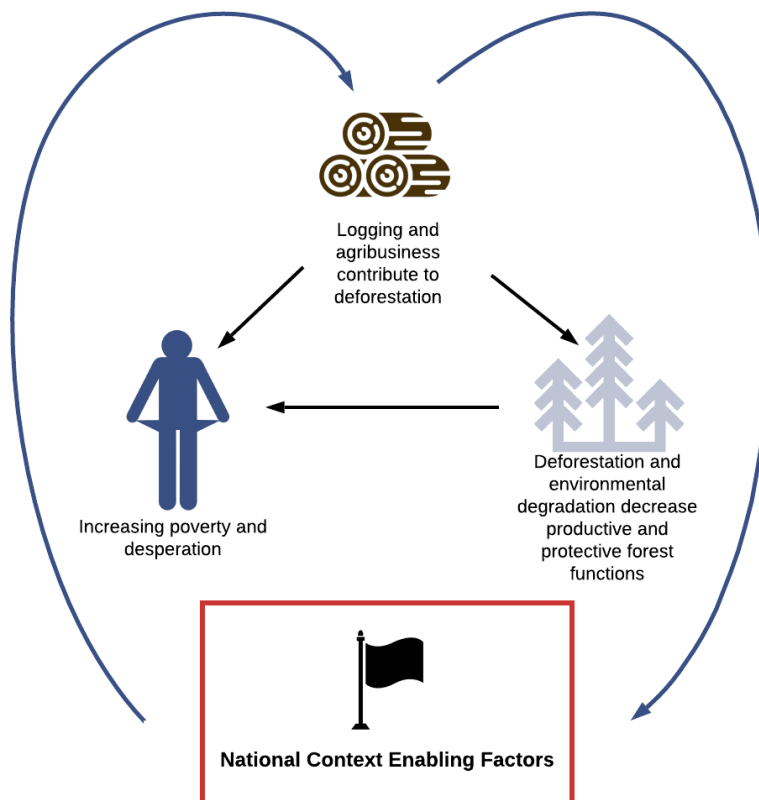
Burma Country Background and National Contextual Factors

This section explores relevant contextual factors at the national level that influence labor vulnerability and environmental degradation in forestry and adjacent sectors in Burma, as well as a review of migration.

As addressed above in the Analytical Framework, some risk factors for TIP and other forms of labor exploitation are linked to the national context in which supply chains operate. These country-based factors, such as poverty and lower levels of human development, work to push vulnerable workers into accepting less desirable and potentially riskier jobs – either in their local community or after migrating. Other factors, such as conflict, corruption, political instability, and weak governance, enable companies or other supply chain actors to exploit workers and/or contribute to environmental degradation. It is important to note that these contextual factors are highly interlinked. For example, in the context of Burma, the nation's long history of conflict cannot be disentangled from risk factors such as landlessness/weak land tenure systems, lack of alternative livelihood options, weak governance, corruption, and poverty.

Politics and Conflict

FIGURE 4. THE ROLE OF NATIONAL CONTEXT ENABLING FACTORS ON DEFORESTATION, ENVIRONMENTAL DEGRADATION, AND VULNERABILITY TO TRAFFICKING IN PERSONS



Politics: Under the 49 years of Burma’s military rule, political rights, freedom of speech, and freedom of press were severely curtailed. Following inaugural general elections in 2010, the nation underwent major economic and political reform that led to a transition from military rule to a military-backed but quasi-civilian government led by President Thein Sein. In 2012 parliamentary by-elections led to the National League for Democracy (NLD) party, with Aung San Suu Kyi gaining de-facto power in a landslide win. Political rights and civil liberties have improved since 2010, but numerous issues remain. In 2019, Freedom House assigned Burma a score of 30/100 (100 meaning “most free”) in their annual “Freedom in the World” report.³⁶ Political activists and journalists continue to be imprisoned, although at a much lower rate than the past – 647 political prisoners were in jail or awaiting trial in January 2020, down from over 2,000 in 2009.³⁷

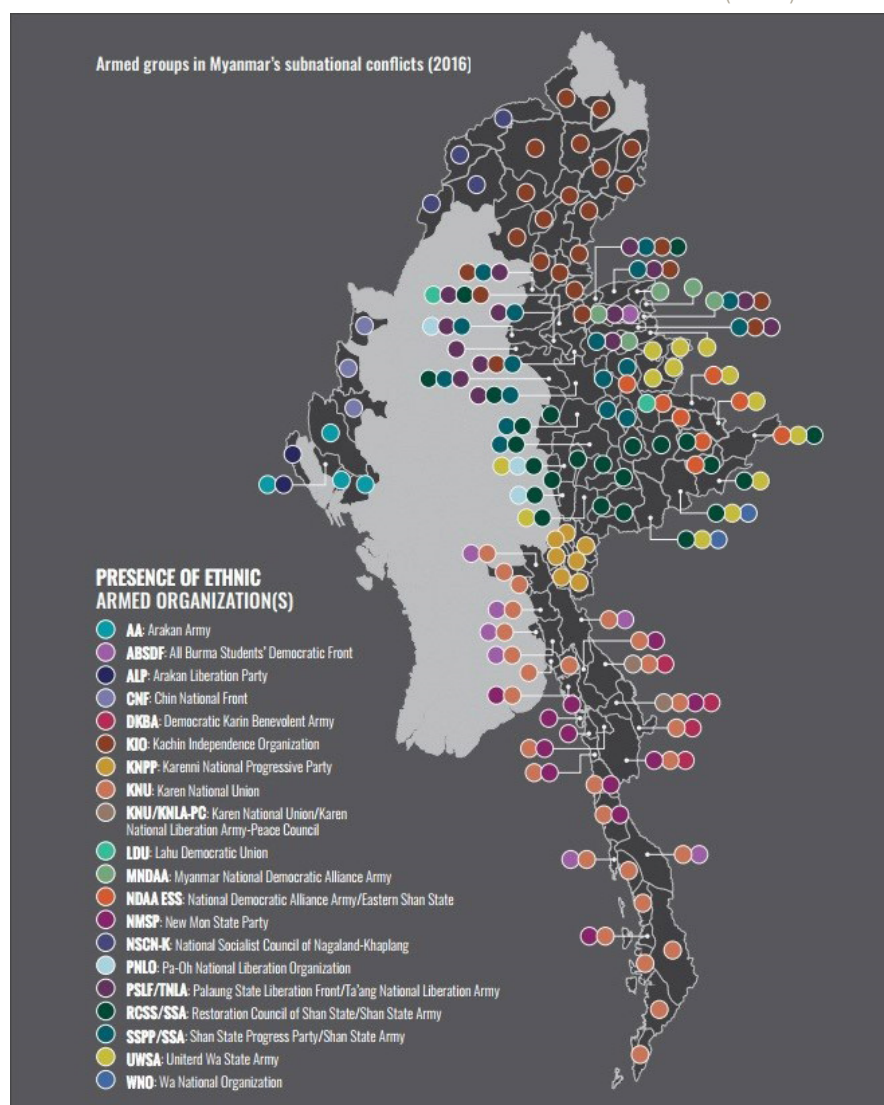
The Burmese military (also known as the “*Tatmadaw*”) is constitutionally protected as a separate and autonomous entity from the government and is exempt from civilian oversight. The military holds complete authority over the defense budget and the ministries of Defense, Interior, and Border Affairs, as it appoints all three ministers.³⁸ Further, 25 percent of parliamentary seats are reserved for the military, limiting the potential for Constitutional alterations and virtually guaranteeing that the President and one of the Vice Presidents are from the military.³⁹ Because of its autonomy from the government, *Tatmadaw* leaders and members have been able to create and maintain avenues for personal enrichment from national resources. For example, the *Tatmadaw* operates two independent holding companies, the Myanmar Economic Holdings Limited (MEHL) and Myanmar Economic Corporation (MEC). Each of these companies operates its own bank, and over 130 subsidiary companies have been identified as being owned by or closely affiliated with these two companies. These companies and their subsidiaries generate revenue that dwarfs that of all other civilian owned and operated companies in the country. They are of direct relevance to this research because they engage in agribusiness and forestry projects, in addition to ruby and jade mining and other development projects.⁴⁰

Conflict: Burma is an ethnically diverse country with 135 distinct ethnic groups recognized by the government.⁴¹ Buddhist Burmese (or *Bamar*) people represent the dominant ethnic group at 68 percent of the population, living primarily in the central lowlands of Burma.⁴² Current estimates place the number of living languages indigenous to the country at 111, and in the seven ethnically-named states, an average of 3.8 different languages are spoken per township.⁴³

Since independence in 1948, civil wars have primarily (but not exclusively) been fought between the Burmese military (or the Bamar Buddhist ethnic majority) and Ethnic Armed Organizations (EOs), who represent various ethnic minority groups inhabiting the country’s mountainous borderlands.⁴⁴ EOs’ clashes with the military are widespread, protracted, and occur in several forms, including armed violence, land grabbing, and dispossession. One study conducted in 2016 noted conflict in over 75 percent of the country’s states and regions. At least 20 active or latent EOs and innumerable armed groups, like military-affiliated militias, have been engaged in the conflict over time, with multiple conflicts lasting over 50-60 years.⁴⁵ Particularly notable conflicts include the civil war in Kachin State and Northern Shan State, which has displaced nearly 100,000 people, and the human rights abuses perpetrated against Rohingya Muslims in Rakhine State, which has displaced nearly 700,000.⁴⁶

The subnational, ethnically motivated conflict for the last century affects the population in numerous ways. It has been a major factor in the country's development, economic growth, and political trajectory. Thousands of people have been killed, and the conflict continues to directly affect at least 25 percent of the population. The conflict has justified the perpetuation and expansion of a physical military presence, as well as its involvement at every level of governmental affairs. Ethnic minorities experience "chronic insecurity, poor living conditions, and a pervasive feeling of disempowerment."⁴⁷ The government's attempts to make peace with EAOs led to the 2015 signing of the Nationwide Ceasefire Agreement (NCA), with eight EAOs joining. However, several EAOs, including the Kachin Independence Organization, have not joined the agreement as signatories.⁴⁸ The unresolved politics between the military and EAOs, including (but not limited to) addressing how natural resources are managed and distributed, continue to encourage violence, environmental degradation and the perpetual destabilization of the borderland areas of Burma.⁴⁹

FIGURE 5. ARMED GROUPS IN MYANMAR'S SUBNATIONAL CONFLICTS (2016)



Source: Asia Foundation⁵⁰

Ethnic minority groups internally displaced by conflict are also highly vulnerable to trafficking in persons. The 98,000 internally displaced persons (IDPs) in Kachin State and Northern Shan State, the majority of whom are ethnic Kachin,⁵¹ face a lack of employment opportunities and often have extremely limited rations, which results in their seeking employment in various sectors in China or in jade mining and agribusiness in Kachin State.⁵² Ethnic Rakhine people affected by the conflict in Rakhine State have been reported to work in mines controlled by EAO groups and military-backed militias. Rakhine individuals often turn to securing jobs through brokers, exposing them to potential debt bondage and forced labor.⁵³ The ILO also reported that forced labor was perpetrated against ethnic Rakhine and Rohingya populations who are sometimes forced to carry out various tasks on military compounds.⁵⁴

The U.S. State Department has reported that the risk for trafficking in persons is heightened in areas affected by ethnic conflict, including Kachin State, featured in the banana plantation case study, as well as Shan and Kayah States. Due to a “self-reliance” military policy, which encourages army divisions to obtain food and labor from local populations, the military sometimes imposes forced labor on local village members. For example, local people might be forced to engage in tasks such as “portering, construction, cleaning, cooking, and public infrastructure projects.”⁵⁵

Economic and Human Development

Understanding the extent to which livelihood options are limited across Burma—and the corresponding scale and distribution of poverty—is critical for a study on vulnerability to trafficking in persons and other labor abuses.

The economy of Burma, particularly the agricultural sector, declined greatly under military dictatorship from 1962-1988.^{56 57} While the economy has stabilized and grown slowly since 1988 — with more rapid growth since 2011 — this growth has not benefited the nation’s population equally, with ongoing poverty among rural populations and those engaged in agriculture and the informal economy. The agricultural sector employs over half of the country’s labor force, yet only contributes 10-15 percent to annual real GDP growth.⁵⁸ Per capita GDP has not risen since 2012.⁵⁹ Furthermore, ongoing oppression of religious and ethnic minorities as well as numerous natural disasters have continued to exacerbate economic inequality and the country’s overall economic development.⁶⁰

A significant percentage of Burma’s workforce is engaged in forestry and agriculture, the two target sectors in the case studies presented here; the 2015 census reported that over 50 percent of all employed individuals in Burma work in agriculture, forestry, and fishing sectors.⁶¹ Workers in these sectors earn approximately 40 percent less per month than the national average wages in Burma.⁶² At the same time, over half of that population has engaged in the same sector for over a decade—much longer than similar tenure statistics in industry or service sectors—suggesting that those engaged in forestry and agriculture may lack alternative livelihood options or the ability to pursue other avenues of employment.⁶³

Up to 75 percent of workers in Burma are employed in the informal sector,⁶⁴ including many of the workers in agriculture and forestry, leaving them without any social protection safety net. Less than two

percent of workers engaged in agriculture, forestry, and fishing have any form of pension, compared with 6.4 percent of those working in the industry sector or 24.5 percent in the services sector. Approximately two percent or fewer of these workers receive paid annual leave, sick leave, and maternity leave benefits, and less than five percent receive medical benefits.⁶⁵ Union membership in Burma is very low at just one percent,⁶⁶ and labor unions were legalized only recently in 2011.⁶⁷

Almost 71 percent of Burma's population (34 million individuals) is of working age (15 years and older),⁶⁸ though the labor force participation rate is 64.7 percent, with housework and family responsibilities given as the main reason for lack of workforce participation.⁶⁹ In rural areas, the participation rate drops to 51.6 percent.⁷⁰ Women are under-represented in the labor force, with a participation rate of 50.5 percent compared to 85 percent for men.⁷¹

Burma had the lowest Human Development Index score of all ranked countries in Southeast Asia in 2018, ranking 148 out of 188 nations with a score of 0.578.⁷² Poverty in Burma is closely linked to three overlapping demographic characteristics: rural residents, agricultural workers, and individuals without land ownership.⁷³ (Additional information on land access and ownership is provided below).

Over 32 percent of the Burma population is estimated to be living below the poverty line, the vast majority of whom live in rural areas, including the areas impacted by forest-adjacent sectors addressed in this report's case studies. Up to 87 percent of the 29.6 million people living in poverty live in rural areas.⁷⁴ Rural households are also characterized by high rates of indebtedness, with 41 percent of rural households owing 10,000 kyats or more (USD 6.60), more than twice the rate of indebtedness of the urban population.⁷⁵ Rural populations also face low rates of educational attainment, with most individuals completing only primary school, whereas urban dwellers are more likely to have completed at least a middle school education.⁷⁶

The more reliant a household is on agriculture as their sole source of income, the more likely the household is to be living in poverty.⁷⁷ Land ownership is a key indicator for whether or not a household is living in poverty, as poor households are less likely to own or control land and often cultivate crops on land they pay to rent.⁷⁸ Although landless farmers who cultivate on under two acres of land make up two-fifths of the population, they make up half of the country's poor. Approximately 51 percent of the country's poor hold a title for land cultivated compared to 71 percent of non-poor.⁷⁹

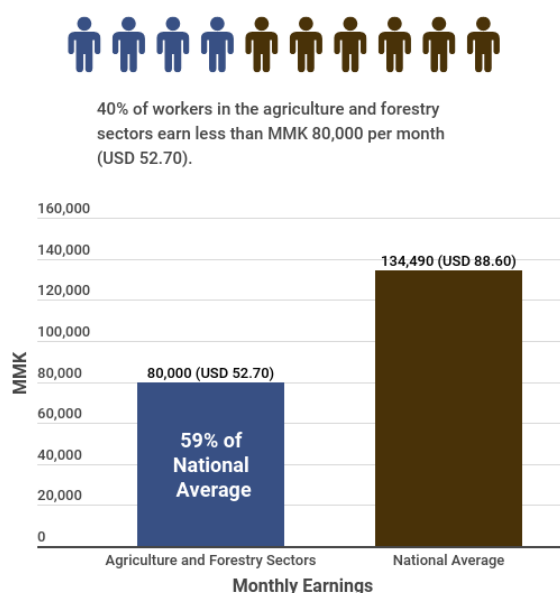
There is also some evidence of a higher risk of poverty among non-Burmese ethnic minorities. Despite constituting approximately 25 percent of the total population, non-native Burmese speakers constitute approximately one-third of the country's poor population, suggesting a higher likelihood of poverty among non-Burmese ethnic groups.⁸⁰ Additionally, among the Coastal and Hills and Mountains areas, where ethnic minorities are more likely to live, the poverty rate is 43.9 percent and 40 percent, respectively. In areas more associated with the Burmese ethnic majority, such as the Dry Zone and the Delta, the poverty rate is lower at 32.1 percent and 26.2 percent, respectively.⁸¹

According to analysis by the World Bank, households in Burma are vulnerable to "shocks" such as those

from health expenses, weather or climate changes, conflicts and violence, and fluctuations in prices of household necessities that can tip households into poverty. Health-related shocks were identified as the most common shock affecting individual households, with the poorest households often unable to manage a significant illness of a household member due to out-of-pocket health costs combined with a lack of social welfare programs. Crop loss from extreme weather or pests represents a significant vulnerability for farmers in Burma, as do country-wide price fluctuations of basic necessities and farm inputs.⁸² An Oxfam study of farmers in central Burma found that farmers often lacked capital for inputs such as fertilizers, leading to low payouts for crops and indebtedness to brokers. Failing to find alternative sources of income for the farming off-season (typically several months out of the year) could also lead to debt and subsequent vulnerability.⁸³ Finally, conflict and communal violence represents a shock that makes the population more vulnerable to poverty.⁸⁴

At its most extreme, the lack of viable livelihood options can threaten an individual or family's ability to survive. Individuals and households experiencing poverty—particularly when compounded by indebtedness and landlessness—are at higher risk for trafficking for forced labor, child labor, and other labor rights abuses. Where families are not able to survive on the earnings of the parents, children may begin to seek economic employment. A study found that child labor in Burma is correlated with household debt levels⁸⁵ and families that cannot afford school costs. Although Burma has a high rate of primary school completion at 96 percent,⁸⁶ it is very common for youth, especially in rural areas, to drop out of school prior to completing middle or secondary school.⁸⁷ According to respondents in an ILO survey, child income is largely used to supplement the income of working parents.⁸⁸

FIGURE 6. AVERAGE MONTHLY EARNINGS IN BURMA'S AGRICULTURAL AND FORESTRY SECTORS



Labor Vulnerability

Internal Labor Migration

This report offers information only on internal labor migration, as this is most relevant for the two case studies in question. However, Burma also has high rates of employment-driven transnational out-migration.

There are over 9 million internal migrants in Burma, making up nearly 20 percent of the total population.⁸⁹ A 2015 ILO study found that these internal migrants are vulnerable to forced labor and labor abuse in Burma.⁹⁰ This is relevant to both case studies in this report, as internal migrant workers constitute the majority of the workforce in banana plantations in Kachin State and a portion of the workforce associated with illegal logging.

Around one-quarter of all internal migration is rural to rural migration, while approximately 15 percent is urban to rural migration.⁹¹ Seasonal rural to rural migration is significant in the agricultural and mining sectors.⁹² Overall, internal migration in Burma appears to be driven largely by migrants' desire to seek new employment opportunities, financial need, or to follow family.⁹³ A 2015 study by the ILO found that 62 percent of internal migration within Burma for employment occurred across states and regions, while 38 percent occurred within the origin state or region.⁹⁴

Migrants typically have low levels of access to information regarding safe migration, migrant worker rights, and working conditions.⁹⁵ Social networks play a key role in selecting a migration destination: The ILO found that 98 percent of labor migrants interviewed learned of the employment opportunity through another individual, and 72 percent received assistance from another person.⁹⁶ Of individuals who received assistance, the vast majority (86 percent) were previously acquainted with the person (i.e., friends, family, community member, etc.) who aided in their securing of new employment.⁹⁷ Migrants often establish themselves in remote "clusters," where they face difficulty accessing public services and integrating with host communities.⁹⁸

According to the latest government census, the most common sectors for recent migrants⁹⁹ include "agriculture, forestry and fishing" (22.4 percent), manufacturing (13.6 percent), auto repair (13.5 percent), and construction sectors (10.2 percent).¹⁰⁰ The 2015 ILO study, which selected sectors that the researchers believed would be at high risk, found that male internal migrants were most likely to work in mining, fishing, construction, transportation, brick factories, and rubber plantations, while women were likely to work in the agricultural, garment, and food and beverage industries, as well as to be employed as domestic workers or sex workers.¹⁰¹

In a 2015 study, the ILO found that internal labor migrants were more vulnerable to labor exploitation when moving to a different state or region (as opposed to within their home state/region).¹⁰² Additionally, the study found that those who migrated due to stress in the family or community (including household issues such as a death in the family or domestic violence as well as the presence of armed conflict or land

confiscation) were more vulnerable to abuse than those whose primary motivation for migration was seeking improved economic opportunity.¹⁰³

Although using a labor broker was reported by only seven percent of all internal migrants interviewed by the ILO, when they did facilitate job placement, their use was associated with higher rates of exploitation, as was using a labor broker to arrange travel to a new work destination. Only two percent of respondents paid a recruitment fee, and of those workers, less than half acquired debt to pay the fee. Deception about the nature of work was the most common indicator of forced labor experienced. Other indicators reported include constant surveillance and withheld wages and identity cards. It was also reported that migrant workers often fear retribution for reporting abuse by employers and recruiters.¹⁰⁴

Trafficking in Persons and Forced Labor

Forced labor in Burma has been reported in sectors associated with deforestation, including bamboo and teak; agricultural sectors including sugarcane, palm oil, rice, beans, and rubber; and mining in jade and rubies.¹⁰⁵ Previously documented incidents of forced labor in the bamboo and teak sectors are linked to documentation that the Burma military forces adults and children to work without pay with a refusal to work resulting in “physical violence or other punishment.”¹⁰⁶ In palm oil, rubber, jade, and other mining operations, human traffickers are reported to use deception to recruit men and boys to trafficking in persons for purposes of labor exploitation.¹⁰⁷

In Kachin State, forced labor has been reported in jade mining, where drug addiction is at times induced and encouraged by human traffickers.¹⁰⁸ Up to 400,000 people were estimated to work as hand-pickers in jade mining by the Ministry of Natural Resources and Environmental Conservation (MONREC), most of whom are internal migrant workers.¹⁰⁹ In Hpakant Township, the epicenter for jade mining in Burma, the ILO found that of the 163 respondents, 33 percent were in situations of forced labor.¹¹⁰

Child Labor

Child labor in Burma is found among both rural and urban populations. According to the 2015 Labor Force Survey Report released by the government of Burma, 1.13 million children (ages 5-17) are in conditions of child labor – representing 9.3 percent of the child population.¹¹¹ Cases of child labor documented by the government occurred predominantly in “agriculture, forestry and fishing” (60.5 percent), manufacturing (12 percent), and trades (11 percent) and occurred primarily in rural areas.¹¹² The U.S. Department of Labor has reported conditions of forced child labor in numerous sectors including agriculture (specifically beans, rice, sugarcane, and rubber) and forestry including bamboo and teak,¹¹³ and child labor has also been reported in the jade and ruby mining sectors.¹¹⁴

Additionally, according to a 2015 report released by the Burmese government, over 600,000 children, or 5.1 percent of the child population, are involved in work that is considered hazardous child labor.¹¹⁵ Rural children are more likely to be involved in hazardous work and work significantly longer hours.¹¹⁶ Some of the children working in the agriculture sector are reportedly trafficked and subjected to debt bondage.¹¹⁷ An ILO study which focused on internal labor migration found that forced labor and trafficking in persons

for the purpose of labor exploitation were highest among juveniles aged 15-17.¹¹⁸ For information on the Burma government's response to addressing child labor, including the newly adopted Child Rights Law (2018), see [Annex 1: Efforts to Combat Child Labor](#).

Land Access and Displacement

Land access and land tenure insecurity pose significant challenges to Burma's people. Seventy percent of the rural population is estimated to be landless.¹¹⁹ Of families that rely on agriculture as their main source of income, nearly half (or 4 million families) are thought to lack formal land rights and documentation,¹²⁰ although many of these families likely have legitimate claims to land rights based on usage and occupancy under Burma's legal frameworks.¹²¹

Land acquisition by the military, government entities, and business elites has increased the number of landless households. It is difficult to measure the scale of land grabbing in Burma, but CSOs have estimated at least ten million people were either involuntarily pushed off their land or have lost access to land because of land concessions and/or deforestation since the early 1990s.¹²² The FAO reports that the average acreage per household farm decreased from 6.23 to 4.5 acres between 1993 and 2010.¹²³ In 2016, a Burma government official estimated that two million acres of land were illegally confiscated.¹²⁴

Since government transition to quasi-civilian rule under the NLD party in 2011-2012, there are increased concerns of a new wave of land grabbing. Burma's legal framework allows for government allocation of "fallow" land for agricultural and forestry development.¹²⁵ The primary instrument for doing so, the Vacant, Fallow, and Virgin Land Management Law (2012), deprioritizes customary land tenure, often characterizing productive forested areas or land being farmed with traditional shifting cultivation practices as "fallow."^{126 127} This phenomenon particularly impacts regions with high percentages of ethnic minorities,



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including Kachin State, as noted in the banana plantation case study. Of the 30 percent of the country's land area which reportedly qualifies as "fallow," nearly three quarters is located in ethnic minority states and regions.¹²⁸ Civil society organizations have called for a temporary cessation of land reallocation under this law due to its contributions to the landless population.¹²⁹

In 2015, the Burma-based organization Land in Our Hands conducted a study of 2,235 farmers who had land confiscated and reallocated. Of these farmers, only 508 (or 23 percent) indicated that they remained farmers after their land was confiscated. Many of the individuals instead resorted to contract labor, a more vulnerable form of employment, with some reportedly travelling within Burma and to China or Thailand to seek jobs.¹³⁰ Many migrants from Burma are vulnerable to forced labor in their countries of destination, including Thailand. A 2016 Human Rights Watch report highlighted that farmers whose land was confiscated in Burma were often forced to take irregular manual labor jobs for lower pay, decreasing their families' access to food and water, health care, and education. Some interviewees reported that their children had to begin work at an earlier age due to their situation.¹³¹

Corruption

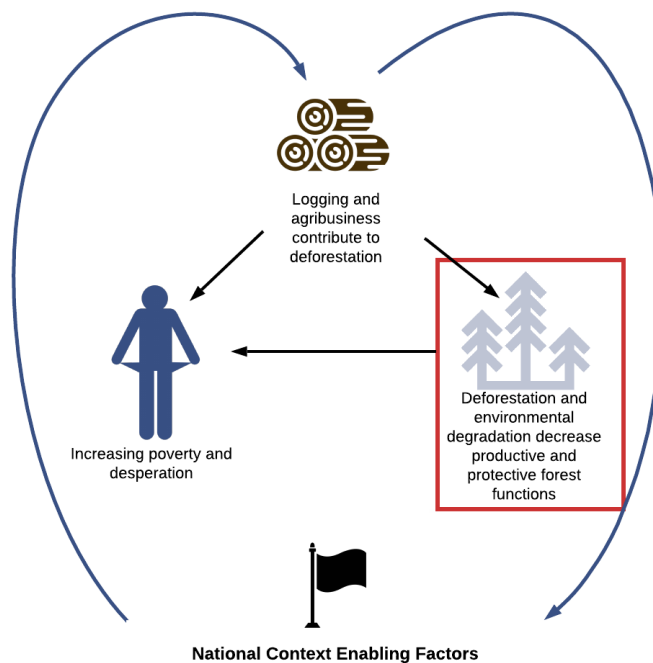
In 2019, Burma scored a 29 on the Corruption Perceptions Index (a score of 100 represents a country being free from corruption while a 0 denotes a high rate of corruption).¹³² Burma is ranked 130 out of 180 countries in the index and is the country with the sixth highest perceived rates of corruption in the Asia-Pacific region. Burma's rating has improved in recent years, however, increasing its score by 14 points between 2012 to 2019.¹³³ Burma also performs poorly in the World Bank's Worldwide Governance Indicators, ranking in the bottom 15 percentile for 'Rule of Law' and 30 percentile for 'Control of Corruption' worldwide.¹³⁴

Bribery is a significant problem in Burma. A 2015 survey of 3,000 companies in Burma found that approximately 70 percent of companies had paid bribes. Both "agriculture, fishing, and forestry" and mining companies reported high rates of paying bribes, at 62 and 85 percent, respectively.¹³⁵ A Transparency International study in 2017¹³⁶ found that significant numbers of respondents reported paying bribes for basic services, including for ID applications (40 percent) and to police (49 percent).¹³⁷ Corruption and bribery are also reportedly present among labor inspectors.¹³⁸

Forests in Burma

This section provides information on the state of forests and deforestation in Burma and the roles that forests play in the livelihood and wellbeing of local people. It further discusses the national framework and governance structures for managing forests.

FIGURE 7. THE ROLE OF NATIONAL CONTEXT ENABLING FACTORS ON DEFORESTATION, ENVIRONMENTAL DEGRADATION, AND VULNERABILITY TO TRAFFICKING IN PERSONS



Overview

Burma is the second-most forested country in the Southeast Asian region (after Indonesia) with nearly 105 million acres translating into 63 percent of its land, which is the highest proportion of forest cover in mainland Southeast Asia.^{139 140} Primary forest accounts for ten percent of forest cover in Burma,¹⁴¹ and it is considered to contain the most biodiversity in the Asia-Pacific region.¹⁴² Only 38 percent of Burma's forests have more than 80 percent canopy cover, allowing them to be considered "intact."¹⁴³ Most of Burma's intact forests are located in its hill and mountainous regions spread across five states or regions: Kachin State, Sagaing Region, Tanintharyi Region, Shan State, and Chin State. Intact forest in these states account for 85 percent of intact forests in the nation, at 33.9 million acres.¹⁴⁴ Regionally, the Greater Mekong Sub-region, which has some of the largest expanses of natural forest in the world, is predicted to lose nearly 75 million acres of forest area by 2030, earning the region the distinction of being one of ten global "deforestation fronts."¹⁴⁵

Forests in Burma are home to a number of endangered species including tigers (*Panthera tigris*), Asian elephants (*Elephas maximus*), Gurney's pitta (*Pitta gurneyi*), as well as the Asian tapir (*Tapirus indicus*), to name a few. Burma's Protected Areas are disproportionately located in Kachin State and Sagaing Region. The Northern Forest Complex extends across Northern Sagaing and Kachin and over the Indian border to Assam and Arunachal Pradesh. In the south, Tanintharyi's forests extend to Thailand's Western Forest Complex and Kaeng Krachan National Park.¹⁴⁶

Productive Forest Functions

The productive function of forest resources relates to the economic and social utility of forest resources

to national economies and forest-dependent local communities.¹⁴⁷ For rural Burmese populations, deforestation can contribute greatly to vulnerability, as virtually all of Burma's rural population relies on the productive role of forests for meeting basic needs or for their livelihood.

Forests provide food security for rural populations, supplying the required ecosystem for traditional agricultural practices used throughout Burma.¹⁴⁸ The presence of forests has a positive influence on an area's soil nutrient levels and hydrology, which increases crop yield.¹⁴⁹ Rural populations capitalize on these effects through the practice of shifting cultivation, rotating their active farming areas and leaving certain areas fallow for long periods, allowing forests to grow in and therefore enhance the area's fertility.¹⁵⁰ About 40 percent of Burma's population practices shifting cultivation, and therefore as many as 21 million people rely on its crop yield-enhancing properties.¹⁵¹ This practice is especially critical in upland areas, where the soil is less fertile and irrigation opportunities are scarce. Deforestation and agribusiness threatens this practice and reduces crop yield, threatening the food security of millions of the rural population (see 'Banana Plantations in Kachin State' case study).¹⁵² Rural communities also rely on forests for wild food collection and bushmeat hunting, which are critical for many in these areas, as about one in six people in rural areas struggles to meet their basic food needs.¹⁵³

Rural areas have limited employment opportunities, and forests can provide one avenue by which rural communities can generate income and formal employment.¹⁵⁴ In 2016, the formal forestry sector contributed approximately 34,218 jobs and MMK 143 billion (USD 99 million¹⁵⁵) in wage earnings.¹⁵⁶ Rural populations also rely on forests for informal revenue generation, including collecting fuelwood and timber to sell and harvesting/creating non-timber forest products (NTFPs), including charcoal, building materials like rattan and bamboo, resins, medicine, and a wide variety of food including bushmeat, fruit, and mushrooms.¹⁵⁷ In some areas in Burma, income from NTFP accounts for 50 to 55 percent of the total income.¹⁵⁸ For many rural communities, the jobs and revenue from the rural timber sector and NTFPs are vital to their subsistence.¹⁵⁹ Because these opportunities are only available with the existence of forests, deforestation threatens their continued availability, forcing rural populations to resort to other methods of generating income.

The fuelwood provided by forests is critical to the survival of the people of rural Burma, where as many as 95 percent of rural households are dependent on fuelwood as their primary energy source. Many residents do not have access to electricity, so fuelwood from forests is the only option for meeting energy needs for basic tasks such as cooking.¹⁶⁰ Fuelwood is typically scavenged directly from mangroves, wooded lands, private forests, and community forests.¹⁶¹ However, deforestation and less available free scavenged fuelwood means more of the rural population will likely be forced to buy fuelwood or charcoal to meet their energy needs.¹⁶² Purchasing fuelwood or charcoal is an additional cost that households already in poverty would struggle to afford.

Protective Forest Functions

Beyond providing wood and supporting the livelihoods of residents, forests play a protective role in ecosystem conservation through maintaining water,¹⁶³ soil, and air quality; reducing the risks of floods, erosion, and drought; and regulating the climate.¹⁶⁴

In Burma, forests play a critical role in safeguarding agricultural activities by inhibiting runoff and erosion, conserving water by increasing infiltration, and decreasing sedimentation in irrigation systems.¹⁶⁵ Burma's population is highly dependent on agricultural yields for survival, especially in its more rural areas, where approximately 70 percent of the population resides.¹⁶⁶ Reduced agricultural yields caused by deforestation or forest degradation endangers the food security of a large swath of the population and could contribute to an overall weakened economy.

Forests are also critical in protecting Burma from the effects of natural disasters. Extreme weather events and natural disasters, including cyclones, landslides, heat waves, and floods, affect Burma severely while climate change threatens to compound the frequency and intensity of these events.¹⁶⁷ Forests serve a protective function in hazard mitigation in Burma by stabilizing coastlines, attenuating waves, reducing the runoff that contributes to landslide volume and velocity, and moderating floods.¹⁶⁸ Continuing deforestation will reduce these protective qualities, thereby increasing the impact of natural disasters and extreme weather.

National Forest Management Framework

The Ministry of Natural Resources and Environmental Conservation (MONREC) oversees the conservation of natural resources in Burma and is the main government ministry responsible for oversight of forests. More details regarding the Forestry Department (FD) and the Myanmar Timber Enterprises (MTE), both of which are involved in overseeing logging and the forestry sector, are provided in the **Informal Small-Scale Logging case study**.

The broadest legal categories of forested land in Burma are Permanent Forest Estate and Non-Permanent Forest Estates. Permanent Forest Estate, defined as land “designated by law or regulation to be retained as forest and [which] may not be converted to other land use”¹⁶⁹ has three sub-categories: Protected Area System, Forest Reserve (sometimes referred to as reserved forest), and Protected Public Forest. The classification of a forest area determines which uses are legal; for example, whether land can be allocated for the development of an agricultural plantation or whether logging is permitted.

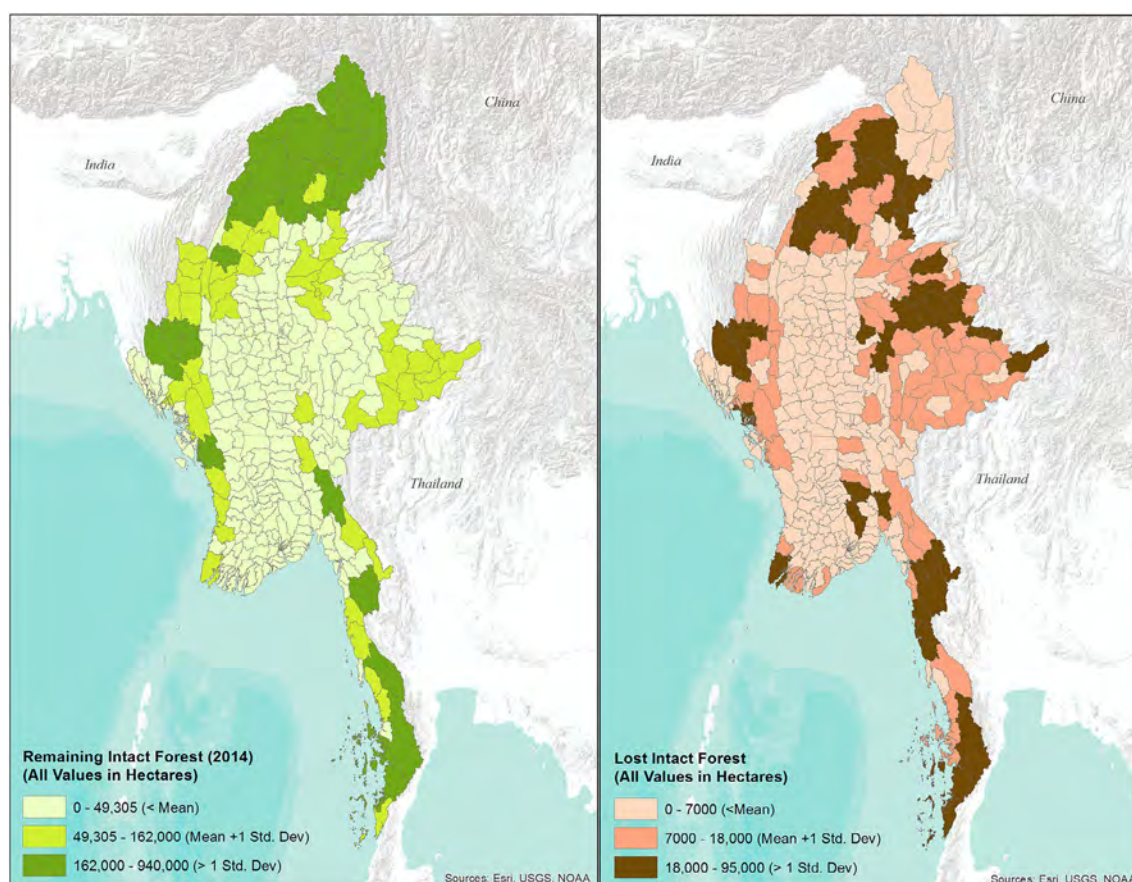
Public Forest (also referred to as “unclassified” or “unclassed” forest) and “wasteland” fall under the broader category of Non-Permanent Forest Estate. The Ministry of Agriculture, Livestock and Irrigation (MOALI) can allocate ‘unclassified’ forests for agricultural development in some instances. See Annex 3: Forest Frameworks for more information.

Forest Loss and Degradation

Burma's forested areas are rapidly shrinking and the rate of deforestation is among the highest in Asia.¹⁷⁰ However, there is difficulty accessing accurate and up-to-date information.¹⁷¹ The FAO, in a 2015 Forest Resource Assessment, evaluated Burma as having the third highest deforestation rate in the world, estimating a loss of 37 million acres since 1990, and an annual rate of 1.35 million acres (or 1.8 percent) per year between 2010-2015.¹⁷² Another study found forest cover declines of 3.7 million acres between 2002-2014, or 0.30 percent annually. The rate of forest cover change was particularly pronounced for intact forests, with an annual rate of 0.94, while forest degradation increased by 0.15 percent annually.¹⁷³

The most forested areas in Burma are also those that have experienced the highest levels of deforestation. Intact forest losses between 2002- 2014 mostly occurred (in order) in Shan State, Sagaing Region, Kachin State, Tanintharyi Region, and Chin State.¹⁷⁴

FIGURE 8. REMAINING INTACT FOREST IN BURMA STATES AND REGIONS (2014)



Source: Bhagwat et al 2017¹⁷⁵

TABLE 1: INTACT FOREST LOSS IN BURMA STATES AND REGIONS

State/Region	Intact Forest 2002 (acres)	Intact Forest 2014 (acres)	Intact Forest Loss (acres)
Ayeyarwady	659,813	511,348	148,466
Bago	833,313	575,909	257,405
Chin	3,587,829	3,307,291	280,539
Kachin	13,199,043	1,268,2476	516,566
Kayah	282,281	237,619	44,662
Kayin	2,011,275	1,657,832	353,442
Magway	700,012	542,975	157,038
Mon	385,769	184,664	201,104
Rakhine	2,116,388	1,846,984	269,404

Sagaing	8,578,342	7,886,791	691,552
Shan	5,957,325	4,394,122	1,563,203
Tanintharyi	6,145,575	5,686,078	459,497
Yangon	56,380	31,516	24,864
Mandalay	448,600	348,816	99,784
Naypyitaw	161,819	119,236	42,584

Source: Bhagwat et al 2017¹⁷⁶

Key Sectors Associated with Deforestation

Numerous reports have detailed both direct and indirect drivers of deforestation in Burma.¹⁷⁷ Several sectors associated with deforestation have been highlighted as key direct drivers including logging (both legal and illegal), large-scale agribusiness, mining, infrastructure, and charcoal production.¹⁷⁸ In addition to commercial sectors, small-scale agriculture and the use of fuelwood by local communities can contribute to deforestation in some cases, particularly in areas with expanding populations.¹⁷⁹

Agribusiness is widely considered to be the biggest threat to Burma's existing forests, particularly given its scope and rapid expansion. While the total area currently covered by plantations is still relatively limited across the entirety of the country, the states where plantation expansion has been concentrated have experienced negative impacts on forest coverage and biodiversity. Between 2002 – 2014, an estimated 1.3 million acres of forest were lost due to the development and expansion of agricultural plantations.¹⁸⁰ As part of the government's Master Plan for Agriculture, the government issued large-scale land concessions for the purported development of agricultural plantations across Burma. Between 2010 – 2013, concession issuances jumped 170 percent from 2 million acres to an estimated 5.2 million acres. This estimate is thought to be low, as it only reflects concessions issued by the central government (as opposed to militias, EAOs, and military).¹⁸¹ Nearly 80 percent of concessions are granted on land designated as vacant or fallow under land-use regulations. The primary commercial crops planted on this land include palm oil, rice, rubber, oil seeds, and maize.¹⁸²

Both formal (government-sanctioned) and informal logging are also contributors to deforestation, although its direct contribution to forest loss compared to other sectors is not known. An estimated 1.15 million acres of forests were degraded between 2002-2014 as a consequence of shifting cultivation farming, fuelwood consumption, and logging.¹⁸³ Other key sectoral drivers of deforestation in Burma include mining and infrastructure development, such as hydropower.

The social and environmental risks discussed above will now be evaluated in the context of two specific case studies, and conclusions and recommendations from the case studies will take this broader context into account.



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Case Study: Labor, Social, and Environmental Risks in Banana Cultivation in Kachin State

Banana plantations in Kachin State and in Waingmaw Township — the location of Verité’s case study and the home of the majority of plantations in the state — are contentious among local activists and community members. The Chinese-owned plantations have expanded rapidly in recent years and instigated negative impacts to community health and livelihoods.

The land for the plantations has often been acquired, at times under duress, from local community members as well as internally displaced persons (IDPs) who occupied the land prior to being displaced by the restart of the Kachin State conflict in 2011. Plantations have also expanded into communal forests, depriving the local population of its productive and protective uses. Unregulated pesticide use on plantations has led to illnesses among the communities in and around plantation areas, as well as the contamination of soil and water sources.

Combined, these impacts have left some community members with little choice but to migrate internally to other parts of Burma or abroad for employment, or to work on banana plantations under exploitative labor conditions. The plantations also represent a significant barrier for IDPs, an extremely vulnerable group, from returning to their land and resuming their livelihoods. Although media and NGO reports have documented some information about working conditions on plantations, significant gaps in knowledge remain as to the demographics of workers, systems of employment, and risks to labor vulnerability in a sector which employs tens of thousands of workers. The following case study explores these issues and aims to assess working conditions on banana plantations which exist in territory controlled by both the Burma military (and by extension the Burma government) as well as Burma military-aligned militia groups.

Verité's labor findings in the Kachin banana plantation sector highlight the exploitative conditions faced by workers. Verité identified multiple indicators of forced labor as being present in the sector, in addition to widespread violations of Burma labor laws related to employment contracts, occupational safety and health (OSH), minimum wage, hours of work, and paid time off, among others. Many of the indicators of forced labor identified by Verité are rooted in a wage payment system in which permanent workers employed on plantations are paid salaries only after laboring for ten months, while receiving a monthly stipend while waiting for their wages that is below the national minimum wage and not enough to cover basic living costs. The wage system, in effect, prevents workers from leaving plantations regardless of their situation, as they would forfeit their annual salary. The wage system also allows for employers to levy financial penalties against workers, which results in a situation in which workers cannot refuse overtime work and are unable to take days off in some instances.

Verité also identified evidence of the worst forms of child labor as being present in the banana sector, as worker interviewees reported that children under 18 (including those younger than 14) were working on plantations, and in some instances were applying pesticides or working in areas which had been recently fumigated.ⁱⁱⁱ Verité has provided a full analysis of labor vulnerability in the sector in the **Assessment of Working Conditions on Banana Plantations** section.

There is evidence that Burma's government is seeking to address some of the issues associated with banana plantations in Kachin State, as the country's parliament passed a law in December 2019 to

iii As defined by the ILO's Convention 182, some children under the age of 18 in the banana sector may meet the criteria to be considered as working under the worst forms of child labor, as the application of pesticides and herbicides, night work, or work that interferes with schooling could constitute "work which, by its nature or the circumstances in which it is carried out, is likely to harm the health, safety or morals of children."

regulate the sector.¹⁸⁴ With the findings Verité presents in the current case study, it is vital that labor conditions in this sector are addressed in conjunction with this process and that workers are afforded full labor rights under Burma law. See the Recommendations section of the report for further information.

Methodology

Verité conducted rapid appraisal-style field research to assess labor conditions in the banana plantation sector in Waingmaw Township, Kachin State, as well as environmental degradation and associated impacts on surrounding communities. Field research consisted of structured and semi-structured qualitative interviews with workers, community members, and other local and international experts. Respondents were selected using purposive snowball sampling. A review of relevant literature was also conducted to ground and validate findings.

Field data collection for this case study was conducted primarily between March- April 2019 and between September – November 2019 in both Myitkyina and Waingmaw Townships in Kachin State. For a full description of the research and methodological process for the present report, see the Research Process section.

Sampling

Eighteen workers were interviewed about their working conditions on banana plantations. Of these 18 workers, 13 were considered permanent workers and five were temporary workers (day laborers or seasonal workers). Informants represented nine different banana plantations based in Waingmaw Township, Kachin State. Plantations in which informants were employed were located in areas controlled by the Burma military (and by extension the Burma government) and Burma military-aligned militia groups. Full details of worker informants are provided in Table 2.

TABLE 2: BANANA PLANTATION WORKERS INTERVIEWED FOR CASE STUDY^{iv}

Type of worker (Migrant/ Local/IDP)	Gender	Length of Employment (at time of interview)	Type of Employment	State/ Region of Origin	Ethnic Group	Plantation Location
Migrant	Male	2 years	Permanent	Irrawaddy Region	Bamar (Burmese)	Shwe Nyaung Pin
Migrant	Male	3 years	Permanent	Rakhine State	Rakhine	Unknown
Migrant	Male	3 months	Permanent	Rakhine State	Rakhine	Taw La
Migrant	Male	3 years	Permanent	Sagaing Region	Bamar (Burmese)	Law Sa
Migrant	Male	3 months	Permanent	Kachin State	Nung- Kachin ^v	Oh Lout
Migrant	Male	1 month	Seasonal	Sagaing Region	Bamar (Burmese)	Unknown
Migrant	Female	7 years	Day laborer	Sagaing Region	Lisu- Kachin	San Kha New
Migrant	Female	3 years	Permanent	Shan State	Lisu- Kachin	San Kha New
Migrant	Female	7 years	Day laborer	Sagaing Region	Bamar (Burmese)	Law Sa
Migrant	Male	3 years	Permanent	Sagaing Region	Bamar (Burmese)	Tar Law Gyi
Migrant	Male	2 years	Temporary	Irrawaddy Region	Bamar (Burmese)	Washawng
IDP	Female	2 years	Permanent	Kachin State	Kachin	Shwe Nyaung Pin
IDP	Female	2 years	Permanent	Kachin State	Kachin	Shwe Nyaung Pin
IDP	Female	1 year	Temporary	Kachin State	Kachin	Mali Taung
IDP	Male	2 years	Permanent	Kachin State	Kachin	Gwi Htu
Local	Female	2 years	Permanent	Waingmaw, Kachin State	Lisu- Kachin	Koe Kant
Local	Female	9 months	Permanent	Waingmaw, Kachin State	Bamar (Burmese)	Shwe Nyaung Pin
Local	Male	2 years	Permanent	Waingmaw, Kachin State	Lisu- Kachin	Tar Law Gyi

^{iv} Interviewees were allowed to self-identify for all categories

^v The Kachin ethnic group is represented by several subethnic groups with distinct dialects, including Jinghpaw, Nung (Rawang), Lisu, Atsi, Maru, and Lashi. While some members of these groups consider themselves as part of a multi-ethnic Kachin society, some only identify as part of their specific ethnic group

FIGURE 9. SEX AND MIGRATION STATUS OF RESPONDENTS

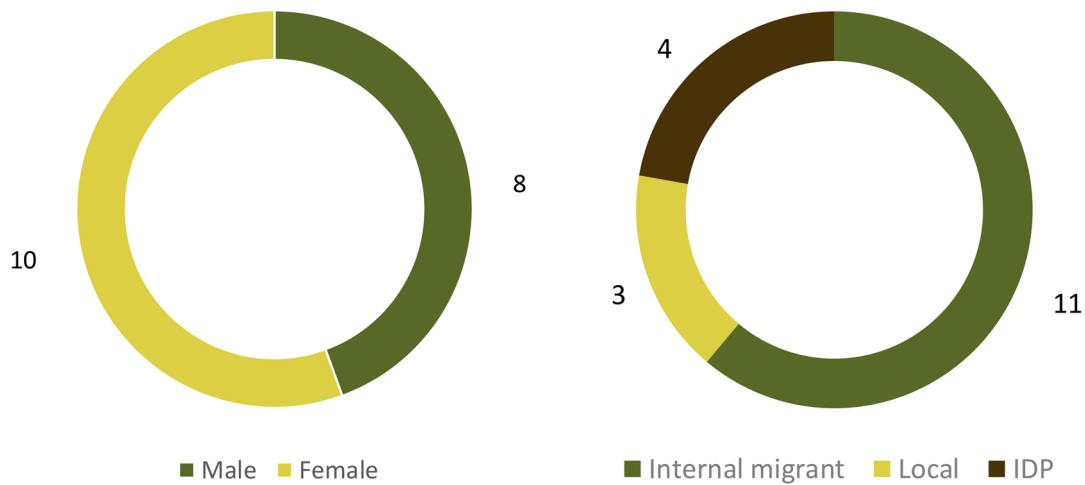
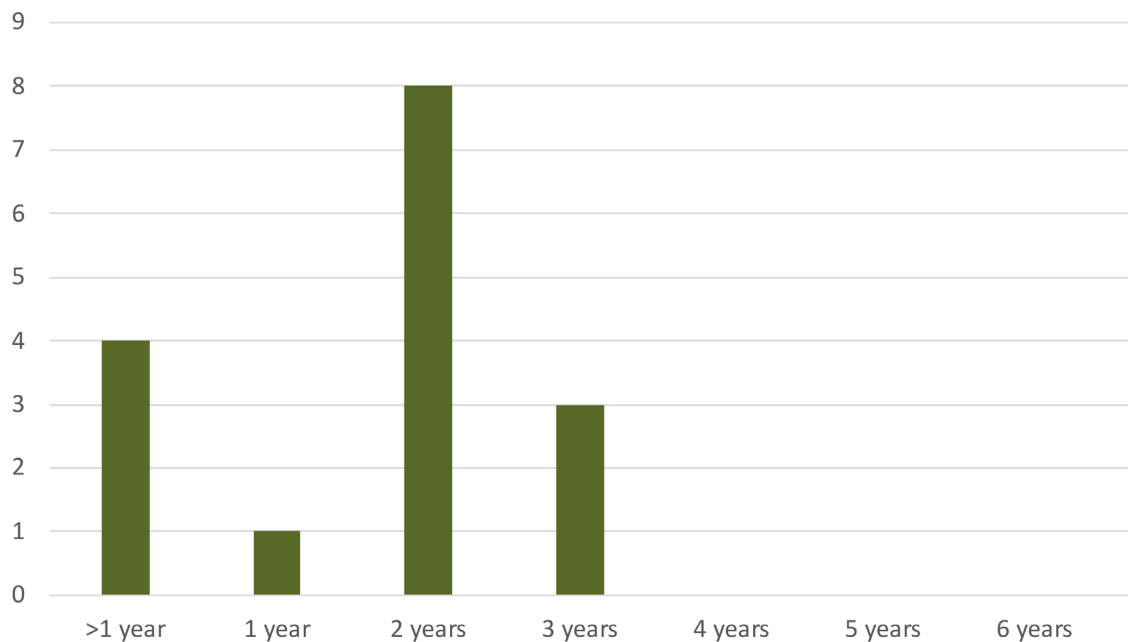


FIGURE 10. LENGTH OF EMPLOYMENT OF RESPONDENTS



Verité also carried out a focus group discussion (FGD) with six local Waingmaw community members to elicit their insight on the effect of banana plantations on community health and livelihoods. An FDG was also held with three internally displaced persons (IDPs) who had experienced land confiscation related to banana plantations in Waingmaw. Key informant interviews with Kachin-based civil society representatives and local leaders were held in both Myitkyina (the capital of Kachin State) and Waingmaw (town) during this time period. In total, representatives from six Kachin-based

civil society organizations and seven international and domestic NGO representatives (Burma-based) were consulted with direct knowledge of banana plantations, as well as two IDP camp leaders and one local activist. For a full list of stakeholders interviewed for this report, see *Annex 7: List of Stakeholders Interviewed*.

Security Considerations and Human Subjects Protocols

Due to previous assaults on journalists investigating social and environmental impacts of banana plantations in Kachin State,¹⁸⁵ as well as the ongoing military and militia control of the areas surrounding banana plantations in Waingmaw Township, security issues were of concern for Verité researchers.¹⁸⁶ The Burma government has previously utilized criminal defamation laws to suppress Kachin State media and activist coverage perceived as unfavorable to the military, resulting in arrests and imprisonment of activists critical of the military.¹⁸⁷ Local informants consulted by Verité advised against attempting to enter the plantation areas due to these risks.

Given the known dynamics of worker surveillance on plantations, Verité researchers also believed that conducting worker interviews in plantation areas could pose a risk to workers and decrease the probability of gathering accurate data. Verité researchers therefore sought to interview workers outside of the plantation areas. Interviews took place in nearby villages and at internally displaced persons (IDP) camps in Myitkyina and Waingmaw Townships.

All participants were informed of the purpose of the interview, its voluntary nature, and the ways that the information shared might be used. All of those interviewed provided informed consent or specified how the information shared could be used. For security purposes, the names of all workers and expert interviewees have been kept anonymous. Due to human subject considerations, Verité did not interview any children directly, instead relying on adult perceptions about child labor.

Limitations

Researchers were limited in terms of the geographic coverage of interviews. Research was not conducted in conflict zones reported by informants to be controlled by the Burma military and NDA-K/Border Guard Forces. Plantations located in these areas tend to be larger and reportedly employ thousands of internal migrants and IDPs. While there is likely some heightened vulnerability for these workers, Verité's research was limited by security concerns to areas outside conflict zones which tend to have relatively smaller plantations (under 100 workers). It is possible therefore that this case study does not address more serious abuses which may be present on larger banana plantations. On the converse, it is also possible that larger plantations have better labor conditions for workers when compared to smaller plantations.

Due to the small number of worker interviews and the lack of a scientific sampling strategy, this sample cannot be taken to be statistically representative at a national or sectoral level. That said, the consistency of conditions described by workers across nine separate plantations suggests that the themes discussed do not occur in isolation. This rapid appraisal research is intended to establish

trends in labor vulnerability in the sector and to identify risks to be further explored and addressed through policy and further in-depth research. However, it should be noted that across the variables of geography, last year worked in sector, and total length of time in sector, informants described generally similar working conditions, methods of payment, team compositions, and living situations.

Kachin State Contextual Background

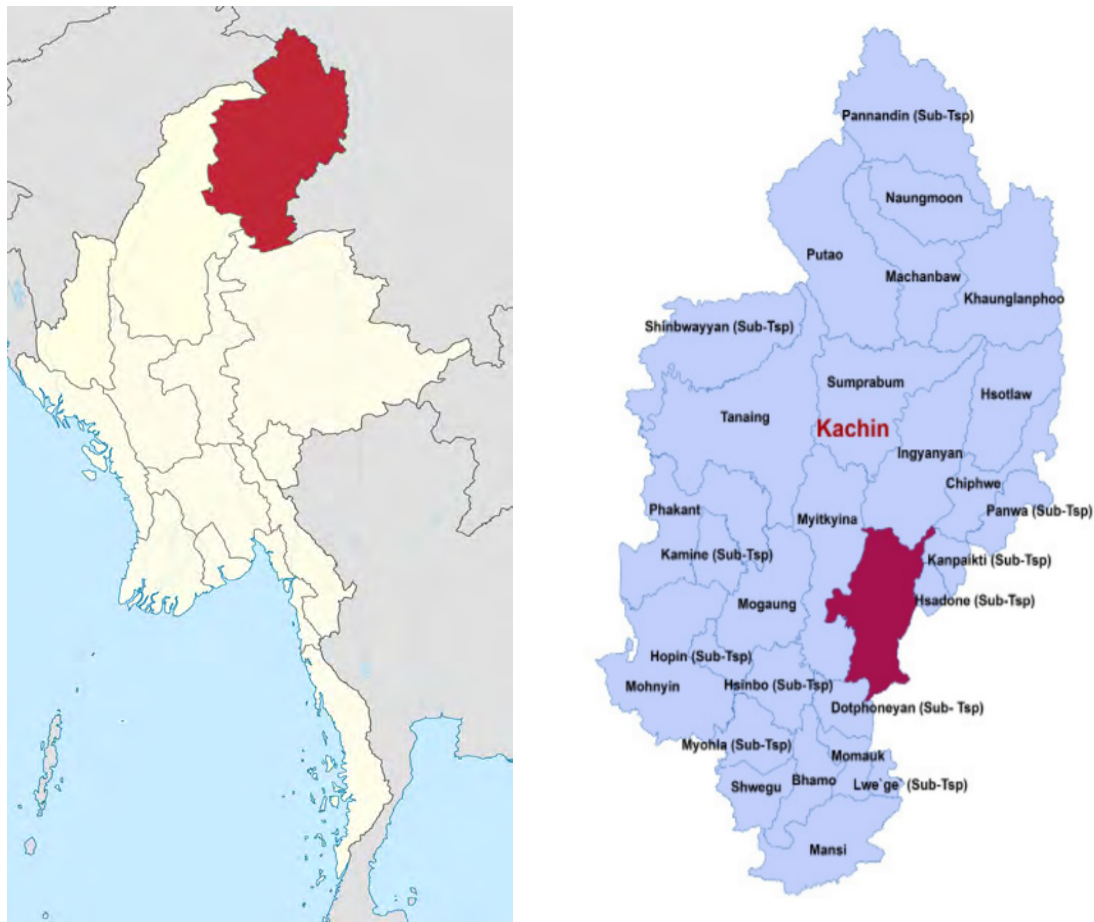
Kachin State is located in the northern part of Burma, directly bordering China to the north and east and India in the northwest. The state has a relatively low population of 1.7 million people, making up around 3.3 percent of the total population of Burma.¹⁸⁸ The area is rich in commercially-valuable natural resources, in particular timber, significant hydropower potential, and minerals and gems such as gold, amber, rubies, copper and jade. Jade is the state's most lucrative resource, which Global Witness estimated to have a total production value of USD 31 billion in 2014 alone, equivalent to nearly half of Burma's entire GDP.¹⁸⁹

Overview: Conflict, Land, and Natural Resources in Kachin State

Kachin State has been long embroiled in the country's civil war, where fighting still continues between one of the country's most significant ethnic armed organizations (EAO), the Kachin Independence Army (KIA) based in Kachin State and North Shan State [and their political wing the Kachin Independence Organization, or (KIO)], and the Burma military, or *Tatmadaw*. The KIO agreed to their first ceasefire since fighting began in the early 1960s in 1994; however, in 2011 when the new military-led government took office, the ceasefire broke and fighting soon escalated once again. The resurgence of war since 2011 has led to the displacement of an estimated 98,000 internally displaced persons (IDPs) in Kachin State.¹⁹⁰ Both the *Tatmadaw* and the KIA have committed documented human rights abuses associated with the war, according to Human Rights Watch.¹⁹¹

The root causes of the conflict between the KIA and the *Tatmadaw*, much like for other EAOs operating in other ethnic areas of the country, have been attributed to questions over resource ownership, management and use rights, and the equitable distribution of benefits from resource rents. The desire for ethnic Kachin people to have greater self-determination and control over their own forms of development is a key motivating factor fueling the war.¹⁹² Experts have noted that KIA is not solely motivated by the control of natural resources for economic benefit, but as a means to sustain their long-term political goal.¹⁹³

FIGURE 11. WAINGMAW TOWNSHIP, KACHIN STATE



Source: 2014 Myanmar Population and Housing Census:
Waingmaw Township ¹⁹⁴

Up until KIA's ceasefire, the KIO/A had financed its insurgency efforts mostly through facilitating the extraction and taxation of the cross-border jade trade, thanks to its territorial control of massive jade deposits in Hpakant in western Kachin State as well as strategic check points along its overland and cross-border transportation routes. When the KIO/A lost territorial control over those jade deposit areas in a ceasefire deal, they also lost their primary source of revenue.¹⁹⁵ Even with that loss of revenue, during the seventeen-year ceasefire period, the KIO/A maintained a standing army and governed its remaining territory through various administrative departments, an effort which required significant financial resources. Having lost its near monopoly on the jade trade, the KIO/A turned to high-value timber, prompting a massive decade-long logging frenzy in partnership with Chinese companies and contributing to the country's large-scale deforestation. The KIO, the Burmese military government, and Chinese companies, and to a lesser extent some paramilitaries operating along the China-Burma borderlands, generated significant timber rents.¹⁹⁶

Still today, resource business deals shape the politics of war and possibilities for peace. Substantial profits continue to be amassed by all armed conflict parties; vested interests on maintaining status

quo with the armed conflict dynamics are considerable. For example, paramilitary (themselves former EAO leaders) and *Tatmadaw* soldiers man numerous checkpoints known to transport high-value resource commodities, including illicit drugs, that generate huge revenues that are then kicked up the chain of command.¹⁹⁷ National crony companies – whose ability to receive lucrative business deals emanates from their favorable relationships to top military officials – gradually increased their presence in Kachin State during the ceasefire period and to some extent even during the present war. In addition to revenue, resource business deals and large-scale economic concessions have been demonstrated to contribute to state territorialization and state building, as conceptualized by Kevin Woods’ “ceasefire capitalism.”¹⁹⁸

Chinese companies, predominately from Yunnan, have long-established familial and business relations that allow them to profit from Kachin State’s conflict resource economy – mostly supported by Yunnan government policy, yet mostly without the support of national government in Beijing, whose policies heavily restrict the mostly illicit cross-border resource trade.¹⁹⁹ China’s opium substitution program is meant to help transform Kachin State’s illicit economy into a post-poppy agribusiness sector.²⁰⁰ The program, liberalized in 2006 to be implemented by Chinese companies rather than the state as before, has shaped Chinese investment in Kachin State in significant ways. Private Chinese agribusiness estates, sometimes in partnership with local business elites (many of whom are tied to paramilitaries or EAOs), have dominated land-based investments since the mid-2000s, particularly private rubber concessions.²⁰¹ Agribusiness land grabs have since become commonplace.²⁰²

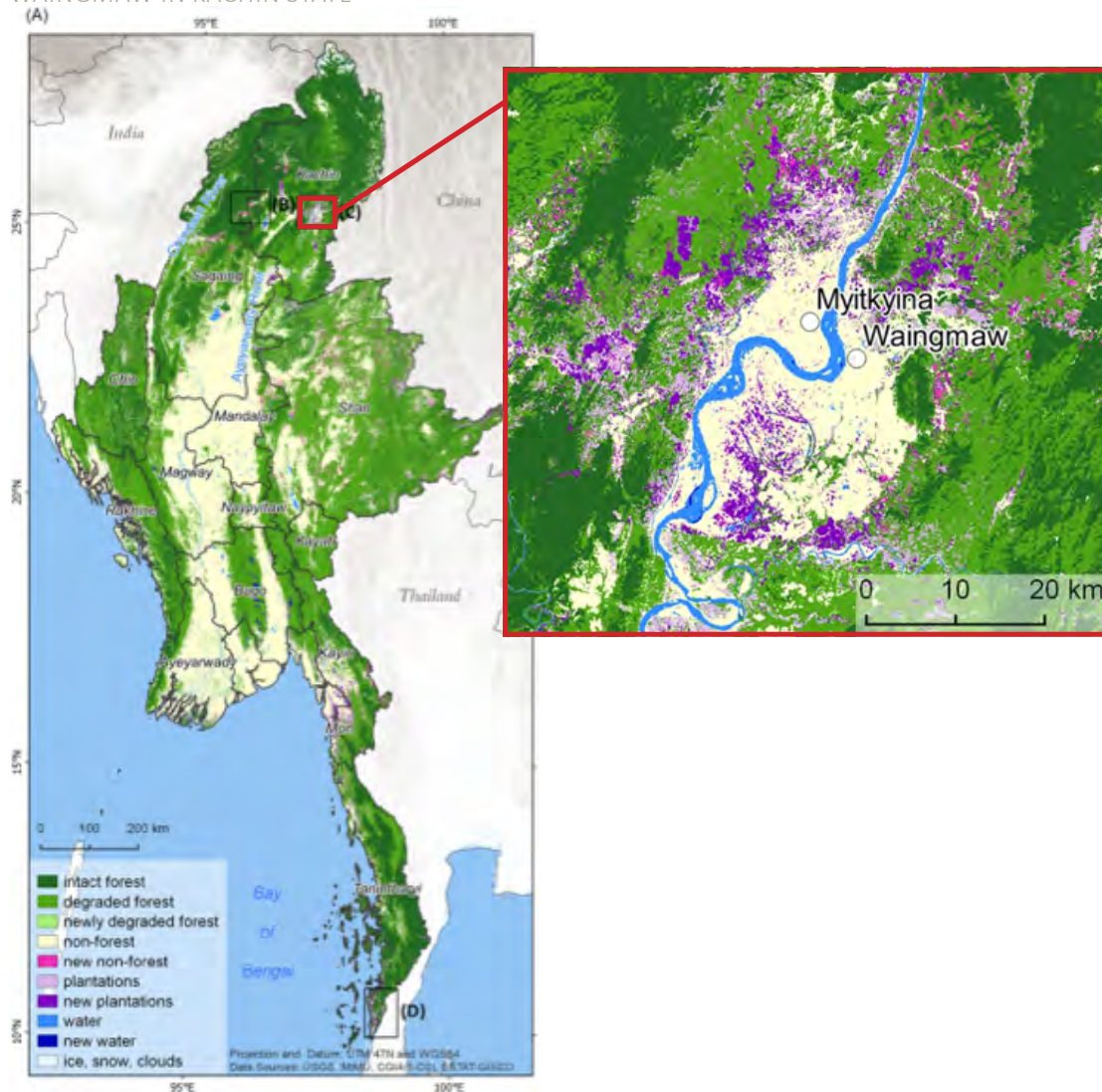
By 2013, up to 1.4 million acres, or 27 percent of Burma’s total allocated concession areas, had been allocated in Kachin State.²⁰³ This spate of agribusiness concessions that predominately cover government-controlled territories received a further boost in 2018 with the amendment to the Vacant, Fallow, and Virgin (VFP) Lands Management Law. The amended VFP Law requires anyone residing on land the government has categorized as VFP land to officially register their unofficial agricultural plot or risk imprisonment or a fine for trespassing – essentially legally voiding customary and ancestral land tenure claims.²⁰⁴ One study showed that the majority of farmers were unaware of the law’s passage, however, as well as their need to register within the initial allotted six months.²⁰⁵ The law has been especially criticized by groups representing IDPs in Kachin State and North Shan State, as they contend that IDPs are not able to safely return to their land plots to defend against state confiscation, which essentially establishes legal support to accelerate land grabbing.²⁰⁶ In Kachin State, where up to 43 percent of land has been designated as VFP land,²⁰⁷ numerous reports have detailed land grabbing of Kachin IDP’s land via the VFP law.²⁰⁸

Deforestation and Environmental Degradation in Kachin State

Kachin State has experienced one of the highest rates of forest loss and has among the largest areas in which agricultural concessions have been issued in the country. While there are relatively large swaths of intact forest in Kachin State – a 2017 geospatial study reported that Kachin State had the

largest area of intact forest of all regions in Burma – some researchers have identified Waingmaw Township specifically as a “hotspot” of deforestation. According to the report, between 2002 – 2014, intact forest cover decreased by nearly 61,000 acres in Waingmaw Township, due to “large-scale forest clearing” for agricultural plantations.²⁰⁹

FIGURE 12. LOSS OF INTACT FORESTS IN BURMA BETWEEN 2002-2014: C REPRESENTS INTACT FOREST LOSSES DUE TO PLANTATION DEVELOPMENT IN AREAS AROUND MYITKYINA AND WAINGMAW IN KACHIN STATE



Source: Bhagwat et al ²¹⁰

Kachin State has approximately nine million acres, or 42 percent of its total land area, designated as ‘permanent forest estate.’ ²¹¹ Permanent forest estate is “forest area... designated by law or regulation to be retained as forest and [which] may not be converted to other land use.”²¹² (See Annex on Forest Classifications for further information.) In spite of their protected status, some permanent forest estate areas have been deforested for banana plantations. In May of 2019, the

Kachin State Forestry Department led raids on five companies for growing bananas on 1,000 acres of protected forest areas in Waingmaw Township. The Forestry Department added that they estimated banana plantations existing on 4,000 additional acres of protected forest areas but could not investigate fully due to security concerns.²¹³

There is a lack of consensus on the full scale of banana plantations in Waingmaw Township and surrounding areas, with variations in estimates from civil society organizations (CSOs) and the government. According to a report by the Land Security and Environmental Conservation Networking Group (LSECNG), a coalition of eleven Kachin-based CSOs, banana plantations cover 142,000 acres in Waingmaw Township, or 12 percent of the total Township area, and over 30,000 acres in other Kachin State townships.²¹⁴ This represents up to 275 square miles of plantations, the report notes, roughly the size of Singapore.²¹⁵ LSECNG estimated that there were approximately 40 companies operating banana plantations, approximately 85 percent of which were joint ventures between companies from China and Burma.²¹⁶ According to government estimates from the Kachin State Minister of Agriculture, Livestock and Irrigation (MOALI) on the other hand, about 60,000–70,000 acres of banana plantations had been established by 36 Burma-based companies. The vast majority of plantations (all but one) have not been legally registered in accordance with Burma law, potentially contributing to the lack of clear data.²¹⁷ Bananas are also grown in other townships in Kachin State including Dokphoneyan, Momauk, Mansi, and Shwegu, the township nearest to Sagaing Region.²¹⁸ Local CSOs working in Bhamo Township stated that banana plantations continue to expand rapidly in the region, similarly leading to increased deforestation.²¹⁹

Land Acquisition for Agricultural Plantations in Waingmaw Township

Banana plantations in Waingmaw Township have been developed in areas primarily controlled by the Burma military and militia groups. These groups include the National Democratic Army of Kachin (NDA-K), a Kachin militia group which is allied to the Burmese military as part of the Border Guard Force (BGF), a subdivision of the Burma military. Other areas of Waingmaw Township are controlled by the People's Militia (including the Nawng Chying People's Militia) and the Lasang Awng Wa Group, both of whom are also aligned with the Burmese military.²²⁰ Investors seeking to develop banana plantations in Kachin State must work with these actors in order to gain access to land. The ease with which an investor is successful in gaining access to land is largely dependent on whether groups currently in control of an area are supportive of the development. For example, although banana plantations were previously present in areas within Waingmaw Township controlled by the KIO/A, the group now has extremely limited control of the area and banana plantations are reportedly discouraged due to high unpopularity among ethnic Kachins. This unpopularity is, in part, a result of the death of six workers on a banana plantation near Laiza, the KIO/A headquarters.²²¹

Several independent media outlets have reported on the connection between banana plantations in Waingmaw and business interests of members of the Burma national government and military, the NDA-K, and the KIO/A. Banana plantations reportedly exist on Burma military compounds in Waingmaw Township.²²² *The Irrawaddy* reported that confidential documents from the Department

of Agricultural Land Management and Statistics in Waingmaw Township listed a company owned by the long-time leader of the NDA-K (part of the BGF) as receiving land permits for 3,500 acres of farmland in Waingmaw Township.²²³ On field visits to interview banana plantation workers, Verité field researchers observed BGF soldiers controlling checkpoints and were told of several plantations being operated by the company controlled by the BGF.²²⁴ Additionally, a senior official with the KIA and relatives of KIA generals were listed on Burma government-issued permits for banana plantations, as well the former Kachin State Chief Minister, despite the KIO/A discouraging plantations in areas in which they control.²²⁵ In confidential interviews with Verité, civil society experts confirmed that it was widely known that Burma military units and the NDA-K/BGF were profiting from banana plantations in Waingmaw Township.²²⁶

Land conflicts between banana plantations and the Waingmaw community, including IDPs, have been widely reported in the media. This includes numerous instances of banana plantations being developed on vacated IDP land.²²⁷ Many banana plantations exist on land that has been designated as VFV land, according to a 2018 MOALI investigation.²²⁸ Up to 43 percent of overall land in Kachin State is considered by the government to be VFV land,²²⁹ providing the government a legal basis for securing land for plantation development, even in the face of ongoing community use. Landowners in Waingmaw Township (and Kachin State, generally) are at particular risk of land confiscation because most community members rely on customary land tenure and lack official land ownership certificates. Because they also tend to

“Land is the most important asset for us. Without it, we cannot survive.”

– Community member interviewed by Verité



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practice agricultural cultivation on a shifting or rotating basis, segments of land can periodically be considered “fallow” or “vacant” and therefore available for confiscation under Burma’s VJV land law.

“Almost every household in every village in Kachin community own land through shifting cultivation and paddy farming. The problem is that they do not have land lease certificate or tax slips. So, the government sees the lands owned by community member as vacant lands. On the other hand, local communities have been using their lands and they consider using their lands as customary lands. That’s when the land disputes arise.”

– Myitkyina-based civil society representative interviewed by Verité

Verité spoke with several community members who alleged that their land was confiscated for the purpose of setting up banana plantations. One community member interviewed by Verité estimated a total of 1,550 acres of customary land had been confiscated from 163 households in the village of Ding Jang Yang in 2007 for the development of banana plantations. They noted that the land had been in use for generations, but that residents lacked the necessary documentation to prove ownership. Efforts at seeking restitution for the land have proved unsuccessful, and the land records department ruled that the dispute has been “resolved” despite the banana plantations still existing on traditional lands. Another community informant estimated that 500 acres of land used for farming had been confiscated in Lamyang village for plantation development.

Plantation companies, working through Kachin-based partners, can also acquire land by purchasing or renting directly from small-scale landowners — typically local community members, or in some cases, IDPs displaced by the Kachin conflict. The direct sale approach allows companies to avoid some of the government regulations around land acquisition.²³⁰ Companies hire land brokers to serve as intermediaries on their behalf with landowners; in some cases, village administrators serve this role.²³¹ Brokers may travel to camps where IDPs are residing in order to negotiate leasing or sales agreements for the land vacated by IDPs.²³²

Local landowners who participate in such transactions have a wide range of motivations stemming from numerous external pressures. They may feel that the rates offered by a broker are competitive — the average rate for leasing land is between MMK 200,000 – 300,000 (USD 138- 208) per acre, per month.²³³ There is evidence that companies and the brokers acting on their behalf do utilize more coercive strategies.

Several Burma-based news outlets and civil society organizations have documented cases of local community members and IDPs being pressured to rent out their land in Waingmaw.²³⁴ According to the LSECNG report, of the Waingmaw respondents who rented their land for use as banana plantations, 59 percent did so due to pressure, threats, deception or via land grabbing.²³⁵ These

members may fear retribution from powerful local elites with connections to the plantation companies if they do not comply. Landowners involved in these deals typically have no viable avenue for recourse. Local residents are sometimes told that they will lose their land altogether unless they lease or sell their land to companies. There are reports that plantation companies tell landowners that they plan to take the land regardless of how negotiations proceed, so accepting even a small amount of compensation would represent a better outcome.

An IDP explains how her land was acquired without her knowledge:

“In early 2018, I was told by my neighbor that my land is being rented out. I owned 2 acres on which practiced shifting cultivation, growing oranges and jackfruits. Later I found out that the land was actually being rented out by another one of my neighbors, and that person was accepting rental fees (2 years-worth). I received nothing. My land was registered land but the certificate was lost while fleeing the conflict. I asked the neighbor to return the rental fees but to no avail. As I have no access to the land now, this greatly affects my family’s livelihood, which in turn affects my children’s education and health.”

—IDP interview March 2019

Other strategies are less directly intimidating but have similarly coercive impacts. Some residents are told that by working with land brokers to arrange a lease, they may ultimately be able to acquire a Form-7, which could potentially legalize their land under the 2012 Farmland Law. In some cases, plantation companies purchase or lease land and begin encroaching on their neighboring landowners.²³⁶ Further, because the presence of monocrop banana plantations in an area contributes to the degradation of surrounding farmland, neighboring farmers who do occupy the land are motivated to sell or lease to the plantation at whatever rates are offered to avoid holding degraded farmland. Based on Verité consultations, the VFV Law is a critical lever of pressure underpinning these tactics for land acquisition.

IDPs who vacated their land after the end of the ceasefire in 2011 are especially at risk for land grabbing. The issue of land grabbing in Waignmaw Township among IDP-vacated land is thought to be significant²³⁷ and banana plantations on IDP lands are thought to be a substantial barrier for IDPs who intend to return to their home communities in Waingmaw Township. While they are living away from their land in IDP camps, they may be unaware of its status and unable to respond to any challenges to their ownership rights.²³⁸ Many IDPs also lost land certificates while fleeing conflict, further complicating their ability to receive restitution or compensation for lost land. As they are unable to make an income off their land and lack livelihood opportunities while in IDP camps, many feel as though their only option is to sell or lease their land when land brokers make them an offer.

Further, they may feel that if they do not accept the deal offered, the land may be taken anyway under less advantageous terms.

One IDP interview highlights an example of how IDPs are pressured into leasing family land:

“Ground preparation [on banana plantations] was done together with neighboring farms, so all the demarcations were lost. It was turned into a plane of huge unmarked land. Later, I was contacted by two brokers who offered MMK 200,000 (USD 139) per acre, per year for the 13 acres of land I own. I didn’t want to rent out the land but as all of the land is consolidated, I didn’t have a choice other than renting out the land and paying the MMK 200,000 (USD 139) broker fee. The brokers gave me false information, saying that if I didn’t rent out the land, the government will take it from me. I was also promised by the brokers that they will register the land for me. But I have not heard from the brokers nor the tenants since. I signed a contract in which I could not read the content [she cannot read]. I only knew that the land will be transformed into a banana plantation. I didn’t know what its impact will be or if chemicals will be used in the land. Now, there has been advocacy training in the IDP camps about land issues, I have become more and more worried about my land. From understanding more, I feel more hopeless because even if I manage to get the land back, cultivability will be very low.”

—IDP interview March 2019

Migration to Kachin State from Other Regions in Burma

Kachin State has a net-positive internal migration rate of 22.8, according to the latest government census, the fourth highest of all States/Regions within Burma after Yangon Region, Nay Pyi Taw Region, and Kayin State. Migration from Sagaing Region to Kachin State represents a ‘significant’ migration corridor both historically (defined as ‘prior to 2009’) and recently (between 2009 – 2014) – 91,406 migrants from Sagaing relocated to Kachin historically and 29,914 relocated recently, according to the government census. Other leading regions/states for recent internal migrants to Kachin include Mandalay Region (12,514), Magway Region (6,184), and Rakhine State (5,289).²³⁹ However, these statistics do not reflect what is thought to be a massive historical influx of internal migrants working in agricultural plantations (cassava, banana, and rubber) and mining (gold, amber, and jade) in Kachin State, among other sectors.²⁴⁰ The jade sector in Kachin State, for example, employs around 400,000 hand pickers alone, the majority of whom are internal migrant workers, according to Burma’s Ministry of Natural Resources and Environmental Conservation (MONREC).²⁴¹

A 2015 ILO study reported that internal migrants in Kachin State are vulnerable to forced labor and trafficking in persons for the purpose of labor exploitation across a number of sectors.²⁴² Verité field research has shown that internal migrants are vulnerable to forced labor and general labor exploitation in the banana plantation sector in Kachin State.

Banana Cultivation in Kachin State and Banana Supply Chain

Tissue culture banana plantations began to be established in Kachin State in 2006 in part as a result of China's opium substitution program, which provided financial incentives for Chinese companies to establish crop substitution development projects in Northern Burma and Laos.²⁴³

China's growing demand for bananas,²⁴⁴ in combination with high costs of banana production in China, the presence of crop diseases, and limited farmland with adequately fertile soil, means that China is a net importer of bananas. China's imports of bananas grew over 48 percent between 2017 and 2018 alone.²⁴⁵ Regional neighbor Laos PDR banned the development of new banana plantations in 2017,²⁴⁶ further fueling Chinese investors to seek alternative sources.

Trade data on bananas exported from Burma to China appears to be underreported, with significant gaps in the data. Still, the overall story is one of growth over time. Trade data shows a steep increase in the export values of bananas from Burma to China between 2008 (when data was first available) and 2010, increasing from USD 544 thousand (2008) to USD 10.4 million (2009) in just one year, and then doubling one year later in 2010 to USD 24.3 million, according to the UN Comtrade database.²⁴⁷ Chinese imports of bananas dropped significantly in 2011 to USD 8 million,²⁴⁸ likely as a result of the political fallout between the KIO/A and the *Tatmadaw* following a break in the 17-year ceasefire in Kachin State and a 2010 border trade ban.²⁴⁹ The government of Burma did not begin officially reporting on exports of bananas until 2013. Between 2013-2018, Burma's reported exports of bananas to China increased dramatically from USD 1.5 million in 2014 to USD 131 million in 2018.

It should be noted that China's reported banana imports and Burma's reported exports often vary widely. In 2017, for example, China reported receiving USD 9.8 million (value) in imports, while Burma reported sending USD 68.2 million in exports, a difference of USD 58.4 million.²⁵⁰ A representative from a Chinese company involved with Kachin State banana plantation estimated that 1 million tons of bananas were imported to China from Burma in 2019 at a rate of USD 0.34 – 0.40 (CNY 2.4 – 2.8) per kilogram. This would total between USD 312 – 364 million (CNY 2.18-2.54 billion) in value.²⁵¹

TABLE 3: IMPORT AND EXPORT DATA FROM BURMA AND CHINA: BANANAS

Period	Trade Flow	Reporter	Partner	Trade Value (USD)	Qty (kg)
2008	Import	China	Burma	\$544,653	4,398,239
2009	Import	China	Burma	\$10,486,754	94,308,088
2010	Import	China	Burma	\$24,383,466	176,992,156
2011	Import	China	Burma	\$8,068,828	54,911,504
2012	Import	Burma	China	\$61,890	74,066
2012	Import	China	Burma	\$8,122,924	44,422,512
2013	Export	Burma	China	\$1,477,232	2,517,356
2013	Import	China	Burma	\$7,232,062	45,117,900
2014	Export	Burma	China	\$5,082,519	0
2014	Import	China	Burma	\$9,850,736	53,850,352
2015	Export	Burma	China	\$17,336,224	65,764,780
2015	Import	China	Burma	\$11,625,631	55,622,380
2016	Export	Burma	China	\$47,784,544	108,772,720
2016	Import	China	Burma	\$9,880,184	50,758,500
2017	Export	Burma	China	\$68,200,213	228,937,800
2017	Import	China	Burma	\$19,352,877	66,232,000
2018	Export	Burma	China	\$130,847,364	171,147,600

Source: UN Comtrade²⁵²

There are differing reports on the overall level of activity around banana plantations as well. Chinese sources have reported that during the main harvest season, which stretches from February – April, around 200 trucks per day transport bananas from Kachin State to China.²⁵³ In 2017 the government began imposing a USD 53 tax on trucks leaving Waingmaw Township, receiving around USD 1.5 million in taxes on over 28,000 trucks in 2018-19.²⁵⁴ However, a parliamentarian who investigated plantation areas was told by workers that each truckload of bananas was required to pay MMK 500,000 (USD 350) in taxes, but was unaware of who ultimately received the money.²⁵⁵

Findings Regarding Labor Conditions on Banana Plantations in Kachin State

Worker Demographics

According to interviews with workers, community members, and civil society, the workforce on banana plantations in Waingmaw Township appears to be diverse in terms of region of origin, ethnicity, and gender. Both male and female workers are present on the plantations. While the majority of workers appear to originate outside of Kachin State, local informants and workers themselves confirm that a sizeable number of local community members from Waingmaw Township also provide labor for the plantations. Additionally, banana plantations employ Internally Displaced Persons (IDPs) affected by the Kachin State conflict. While some IDPs have been displaced from banana plantation areas in Waingmaw, IDP plantation workers are typically from other parts of Kachin State affected by conflict. The term “internal migrants” is used here to refer to those workers who have relocated within Burma of their own volition for a variety of reasons, including livelihood seeking. Internally Displaced Persons (IDPs) refers to individuals who fled their land in Kachin State as a result of conflict.

To date, no official estimates are available as to the number of workers involved with banana plantations in Waingmaw Township, although Verité estimates that workers number in the tens of thousands.²⁵⁶

Internal Migrants

Internal migrants from Burma but outside of Kachin State make up the majority of the banana plantation workforce. Internal migrants are employed as permanent workers, day laborers, and seasonal workers (see ‘Types of Employment of Plantations’). On the nine plantations where respondents interviewed by Verité worked, interviewees reported that the majority of their colleagues were internal migrants from Sagaing Region and Rakhine State. Other regions noted as



Photo © Hkun Li

an origin for migrant workers on plantations included Shan State, Mandalay Region, Bago Region, Irrawaddy Region, and Tanintharyi Region. Local civil society organizations that have worked with banana plantation workers reported to Verité that the majority of workers were from Sagaing Region, Rakhine State, and Irrawaddy Region.²⁵⁷ Other reports mention workers from Katha, Htigyaing and Kawlinn townships in Sagaing Region, and Mogaung Township in Kachin State.²⁵⁸

The majority of internal migrants interviewed by Verité reported that they had been engaged as farmers in their communities of origin or as laborers on other agribusiness plantations (such as rubber) in Kachin State before becoming employed in banana plantations.

While internal migrants differ from IDPs in that they did not lose their land as a direct result of conflict, internal migrants interviewed commonly noted lack of land access as a motivation for their migration. For example, two internal migrant interviewees cited flood damage to their land as a push factor for working on the banana plantation. Even when workers retained access to their land, they noted that farming is decreasingly financially feasible, requiring a family member to seek waged labor even while other members stay behind to work the land.

Local Community Members

Local community members²⁵⁹ in Waingmaw Township represent a sizeable portion of the labor workforce of the banana plantation sector. A wide variety of ethnic groups are represented by local community members living in areas around banana plantation areas in Waingmaw, including Kachin subethnic groups such as Lisu and Nung (Rawang),²⁶⁰ Shan, and Bamar (Burmese). Based on interviews with workers and civil society, it appears that local community members are most likely to work as day laborers, taking on extra work as needed by the plantation. Less frequently, local community members are employed as permanent workers. In addition to work on the banana plantations, most local community members are involved in shifting cultivation or paddy farming, although their traditional livelihoods are increasingly under threat (see ‘Impact of Banana Plantations on Surrounding Communities’). Local community members interviewed by Verité reported their impressions that Chinese employers preferred to hire migrant workers because they would agree to work for lower wages. One informant explained that “as long as they [employers] can get cheap labor, they will use it. Locals want higher wages and managers aren’t willing to pay. That’s why migrant workers replace livelihood opportunities of the locals.” Unlike internal migrant workers and IDPs, community members are most likely to live in villages or homes off-site from the banana plantations.

Internally Displaced Persons (IDPs)

Verité research found evidence that IDPs are employed in the banana plantation sector in Waingmaw Township, although there is little data on the overall prevalence of IDPs in plantation work in the region. There are an estimated 98,000 IDPs from Kachin State and Northern Shan State, the majority of whom are ethnic Kachin. There are 139 IDP camps located throughout Kachin State, with 16 camps located in Waingmaw Township and 28 in Myitkyina Township²⁶¹ or areas in the vicinity of Waingmaw banana plantations.

Without access to land to farm and with few other livelihood options, IDPs are often relegated to seeking short-term employment in host communities.²⁶² All six IDP banana plantation workers interviewed by Verité reported losing access to traditional farmland as a result of conflict. One IDP worker explained why they work on plantations: “The conflict forced me and my family out of our home and land. It changed our livelihood completely and now I have to depend on the donors at the IDP camp. As the monthly support from the camp is merely for survival, I was then forced to work at a banana plantation to support my children’s education and health, no matter how hard the working environment.”

How bananas are grown in Kachin State

- Bananas are a labor and land intensive crop that typically require substantial use of agrichemicals.
- The primary variety grown in Kachin State is the “Williams” banana, from the Cavendish subgroup. The process of tissue culture bananas begins with a bulb or rhizome, which are produced in labs before being transferred to a nursery until they are suitable for transplanting into the plantation area.
- After the land is manually cleared, seedlings are planted in holes in the ground. Seedlings grow to their mature height over the course of 9-12 months. The first harvest can typically occur after 10 months on banana plantations in Kachin State.
- Banana plants need ongoing maintenance including watering, weeding, and clearing brush. Brush clearing can be performed manually or via application of herbicides to kill surrounding plant life. Bananas are grown as a monocrop on plantations and are therefore prone to insect infestation and require high rates of pesticide usage. In Kachin State, pesticides are applied manually by workers, and plants are sometimes covered in foam and plastic to protect them from pests. Pesticides are inserted into the plastic bag covering the banana plants. Bananas are also prone to fungus and outbreaks which may also be treated with chemicals.
- Once grown, banana bunches are very heavy and require more than one person to cut them down and carry them. A large number of manual laborers are required for harvesting. The fruit is cut from the tree while still green, and they are cut into bunches and washed into a mixture of antibiotics and benzylpenicillin sodium.
- After washing, the bananas are dried and weighed, before being boxed and loaded onto trucks bound for China. Although the main harvest season in Kachin State is from February – April, fruit is harvested throughout the year, with peak export periods to China falling between October – May.

Verité found that IDP workers are employed as both permanent workers and day laborers on banana plantations. As IDP camps are usually too far for commuting to plantation sites every day, IDP day laborers reported that they typically live in temporary housing on or nearby the plantations, occasionally returning to their IDP camp to collect rations delivered by aid groups once per month and/or to visit family members.

Types of Employment on Plantations

For Burma-national employees in the banana sector in Waingmaw Township (as distinct from Chinese nationals also employed on the plantations), Verité has identified several different types of workers. These include permanent workers, day laborers, seasonal workers, and skilled workers such as translators. The case study focuses on conditions of work for permanent workers, seasonal workers, and day laborers as these are the groups engaged in the most labor-intensive work in cultivating bananas.

TABLE 4: TYPES OF EMPLOYMENT IN BANANA PLANTATION SECTOR

Type of Worker	Demographics	Pay Structure	Tasks
Permanent Worker	Primarily internal migrant workers from Rakhine State and Sagaing Region, among other regions outside of Kachin State. Local workers and some ethnic Kachin IDPs also represented.	“Weight” or “Plant” based salary structure; paid full earnings at the end of 10-month period in addition to a monthly stipend.	All cultivation tasks on assigned plot including: ground preparation, clearing of trees/brush, watering, planting, pesticide and herbicide application, weeding, and harvesting
Seasonal workers	Primarily workers from neighboring townships and regions/states. Seasonal workers most commonly come from Sagaing Region. These workers are often farmers or farmworkers who are seeking temporary employment during their crop’s off-season.	Paid a daily rate at the end of each day. Sometimes paid per task in a piece rate system.	Harvest-related tasks such as harvesting and carrying bananas to the packaging site, chemical dipping, packing, and loading trucks.
Day laborers	Local individuals from nearby villages. Occasionally ethnic Kachin IDPs work in this system.	Paid a daily rate at end of each day.	Completes tasks beyond the capacity of permanent workers; assignments may include any tasks typically undertaken by permanent workers.

Permanent Workers: “Weight-Based” and “Plant-Based”

Permanent workers are employed year-round on the plantations. They are assigned a plot of land which they are responsible for cultivating. Cultivating includes tasks such as ground preparation, clearing of trees/brush, watering, planting, pesticide and herbicide application, weeding, and harvesting. Permanent workers are overseen by the management of the banana plantation, who direct workers to carry out tasks.

Permanent workers can be further divided into two categories: weight-based workers who are paid based on the weight of the bananas ultimately harvested and plant-based workers who are paid based on the number of plants cultivated on their assigned plot.

The range of plot sizes and the associated number of plants a worker is responsible for vary widely. Interviewees reported that many permanent workers share the responsibilities for their land plots with family members (including children under 18) or other workers, splitting the final end-of-year salary. Some workers take care of banana plants in their plot of land as an individual. Based on worker estimates, one permanent worker is able to care for between 2,000 to 6,000 plants; the causes behind the wide range in number of plants cared for were not fully clarified by the research. Permanent workers who utilize more day laborers reported to being able to care for larger plots of land.

Permanent workers interviewed by Verité reported that they receive the majority of their salary at the end of the 10-month season, following the harvest.

Seasonal Workers

A surge in the demand for workers corresponds with the labor-intensive banana harvest between February and April each year. Seasonal workers are needed for harvest-related tasks such as harvesting and carrying bananas to the packaging site, chemical dipping, packing, and loading trucks. For the three months of harvest season, thousands of seasonal workers reportedly travel to Waingmaw Township from neighboring townships and regions/states. According to experts and workers interviewed, seasonal

workers most commonly come from Sagaing Region and are often farmers or farmworkers who are seeking temporary employment during their own crop's off-season. Research indicated that seasonal workers are paid a daily rate at the end of each workday.

"I'm a farmer in my hometown [Pinlabu, Sagaing Region]. My farmland has a rice plantation where we don't work one season so I'm here to earn extra during that time."

*—Seasonal worker
interviewed by Verité*

Day Laborers

Day laborers are employed sporadically throughout the season and receive their daily wage at the end of each workday. According to interviews with local experts and plantation workers (both seasonal and permanent), temporary laborers are employed when the workload necessary to take care of banana plants is beyond the capacity of permanent workers to handle. The money to cover the day laborers wages is deducted from the salary of the permanent worker. (Further details provided in the Wages section below.)

Unlike permanent workers, day laborers can work on multiple plantations and are free to work based on their own schedule. Verité interviews indicated that temporary workers that performed these

types of tasks often lived locally in villages nearby the plantations. Day laborers perform tasks similar to permanent workers including ground preparation, clearing of trees or brush, pesticide or herbicide application, manual weeding, and forest cultivation, among other tasks.

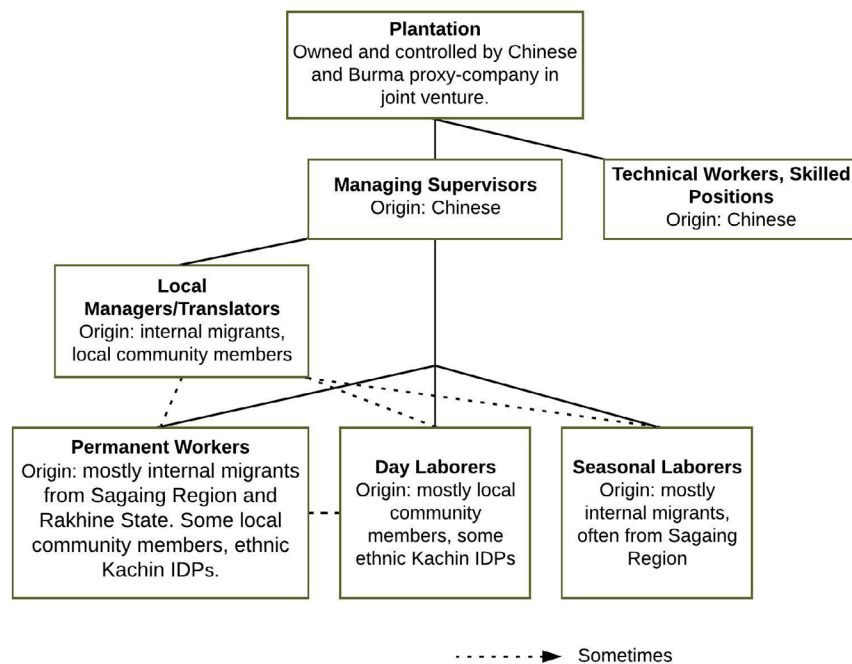
Skilled Technical Workers

Technical roles on plantations, such as agronomists, chemists, accountants, land surveyors, and drivers, are reportedly filled by Chinese nationals. According to Kachin-based civil society organizations, there are thousands of Chinese employees performing skilled work on banana plantations in Kachin State.²⁶³ Chinese nationals employed on plantations were not interviewed in the course of Verité field research.

Plantation Management

Although Burma-based companies help their Chinese partners to acquire land, Chinese companies are primarily responsible for managing the plantation and its workers, as well as providing seedlings and other agricultural supplies. Chinese companies are also reportedly responsible for handling logistics related to the transport of bananas from Kachin State to border crossings in Kan Pike Tee and Loiye and eventually to the Chinese market.²⁶⁴

FIGURE 13. MANAGEMENT STRUCTURE FOR BANANA PLANTATIONS OWNED AND CONTROLLED BY JOINT VENTURE BETWEEN CHINESE COMPANY AND BURMA PROXY COMPANY



The highest-level managers are primarily responsible for overseeing all plantation labor. On foreign-owned plantations, these managers are typically Chinese nationals. All 18 workers interviewed reported that they were supervised by Chinese nationals. Managers are reportedly responsible for assigning permanent workers to a plot of land, which averages to four acres per individual,²⁶⁵ and

may choose to hire day laborers to supplement the work of permanent workers. Workers reported that their Chinese supervisors were responsible for assigning their hours and days of work and providing their monthly allowance. Managers are also reportedly empowered to approve or deny any requests for days off submitted by permanent workers.

Managers were described as providing instructions on how to carry out all tasks related to the cultivation of the bananas. This includes instructions on timing for watering the plants, as well as how to apply pesticides and herbicides. Pesticides and herbicides are all provided by the supervisors, who are responsible for mixing the chemicals. On some plantations, it was mentioned that Chinese-national specialist agronomists or chemists are employed, in which case they would be responsible for chemical mixing and instructing workers on how to apply the pesticides and herbicides.

Supervisors were described as having the ability to impose financial penalties for a wide variety of perceived infractions by workers, which could include damaged plants, overuse of water for plants, and damaged tools or equipment, among others. Managers keep track of all deductions throughout the year, ranging from the use of day laborers (including seasonal laborers), pesticide and herbicide costs, monthly stipend costs, and financial penalties.

Translators and Local Managers

There were two sub-levels of managerial level staff reported by workers: translators and local managers. These roles were sometimes described as overlapping; that is, one person may play both roles.

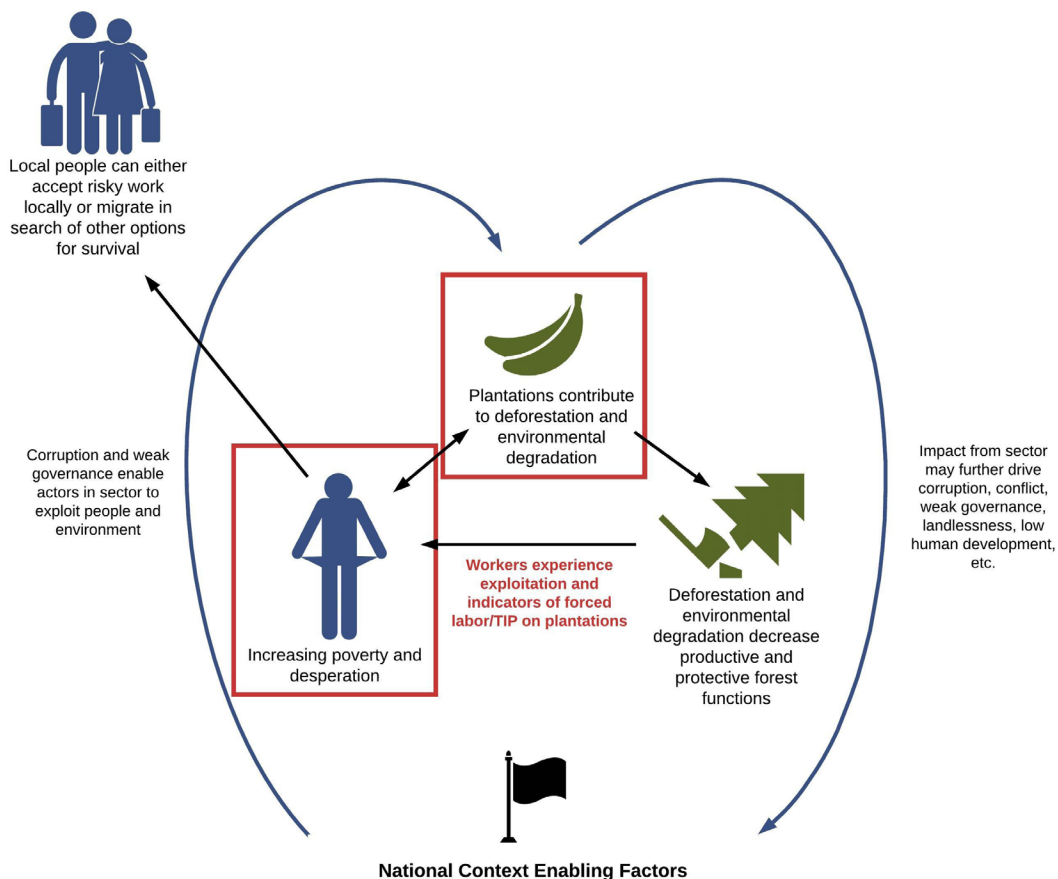
On some plantations, translators were described as assisting managers to translate from Chinese to Burmese or other languages spoken by workers. According to worker interviews, translators have designated power vested to them by their employers – some translators are referred to as ‘local managers’ by workers. The level of influence and management responsibilities of translators seemed to vary from plantation to plantation, but it appears that translators do at times undertake responsibilities in a management capacity, such as monitoring work output and helping to mediate disputes between workers and employers. There was a general perception among workers that the translator could report the worker to their Chinese supervisor if they felt their work output was inadequate, which could result in disciplinary actions.

Translators are reportedly more common on larger plantations with correspondingly larger numbers of workers. Verité interviewed a translator who was employed on a plantation with 2,400 workers, in which there were 20 translators total, each responsible for 120 workers. The translator reported their main responsibilities to be interpreting and providing assistance to the Chinese bosses, but they also indicated involvement in the mediation and resolution of disputes between workers and management. Translators appear to be paid at a higher rate than most permanent workers, with reported wages of approximately MMK 400,000 (USD 277) per month.

On some plantations, local managers (or Burma-nationals) were reportedly employed specifically to help recruit and oversee workers. Several workers and experts noted that local managers or translators were responsible for notifying and recruiting day laborers from the local community when extra workers are needed. In some cases, permanent workers may oversee the work of day laborers directly. According to a civil society representative, internal migrant workers are at times recruited and overseen by other internal migrant workers who serve in management positions. It is unclear as to the level of management responsibilities placed on local managers in overseeing workers, although workers who interacted with local managers or translators reported that final decisions and authority ultimately fell to supervisors.

Assessment of Working Conditions and Indicators of Trafficking in Persons and Forced Labor Risk on Banana Plantations

FIGURE 14. IDENTIFYING INDICATORS OF RISK



Recruitment

There are multiple avenues for recruitment and hiring on banana plantations. Among interviewees, workers reported both direct hiring as well as hiring through a labor broker, although use of a broker was less common among interviewed workers. Fifteen out of 18 interviewees interacted directly with company management to obtain their jobs, with most hearing about the employment opportunity through friends, family, or acquaintances. Of these 15 workers, 13 interacted with Chinese management during the hiring process, while two dealt with local (Burma-national) managers. The remaining three workers (3 out of 18) obtained their employment through a labor broker.

Of the three working through a labor broker, two workers (a daily laborer and a seasonal worker) were required to pay their broker a daily fee of ten percent of their daily wages. It is not clear if permanent workers are ever recruited via labor brokers. According to an ILO study of internal migrant workers in greater Burma, the use of labor brokers in securing employment is relatively uncommon, with just 7 percent of all respondents using one to secure employment.²⁶⁶

Deception Around Working Conditions

Verité research uncovered evidence of deception on the part of employers when informing workers of the terms of their employment, regardless of their mechanism of recruitment or hiring. Of 13 permanent workers who were interviewed on the topic, all reported that they were not adequately informed about the tasks that they would be required to perform prior to beginning work. Three of these workers received no contract at all, in spite of legal requirements for employment contracts.²⁶⁷ All five temporary workers interviewed also did not receive a written contract. Lacking a written contract makes it more difficult for workers to hold their recruiter or employer accountable for violations of labor rights.

Nine of the 13 permanent workers did sign a written contract, but the contracts did not specify the nature of the tasks they would be performing. According to informants, the contracts typically only detailed the nature of their payment along with the rules of the banana plantation. Absent from these contracts were details of type of employment, wage/salary, working hours, days off (including holiday and leave), and overtime conditions, contrary to Burma law.²⁶⁸ One worker noted that when making the agreement, the employer “didn’t explain the contract thoroughly. They only explained what the rules are but never told us what our rights were.”

Workers, particularly permanent workers who receive the bulk of their salary only after the 10-month cultivation and harvest cycle, also report deception around the total amount of wages they could earn. The discrepancy between their expectations and the wages they earned in reality is largely due to deductions taken from wages. While workers interviewed had a general understanding of the wage structure, they had not received accurate information on the full range and scope of potential deductions.

SUMMARY OF FORCED LABOR INDICATORS RELATED TO RECRUITMENT

Indicator	Impacted Workers
Situations in which the worker must perform a job of a different nature from that specified during recruitment without a person's consent	Permanent workers

Wages

A confluence of several conditions related to hours and wage arrangements on plantations—including long hours and abusive overtime requirements without consent, financial penalties, wage deductions, and wages that are withheld until the end of the year—create situations where workers have limited freedom to terminate their work contracts. The wage system utilized on plantations, in which permanent workers receive the majority of their salary after 10 months and are subject to numerous deductions throughout the year, has the effect of coercing workers into accepting exploitative labor conditions such as excessive overtime and a lack of freedom of movement.

Because seasonal workers and day laborers are generally paid at the end of each day worked, they appear to have lower overall vulnerability to hour and wage violations; should they encounter coercive terms, they have more freedom to leave their employment than a permanent worker. Of the five temporary workers interviewed, all stated that they were paid above the national minimum wage. However, these workers are still vulnerable to arduous working conditions without adequate rest on a daily basis, as further described in the Hours section.

TABLE 5: SUMMARY OF WAGE STRUCTURES FOR DIFFERENT TYPES OF WORKERS

Type of worker	Wage Structure	Description of Wage Structure	Deductions Experienced	Wage Rates	Pay Frequency
Permanent Worker	Plant-based	Annual payment based on number of plants cultivated in designated plot of land.	Pesticide/herbicide costs, day laborer fees, plant damage, disciplinary penalties	Between MMK 900 – 1200 (USD 0.62 – 0.83) per plant.	Once per year (end of harvest). Monthly “food allowance” received once per month or every two weeks
	Weight-based	Annual payment based on final weight of bananas cultivated in designated plot of land.	Pesticide/herbicide costs, day laborer fees, plant damage, disciplinary penalties	Approximately MMK 1,200 (USD 0.83) per plant on average. ^{vi}	Once per year (end of harvest). Monthly “food allowance” received once per month or every two weeks

vi Weight is calculated by jin, with one jin being the equivalent of 0.5 kilograms. Weight-based workers interviewed received RMB 0.30 (USD 0.04) per jin, with each banana plant typically yielding bananas weighing approximately 20 jin (10 KG). Based on this calculation, the average amount a worker would receive per plant would be MMK 1,200 (USD 0.83)

Type of worker	Wage Structure	Description of Wage Structure	Deductions Experienced	Wage Rates	Pay Frequency
Seasonal Worker	Daily wage	Paid by the day or by the task (piece rate).	Disciplinary penalties	Tasks and their associated (average) wage includes MMK 10,000 – 15,000 (USD 6.94 – 10.40) for carrying/transporting bananas, MMK 10,000- 12,000 (USD 6.94 – 8.32) for chemical washing of bananas, and MMK 10,000 (USD 6.94) for packaging of bananas.	Paid daily after completion of tasks.
Day Laborer	Daily wage	Paid daily rate for all work completed in a day.	Disciplinary penalties	MMK 4,500 – 6,000 (USD 3.12 – 4.16), depending on task.	Paid daily after completion of tasks.

Low Wages

Base wages are low for Burma-national permanent workers on banana plantations and appear to stretch the limits of legality. The vast majority of permanent workers’ salaries are received at the end of the 10-month season for bananas. While workers reported receiving a small monthly “food allowance” of between MMK 75,000 (USD 52.02) to MMK 105,000 (USD 72.83) per person, several permanent workers (6 of 12) cited that the monthly food allowance they received was insufficient to cover basic living costs. One worker noted that “the workload is just too much and we are barely surviving. The food allowance we receive every month is not enough.” Among all permanent workers interviewed, the monthly earnings fell short of the nationally required minimum wage under this system.^{vii}

Upon receiving the 10-month salary, permanent workers reported that it often occurs that they receive less than they had expected due to significant financial deductions and a lack of transparency into the final plant or weight count. During the hiring process, multiple permanent workers reported having inadequate information or felt as though they were actively deceived in terms of the amount of earnings to which they would be entitled. Of the 13 permanent workers interviewed, four workers reported the belief that they were deceived, having received a wage significantly lower than what was promised. These workers cited a lack of information regarding how their harvest and end of year

vii According to the Minimum Wage Law (2013) Notification No. 2/2018, for businesses which employ ten or more employees, the daily minimum wage is MMK 4,800 (USD 3.33) per day. According to the Burma minimum wage of MMK 4,800 per day, even the highest monthly allowance (noted by workers) of MMK 105,000 (USD 72.83) does not meet the national minimum wage. Additionally, the Payment of Wages Law (2016) stipulates that the period of time for receiving a paycheck shall not exceed one month. Therefore, all permanent workers should, at a minimum, receive the equivalent of MMK 4,800 per days worked after each month in order to be compliant Burma labor law. None of the workers interviewed by Verité met this criterion.

salary was calculated or experienced higher than expected deductions. An additional four workers reported receiving no or inadequate information about wages prior to beginning work.

In the most extreme reported cases, deductions taken from a worker's wages exceeded the worker's income. One permanent worker reported that the deductions taken to cover the costs of day laborers on his plot ultimately resulted in the permanent worker owing over MMK 1 million (USD 694) at the end of the 10-month cycle, requiring him to work off the debt the following year. While induced indebtedness leading to limited freedom to terminate work did not appear to be common among the interviewed workers, it was not an isolated occurrence: Another informant knew of 4-5 workers near his plantation who experienced a similar situation. Several of these workers ultimately fled the plantation prior to the end of the harvest cycle to avoid indebtedness, thereby sacrificing any potential for compensation.

Further details on the mechanisms that decrease wages and prevent transparency about earnings are presented below.

Withholding of Wages and Limited Freedom to Terminate Contract

Because permanent workers do not receive the majority of their wages until the end of the 10-month harvest cycle, permanent workers have little choice but to remain at the plantation until the close of the harvest. While the exact terms and conditions for receiving pro-rated salary payments were not clearly communicated to permanent workers, most workers interviewed expressed their understanding that those who resigned or were fired prior to completion of the harvest were not guaranteed any salary outside of the monthly food allowance.²⁶⁹ That is, they would lose the salary for months already worked if they left at any point before the conclusion of the 10-month period. The accuracy of this perception is supported by other experiences reported to Verité researchers.

Several workers interviewed by Verité had witnessed or heard of employees being fired and not receiving their end of year salary. One informant's family member had experienced a dispute with their supervisor and was fired from the plantation five months into their contract. Although they were not required to repay their monthly food allowance, they did not receive their full wages. A local civil society organization recounted helping resolve a dispute in which 7-8 workers were dismissed and not paid their end of year salary. Plantation managers insisted that the workers did not put enough effort into their farms and behaved inappropriately, although the workers asserted that they were fired for no reason.²⁷⁰

When asked about terminating their work contract, one permanent worker stated: "I could quit if I wanted to, but it will be a loss for me as I am a weight-based worker and I have so much to gain at the time of harvest. If I quit, there is no telling how much of the final payment I would be compensated for the time I took care of the plants." Another permanent worker expressed similar views. "Yes, [I could quit] but we might lose a lot of our money. People who work on weight basis [permanent workers] don't usually drop out of work no matter the kinds of situations they face." Some workers were unequivocal in that there would be no compensation if they were to resign: "If I were fired or if I were to resign, I wouldn't get anything for my labor."

Wage Deductions, Financial Penalties, and Deception Regarding Earnings

Wage deductions and financial penalties imposed on permanent workers by employers further reduce workers' total wages, and workers typically do not receive accurate information about potential financial penalties or deductions before they begin their 10-month cultivation cycle employment period. Further, a desire to avoid these excessive deductions can play a role in motivating excessive overtime, as discussed in the 'Hours and Days of Rest' section below.

Permanent workers are financially responsible for a wide variety of costs associated with cultivating their assigned area, but decisions around these costs are made by the employer or manager rather than the worker. Plantation managers are entitled to decide that permanent workers are not working at a high-enough capacity and that day laborers should be hired to boost productivity; Deductions taken from permanent workers' pay to cover the cost of day laborers represent one of the more coercive types of deductions. The threat of the salary deductions that would be required to cover wages for a day laborer can be used to compel excessive overtime hours from permanent workers. Further, permanent workers are responsible for the costs of herbicides and pesticides. However, workers do not purchase their own chemicals and therefore cannot select lower-priced options; instead, these inputs are purchased by the employer without participation from the worker. Costs for inputs are then deducted from permanent workers' wages, often without full accounting.²⁷¹

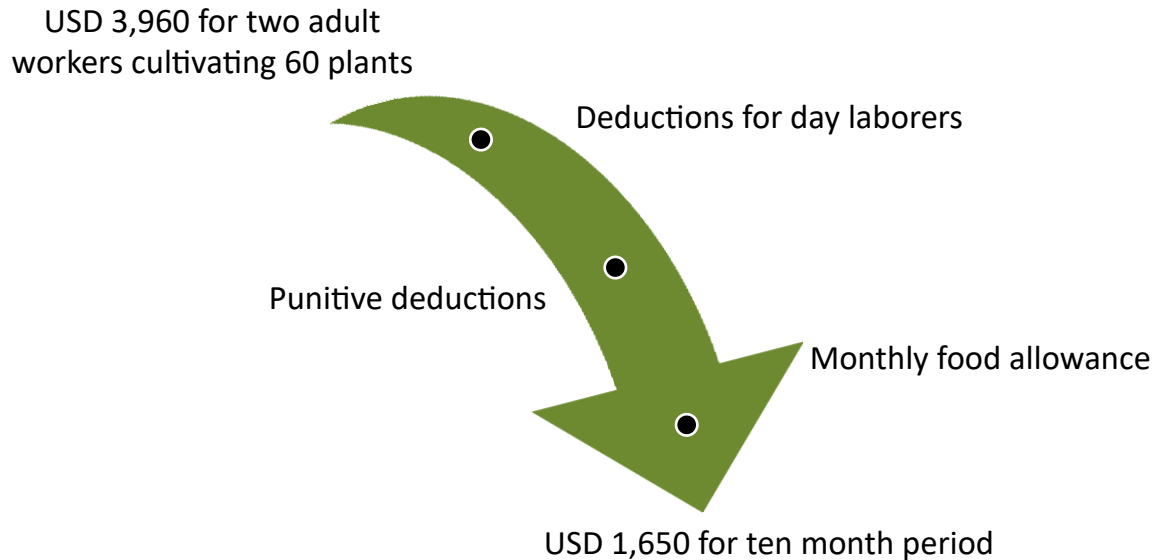
Permanent workers also experience financial penalties for perceived infractions such as damaged plants, damaged tools, overuse of water, or taking rests judged to be excessive by managers. Workers are not informed of this system of financial penalties prior to beginning work and they typically perceive the penalties as being arbitrarily imposed as a means of control. Of the 13 permanent workers interviewed, five had experienced financial penalties in the form of deductions from their end of year salary. Three workers were penalized for damaged banana plants. According to one interviewee, "It doesn't matter whose fault it is. Money will be deducted at the end of the season." Another worker cited that their written contract was not honored in regards to damaged plants: "the contract said the employer will bare 50 percent of plant damage when it happens, but one time [over 100] plants got destroyed by the weather and I had to bear all the costs.

One worker reported that he had to pay a fine of MMK 25,000 (USD 17.34) for using pipe water to take a shower. The reason the employer fined him was that he and his colleague used water that was intended for use on the bananas. He reported that in the past year²⁷² he had been fined over MMK 100,000 (USD 69.36) for infractions related to water. This amount is over one month of the monthly "food allowance" amount of MMK 75,000 (USD 52.02) for this particular worker. Another interviewee also mentioned that he was punished and had to pay a fine for overwatering the bananas. Another worker mentioned that if their employer saw workers staying in their tents during the daytime, they were required to pay a fine of up to MMK 25,000 (USD 17.34).

To illustrate the impact these deductions might have, a husband and wife might make an annual income of MMK 5.7 million (USD 3,954) for their labor cultivating and harvesting 60 plants (see

infographic). After deductions for day laborer fees, pesticides and herbicides, as well as deductions for the monthly stipends already received, the total earnings for both adults for a ten-month period could be MMK 2.4 million (USD 1,665) or about USD 165 per month. With any further punitive deductions taken, wages for any given month could be below the equivalent of USD 100 for the work of two adults.

FIGURE 15. EXAMPLE OF ANNUAL SALARY OF TWO ADULTS AFTER DEDUCTIONS



Lack of Visibility into Wage Calculations

Permanent workers interviewed generally did not have visibility into wage calculation processes. Workers often do not participate in or witness the final weighing or counting of plants used to calculate their earnings. According to one informant, "We don't know how they weigh the bananas. We are paid per jin (0.5 kg) at the end of the season when we harvest the bananas, but I don't really know how it works." Seven of 12 workers interviewed on the topic reported that they did not have a comprehensive understanding of how their wages were calculated and therefore had to accept whatever salary was presented by their employer. Seven of 13 permanent workers alleged that the final weight and plant counts were manipulated by their employers in order to pay less money than they were owed.

Most workers, regardless of employment type, do not receive receipts detailing calculations of their wages or deductions taken. Ten permanent workers²⁷³ had not received any form of wage receipt and the single permanent worker who did receive a written accounting felt that it did not provide them with adequate details to understand their salary calculations. Given both the exclusion from wage calculation and lack of written detail provided, workers felt that even in cases where they suspected wage manipulation on the part of their employer, they lacked sufficient information to even initiate a request for clarification from their employer.

SUMMARY OF FORCED LABOR INDICATORS RELATED TO WAGES

Indicator	Workers Impacted
Work with very low or no wages	Permanent workers
Withholding of wages or other promised benefits // Work with no or limited freedom to terminate work contract	Permanent workers
Financial penalties	Permanent workers

Hours and Days of Rest

Coerced Overtime

Permanent workers appear to be particularly vulnerable to excessive overtime that was not previously agreed upon with their employer. All permanent worker interviewees reported that wage deductions (or the threat of wage deductions) are used coercively to compel workers to work high levels of overtime; as noted above, the refusal to work overtime or to complete an unrealistic assigned amount of work results in the mandatory use of hired day laborers to complete tasks, and the costs of which are deducted from permanent workers' yearly salaries.²⁷⁴



Photo © Hkun Li

All 13 of the permanent workers interviewed reported regularly working in excess of eight hours per day without overtime compensation, throughout the year. According to all informants, failing to work overtime would result in the employer hiring day laborers to finish their tasks, with the daily rate of MMK 5000 – 12000 (USD 3.47 – 8.32) being deducted out of the permanent workers end of year salary.

One permanent worker stated that the fear of incurring these costs compels workers to “work until dark no matter how tired we are.” Another worker expressed similar sentiments: “I sometimes cannot rest and have to work two days straight until the work is finished.” When informants were asked if they could refuse overtime without punishment, all 13 permanent workers stated that they could not. In practice, the threat of the costs associated with hiring day laborers leaves workers with little choice but to work overtime hours in excess of Burma legal limits.²⁷⁵ (See below for more information on levels of overtime worked.)

In addition to working excessive hours on workdays, permanent workers are rarely able to take rest days. Of the 13 permanent workers interviewed, 11 reported that they consistently worked seven days per week without taking a day off for rest, contrary to Burma law.^{viii} One interviewee reported they had only been allowed to take two rest days in the entire year. Like daily working hours, refusal to work all seven days would result in the employer hiring a day laborer to carry out the tasks of the permanent worker. Several workers stated explicitly that consistent refusal to work overtime would result in termination of employment, costing workers their entire salary.

“I heard if they [permanent workers] ask to take leave, they are threatened to get kicked off the farm and won’t be compensated for their end-year weight count.”

–Day laborer interviewed by Verité

Deception Regarding Overtime

Workers typically lack accurate information about the long hours and lack of rest days that will be required by managers. Six out of 13 permanent workers were not informed of the number of hours or the number of days they were expected to perform in a standard workday or week prior to beginning work. Five of 13 permanent workers reported that they were promised either 8-hour workdays or regular days off (such as Sunday), but found that these conditions were not met as promised.²⁷⁶ In the words of one worker interviewed, “Even though it wasn’t mentioned before, I assumed I will have considerable off-days. But in reality, I didn’t even get one day off in a month, not even Thingyan (Water Festival). When we wanted to leave and ask for permission, it is mostly denied and when given, it is done reluctantly.” In

viii According to Burma’s Leave and Holidays Act (1951), each employee is entitled to one paid rest day per week.

reality, most workers are expected to work seven days per week and days off are often accompanied by financial penalties. Only two workers believed that they were adequately informed as to their expected working days and hours prior to taking the job.

These overtime requirements are in contravention of the Leave and Holidays Act, under which permanent workers are entitled to refuse to work in excess of eight-hour days, six days per week as per the law, without the threat of penalty. Additionally, full-time employees are entitled one paid rest day per week and up to six days of paid casual leave per year of employment.²⁷⁷

The ILO has noted that when worker vulnerability leads to situations in which workers “may have no choice and are obliged to [work beyond normal working hours] in order to earn minimum or keep their jobs, or both...such exploitation... becomes [a matter of] imposing work under the menace of penalty...”²⁷⁸

All seasonal and day laborers interviewed reported that they were not forced to work over eight hours per day. However, they are still vulnerable to abusive expectations from managers and are subject to disciplinary financial penalties if they are found to have worked less than the eight hours they are hired for on a daily basis. This often makes day laborers feel as if they are unable to take an adequate number of breaks, especially considering much of the work is physically arduous, sometimes working to the point of exhaustion. According to one day laborer, “there is no predetermined number of break times. We rest just depending on the conditions. But the bosses want us to be on our feet always working. Sometimes if we rest too much or finish early because of the weather, they would deduct any amount they like. And, we can’t argue about the deducted amount.” This was echoed by another worker who stated, “They make us work like animals. But in this area, we don’t have other jobs that can earn that much in a day. When we say we work eight hours, we fully work 8 hours, all the time on our feet.”

Even when one seasonal worker, who was paid per task, characterized overtime as “voluntary,” that worker still experienced long hours worked under the threat of fines: “If the task is unloading/loading the car, if we can’t finish it, we work through the night or until next day. I have never really missed the quota or got fined for that. I get more if I work more. So, it is ok. My rate is each time I carry, I get MMK 500 (USD 0.35).”

SUMMARY OF FORCED LABOR INDICATORS RELATED TO HOURS

Indicator	Workers Impacted
Abusive requirements for overtime or on-call work that were not previously agreed with the employer	Permanent workers

Freedom of Movement

Surveillance and Restrictions on Workers’ Movement

All interviewees said that they were under constant surveillance by translators, supervisors, or employers. Although Verité interviews found that permanent workers were generally able to leave the plantation premises at night, most permanent workers stated that they were not allowed to leave during the daytime without permission. As explained in the Hours section, some workers rarely receive days off, which subsequently restricts their freedom of movement. One permanent worker explains, “If I want to go somewhere when there is work to be done, I’m not allowed. If I must go, I will need to substitute a day worker to cover me.” Another worker stated “We are not free to leave, our supervisors don’t like it.”

Restrictions on freedom of movement can affect workers’ ability to attend religious activities or attend to family situations. Some interviewees who were Christian reported being unable to attend church on Sundays. Another worker mentioned that their colleague was unable to leave the farm when her mother passed away. Although they are not physically barred from leaving the plantation, the threat of forfeiting the annual salary deters workers from challenging these restrictions.

Withholding Identity Documents

In some cases, national registration cards (NRCs) were reportedly withheld as a means to control worker movement. NRCs are essential in Burma and are necessary for attending school, travelling throughout the country, opening a bank account, and accessing medical services.²⁷⁹ Two permanent workers reported that their NRCs had been confiscated by their supervisors and could only be accessed by request. Some seasonal workers also reportedly have their NRCs confiscated for the length of their employment.^{ix} Two informants indicated that they had heard of or witnessed the confiscation of NRCs of other banana plantation workers. According to one temporary worker interviewed, permanent workers at the plantation that he worked for informed him that they had submitted their NRCs to their employer, to be kept until the end of the harvest (10 months). Another interviewee, a permanent worker, reported that he had heard of seasonal workers having their NRCs confiscated. He stated, “it depends on different plantations. I don’t know how many [workers] but I know for sure that seasonal workers’ NRCs are confiscated until the end of their terms.” The practice of confiscating worker NRCs was also confirmed by local civil society organizations in Kachin State.²⁸⁰

SUMMARY OF FORCED LABOR INDICATORS RELATED TO FREEDOM OF MOVEMENT

Indicator	Workers Impacted
Restrictions on workers’ movement	Permanent workers
Withholding of valuable documents (such as identity documents or residence permits)	Permanent workers

ix Seasonal workers typically come during labor intensive parts of the banana season and stay for between 2-3 months.

Health and Safety

According to the FAO (UN Food and Agriculture Organization), working in agriculture is among the three most hazardous occupations in the world in terms of “fatalities, injuries, and work-related ill-health.”²⁸¹ Working in the banana sector in Waingmaw Township is particularly hazardous due to workers regularly carrying out tasks including manual pesticide and herbicide application, being exposed to areas in which pesticides or herbicides have recently been applied, using sharp objects, and carrying heavy loads.

Nearly all informants reported being exposed to potentially harmful pesticides and herbicides. Of 18 workers (including permanent, seasonal, and day workers) interviewed by Verité,²⁸² all but two had carried out manual pesticide and herbicide application. Pregnant women and children under 18 also reportedly manually apply pesticides on some plantations, in violation of Burma law (see ‘Child Labor’).^x

During periods of fumigation, most informants said the scent of pesticides was very strong, while some experienced dizziness and even vomiting. One worker said, “My husband has lung problems and we didn’t know if it was related to pesticides because we didn’t know it could have negative consequences for our health.” Some workers reported being aware of miscarriages of plantation workers, which they assumed were caused by exposure to pesticides. Although some informants reported that their employers explicitly banned pregnant women from the practice, four workers reported to witnessing pregnant women applying pesticides and herbicides.

x Under the Pesticides Law (2016), children 16 and under are forbidden from handling pesticides



Pesticide Use in Banana Cultivation in Burma

Bananas in Waingmaw are grown as a monoculture crop without crop rotation, which exposes the plant to insects and fungal diseases. Bananas are among the most pesticide intensive agricultural crops in the world, and studies have highlighted the presence of hazardous chemicals in the overall agricultural sector in Burma. Between 2016 – 2018, Wageningen University & Research (WUR) cooperated with the Plant Protection Division (PPD) of the Ministry of Agriculture, Livestock and Irrigation (MOALI) to research commonly used pesticides in Burma. Together, the WUR and the PPD conducted an evaluation of 3,290 pesticide products in Burma from 2016-2018, identifying the risks involved and which pesticides are highly hazardous pesticides (HHPs). According to this report, a total of 181 pesticides used in Burma agriculture, containing 19 different active ingredients, were identified as HHPs. HHPs were defined as pesticides presenting “particularly high levels of acute or chronic hazards to health or environment according to internationally accepted classification systems.”

Burma has a basic management regime to manage the registration, production, distribution, and use of pesticides. The overarching legislation, the Pesticide Law (2016), establishes the general system on pesticide registration and licensing. As reports have shown that banana plantation companies in Kachin State (all but one) are not legally registered, it is unlikely that companies have registered the pesticides used in plantations in accordance with the law.

One worker interviewed by Verité detailed an incident in which two young children of plantation workers, aged five and six, died after inhaling pesticides associated with the banana plantations. The Chinese employers compensated the parents with MMK 1 million per child (USD 694 total) in the incident that occurred on a plantation near Gwi Htu Village. The incident was never reported by media outlets.²⁸³ A local community member also recalled a fellow worker that they suspected had died due to applying pesticides.²⁸⁴

Chlorpyrifos and Children

Research has shown that children are especially susceptible to damaging health affects related to banana pesticides in other parts of the world. One such pesticide that is used in banana production, chlorpyrifos, poses a risk to children as a neurotoxin. Chlorpyrifos can cause nausea, lung congestion, chest pain, dizziness, respiratory paralysis and death. Children are especially sensitive to chlorpyrifos toxicity. Benomyl and chloropropane are two other pesticides used in commercial banana fields, both of which have been found to be carcinogenic and linked to birth defects. Studies of banana production areas in Mexico and the Philippines have found that contact with the fungicide mancozeb and its derivative ethylene thiourea (ETU) can alter thyroid function, leaving children and pregnant workers at a higher vulnerability to negative health effects.²⁸⁵

Workers typically have some level of knowledge that chemical application will be required in an agricultural position; at the same time, workers often lack insight into the exact nature of tasks required prior to beginning employment and are not provided training on how to avoid risks. Workers interviewed did not know the names of the pesticides they were applying. Civil society organizations and media reports have shown that some pesticide and herbicide labels are written in Chinese,²⁸⁶ which is illegal because most workers are unable to read the instructions to identify risks.²⁸⁷ Workers are aware that chemicals are hazardous to human health; as noted below, they often cover the cost of masks out of their own salaries. One worker noted: “the pesticides might have impact on my body and health, but I have no other choice but to work on the plantation. If we don’t work in the farm, our entire family could starve.” Thirteen permanent workers interviewed reported that they were not adequately informed about the tasks they would be required to perform prior to beginning their employment. Of the 16 workers involved in pesticide application, all but one used protective masks (most bought their own), indicating that there is some knowledge of the harmful effects of pesticides. While workers know that there are risks tied to chemical usage, they do not receive adequate training on how to avoid these risks. There is a lack of training related to the application of pesticides and herbicides on banana plantations. Of the 16 workers involved in pesticide application, 12 had received no health and safety training of any kind. Four workers reported receiving informal instruction from their supervisors related to applying pesticides and which ones to be careful with.

Employers are legally required to provide personal protective equipment free of charge, according to Burma law.²⁸⁸ However, in terms of the provision of personal protective equipment (PPE), the majority of interviewees reported deception regarding health and safety conditions of the work.



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Eleven of 17 workers questioned on the topic were promised health and safety equipment including protective masks, clothing, and boots before prior to signing or agreeing to working arrangements. Thirteen workers reported receiving either no masks or an inadequate number of masks. Workers were left to either purchase their own masks or forego masks altogether. Five workers had agreed with their employer to receive protective boots and clothing and did not receive these items. All 18 respondents informed Verité researchers that first aid kits were not available on plantation sites.

Workers were generally expected to cover their own medical costs when they were sick or injured, even when illnesses are a direct result of workplace hazards. According to one worker, “I got sick after applying pesticides, but the boss didn’t pay us any medicines or cover any of our medical expenses.” It should be noted that some employers do provide compensation for some portion of medical costs for permanent workers, although this is less common.

When suffering illness or recovering from an injury, all permanent workers reported that they were expected to work (if there was work to be done) or to pay for the cost of a day laborer, in violation of Burma labor law.²⁸⁹

Access to potable water is a key issue for workers on plantations, with workers expected to provide their own drinking water. In only two instances (out of 18) was water provided to employees by their employer. This represents a violation of labor law, as employers are required to provide drinking water to its workers,²⁹⁰ and it creates a risk of dehydration or illness from contaminated water sources. Workers typically created a well for drinking water themselves or accessed water from streams or ponds around plantation areas. One worker reported having to travel up to 10 minutes by motorbike to access water. Another worker described the nature of worker access to potable water in plantation areas: “they don’t even provide a well. We go to a hilly edge area where some water is collected, and we use water from that shallow pond. It is not even a lake or proper pond. Water is a big problem for us at the plantation. I cannot carry drinking water from the camp as it will be too heavy to carry whole week supply of water.” Workers are sometimes unsure of the safety of drinking water from wells on plantation sites: “we drink water from our farm. We don’t know whether it’s contaminated or not, but we don’t have a choice,” reported one worker.

SUMMARY OF FORCED LABOR INDICATORS RELATED TO HEALTH AND SAFETY

Indicator	Workers Impacted
Work in hazardous conditions to which the worker has not consented, with or without compensation or protective equipment	Permanent workers, seasonal workers, day laborers

Harassment and Abuse

There is evidence of verbal harassment of plantation workers on the part of their supervisors. Many of the respondents reported that supervisors would shout and swear at them if they were not satisfied with their work or if they were seen as taking too many breaks. Fourteen of 18 workers reported to experiencing verbal abuse by a supervisor in the form of swearing and/or yelling.

Although no informants reported experiencing physical or sexual assault first-hand, this reportedly does occur on some plantations. Four workers reported either witnessing sexual harassment of other workers or hearing about such harassment second hand. Some of these informants did not provide further details regarding the identity of the perpetrators. One informant shared a case he was aware of in which a supervisor had allegedly attempted to rape a female plantation worker. Two workers reported that they had heard from other workers of physical assault allegedly perpetrated by supervisors. One informant had heard of multiple incidents where workers were slapped or punched by supervisors.

SUMMARY OF FORCED LABOR INDICATORS RELATED TO HARASSMENT AND ABUSE

Indicator	Workers Impacted
Threats or violence against workers or workers' families and relatives, or close associates	Permanent workers, seasonal workers, day laborers

Child Labor

Verité field research found that child labor, including worst forms of child labor, is present in the banana plantation sector.²⁹¹ Children, some under age 14, are sometimes involved in hazardous tasks, working during school hours, and work at night. The 2014 government census indicates the presence of child labor in Waingmaw Township generally, with the labor force participation rate for those aged 10-14 at 4.8 percent, jumping to 37.6 percent at ages 15-19.²⁹²

“Children work on banana plantations. It’s a well-known fact. We just don’t know how many there are.”
—Waingmaw-based civil society representative interviewed by Verité

Of the 18 worker interviews conducted, eight interviewees reported witnessing children under the age of 18 working on the banana plantation in which they were employed. Five interviewees (of 18) reported witnessing children under the age of 14 working on the banana plantations, with three interviewees witnessing children working during school hours. Each interviewee who witnessed children work reported that they typically worked with their family members on the plantation. Verité could not determine if children under

18 were paid the same wages as adults, although a report by LSECNG contends that children are at times paid a lower wage.²⁹³

Seven of the interviewees reported witnessing juveniles (ages 14-17) applying pesticides to the banana crop. One interviewee reported witnessing children under 14 applying pesticides. Six interviewees observed child or juvenile laborers working in areas that were recently fumigated or in which pesticides had recently been applied. According to several workers, tasks assigned to workers under 18 were dependent on strength and ability. One worker stated that they had “seen workers under 18 doing the same job as adults. It depends on how strong they are. If they are strong enough to carry pesticide tanks, they will have to apply it.” Under the Pesticides Law (2016), children 16 and

under are forbidden from handling pesticides.²⁹⁴ Management on some plantations do explicitly ban underage laborers from applying pesticides, according to informants.

Six informants observed children under the age of 18 as working in the dark, indicating significant overtime work. According to one informant, “we [workers] all have to work until it’s dark when we are very busy. It is the same for minors under 18.” Children were also observed by some workers carrying out other dangerous tasks such as using sharp objects and lifting heavy loads.

In all instances, children under 18 working in the banana plantation sector is likely illegal according to Burma law (for more, see Annex 1: National Laws Related to Labor Rights). As defined by the ILO’s Convention 182, some children under the age of 18 in the banana sector may meet the criteria to be considered as working under the worst forms of child labor, as the application of pesticides and herbicides, night work, or work that interferes with schooling could constitute “work which, by its nature or the circumstances in which it is carried out, is likely to harm the health, safety or morals of children.”²⁹⁵

Living Conditions

Provision of housing to workers is not required by law in Burma, and Verité research found that employers generally did not provide housing to workers on banana plantations — only two of 18 workers lived in employer-provided housing. All day laborers interviewed by Verité lived in housing off-site from plantation areas. Most permanent workers live in makeshift bamboo huts in and around plantation sites, which are built by the workers themselves or previous worker occupants.



Photo © Htoi Awng Htingnan

Worker homes are rudimentary, typically consisting of a single room for sleeping and a cooking area. Some workers create small areas to shower outside of their home, while others travel to nearby streams to take showers. There is limited privacy in these huts. Toilets are typically built by workers and shared among several households. Most of these toilets lack plumbing and are not properly built, according to informants. Workers often buy solar panels for electricity and mosquito nets to protect from infectious diseases.

Freedom of Association

According to experts and workers interviewed, there is no indication of any attempt by workers to form worker committees or labor unions in the banana plantation sector in Waingmaw Township. According to Burma law, workplaces with over 30 employees are required to have a workplace coordinating committee with at least two employees.^{xi} No worker identified this committee as existing on the plantations in which they were employed. More research is necessary to evaluate freedom of association and collective bargaining in the sector.

Grievance Systems

Workers in the banana plantation sector in Kachin State lack a formal grievance or dispute resolution system. According to civil society representatives, wage disputes of permanent workers are the most common type of disputes found on plantations. If a worker or group of workers is unable to resolve their dispute with their supervisor, they often turn to local authorities such as village tract administrators for assistance in negotiating with their employers. Some workers have turned to local CSOs for assistance in dispute resolution. One CSO interviewed by Verité recounted assisting workers in three separate instances. Two incidents were related to permanent workers who were fired and not paid wages owed and workers who felt they were deceived regarding their wages. In both cases, the CSO helped to negotiate a settlement between the workers and employer. In the third incident, the employers refused to meet with the CSO.²⁹⁶

Labor Inspection of Agricultural Plantations in Waingmaw Township

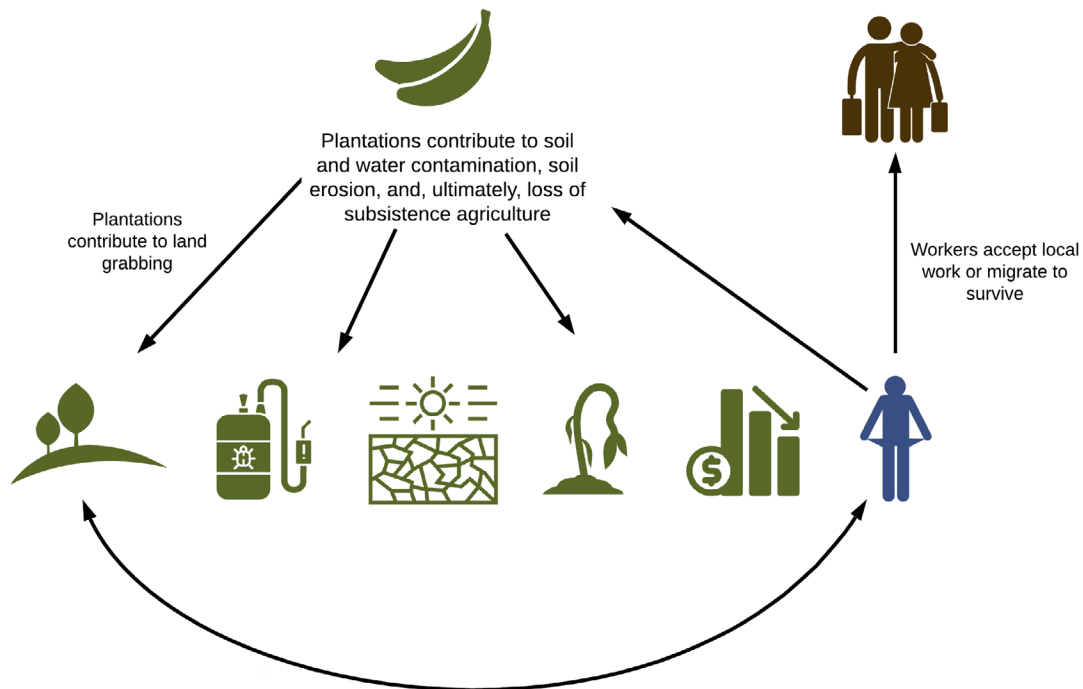
The monitoring of labor conditions in the agricultural sector is primarily the responsibility of the Ministry of Labor, Immigration, and Population (MOLIP) (see *Annex 1: Labor Inspection and Enforcement*). MOLIP does have a presence in Waingmaw Township. However, there is reportedly only one officer for the entire township, with a limited number of office staff, according to a civil society representative.²⁹⁷ It is unclear if labor inspections have taken place on banana plantations in Kachin State. Significant staff upgrades would likely be necessary to provide the capacity to conduct labor inspections for a worker population numbering in the tens of thousands.

xi Settlement of Labor Disputes Law (2012)

Impact of Banana Plantations on Surrounding Communities

Deforestation and environmental degradation, a lack of access to land, and the health effects of the use of pesticides and herbicides are key concerns for communities in and around banana plantations in Waingmaw Township, with the effects having a strongly negative impact on community livelihoods. Several protests from the Waingmaw community have taken place against banana plantations, as have letter campaigns from the community voicing their concerns.²⁹⁸

FIGURE 16. IMPACT ON SURROUNDING COMMUNITIES



Community Health and Livelihoods

The environmental impacts of banana plantation negatively impact community health and livelihoods. Water pollution is a critical concern for residents. In addition to human drinking water, communities rely on the local water supply to fish and care for livestock. Among the rural population in Waingmaw, over 30 percent of households have access to water through unprotected sources,²⁹⁹ leaving them vulnerable to pesticide contamination.³⁰⁰ In 2019, local media documented a case of two streams near a 500-acre banana plantation becoming contaminated, which resulted in the fish in those streams dying. Dead fish were also found in wells closest to streams that local villagers used for drinking water. When the Kachin State Environmental Conservation Department (ECD) officials conducted an assessment and concluded that the streams were indeed poisoned, they accused the surrounding villagers of killing the fish themselves.³⁰¹

Workers believe that agrochemicals used on plantations contribute to illnesses, miscarriages, and death among humans as well as negatively impacting local livestock and fish. LSECNG documented several incidents of human and animal illness due to agrochemical exposure: cows dying after drinking water downstream from plantations, pigs dying after eating banana flowers, and villagers developing respiratory problems.³⁰²

Health impacts from banana plantations have also been reported by local and international media and civil society organizations. Earth Rights International reported that illnesses and diseases increased among local residents alongside the development of banana and rubber plantations in another township in Kachin State. Many of the health issues were related to chemical runoff contamination of water and soil. For example, the chemical fertilizers found in streams were reported to damage the skin of children who swam in them.³⁰³

There are reports of people bleeding and fainting, and some needing hospitalization, when exposed to the pesticides on the plantations where workers were spraying.³⁰⁴ Farmers interviewed by Verité, some of whom were formerly employed on the banana plantations, also recounted people in their village getting sick after inhaling pesticides, which they could identify by its pungent smell. Chinese managers from plantations did not inform villagers when they planned to apply the pesticides, according to one community member.³⁰⁵ One farmer from Gaw Set Yang Village noted in an interview with Verité: “the plantations are very close to our village. There was a pool which we thought they used for watering banana plants. After the monsoon this year [2019], the pool got into the streams and paddy field nearby. It destroyed many paddy fields and we can’t use or drink water from the stream now. Even our cattle don’t drink from the stream.”

Deforestation and environmental degradation associated with plantations pose significant risks to local livelihoods and food security. Most households living around banana plantations are farmers relying on subsistence agriculture for survival. As banana plantations are a monocrop, the soil in and around plantation areas begins to degrade after seven years, according to Kachin-based plantation companies, and requires several years to recover.³⁰⁶ Other impacts include loss of access to traditional forest lands (see ‘Productive Forest Functions’), decreased crop yields, and the inability of livestock to freely graze. Villagers interviewed perceived negative impacts on soil fertility and crop yields caused by agrochemical use on neighboring plantations. New expansion of plantations into forest areas can decrease the amount of wood available for fuelwood as well as other productive forest uses.³⁰⁷

“Forests play crucial roles for community’s livelihoods. People rely on forests for food, utilities, shelter and even clothes. They get income from products in the forests such as vegetables, bamboo, firewood, mushrooms, herbs, and many others.”

– Myitkyina-based civil society representative interviewed by Verité

Impact of Banana Plantations on Out-Migration

Both civil society experts and local Waingmaw community members contend that the negative impacts banana plantations have on local livelihoods act to push some Waingmaw community members to migrate in search of employment. Waingmaw residents have migrated to China and to other regions of Burma.

Due to its highly irregular nature, little data is available on migration from Kachin State to China.

According to the 2014 Burma government census, China has nearly 100,000 migrants from Burma, although this number is likely far below the actual total.³⁰⁸

Little research has been conducted on trafficking in persons for labor between Burma to China. According to the U.S. Department of State, trafficking in persons for forced labor takes place on sugarcane plantations in Yunnan Province, where human traffickers reportedly deceptively recruit migrants from Burma and use the threat of “immigration status-based coercion.” More research is needed to assess the risk to trafficking in persons related to labor migrants who migrate from Kachin State to China.

Multiple experts consulted by Verité reported that it is very common for people from Kachin State, including IDPs and local community members in Waingmaw Township, to seek employment in China. Civil society experts interviewed noted community members who lost access to their land because of plantation expansion were more likely to seek employment in China.³⁰⁹ Young people reportedly migrate to China at higher rates. One civil society expert summarized the lack of options facing local residents: “people don’t have any benefits from plantations unless you work there. Because the scale of the plantations is huge, there is no more land left for local communities. Because of banana plantations local community members don’t have jobs and the only option they have is to go to China. The pay is better than here.” Focus group participants interviewed by Verité described several cases of former residents of the township who had experienced forced labor or detention in China.

Internally displaced ethnic minority groups may be especially vulnerable to trafficking in persons in China. The government of Burma conducted trafficking in persons awareness raising campaigns in 26 IDP camps in the state during 2018.³¹⁰ This is likely due to the epidemic of trafficking in persons related to forced marriages of Kachin ethnic women to Chinese men in Yunnan Province, China. Researchers have estimated that 7,400 women and girls from Burma were trafficked between 2013 and 2017. Many of these women were deceived to travel to China by promises of employment, only to face forced labor and sexual exploitation.³¹¹ The majority of trafficking in persons cases in Burma (188 of 239) were related to forced marriage to Chinese men in 2019, according to the Anti-Human Trafficking Police annual report.³¹² While there is no evidence tying this phenomenon directly to the negative impacts of banana plantations, the limited options for women in the area are likely to raise their overall vulnerability.

Waingmaw-based residents and IDPs are also known to migrate internally within Kachin State and to other Burma states/regions to work in jade, gold, and amber mines.³¹³ Jade mining in Kachin State is a particularly risky sector, characterized by extremely dangerous working conditions, endemic

heroin use among the workforce, and the sexual exploitation of women in mining areas.³¹⁴ Up to 400,000 people perform manual labor in the sector, according to the Ministry of Natural Resources and Environmental Conservation (MONREC).³¹⁵ In Hpakant Township, the epicenter for jade mining in Burma, the ILO found that of 163 respondents engaged in mining, 33 percent were in situations of forced labor.³¹⁶ The Myanmar Centre for Responsible Business highlighted labor vulnerabilities in the gold sector in Burma in its Sector Wide Impact Assessment (SWIA).³¹⁷ In the Kachin Network Development Group's report on the amber sector, some labor vulnerabilities were reported, including dangerous working conditions.³¹⁸

Conclusion and Recommendations

Verité identified numerous human rights and labor risks related to Kachin State's banana cultivation sector, including indicators of forced labor; wage and hour violations; health and safety violations; child labor, including worst forms of child labor; environmental damage; and community health and livelihoods risks. Labor and human rights violations, including trafficking in persons, can persist deep in supply chains – hidden even from social compliance and government enforcement programs – making these risks difficult to address. It is essential that the government of Burma and civil society organizations take urgent action to combat these risks.

As stated previously, China-Burma companies engaged in the banana sector in Kachin State appear not to be registered in compliance with Burma investment laws, with the exception of one company. In December 2019, a proposal was passed in Burma's Upper House of Parliament for the government to regulate the banana plantation sector in Kachin State, including enacting regulations related to agricultural practices and land acquisition, among others.³¹⁹ It's important to note that in Verité's field research findings, several representatives of Kachin-based CSOs expressed their view that the expansion of new banana plantations in Kachin State should be halted due to the associated negative consequences including environmental degradation and effects on the health and livelihoods of communities in and around plantation areas. In neighboring Laos PDR, where Chinese-owned banana plantations have caused similar community health and livelihoods impacts, government officials made the decision in 2017 to ban the development and expansion of new banana plantations.³²⁰



Verité does not seek to hold a position on the issue of whether banana plantations should be formally legalized and regulated as per Burma law. However, in the event that regulations do occur, and a standard operating procedure is implemented, it is important that compliance with labor laws is integrated into the system and that banana plantation workers are afforded full labor rights. Verité recognizes that government agencies are prevented from accessing certain areas in which banana plantations are present within Waingmaw Township.

The following recommendations are intended to address and improve labor conditions specific to the banana plantation sector in Kachin State, as labor conditions likely vary across agricultural sectors. However, the recommendations presented could be considered and integrated into addressing labor compliance for the agricultural sector broadly. Verité has identified several government ministries that could become involved in ensuring better labor outcomes for the tens of thousands of workers employed on banana plantations. These are outlined in Table 6, below.

Burma's Ministry of Labor, Immigration, and Population (MOLIP) is responsible for ensuring compliance with the country's labor laws in the agricultural sector, although the sector only started to be under MOLIP's labor inspectorate mandate in 2019. The Ministry of Agriculture, Livestock, and Irrigation (MOALI) is responsible for aspects of occupational health and safety laws related to the agricultural sector specifically.³²¹ Finally, Verité has identified the Myanmar Investment Commission permit application process, which includes environmental and social impact assessments, as an area of potential further government intervention (see Annex 6: Company Registration).

TABLE 6: RESPONSIBILITIES OF BURMA GOVERNMENT MINISTRIES IN THE AGRICULTURAL SECTOR FOR THE MONITORING OF LABOR CONDITIONS

Responsibility	Relevant Laws	Ministry Responsible
Ensuring compliance of the country's labor laws, including those related to forced and child labor as well as wage, salary, overtime, and occupational health and safety laws, among others in the agricultural sector	Factories Act (1951) with 2016 amendment; Shops and Establishments Act (1951) with 2016 amendment Minimum Wage Law (2013) and No. 2/2018 amendment; Payment of Wages Act (2016); Leave and Holidays Act (1951) with 2006 amendment Labor Organization Law (2011); Social Security Law (2012) Settlement of Labor Disputes Law (2012) Child's Rights Law (2019) Employment and Skills Development Law (2013) Workmen's Compensation Act (1923) Penal Code Section 374 on Forced Labor Ward and Village Tract Administration Law (2012) Occupational Health and Safety Law (2019) ³²²	General Labor Law Inspection Department, Ministry of Labor, Immigration, and Population (MOLIP)

Responsibility	Relevant Laws	Ministry Responsible
Monitoring and preventing trafficking in persons, including trafficking in persons for labor	Anti-Trafficking in Persons Law (2005) Penal Code Section 374 on Forced Labor Ward and Village Tract Administration Law (2012)	Anti-Trafficking in Persons Division (ATIPD) within the Central Body for Suppression of Trafficking in Persons (CBTIP), Ministry of Home Affairs
Ensuring compliance with laws relating to pesticides and carrying out trainings related to farm worker health and safety	Occupational Health and Safety Law (2019) Pesticides Law (2016)	Plant Protection Division (PPD), Ministry of Agriculture, Livestock, and Irrigation (MOALI)
The Myanmar Investment Commission (MIC) is responsible for approving permits that allow companies to invest in Burma, including in the agricultural sector. According to the Myanmar Investment Commission website, companies must “abide by existing labor law” in Burma in order to receive a permit. (For more, see Annex 6: Company Registration)	Myanmar Investment Law (2016) Environmental Conservation Law (ECL) (2012) Environmental Impact Assessment (EIA) Procedure (2015)	Myanmar Investment Commission (MIC)
The Environmental Impact Assessment Division (EIAD) is responsible for evaluating Environmental Impact Assessments (EIAs) and Initial Environmental Examinations (IEEs) for potential social impacts, including those relating to occupational safety and health (OSH). Once approved, the Pollution Control Division (PCD) follows up on companies’ handling of Occupational Health and Safety (OSH) and implementation of a Worker Grievance Mechanism system. (For more, see Annex 6: Environmental Impact Assessments)	Environmental Conservation Law (ECL) (2012) Environmental Impact Assessment (EIA) Procedure (2015) Occupational Health and Safety Law (2019) Settlement of Labor Disputes Law (2012)	Pollution Control Division (PCD), and Environmental Impact Assessment Division (EIAD), Environmental Conservation Department (ECD), Ministry of Natural Resources and Environmental Conservation (MONREC)



Recommendations for Government For the Ministry of Labor, Immigration, and Population (MOLIP)

Take actions to protect workers from labor violations detected on banana plantations

Verité found that contract, wage and hours, health and safety, and child labor violations were common on banana plantations in Kachin State. MOLIP should conduct labor inspections at banana plantation worksites to assess compliance with labor laws to ensure the following:

- Employment contracts are provided to all workers, which clearly stipulate fundamental terms and conditions of employment in a language that can be understood by employees;
- Workers are paid a daily minimum wage of at least MMK 4,800 (USD 3.30) and are paid the equivalent for days worked at least once per month. Verité has found that the monthly 'food allowance' provided to workers in the banana plantation sector does not meet this requirement;
- All employees are able to take one rest day per week without incurring a penalty (including wage deductions);
- All employees are able to take time off for public holidays as well as earned, casual, medical, and family leave in accordance with Burma labor laws without incurring a penalty;
- Workers do not work in excess of legal limits of working hours and are not subject to penalties for refusal to work overtime;
- Employees have the right to a safe and healthy workplace and are provided with adequate breaks, access to potable water, and provision of Personal Protective Equipment (PPE) free of charge;
- Children under 18 are not engaged in worst forms of child labor, including in the application of pesticides or being present in recently fumigated areas, and are working in accordance to Burma child labor laws;
- Children of plantation workers are provided with access to education and daycare programs;
- Employers are not engaged in the illegal practice of retaining workers' National Registration Cards (NRCs);
- Workers have access to a grievance mechanism that is adequate to their needs and is effective at identifying and remediating labor abuses; and
- Labor Inspectorate has increased capacity to enforce labor law in the agricultural sector.
- Verité research has found that the labor inspectorate is under-resourced, leading to a lack of effective inspections, especially in the agricultural sector, in which inspections are more challenging due to the remoteness of agricultural plantations and impediments on inspectors' access. Therefore, it is important to take measures to improve the capacity of the labor inspectorate by:
 - Ensuring that labor inspectors receive adequate compensation;
 - Paying for labor inspectors' travel expenses;
 - Providing incentives to carry out inspections in the agricultural sector and in remote locations;
 - Hiring additional inspectors to ensure that the number of active labor inspectorate staff engaged in inspections is adequate for the number of inhabitants;
 - Including female labor inspectors in labor inspections to ensure that female employees are more comfortable in reporting issues of sexual harassment and abuse;

- Providing inspectors with police assistance whenever requested; and
- Issuing sanctions against employers who fail to grant inspectors full, unimpeded access to all areas of worksites.

For the Anti-Trafficking in Persons Division (ATIPD)

Conduct outreach and awareness raising for local Kachin State communities on deceptive recruitment

Verité identified several instances of deceptive recruitment in the banana plantation sector and recommends that, in collaboration with civil society organizations, the ATIPD conducts outreach to workers and communities in plantation areas to raise awareness of potential deceptive recruitment tactics. The ATIPD should also educate these stakeholders on how to report these issues and provide contact information for local Anti-Trafficking Task Force (ATTF) offices, ATIPD's human trafficking hotline, and relevant civil society organization (CSO) offices.

For the Ministry of Agriculture, Livestock, and Irrigation (MoALI)

Inspect banana plantations for compliance with pesticide rules and regulations

Ensure that employers on banana plantations are registering and using pesticides in accordance with the Myanmar Pesticides Law (2018) and Occupational Health and Safety Law (2019), verifying that all employees applying pesticides receive adequate training, that personal protective equipment (PPE) is provided at no cost, and that women who are pregnant and children under 16 are not applying pesticides.

For the Myanmar Investment Commission (MIC)

Ensure that banana plantation companies which are applying for MIC permits can demonstrate compliance with Burma labor laws

As part of the recent legislation ruling that banana plantations will be legalized and regulated in accordance to Burma laws, several joint China-Burma companies will likely apply for MIC permits if they are to legally cultivate bananas in Kachin State. The Myanmar Investment Commission (MIC) should require currently-operating plantations seeking MIC permits to grant access to the Ministry of Labor, Immigration, and Population (MOLIP) for labor inspections to prove adherence to Myanmar Investment Law, Article 65(m), which states that it is the responsibility of the investor to “respect and comply with the labor laws” of Burma. If approved, the Myanmar Investment Monitoring Division should ensure that the investor is adhering to labor laws by conducting inspections and recommending penalties (see Myanmar Investment Rules, Article 175). For more, see ‘Annex 6: Company Registration).

For the future Myanmar Agriculture EIA Guidelines Working Group

Integrate occupational safety and health (OSH) and other labor provisions adequately into guidance documents

At the time of writing, agricultural-specific EIA guidelines have not been completed. When developing EIA guidelines in the future, working groups should ensure that occupational safety and health (OSH) and other labor provisions are adequately integrated into guidance documents, including detailing how OSH should be addressed and monitored. Verité findings detailed in the present case study can

aid in helping to understand OSH risks in the agricultural sector.

For the Environmental Conservation Department (Ecd)

Increase training to ensure that occupational safety and health (OSH) is addressed in Environmental Impact Assessment (EIA) process

It is likely that some of the banana plantations in Kachin State are legally required to undergo an EIA. As part of this process, the ECD should provide increased training for the EIA Division on how to identify OSH risks associated with banana plantations and other agricultural projects. Additionally, provide training to the Pollution Control Division to ensure that officers are able to adequately evaluate companies' compliance of OSH and the establishment of worker grievance mechanisms. For more, see Annex 6: Environmental Impact Assessments.



Recommendations for Civil Society Organizations (CSOs)

The research presented in the present case study reveals labor vulnerability among internal migrant workers, internally displaced persons (IDPs), and local community members in the banana plantation sector in Kachin State. Much of the previous research and advocacy related to banana plantations has been in relation to land tenure, community health and livelihoods, and environmental impacts, among others. Verité research shows that labor vulnerability is a critical element with significant impacts on communities and should be considered as an important part of impact assessment and strategies for improving the outcomes for people living in Kachin State. In order to address better outcomes for workers employed in the sector, Verité recommends that CSOs:

- Advocate for inspections to be conducted by MOALI to ensure that pesticide laws and regulations are being followed by companies and that all workers are provided training on pesticide application, free access to Personal Protective Equipment (PPE), such as safety masks and protective clothing, and that no pregnant women or children under 18 apply pesticides;
- Advocate for labor inspections by MOLIP to be conducted on the banana plantation sector and that labor protections be robustly integrated into the government's process of legalizing and regulating the sector;
- Conduct further research on labor conditions on banana plantations in Kachin State or integrate labor conditions into research which assesses the sector for impacts related to land tenure, community health and livelihoods, and environmental impacts, among others; and
- Engage with local communities and workers on their labor rights and provide them with information on how to report labor abuse and worker grievances.

Recommendations for Companies

Banana plantation companies should guarantee that employees are afforded with their full labor rights in compliance with Burma labor laws, through the following recommendations:



Undertake measures to improve workers' understanding of their terms of employment and how their compensation is calculated

The absence of written contracts and the lack of transparency around wage calculations leaves workers vulnerable to exploitation. Companies should require that:

- Employment contracts are provided to all

workers, which clearly stipulate fundamental terms and conditions of employment in a language that can be understood by employees. This should include a detailed description of how wages are calculated, potential penalties and wage deductions, and wages to be expected in the event of an employees' dismissal;

- Workers are provided with detailed verbal descriptions of the contents of their contracts in languages they can understand; and
- Workers receive pay slips that itemize earnings and deductions and, where necessary, have these pay slips verbally explained to them in a language they can understand.

Mandate that every worker receives the minimum wage required by Burma law, including in the event of dismissal or contract termination

Verité field research has identified that the wage system utilized in the banana plantation sector, in which permanent workers receive their full salary at the end of a 10-month period, is not in compliance with Burma's minimum wage laws. The monthly stipend provided to permanent workers was found to be under Burma legal limits in all cases. Additionally, there is evidence that permanent workers who were fired did not receive their annual salary and therefore did not receive the minimum wage. Companies should ensure minimum wage laws are adhered to by:

- Issuing payments to workers at least once per month, which meet or exceeds the national minimum wage requirement of MMK 4,800 (USD 3.30) for each day worked
- Ensuring that annual salaries (after the 10-month season, based on plant or weight count) meets or exceeds the minimum wage requirement, regardless of deductions and

penalties incurred by workers throughout the year; and

- Ensuring that, in a situation in which an employee is dismissed or decides to terminate their contract, that said employees receive the equivalent of the daily minimum wage based on the number of days worked.

Ensure that workers hold their own identity cards and have the freedom to leave plantation areas

Verité found instances in which employers held valuable identification documents of plantation workers. Employers should address this by:

- Forbidding the holding of workers' National Registration Cards and other valuable identification documents.

Guarantee that workers are working within legal overtime limits and are able to take rest days and leave without incurring a penalty

Verité found that permanent workers on banana plantation were often subjected to penalties in the form of wage deductions or dismissal if they did not work overtime or on days off (Sunday). Companies should take necessary steps to ensure that workers are able to:

- Refuse overtime without incurring a penalty in the form of a financial deduction (this is often in the form of employing day laborers, whose salary is deducted from the permanent workers' annual wage). Overtime work should also be compensated commensurate to Burma law;
- Take at least one day of rest per week without incurring a penalty; and
- Take time off for public holidays as well as earned, casual, medical, and family leave in accordance with Burma labor laws without incurring a penalty.

Provide a safe and healthy workplace to all employees

Verité field research identified unsafe working conditions in the banana sector. Companies should address occupational safety and health (OSH) concerns on plantations by:

- Providing an adequate number of breaks and access to potable water;
- Following the rules and regulations of Burma pesticide laws by ensuring that pesticides are legally registered with the Ministry of Agriculture, Livestock, and Irrigation (MoALI), all employees are provided with personal protective equipment (PPE) free of charge, and that no pregnant women or children are applying pesticides;
- Requiring that all workers are adequately trained on both the potential harmful effects of pesticides and measures that can be taken to avoid them; and
- Ensuring that workers are able to take medical leave as prescribed in Burma law and that workers have access to medical care.

Develop policies and procedures to address worst forms of child labor

Children under 18 employed in the worst forms of child labor have been identified in the banana plantation sector. Companies should address these risks by:

- Developing a policy commitment on child labor, including measures to avoid employing workers under 18 years of age;
- Taking steps to ensure that children under 18 employed on plantations are transitioned

to education and/or less hazardous activities (hazardous activities include applying pesticides or handling of sharp tools);

- Providing free childcare or schooling to the children of farmworkers near worker housing and the communities in which local workers live, to enable parents to leave young children behind safely while working; and
- Increasing access to affordable education by providing transportation from plantations and local workers' communities to the nearest schools and providing incentives for parents to send their children to school in the form of free meals or the cost of uniforms and school supplies.

Provide workers with confidential grievance mechanisms to allow them to report labor abuses and obtain information and referrals

Banana plantation workers lack safe, anonymous, and accessible avenues to report labor abuses. To address this issue companies should:

- Ensure that internal grievance mechanisms allow for workers to report grievances to individuals other than their supervisors. This could take place through a Workplace Coordinating Committee, which are legally required for businesses with over 30 workers;
- Provide contact information of relevant township authorities, including township-level Ministry of Labor Immigration, and Population (MOLIP) offices, to all workers; and
- Develop systems to address both individual grievances and root causes.



Case Study: Labor, Social, and Environmental Risks in Small-Scale Informal Logging in Northern Burma

Timber is important to the economy of Burma, with the country reporting exports of over USD 200 million in 2018.³²³ However, the illegal felling of teak and other hardwoods, and its contribution to deforestation in Burma, is an issue of ongoing concern, particularly given the role forests play in contributing to food security and mitigating the impacts of extreme weather.

Although numerous reports and initiatives have addressed the environmental impacts of deforestation in Burma associated with logging, significant gaps in knowledge exist related to labor conditions in the informal and formal forestry sectors. As part of the present case study, Verité conducted rapid-appraisal style field research to assess labor conditions in small-scale informal logging occurring in government-controlled areas within Sagaing Region, Shan State and Kachin State, as well as documenting environmental degradation and associated impacts on surrounding communities. Workers interviewed by Verité described being a part of an informal logging supply chain of extracting timber destined for export and/or domestic use, which the government of Burma defines as illegal. Verité has provided a full analysis of labor vulnerability in the sector in the [Findings on Labor Conditions for Workers in Small-Scale Informal Logging](#) section.

For the purposes of the following case study, illegal timber or illegal logging is defined as any logging that is undertaken by any actors other than the Myanmar Timber Enterprises (MTE) and companies subcontracted by the MTE. Multiple analyses exist which define legal timber comprehensively based on Burma laws and regulations.³²⁴ Illegal logging under the present definition takes two primary forms: timber extraction facilitated by EAOs^{xii} in border areas in which the government exerts little to no influence, and informal or illegal logging carried out within areas controlled by the Burma government.³²⁵ The case study presented here documents labor conditions for workers active in informal extraction operations within government-controlled areas, as logging in EAO-controlled areas presented strong security risks for researchers.

Through interviews with current and former logging workers, expert informants, and a literature review, a number of serious labor rights abuses were identified. Most significantly, the research identified the presence of child labor in the sector, including incidents of worst forms of child labor in the illegal logging of teak and rosewood varieties. Additionally, worker interviews indicated that workers in informal logging experience high rates of injuries and occasional fatalities, but the illicit nature of their work leaves them and their families with few avenues for recourse.

Methodology

Verité conducted rapid-appraisal style field research to assess labor conditions in small-scale informal or illegal logging occurring within government-controlled areas of Sagaing Region and Shan and Kachin States, as well as environmental degradation and associated impacts on surrounding communities. Field research consisted of structured and semi-structured qualitative interviews with workers, community members, and other local and international experts. Respondents were selected using purposive snowball sampling. A review of relevant literature was also conducted to ground and validate field research findings.

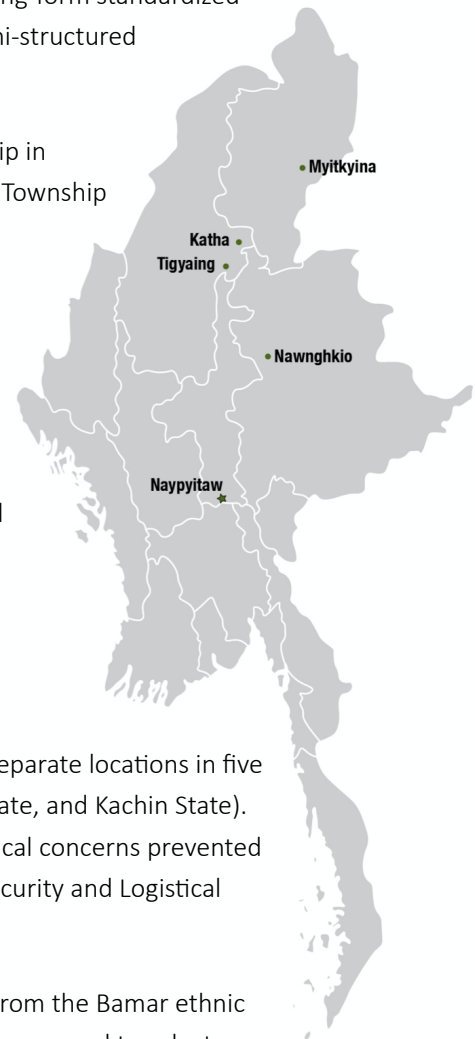
xii Several Ethnic Armed Organizations (EAOs), including the Kachin Independence Organization (KIO), have their own forestry policies and regulations, in which case logging would be considered legal by these governing organizations if rules and regulations were followed.

A Situation Assessment was completed in December 2018, with field site visits including stakeholder consultations in Yangon, Mandalay Region, Sagaing Region, and Kachin State. Key informant interviews were performed with on the ground labor, forest, and environment civil society and community-based organizations in these regions. Individuals were identified that could provide access to informal loggers working within government-controlled areas of these regions.

In March 2019, Verité conducted worker interviews in three different townships within Burma – Htigyaing Township and Katha Township in Sagaing Region and Nawngkhio Township in Shan State as part of the Field Research. Researchers conducted structured interviews with nine current and former workers engaged in the informal logging sector utilizing a long-form standardized interview tool. Two former loggers participated in a short-form semi-structured qualitative interview in Kachin State.

Interview locations included Htigyaing Township and Katha Township in Sagaing Region; Nawngkhio Township in Shan State; and Myitkyina Township in Kachin State

All interviewees were informed of the purpose of the interview, its voluntary nature, and the ways that the information shared might be used. Due to human subject considerations, Verité did not interview any children directly. This research reflects only the perceptions of adult workers about child labor, not those of children. No determinations have been made about actual cases of child trafficking. For a full description of the research and methodological process for the present report, see the ‘Research Process’ section.



Sampling

The 11 logger interviews conducted by Verité took place in seven separate locations in five townships within three regions and states (Sagaing Region, Shan State, and Kachin State). Due to the illicit nature of this sector, numerous security and logistical concerns prevented Verité field researchers from obtaining a larger sample size (see ‘Security and Logistical Considerations’).

Of the loggers interviewed formally,³²⁶ all identified themselves as from the Bamar ethnic group (the majority ethnic group of Burma). Convenience sampling was used to select informants which resulted in an interview pool with experience exclusive to small-scale illegal logging in which all interviewed current and former workers had experience in small-scale illegal logging as part of 3-5 person teams. Medium and large-scale illegal logging operations are also present in government-controlled and EAO-controlled areas of Burma including Sagaing Region, Shan State, and Kachin State.³²⁷

Of 11 informants, two workers were currently engaged in the illegal logging sector (herein referred to as ‘current loggers’), while nine formerly worked in the sector (‘former loggers’). All informants were employed in the sector for at least five years, with the longest time being 16 years. The average length of time in which informants had been employed in the sector was 11.5 years.³²⁸ All of the loggers interviewed (11) by Verité were men of varying ages and backgrounds. Of the nine loggers interviewed formally, three served as team leaders (or supervisors) of their logging team for portions of their employment tenure.

TABLE 7: INFORMAL LOGGING WORKERS INTERVIEWED FOR CASE STUDY

Interview #	Gender	Status in logging sector	Region/State where interview took place	Last year active in logging sector	Length of time in logging sector at point of interview
Worker 1	Male	Former logger	Sagaing Region	2013	14 years
Worker 2	Male	Former logger	Sagaing Region	2013	14 years
Worker 3	Male	Current logger ³²⁹	Sagaing Region	2019	9 years
Worker 4	Male	Former logger	Sagaing Region	2017	12 years
Worker 5	Male	Former logger	Sagaing Region	2014	16 years
Worker 6	Male	Former logger	Sagaing Region	2014	15 years
Worker 7	Male	Former logger	Sagaing Region	2009	10 years
Worker 8	Male	Former logger	Shan State	2016	13 years
Worker 9	Male	Current logger	Shan State	2019	5 years
Worker 10	Male	Former logger	Kachin State	2015	Unknown
Worker 11	Male	Former logger	Kachin State	2017	7 years

Several workers interviewed had gaps of five years or more between their last experience in the sector and their interview in 2019; these workers provided some slight differences in contextual facts than those communicated by more recent workers. For example, workers with a gap since their last engagement in logging did not have up-to-date information about market prices for various species of logs.

Workers interviewed from Sagaing Region reported that other loggers were primarily from Sagaing Region, but with some from Mandalay Region, Bago Region, and Irrawaddy Region. The two workers interviewed in Shan State reported that other loggers primarily came from Shan State, with some from Sagaing and Mandalay Regions.

As part of field research, expert interviews were conducted with a range of key informants including NGO representatives, academics, community members, and environmental activists. Key informant interviews were held in Yangon; Mandalay; Htigyaing and Katha (Sagaing Region) and; Myitkyina (Kachin State) between May 2018 – April 2019. In total, 16 expert informants were consulted

specifically for this case study, each of whom had direct knowledge of the logging sector in Burma. For a full list of stakeholders interviewed for this report, see *Annex 7: List of Stakeholders Interviewed*.

Security and Logistical Considerations

Conducting any investigation into illegal logging in Burma has a high security risk. In 2016, an Eleven Media Group journalist was murdered while reporting on the logging sector in Monywa, Sagaing Region.³³⁰ Forestry Department officials investigating illegal logging are at times threatened, assaulted, and in some cases, even killed by illegal loggers.³³¹ To address these risks, field researchers severely curtailed the length of time they stayed in any single interview location in the hopes of keeping a relatively low profile.

Many of the loggers encountered by Verité field researchers expressed hesitance to be interviewed, fearing criminal prosecution due to their experiences participating in illegal logging. One current logger revealed, “I am still working as a logger. I am not proud saying it because it’s illegal and it’s difficult telling you the truth because you could be the police or from the forest department.” Interviewers posited that this fear of prosecution was at the root of informant reluctance to address some questions. It further raises the possibility that some informants did not feel they could be fully candid when responding to particularly sensitive questions such as those regarding illicit substance use. Many potential interviewees simply refused to be interviewed as part of the survey, limiting the perspectives available to researchers.

To minimize the threat of retribution against workers, Verité conducted interviews in private locations at significant distances from logging sites. To maintain confidentiality of the interviewees, all details that could potentially reveal the communities where interviews took place, such as the names of specific towns and villages, have been omitted from this report.

Limitations

As stated above, due to the illicit nature of this sector, numerous security and logistical concerns prevented Verité field researchers from obtaining a larger sample size. The sample is not statistically representative, and no claims are made regarding national- or sector-wide prevalence. That said, the consistency of conditions described by workers across geographies suggests that the themes discussed do not occur in isolation. Across the variables of geography, last year worked in sector, and total length of time in sector, informants described generally similar working conditions, methods of payment, team compositions, and living situations.

Overview of Informal and Illegal Logging in Burma

An accurate assessment of the scope of small-scale informal logging activity in Burma is lacking, but it is clear that a significant portion of the logging industry operates informally or illegally. Some timber from illegal logging is used domestically, but much of it is smuggled to China and India³³² or “laundered” into Burma’s legal timber supply chains.³³³ According to the Timber Legality Risk Assessment conducted by the consultant group NEPCo, Burma’s timber risk score in 2017 was 0 out of 100, placing Burma in the highest risk category for illegal logging.³³⁴

Many species of trees found in Burma, including teak (*Tectona grandis*) and rosewoods (*Dalbergia* spp) are in high global consumer market demand.³³⁵ At one time, Burma was thought to be largest global supplier of teak in the world with 80 percent of the world’s teak reserves.³³⁶ However, mass over-extraction of timber has dramatically reduced the country’s teak stock.³³⁷ Other species of trees, such as Kanyin (*Dipterocarpus* spp), Padauk (*Pterocarpus macrocarpus*), and Tamalan (*Dalbergia oliveri*) have also been overharvested in recent years.³³⁸ This over-extraction led to a temporary 2014 ban on export of raw logs.³³⁹ In spite of that effort, illegal logging continued, leading to a renewed but temporary ban on raw hard wood logs from 2016-2017.³⁴⁰

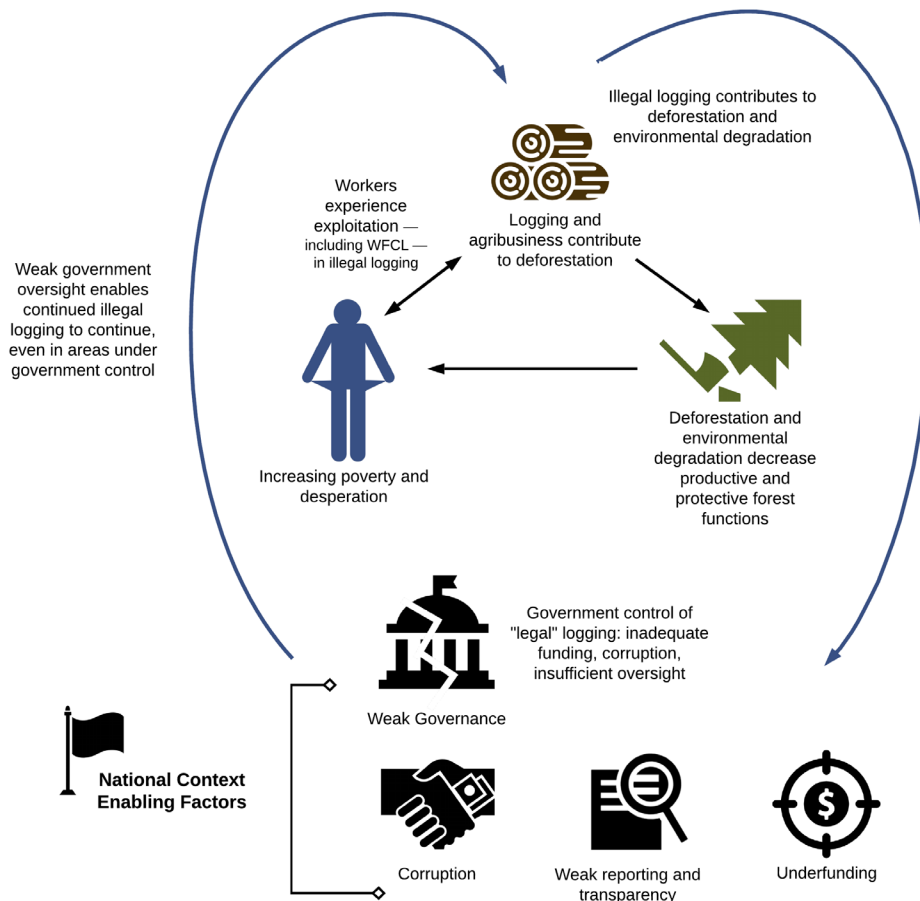
Informal and illegal logging is carried out, to varying extents, in all states and regions within Burma. The three states/regions in Burma that have experienced the highest rates of intact forest losses between 2002-2014 were the three selected for the case study: Shan State, Sagaing Region, and Kachin State. Although this information is not disaggregated to reveal logging’s impact on these rates compared to large-scale agribusiness and other sectors, illegal logging in these regions is thought to be significant.³⁴¹ According to ECODEV/ALARM, a Burma-based NGO, the majority of illegal logs that are seized by the Forest Department come from areas under the control of the Burma government.³⁴²

The export value of illegal timber is thought to be nearly equal to or higher than legal exports. Between 2001 – 2013, prior to the temporary 2014 logging export ban, the Environmental Investigation Agency (EIA) estimated that 10.2 million metric tons – or nearly half of the total volume – of exported raw logs were illegally harvested without the required authorization of MTE.³⁴³ Reviews of trade data from Burma and trading partners reveal a similar story. Between 2011- 2014, while Burma’s trading partners revealed importing USD 5.57 billion in raw timber, Burma only reported exports totaling USD 2.83 billion.³⁴⁴ In 2017, Burma reported USD 207 million in overall timber exports, while China reported USD 443 million in Burma timber imports for the same period.³⁴⁵ Illegal logging is thought to make up a significant balance of these reporting variances.

Government Oversight of Logging and Timber

The Ministry of Natural Resources and Environmental Conservation (MONREC) houses two main forestry and logging-related organizations: The Forest Department (FD) and Myanmar Timber Enterprises (MTE). The FD is responsible for biodiversity conservation, management of forests, and the restoration of forest ecosystems through Community Forestry (CF) initiatives (see ‘Annex 3: Burma’s Community Forestry Instruction’).³⁴⁶ The FD sets the allowable number of trees to be felled per year, known as Annual Allowable Cut (AAC), which in theory ensures that sustainable volumes of timber are extracted. The FD also creates various Forest Management Plans and authorizes access to forests for extraction activities.³⁴⁷ About two thirds of Burma’s area of permanent forest estate (PFE) falls under the FD’s jurisdiction.³⁴⁸

FIGURE 17. UNDERSTANDING GOVERNMENT OVERSIGHT



Role of the Forestry Department

Burma’s Extractives Industries Transparency Initiative (EITI) report evaluated forest law enforcement in Burma as weak, despite continual efforts to improve. The report added that continued deforestation in Burma is not a result of its forestry regulatory system lacking an effective sustainable

forest management framework. A lack of capacity coupled with corruption in the country's enforcement agency, the Forest Department (FD), does contribute to this issue.³⁴⁹ Inspections by FD staff during and after logging are prescribed to ensure regulatory compliance.³⁵⁰

However, there are several challenges that contribute to the FD failing to perform its duties effectively. First, The FD does not receive sufficient resources to fulfill its mandate.³⁵¹ The number of FD staff is significantly lower than what is needed for effective enforcement, resulting in many areas of the country not having an FD presence. According to the FD's original, prescribed organizational structure, 15,000 permanent staff members are required to fulfill its mandate. Due to insufficient department funding, over 7,400 of those mandated positions are vacant.³⁵² With a lack of FD presence in many areas around the country, extractors have little fear of being caught, and illegal timber extraction continues with little relief.³⁵³ FD officials also must contend with the dangerous nature of monitoring the illegal logging sector. Some reports have shown that FD staff is regularly threatened, harmed, and even killed for enforcing the law.³⁵⁴ For example, in the Bago region during the 2015-2016 fiscal year, violence was reported numerous times between FD officials and illegal loggers, with police being called in to assist in 335 cases.³⁵⁵

Inadequate funding has also helped foster corruption within the FD. FD staff's low wages have made them prime targets for bribery, with numerous reports of FD staff choosing to forgo their inspection duties in exchange for bribes.³⁵⁶ In 2014, 700 FD employees were on trial for corruption in connection with accepting bribes.³⁵⁷ Of the current and former informal loggers interviewed by Verité (all of whom acknowledged that their activities were illegal), several reported having relationships with FD and other officials such as police officers, as well as paying bribes both to allow the pass through of illegal logs and to avoid being arrested. However, according to one informant, despite having a good relationship with local officials, surprise checks from FD officials from other townships can still lead to arrest.

Investigations have uncovered that corruption is also thriving between the FD and other government entities, including the MTE and their subcontractors, who are often affiliated with senior Burma military officials. This corruption has included acute bribes from the MTE or its subcontractors to FD staff as well as regular "salaries" from the MTE or its subcontractors to FD staff as payment for staying away from and not inspecting certain logging operations and their extractions. This corruption has been discovered to be particularly rampant in the Sagaing Region.³⁵⁸

The government announced a three-prong approach to tackling illegal logging in districts and townships in 2016, largely by engaging enforcement entities outside the FD. The plan calls for investigating and arresting illegal loggers with the help of police and military units, with the cooperation of regional governments.³⁵⁹ The FD has also begun to collaborate with community-driven groups which assist in monitoring illegal logging.³⁶⁰

While there are significant issues with overall FD effectiveness, it appears that the department has still made progress in light of the scope of illegal logging in Burma. For over a decade, the FD has

regularly seized more than 40,000 tons of illegal timber annually, and that amount has increased significantly over the last five years, ranging from 50,000 to 60,000 tons annually.³⁶¹ Indeed, it's possible the FD's capacity may be increasing. During the nationwide logging ban in 2016, more than 2,200 criminal cases against perpetrators were filed (fiscal year 2015-2016)³⁶² and over 46,000 tons of logs and sawn timber were seized.³⁶³ While seized timber was supposed to be confiscated, villagers have reported that some FD officials were still accepting bribes in exchange for a lack of enforcement in parts of Sagaing Region.³⁶⁴ The government also auctions off the majority of logs.³⁶⁵

Patterns and information regarding illegal logging cases in Burma have also begun to emerge. According to a 2015 report conducted by the UNODC, 99 percent of the people charged with illegal logging are Burma citizens and are not usually the people in charge of the enterprise, but are rather low level workers like tree fellers or truck drivers.³⁶⁶ One case in particular demonstrated this problem, when 155 Chinese citizens and 20 citizens of Burma were arrested in 2015 in Kachin State for illegal logging.³⁶⁷ These Chinese laborers, who had been recruited across the border in Yunnan, were initially sentenced by Burmese courts to life in prison. However, the diplomatic tensions this caused ultimately resulted in a presidential pardon and extradition to China.³⁶⁸

Role of the Myanmar Timber Enterprise

The MTE is a state-owned enterprise responsible for timber production operations such as harvesting, processing, and the marketing of timber as well as overseeing the timber trade more generally. The 1992 Forest Law (and later the 2018 Forest Law) grants the MTE the legal right to commercially harvest and sell timber and timber products without engaging in the typical Competitive Bidding System.³⁶⁹ Several members of the senior leadership of MTE are former officers of the Burma military,³⁷⁰ making the MTE a politically formidable organization. The MTE was targeted by U.S. sanctions up until 2014, when the Treasury Department gave it an initial one-year waiver to work with the U.S.-based International Wood Products Association. This waiver was later extended in July 2015 for two more years.³⁷¹ In 2016, the Treasury Department removed the MTE from the sanctions list permanently, no longer requiring the waiver system.³⁷²

The MTE has been critiqued by several organizations which have argued that the legal forest sector has significantly contributed to deforestation and forest degradation due to overharvesting and corruption.³⁷³ The issue was worsened by the use of subcontracted companies by the MTE, which up until 2016, had been responsible for up to 70 percent of all extraction responsibilities. Despite this announcement, the MTE has indicated that they continue to utilize 'service providers' to meet significant portions of extraction needs,³⁷⁴ with a lack of clarity existing as to the difference between service providers and subcontractors.³⁷⁵

Although logging operations run by the MTE are government-sanctioned, it is thought that underreporting of logs and timber theft are present, making aspects of their logging operations illegal.³⁷⁶ Another issue is that the MTE's system of verifying legal timber is opaque and easily circumvented. Both logs and stems must bear the MTE's hammer mark and be shipped via Burma's

main port in Yangon (or Myeik) to ensure traceability in the supply chain.³⁷⁷ The issue of traceability is further compounded as the MTE does not track the types of forests from which the logs originate and timber from differing supply streams can easily be mixed together. According to NEPCo, the complex nature of Burma's timber supply chain and a lack of transparency is a major challenge for ensuring legality.³⁷⁸ The majority of MTE logs cut are sold through non-transparent auctions.³⁷⁹ Improving traceability of legal logs is the key goal and initiative of the current Burma government (see Annex 2: Forest Certification).

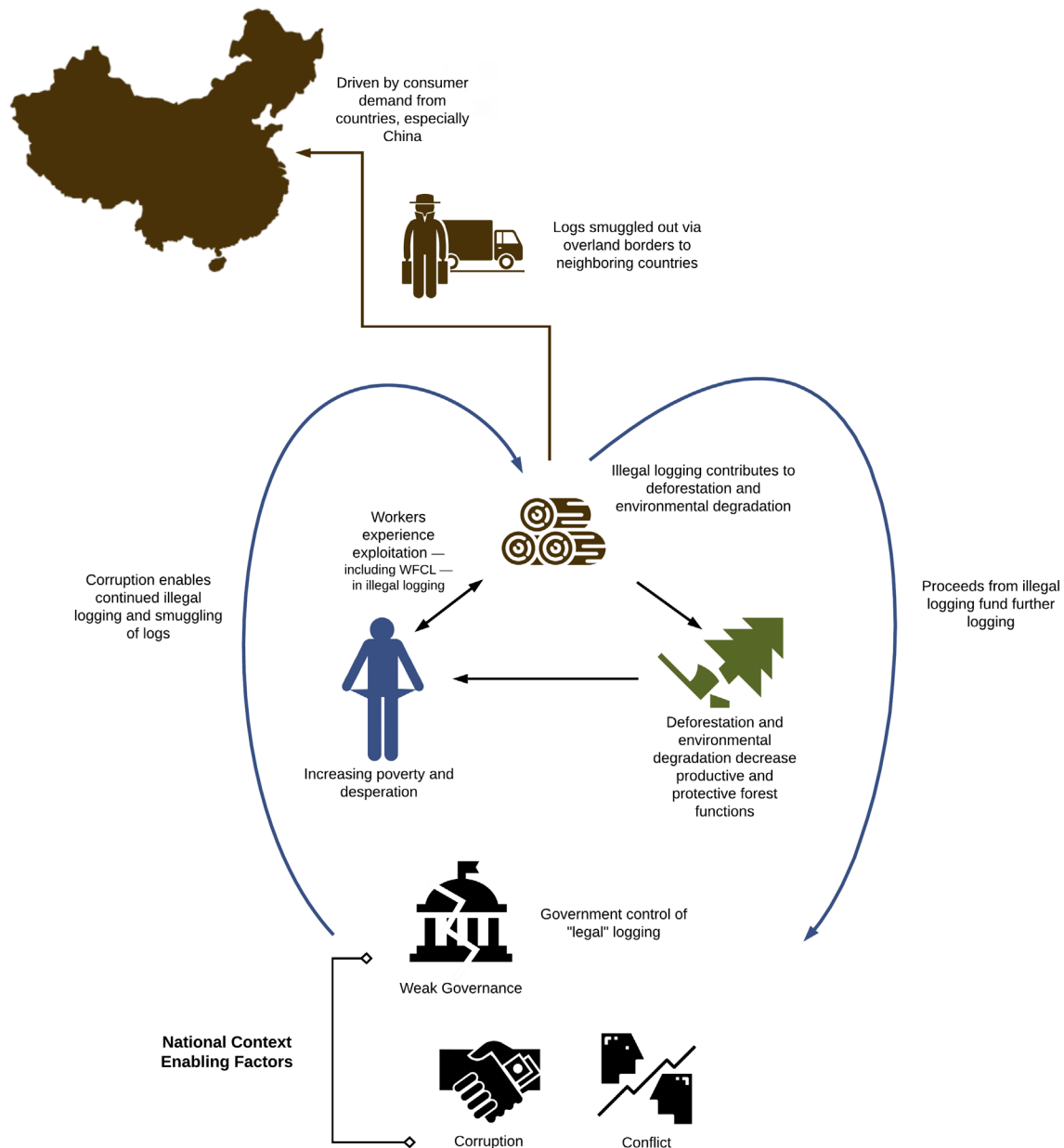
Comprehensive forest management of the whole country is also difficult as large parts of the country continue to lie outside of the government's control. Kayin (Karen) State is one such ceasefire area, where MTE-authorized logging takes place under "modified procedures," which occur with a low level of legal compliance.³⁸⁰ Kachin state, where many illegal logs are trafficked through to China, is an area with low governmental control and oversight.³⁸¹ Some governments of ethnic armed organizations (EAOs), such as the Karen National Union (KNU) and Kachin Independence Organization (KIO), have developed their own forestry policies and management systems in the KNU Forest Policy 2015 and Kachinland/KIO Forest Policy (drafting currently on-going).³⁸²

Illegal Logging Supply Chains

There are several direct international markets for rosewood and teak, but China is by far the largest direct importer of these products. Although not disaggregated by tree species, between 2016-2018, China imported USD 210 million in value of roundwood (equivalent to 190,556 tons) from Burma.³⁸³ India and Malaysia were the next largest importers, importing roundwood at USD 10.6 million and USD 4.1 million in value, respectively, between 2016-2018.³⁸⁴ Between 2007-2017, China, India, and Thailand imported an equivalent of USD 2.79 billion worth of teak and sawn timber.³⁸⁵ EU imports of roundwood (including rosewood and teak) are significantly less than Asian markets, but the EU did import 89,982 ft³ of roundwood logs directly from Burma from 2015-2018³⁸⁶. The risk of the EU indirectly importing illegally harvested timber from neighboring countries of Burma appears to be high,³⁸⁷ and the EU imported 395,701 ft³ of non-coniferous logs from China and Malaysia during that same time period.³⁸⁸ In 2015 alone, EU imports of Burma roundwood were valued at 2.2 million USD.³⁸⁹

While Burmese regulations permit export of timber only via marine ports in Yangon, overland transport into China by truck is a booming industry, and it's estimated that 94 percent of China's Burmese timber imports reach the country via overland transport.³⁹⁰ All 11 logging workers interviewed by Verité reported that they had delivered logs to trucks bound for both Mandalay (the 2nd largest city in Burma) as well as to China. In Mandalay, lumber is often used to craft furniture for Burma's domestic sector.³⁹¹

FIGURE 18. UNDERSTANDING ILLEGAL LOGGING SUPPLY CHAINS



According to an investigation by the Environmental Investigation Agency (EIA), truck drivers pass through a series of checkpoints on their way to China, where bribes are levied by both the Burma authorities as well as various Ethnic Armed Organizations (EOs) which control territories in Shan and Kachin States, where several formal and informal backchannel border crossings exist.³⁹² All but one informant interviewed by Verité reported to working with agents or brokers who represented the interests of Chinese businessmen. According to a forest governance expert, selective logging in Sagaing Region (where the majority of interviews took place) is particularly associated with Chinese

businesses.³⁹³ One respondent reportedly worked with a representative of the Kokang Army (known as the Myanmar National Democratic Alliance Army), an EAO based in Northern Shan State.

After passing into Yunnan Province in China, the timber is thought to be distributed to factories in China's south and east.³⁹⁴ Rosewood timber is used to feed a soaring rise in the popularity and demand for Qing and Ming dynasty-era-style furniture, known as “hongmu” furniture.³⁹⁵ Teak is used for a wide variety of purposes, thanks to both its pleasing aesthetic and high resilience, including flooring, furniture, decking, and decorative architectural work.³⁹⁶ Between 2015 - 2019, the EIA has filed complaints against 15 European companies alleging violation of the EU Timber Regulation (EUTR) by purchasing illegally sourced teak. Many of these companies used teak in the construction of luxury yachts.^{397 398}

Findings on Labor Conditions for Workers in Small-Scale Informal Logging in Northern Burma

While research into labor conditions for workers in small-scale informal logging in Northern Burma did not identify clear indicators of forced labor, the work was determined to carry significant risks for the vulnerable workers involved. Workers interviewed described arduous and hazardous conditions, recounting circumstances of amputations and even deaths associated with logging activity. Use of illicit drugs including methamphetamines appears to be widespread. Most troublingly, children are present in the informal logging sector – including some children unaccompanied by family – and these children are exposed to the same hazards.

Due to the organization of logging “teams” (see ‘Team Organization’) in which workers typically self-organize, there is little presence of an “employer.” Teams typically operate independently, with little oversight from the agent or broker who communicates a desired volume of logs and a set price. This independent operation comes with a steep downside for workers. While their earnings can be relatively high compared to the few other livelihood options available, these workers, although they are at the very bottom of the supply chain, personally assume all of the risk for participating in an illegal activity. They, not the agents or brokers above them on the supply chain, are the most likely to be detained by law enforcement. If they are detained, they lose any investments they are likely to have made for equipment. If they are injured or even killed, they and their families have no option for recourse if the agent, buyer, or team leader does not provide compensation.

Worker Demographics

The formal forestry sector employs approximately 34,218 people, but this estimate does not include those working in the informal forestry sector or in companies subcontracted by the MTE.³⁹⁹ Due to the scale of informal logging, its wide geographic variance across multiple states and regions within Burma (especially in ethnic minority states), and a lack of available data,⁴⁰⁰ there is no comprehensive analysis of demographic information related to gender, age, ethnic group, or state/region of origin of workers in the informal

logging sector. Therefore, the information on worker demographics presented in this report should be considered anecdotal rather than representative of statistic trends.

Workers in the informal logging sector appear to be primarily adult men, although Verité interviews indicate that women and children under 18 also sometimes participate in the sector, which is further supported by media reports that have described both men and women as involved in illegal logging in villages in Sagaing Region and Mandalay Region.⁴⁰¹ Women and children also reportedly participate in forest product collection for fuelwood and charcoal.⁴⁰²

Team Organization

All interviewees reported that they worked in teams of between 3-5 team members. Each team has a leader who is responsible for supervising the team. Agents or brokers would liaise with the logging team, usually the team leader, and make a request for the amount (in tons) and type of logs they want to buy and agree on a set price. Outside of providing payment to the team leader and providing information on volume needed, the agents provide little to no additional management/oversight.

All but one informant reported working with agents or brokers who represented the interests of Chinese businessmen. According to a forest governance expert, selective logging in Sagaing Region (where the majority of interviews took place) is particularly associated with Chinese businesses.⁴⁰³

Nature of Work

The total volume of logs requested varies widely depending on the purchasing power of the buyer. According to interviews, orders ranged from 5 to 30 tons. One current logger revealed that orders could be as high as 100-200 tons.

Once the order is made, the logging teams travel from their communities of origin—typically by car or motorcycle—to the edge of the forest, according to informants. They then travel by foot to logging camp sites, which are interspersed throughout forest areas. The distance traveled by foot varies but could be as far as 10 miles. One informant reported that their logging camp was up to 40 miles from a town where workers could access healthcare.

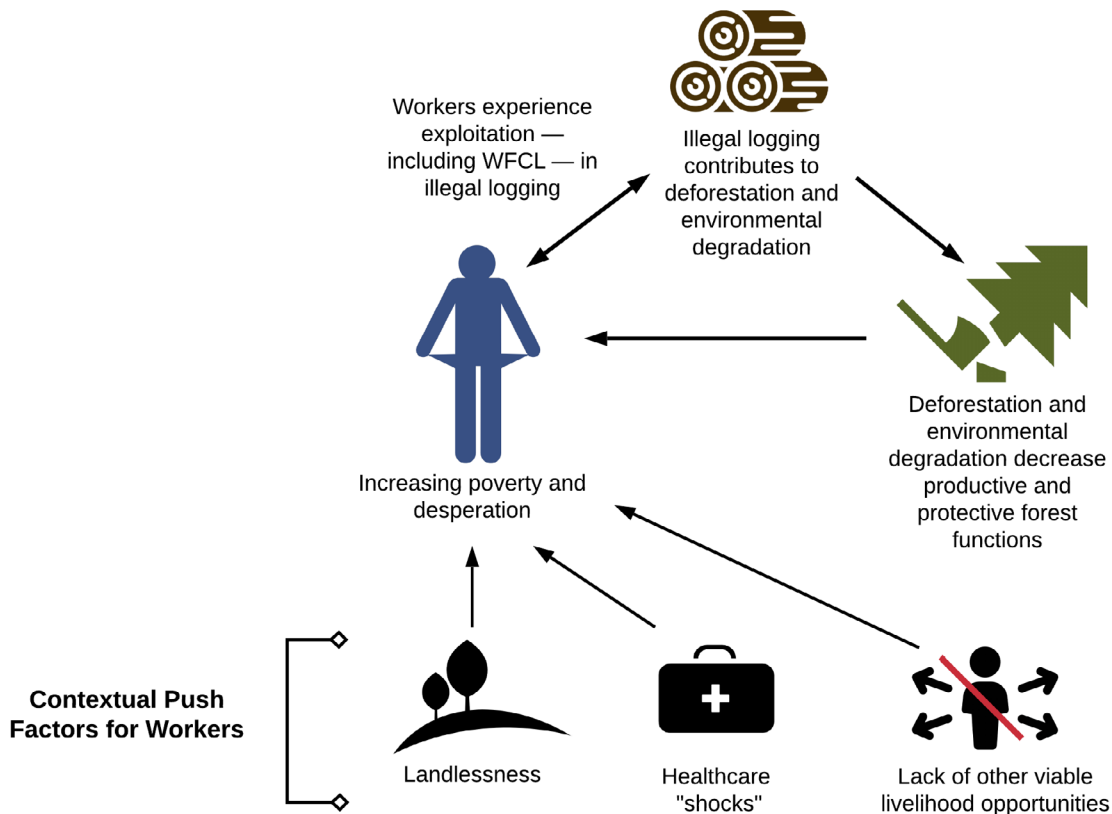
Logging teams sleep in camps either with their logging team or with other teams of loggers. Interviewees reported that there were typically between 10-15 persons living in each camp. All interviewees reported to constructing makeshift and rudimentary huts while they resided in the camps, where between 2-3 workers sleep per hut. All informants reported staying in logging camps for between 10-15 days per trip, travelling to forests areas several times per year. Of the 11 workers interviewed, nine reported working throughout the year with the exception of the rainy season (May – October). Two informants reported that logging occurred during the rainy season, due to greater accessibility of food and water for workers and animals, as well as increased ability to transport logs via rivers.

Tasks associated with the logging sector include searching for trees for felling, carrying equipment, clearing of trees or brush, chainsaw operation, transporting logs to trucks, and loading logs onto

trucks. The first task upon arrival in the forest is the identification of high value trees that meet the order from the agent/buyer. Once a tree is identified, workers carry equipment, including chainsaws, to the tree. Team members will clear brush or other impediments to gain proper access for felling. The team will then use a chainsaw to fell the tree. After the tree is cut, the branches are trimmed. After the desired number of logs are felled over the course of 10-15 days, the timber is transported to the agreed upon meeting point, as discussed with the agent or broker. Many of the loggers (6 of 11 respondents) reported to using a mixture of buffalo and trucks to transport the timber; three loggers reported to using only trucks; and one reported using elephants and trucks. Once the shipment is delivered, the agent or broker pays the agreed upon price to the team leader (measured by weight and type of log), who then distributes payments to the logging team members (see 'Wage Payment and Structure').

Loggers interviewed reported that they did not bring their children to logging sites due to the highly hazardous nature of work. However, all logging workers interviewed reported to witnessing children under 18 working in the sector (see 'Child Labor'). Three interviewed loggers reported that their wives accompanied them to help with cooking in the camp. They noted that this is an occasional practice among other loggers, depending on the remoteness of the site and perceived level of danger. According to one former logger, "It's too dangerous for my family to accompany me. If the logging site was closer and less dangerous, my wife came along to cook for us. She came with us two or three times per year."

FIGURE 19. RECRUITMENT AND ENTRY INTO SECTOR



All loggers interviewed by Verité described joining logging teams and learning the trade via friends and acquaintances with previous experience in the sector. No formal recruitment mechanisms were detected. One former logger described his reasons for working with team members from his village: “I worked mostly with people from my village. I know them and they know me. So there’s no need to build trust between us. It’s easier to work with them.” Many loggers interviewed described being able to set up their own teams of loggers after obtaining a few years of experience in the field, necessitating the recruitment of additional workers to join their own teams.

All informants noted that they understood the work they would be carrying out was outside the bounds of formal and legal regulations. Most interviewees expressed that they had a general understanding of the tasks they would be performing before starting the job. Some informants described situations in which they knew little about the tasks involved. “I learned it from my friends, I knew nothing about it when I started,” one informant stated.

Contracts and agreements in the sector are all verbal – no worker reported to having a written contract. In a legal logging operation, all workers would be required to have a written contract after 30 days of employment.⁴⁰⁴

Workers interviewed expressed that they were mostly motivated to engage in logging by the ability to earn additional income. Seven of the nine loggers cited higher wages as their primary reason for engaging in logging. Other reasons cited include a lack of other employment opportunities and poor working hours of previous jobs. Of the loggers interviewed formally, the majority were formerly employed as farmers, one was a former administrative clerk, and two were former truck drivers.

Three interviewees had formerly been farmers, who, lacking their own land, farmed under sharecropping arrangements. Sharecropping tends to generate less revenue than farming on land farmers own themselves; the poverty experienced by these farmers echoes previous findings that landless households engaged in agriculture are more likely to live in poverty than farmers who own land,⁴⁰⁵ highlighting the potential negative impacts of the land acquisition and conflict that has left segments of the rural population landless. One worker elaborated: “[Starting to participate in logging was to] make more money. I didn’t make that much working as a sharecropper. So I thought why not make some money in logging when everyone is making more money than I did. It was illegal but I thought it was worth the risk.”

Even when farmers owned land, they were not immune to uncertainty around income for agricultural families. Two interviewees were former farmers who had access to family land for farming. In spite of more solid claims on land, they both cited the uncertainty of farming as a key push factor for them leaving to pursue logging. One worker stated that, “Farming is very uncertain. You don’t know how much you’d make each year. Apart from uncertainty, I have to share the profit with my parents. So I stopped working on my parents’ farm and started logging.”

For any rural family living in poverty or on the cusp of poverty, any “shock” can push the family into a vulnerable position necessitating a more rapid source of cash for survival.⁴⁰⁶ For example, one worker reported that health care costs led to his family having to sell their land, pushing him into the illegal logging sector. He explained his story: “It was my dad’s illness. He had a chronic lung disease. He was sick for about three years before he passed away. It cost us a fortune to treat him. Every time we went to Mandalay to get treatment, it was very expensive. So I sold my land – you can’t be a farmer if you don’t own land. It was very difficult on me and my family. We didn’t have enough money to go by and that’s how I ended up in logging.”

Wages and Payment Structure

There are two primary wage and payment structures in the informal logging sector. Most workers are paid via a system in which the total payment is based on the volume of logs harvested and split equally between team members after the 10-15 day harvesting trip. Other workers are paid a daily rate.

Pay Per Volume of Harvest

The most common system for payment is splitting proceeds equally amongst team members (3-5 persons), but at times the team leader takes a larger cut of the profits. Fees are distributed by the agent or broker to team leaders upon delivery of the timber and all informants reported receiving their wage soon after the 10-15 working period. Workers surveyed did not report situations in which their wages were withheld. It is unclear whether workers understand the full nature of the wage system prior to their first 10-15 period but, because it appears that the earning structure is consistent over time, workers participating in more than one trip are likely to have an understanding of wage and payment terms.

Reported wages varied widely but were high overall compared to the minimum wage in Burma. Workers reported wages averaging between MMK 500,000 to 1 million (USD 347 to 694) per trip, which typically lasts 10-15 days each. An average daily salary for surveyed workers would therefore range between MMK 33,000 to 100,000 (USD 23 to 69) per day. Burma’s current minimum wage is MMK 4,800 (USD 3.33) per day,⁴⁰⁷ and the average Burma monthly salary was reportedly MMK 134,490 (USD 93) in 2015.⁴⁰⁸ This information is corroborated by a 2015 ILO survey on internal migrants, which found relatively high average wages among forestry workers of MMK 140,000 (USD 97) per month compared to the average wage of MMK 110,000 (USD 76) per month across all sectors in study⁴⁰⁹ – although this information is not disaggregated to reflect whether or not workers were involved in the formal or informal logging sectors or were working in a forestry sector other than logging (i.e. Non-wood forest products).

In spite of the relatively high potential earnings, loggers take on additional financial risks linked to their participation in illegal activities: they can be fined for offenses related to illegal logging activity, resulting in losses of up to MMK 30 million (approximately USD 20,809) and can be imprisoned for

up to 15 years under the Forestry Law of 2018.⁴¹⁰ Another interviewee from Katha stated people who were imprisoned were the ones who did not “adequately build relationships” with government officials; although not stated explicitly, this suggests that some level of bribery is likely required to avoid criminal penalties.

No loggers interviewed by Verité reported incurring debt associated with their work in logging. Several loggers acknowledged that indebtedness could occur if their logging team was arrested and/or had their logs and equipment confiscated. Some loggers, especially team leaders, invest significant portions of their own savings and income into costs associated with logging, such as equipment and rations. If they are arrested, even once, their losses could be significant, according to an interviewee from Katha.

Daily Wage

As opposed to working on a logging team in which profits are split equally, some workers are engaged via a daily wage system. One informant, who served as the logging team leader, reported paying other team members a daily wage of between MMK 5,000 to 7,000 per day (USD 3.47 to 4.86), which is also higher than Burma’s minimum wage. Reports from Mongabay revealed daily wages of USD 4 paid to workers involved in the illegal logging sector.⁴¹¹ As Verité did not interview daily wage workers directly, more research would be necessary to understand their payment structure and to assess their vulnerability to labor exploitation.

Labor Conditions in the Formal Logging Sector

Little to no data is available to assess the labor conditions of MTE staff, subcontractors, or service providers although some environmental experts contend that the 20,000⁴¹² jobs held within the MTE are relatively well-paid and stable.⁴¹³ Around 15,000 former employees receive a pension from the MTE.⁴¹⁴ The use of subcontractors or service providers may present a risk to labor conditions, however. The MTE does not collect or request any information on subcontractor employment; it is not even known how many people are employed by subcontractors, not to mention their labor conditions. The MTE also does not take labor conditions into account when deciding which subcontractors to hire. Indeed, the internal instructions the MTE follows in subcontractor selection have not been changed in over 60 years; longer than labor regulations have existed within the country.

Verité field interviews with a former logger provided some insight into the logging operation of a prominent company. The company in question has been identified as previously being a subcontractor for the state owned enterprise, known as Myanmar Timber Enterprise (MTE) (see ‘Government Oversight of Logging and Timber’ section).⁴¹⁵ In the system described by the interviewee, around 20 skilled loggers are employed directly by the subcontracted company. These skilled loggers are typically from areas outside the forested areas, such as the Bago, Magwe, and Mandalay Regions. Loggers employed by the company are typically highly skilled and paid relatively well, receiving approximately MMK 200,000 (USD 136) per month.

To assist with extraction and transportation activities, logging companies often hire 5-10

local laborers who are typically recruited with the assistance of village administrators. Field interviews conducted by International Alert in 2017 seem to corroborate a management system in which companies hire “small groups of local villagers as day laborers who, for lack of other income and economic necessity, take on the job.”⁴¹⁶

Local laborers, who are typically men, are paid in a piece rate system or daily wage. Women sometimes join to work as cooks or cleaners. Local laborers travel around 10-15 miles on average to logging camps, returning every 10 days to their village of residence.

Local laborers often take an advance between MMK 50,000 – 100,000 (USD 35 – 69) prior to obtaining employment, which is often used by family that is staying behind for food, medicine, and other living costs. Local laborers are mostly aware of what labor and housing conditions before agreeing to take the job but are often in need of the work so they take the position regardless. However, there is a level of deception among these workers, according to the informant. Local laborers are sometimes deceived in the sense that poor weather conditions can result in making much less money than what they were expecting, due to the piece rate system. If it rains continuously, for example, the owner/manager sometimes deducts costs of food and rations that are paid during this time. Additionally, if a person is fired, although the logging company management will repay back wages owed, local laborers who have accumulated debt are required to sign a document stating they will repay the company to which the money is owed. The informant estimated that 30 percent of workers faced debts of between MMK 50,000 – 100,000 (USD 35 – 69) in this system. However, indebted workers rarely, if ever, repaid this debt. Instead, workers typically left the village and would not return until the company employees had left the area or would simply go to work for another company. Companies would factor the cost of local laborers leaving prior to their contract being completed, resulting in lower pay for local laborers, according to the informant.

It is possible that the conditions described by the interviewee could meet the criteria of some forced labor indicators, specifically debt bondage or the manipulation of debt, and withholding of wages or other promised benefits. However, as Verité could not corroborate this information through interviews with workers, more research related to the labor practices of MTE subcontracted companies would be necessary prior to making a determination on the likely risk of forced labor indicators in the sector.

There are significant gaps in transparency among logging companies subcontracted by the MTE who continue to maintain a significant role in the timber supply chain (see ‘*Annex 2: Government and International Initiatives Related to Forests, Environmental Degradation and Climate*’). Therefore, it is possible that labor conditions identified in Verité field research such as the worst forms of child labor could also be present in the legal Burma timber sector. As tropical hardwood varieties such as teak and rosewood remain in demand globally, more research needs to be conducted to assess labor conditions among government-sanctioned logging operations by the MTE and subcontractors, especially when considering efforts to bring timber in compliance with forest certification standards (see ‘*Annex 2: Forest Certification*’).

Hours

All informants reported regularly working beyond eight hours per day while at work sites. The general ethos expressed around work hours for loggers paid based on the volume of logs harvested is that the harder or longer loggers work, the more logs they could cut to meet the requirements of their buyer in the shortest time possible. For daily cash laborers, they work the same hours as their team leaders and therefore will take breaks at the same time.

Beyond the pressure imposed by the piece-rate pay structure to work quickly, which tends to contribute to long hours during each trip, the working hours are flexible, according to an interviewee from Nawngkhio. There is no rigid schedule. Loggers take short breaks for about 15 minutes to half an hour once or twice a day. Lunch time usually lasts for about an hour. When loggers are at the logging site, they work every day for the duration of their time at the working sites, which typically lasts between 10-15 days.

Health and Safety

The UN Food and Agriculture Organization (FAO) has evaluated logging as being among the most hazardous occupations in the world. Logging workers are exposed to high rates of accidents, including those which result in death and serious long-term health issues. Tree felling is especially dangerous, with chainsaws estimated to be involved in close to half of all forestry accidents in developing countries.⁴¹⁷ Worksites, especially in illegal logging operations, are often found in remote and temporary locations, making access to health care and labor inspection difficult.⁴¹⁸

Interviewees reported that they conducted logging activities without any protective equipment such as helmets, utility uniforms, safety glasses, work boots, or insect repellent. There was a widespread lack of awareness of what protective gear should be used, and interviewees expressed that they did not want to buy the gear with their own wages. One worker expressed that there was “no such thing as protective equipment.” Additionally, none of the workers had participated in safety trainings, instead relying on the guidance of team leaders. All respondents reported that first aid kits were not available at worksites.

Of the nine informants formally surveyed by Verité, all but two reported witnessing accidents which resulted in injuries or death. Injuries can be severe, including injuries that require amputation of limbs. Four interviewees reported witnessing accidents that led to the death of colleagues.

Another interviewee estimated to hearing of 4-5 accidents per logging season among loggers he interacted with. Reporting from Mongabay also reveals numerous accidents related to the operation of chainsaws in illegal logging, although government statistics are not available to shed light on the scale. Further, their reporting confirms that safety equipment is not widely used among individuals involved in logging.⁴¹⁹ In addition to chainsaw operations, interviewees reported participating in other dangerous tasks or being exposed to hazardous conditions such as lifting heavy loads; working in high places; exposure to fire, gas, or flames; and exposure to dust and smoke.

A 2015 ILO study found that of 158 interviewees in the forestry sector, nearly 30 percent had been injured on the job. Additionally, nine percent were exposed to toxic smells; 11 percent were exposed to fire, gas, or flames; and 13 percent worked at extreme heights.⁴²⁰

Workers living in forest logging camps are exposed to infectious diseases, particularly mosquito-borne illnesses such as malaria which is a particularly high risk in Burma; there were over 200 deaths due to malaria in Burma in 2016.⁴²¹ Workers reported buying their own mosquito nets. Informants also reported being exposed to a variety of dangerous wildlife such as poisonous snakes, leeches, and wild animals.

Safety is worsened by the sheer remoteness of logging camps. Logging sites are often between 10-15 miles into the forest by foot, with additional travel necessary to access health care facilities. One interviewee described witnessing an accident in which his colleague had to be transported about 40 miles for medical treatment.

As logging operates outside of the law, workers lack social security or health insurance and accidents are rarely reported. Informants demonstrated a consistency in describing the informality of workplace compensation for accidents. There is no remediation process for death or injuries, so workers and their families are unlikely to receive compensation if workers are injured or killed on the job. Five of the seven workers who witnessed accidents reported that victims or their families received no compensation. One interviewee from Katha (Sagaing Region) stated that some leaders provide financial support when their teammates are injured, and that compensation would be limited to support for some portion of medication or hospital bills.

One current logger, who was a team leader for his 3-5 person work crew, described an accident of a member of his team: “I had a teammate who got injured. One of his legs needed to be amputated. There was nothing much we could do. I paid him some money and that was it.” Two other informants described a similar situation. One former logger described that “some people died in accidents and they [their families] didn’t receive any compensation. Logging is illegal and so brokers or agents are not accountable to people who work for them.” Another former logger echoed this claim: “Logging is illegal. So, even if you get injured and didn’t get any support from your employers, there’s nothing much you could do.”

Informants noted the use of illicit drugs among loggers, particularly “yaba,” a substance including methamphetamines. According to one former logger, “it’s almost like a tradition to use yaba. It’s used to work harder and also for safety when using chain saws, to ensure concentration to avoid injuries.” Six of nine informants reported to witnessing either yaba or heroin use among colleagues, including among juveniles (see the ‘Child Labor’ section of this report for additional details on child labor in illegal logging). Informants interviewed by Verité reported that individuals who used drugs purchase and use it at their own volition and were not provided the drugs by their supervisors. There is some anecdotal reporting that in the ‘legal’ logging sector, companies may pay their employees with methamphetamines.⁴²²

Informants noted the toll drug use has on other workers. One worker noted: “They [other workers] use yaba [methamphetamine] or heroin depending on how addicted they are. They are more like slaves of these drugs. They work not for themselves or their families. They work to get drugs.”

Living Conditions

While actively engaging in logging, workers reside in forest camps. Groups living in each camp may be small 3-5 person teams or larger 10-15 person groups made up of multiple teams. Workers construct makeshift huts made of bamboo or tarpaulin, sharing living quarters with 2-3 other workers. All informants reported staying in logging camps for between 10-15 days per trip and making several trips to the camp per year. Workers typically bring their own food rations and share responsibility for cooking and cleaning. Several loggers reported that they were occasionally joined by their wives, who helped with cooking and cleaning, when the logging sites were relatively close to their village of origin. Workers often relied on natural water sources for drinking water. None of the interviewees reported participating in hunting themselves but several interviewees stated that they had witnessed other loggers hunting wild boar and deer (including muntjacs).

The makeshift huts where workers live are very basic and thus lack adequate space for bathing, toilets, cooking, or privacy. Workers were generally aware of what living standards to expect while in the forest, but the conditions remain hazardous particularly for children present.

Child Labor

Although Verité interviews did not evaluate for the presence of forced child labor in informal logging,⁴²³ child and juvenile labor was detected. All nine interviewees reported having witnessed children under the age of 18 employed in informal logging on at least two occasions. These interviewees reported that they had seen children working alongside their family members and children working unaccompanied by caretakers at logging sites. Three of those nine interviewees reported witnessing children under the age of 14 working in the sector.

Workers interviewed widely reported witnessing children under 18 using illicit substances such as **yaba** which includes methamphetamine. Several interviewees noted that drug use is so severe that it can shorten life expectancy of children involved in the logging sector. A logging worker described the vulnerability of children in the sector: “**Yaba** [methamphetamine] is very inexpensive, so child laborers can buy it themselves easily. Children working in logging sites use **yaba** or other types of drugs like heroin. They die early from malaria or drugs overdose. They just don’t know how to take care of themselves.” Another informant reiterated that logging sites are unsuitable environment environments for children, describing: “I saw children using drugs but I couldn’t say anything because I am not their parents. They won’t listen to me.” Another informant noted: “I saw children doing drugs in logging sites. They don’t live long, that’s for sure.”

Criteria for WFCL	
Work with dangerous machinery, equipment and tools, or which involves the manual handling or transport of heavy loads	Children in informal logging may be exposed to dangerous machinery and carrying heavy loads.
Work which, by its nature or the circumstances in which it is carried out, is likely to harm the health, safety or morals of children	In addition to heavy loads and equipment children are exposed to a wide range of harmful conditions including methamphetamine use, working for long hours, working at night, disease, and exposure to wildlife. These risks are likely to be heightened for any worker who is unaccompanied by caretakers.

Children in the sector are also vulnerable due to the extremely hazardous nature of logging activities, which the FAO has evaluated as being among the most hazardous occupations in the world (see ‘Health and Safety’).⁴²⁴ Five interviewees reported to witnessing persons under 18 using chainsaws to fell trees. Informants noted that if they were strong enough to carry the chainsaws, they were expected to use it. Interviewees also widely reported to witnessing children engaged in hazardous tasks such as carrying heavy loads and working in extreme weather. Child laborers often assist in transporting logs from the logging sites to the drop off destination. Specific data on hours and wages for child laborers was difficult to collect as field researchers did not interview children directly.

As defined by the ILO’s Convention 182, to which Burma is a signatory, children under the age of 18 in the illegal logging sector meet the criteria to be considered worst forms of child labor due to exposure to illicit substance use and participation in highly hazardous work. According to the convention, persons under the age of 18 (defined by the ILO as a “child”)⁴²⁵ participating “work which...is likely to harm the health, safety or morals of children” meet the criteria for worst forms of child labor. Participation in illegal logging specifically also raises the risk that children could be subjected to criminal law enforcement activities. Convention 182 specifically notes that participation in illicit activities also qualifies as a Worst Form of Child Labor. The logging described by the interviewees is illegal under the 2018 Forestry Law,⁴²⁶ and all informants acknowledged that the work they were engaged in was illegal.

Worst Forms of Child Labor

According to ILO’s Convention 182, which Burma ratified in 2013, **worst forms of child labor are defined as:**

- (a) all forms of slavery or practices similar to slavery, such as the sale and trafficking of children, debt bondage and serfdom and forced or compulsory labor, including forced or compulsory recruitment of children for use in armed conflict;
- (b) the use, procuring or offering of a child for prostitution, for the production of pornography or for pornographic performances;

(c) the use, procuring or offering of a child for illicit activities, in particular for the production and trafficking of drugs as defined in the relevant international treaties;

(d) work which, by its nature or the circumstances in which it is carried out, is likely to harm the health, safety or morals of children.

Additional guidance on determining hazardous work is provided by ILO Recommendation 190 on the Worst Forms of Child Labor. These include:

- Work which exposes children to physical, psychological or sexual abuse;
- Work underground, under water, at dangerous heights or in confined spaces;
- Work with dangerous machinery, equipment and tools, or which involves the manual handling or transport of heavy loads;
- Work in an unhealthy environment which may, for example, expose children to hazardous substances, agents or processes, or to temperatures, noise levels, or vibrations damaging to their health;
- Work under particularly difficult conditions such as work for long hours or during the night or work where the child is unreasonably confined to the premises of the employer⁴²⁷

Link between Labor Vulnerability and Environmental Push Factors

The leading regions/states in Burma for intact forest losses between 2002 – 2014 occurred in the three regions in which Verité interviews took place: Sagaing Region, Shan State, and Kachin State, in part (but not solely) due to both legal and illegal logging (see ‘Forest Loss and Degradation’).⁴²⁸ In addition to the felling of trees, tropical timber logging causes varied levels of degradation due to the intensive extraction process and the creation of accessible roads through primary forests to find dispersed species for selective logging.⁴²⁹ As discussed in the ‘Productive Forest Functions’ and ‘Protective Forest Functions’ sections, deforestation and forest degradation can have strong social and environmental impacts which can lead to increased vulnerability, as the forests are relied on for income, food, fuel, and shelter.

Verité field research identified anecdotal evidence to support the idea that deforestation and forest degradation leads to increased vulnerability. Workers interviewed by Verité stated that they relied on forests for their daily income and for additional food for their families. Despite the potential for their logging activities to have long-term consequences for their communities, they were still motivated to participate in logging – and by extension, deforestation – due to lack of available opportunities to make an adequate wage. In Katha (Sagaing) and Htigyaing (Sagaing) Townships, where the majority of Verité interviews took place, over logging (particularly in the 1990s and 2000s) has played a strong role in rapid deforestation, which has had effects on the livelihoods of communities.⁴³⁰

According to interviews with environmental activists from Htigyaing, Kawlinn, and Katha (all in Sagaing Region), deforestation has had several negative impacts on their communities. They noted productive uses of the forests for firewood, bamboo, bamboo shoots, orchids (plants), and small-scale hunting, among others. In the past, communities in and around these areas could acquire forest products more easily without significant investment. Now, however, it is difficult to access these products without travelling far distances. According to the activists interviewed, there is a general sentiment among communities that life is more difficult than the past due to lost access to productive forest products and extreme heat and dryness, which make it more difficult to farm.⁴³¹ Six of the nine formal worker interviewees also noted increasing temperatures and less rainfall from previous years.

“My father never approved of me working in logging. He said forests are our livelihood and we should not destroy them. When he was dying, he asked me to promise him not to work in logging anymore - so I did.”

*– Former logger
interviewed by Verité*

Environmental activists contend that environmental factors played a role in community members migrating to other forest areas, as well as domestically and abroad for work opportunities. Some logger interviewees also noted instances of community members migrating abroad for work. Among the domestic sectors noted by activists were jade mining in Hpakant, Kachin State and agricultural plantations in Kachin State, including banana plantations in Waingmaw Township.⁴³² Both of these sectors have been associated with forced labor and general labor exploitation.

Conclusion and Recommendations

Verité's field research has identified several labor risks related to small-scale informal logging of teak and rosewood varieties. Most significantly, the research identified high incidences of child labor, including incidents of worst forms of child labor. Additionally, worker interviews indicated that workers in informal logging experience high rates of injuries and occasional fatalities, but the illicit nature of their work leaves them and their families with few avenues for recourse. Labor and human rights violations, including child labor, can persist deep in supply chains, hidden even from social compliance and government enforcement programs. It is vital that the government of Burma, countries importing timber from Burma, and civil society organizations take urgent action to combat these risks.

As outlined in the Government Oversight of Logging and Timber, the complex nature of Burma's legal timber supply chain and a lack of transparency is a major challenge for ensuring legality,⁴³³ meaning that these labor risks could extend into Burma timber's legal supply chain. Additionally, significant gaps in information exist as to the labor conditions of workers employed by the Myanmar Timber Enterprises (MTE) and companies subcontracted by the MTE (known as 'service providers'). It is possible that labor conditions identified in Verité field research are present in the legal Burma timber sector, and more research needs to be conducted to assess labor conditions among government-sanctioned logging operations, especially when considering efforts to bring timber in compliance with forest certification standards.

To address labor risks in the forestry sector, Verité presents the following recommendations to the government of Burma, the MTE and subcontracted companies, countries importing timber and wood-products from Burma, and civil society organizations:



Recommendations for the Government

- Legislate and implement the inclusion of trafficking in persons, forced labor, child labor, and Burma labor law compliance in timber legality definitions and certification schemes (including the Myanmar Timber Legality Assurance System, or MTLAS), as well as robust monitoring systems for labor law compliance in the forestry sector. For more, see Annex 2: Forest Certification.
- Uphold International Labor Organization (ILO) conventions in which Burma has ratified, including Convention 29 (Forced Labor), Convention 182 (Worst Forms of Child Labor), and Convention 138 (Minimum Age), as well as national laws related to trafficking in persons, forced labor, and child labor in the forestry sector (see Annex 1: National Laws Related to Labor Rights).
- Support the prioritization of social risk assessments and human rights in both the formal and informal forestry sector and in the supply chains of timber and wood-based products. This should include a risk assessment on labor conditions associated with the MTE and subcontracted companies;
- Clarify which ministries are responsible for the monitoring of labor conditions in both

the formal and informal forestry sectors and what systems are in place to assess and address violations of labor law in these sectors;

- Support strategies which encourage workers and communities in the informal sector to transition to and benefit from the formal forestry sector; and
- Advocate for new funding to encourage the creation of decent work opportunities and improved access to education in areas which employ large numbers of informal logging workers.



Recommendations to the MTE and Subcontracted Companies

- Develop codes of conduct that include provisions on trafficking in persons and associated forced labor, child labor, and other labor rights abuses, and policies and procedures in assessing and addressing these issues; and
- Provide information that is publicly available on where logging operations take place, the number of workers employed, and information relating to working conditions.



Recommendations for Civil Society Organizations (CSOs)

- Advocate for government policies which encourage workers and communities in the

informal sector to transition to and benefit from the formal forestry sector;

- Advocate for the inclusion of forced labor and Burma labor law compliance in timber legality definitions and certification schemes, as well as robust monitoring systems; and
- Carry out research on labor conditions associated with the MTE and subcontracted companies in the formal logging sector.

Recommendations for Countries Importing Timber and Wood Products from Burma



- Uphold legislation, such as the European Union Timber Regulation (EU), the Lacey Act (USA), and the Illegal Logging Prohibition Act (Australia) to ensure that companies disclose due diligence efforts to prevent wood purchases from contributing to illegal logging, environmental degradation, forced labor, and child labor. Effective evaluations on timber and wood-based products should be carried out to ensure compliance with relevant legislation.
- Countries with no relevant legislation on illegal logging should enact legislation which requires companies to demonstrate due diligence and ensure that environmental and human rights risks related to wood and timber purchases are mitigated.

Annexes

Annex 1: Labor Law Framework and Enforcement Mechanisms

Ratification of International Conventions and Protocols Related to Labor⁴³⁴

Instrument	Status
Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children, supplementing the United Nations Convention against Transnational Organized Crime (Palermo Protocol)	Signatory ⁴³⁵
United Nations Convention on the Rights of the Child (CRC)	Adopted (1989), entered into force (1990), acceded (1991) ⁴³⁶

ILO Core Conventions	Ratification Status
Convention 87 – Freedom of Association and Right to Organize	Ratified
Convention 29 – Forced Labor	Ratified
Convention 182 – Worst Forms of Child Labor	Ratified
Convention 138 – Minimum Age	Ratified
Convention 98 – Right to Organize and Collective Bargaining	Not Ratified
Convention 100 – Equal Remuneration	Not Ratified
Convention 105 – Abolition of Forced Labor	Not Ratified
Convention 111 – Discrimination (Employment and Occupation)	Not Ratified

National Laws Related to Labor Rights

Minimum wage, wage payment schedules, work hours, minimum age of work, health and safety, and freedom of association are regulated by law in Burma.⁴³⁷ Burma's Ministry of Labor, Immigration, and Population (MOLIP) is responsible for ensuring compliance with the country's labor laws. In 2019,

MOLIPs labor inspectorate mandate was expanded to include the agricultural sector. The Ministry of Agriculture, Livestock, and Irrigation (MOALI) is responsible for monitoring compliance to aspects of occupational health and safety laws related to the agricultural sector.⁴³⁸

A summary of key legal standards, particularly those directly relevant to the sectors and findings presented in the case studies, is provided below. For a more comprehensive review of employment and labor law, see the U.S. Department of State Burma 2018 Human Rights Report, Section 7⁴³⁹ and the ILO Guide to Myanmar [Burma] Labor Law.⁴⁴⁰

TABLE 8: SUMMARY OF BURMA LABOR LAWS AND LEGAL STANDARDS

Topic	Burma Legal Standards
Wages	<p>A daily minimum wage is set by the National Minimum Wage Committee under the Ministry of Labor, Immigration and Population. As of May 2018, the daily minimum wage was MMK 4,800 (approximately USD 3.33).⁴⁴¹ Agricultural workers are covered by minimum wage laws. Businesses with less than 15 workers are exempt from minimum wage laws.</p> <p>Workers must be paid at least monthly. Employers are required to pay workers’ wages on the exact date payment is due (or within a five-day grace period for businesses with more than 100 employees.)</p> <p>Basic wages – including all earnings up to the minimum wage baseline – must be paid in cash.</p> <p>Employees may not take deductions from wages to pay for tools or equipment necessary for workers to perform tasks assigned. Employees may deduct costs for damage or loss directly attributable to a worker only when the worker had direct responsibility for that material and an adequate opportunity to present a defense. Where deductions for damaged materials are taken, they are not to exceed 5 percent of a worker’s total salary.⁴⁴²</p>
Hours	<p>The law provides hour limitations for workers in factories, shops and establishments. Factory workers should not exceed 8 hours per day or 44 hours per week; workers in shops/establishments are also limited to 8 hours per day but can work up to 48 hours per week.</p> <p>Overtime hours provisions are directed primarily at workers in factories, shops and establishments. Overtime is typically limited to 12 hours per week, although 16-20 hours of overtime may be permissible in some cases for special circumstances or “non-continuous” work.⁴⁴³ Workers paid on a piece-rate basis are entitled to a doubled rate during overtime hours.</p> <p>Entitlement to rest days varies by industry but no worker in Burma should work more than 10 days without a rest day.⁴⁴⁴</p>

Health and Safety	A new occupational health and safety law was passed in 2019, intended to streamline the multiple legal instruments providing guidance on workplace safety issues. The law requires employers to provide adequate protective equipment to workers free of charge. The law also states that no worker shall be dismissed for raising a concern regarding health and safety conditions. ⁴⁴⁵
Contracts and Communication of Terms of Work	All employees are entitled to an employment contract within 30 days or undertaking work that accurately communicates relevant terms of work including (but not limited to): wages/salary (including piece rates), location of work, working hours, rest and leave, and terms for resignation or termination.
Freedom of Association	Workers are entitled to form and join unions, to bargain collectively and to participate in strikes but workers can be subject to demotion or mandatory transfer. Workers seeking to form a new union are not protected. ⁴⁴⁶
Forced Labor and Trafficking in Persons	<p>Forced labor is prohibited by law in Burma except in cases where it is mandated by national emergency or duty (including compulsory military service and humanitarian relief work) or has been assigned as a sentence due to a criminal conviction (prison labor). The Anti-Trafficking in Persons Law specifically prohibits forced labor, slavery, and debt bondage.</p> <p>According to the U.S. Department of State, “penalties differ depending on whether the military, the government, or a private citizen committed the violation. Prosecution of military perpetrators occurs under either the military or penal code. Civilian perpetrators may be subject to administrative action or criminal proceedings under the penal code.”⁴⁴⁷</p>
Child Labor	<p>Children under 14 may not be employed. Children ages 14-18 may only work with a certificate of fitness from a medical practitioner presented to their employer.</p> <p>In addition to the certificate of fitness, employers are required to track any individuals under 18 and keep files detailing names and addresses of the worker and the worker’s parents/caretakers, type of work, shift hours.</p> <p>Employers must keep a register of all workers under the age of 18 in the enterprise that includes: name of worker and names of parents, type of work and group, the employee’s shift, and the number of his/her certificate of fitness.</p> <p>Children are prohibited from hazardous work. With some exception for workers who have received training and supervision, workers under 18 years old may not use dangerous machinery. They are also barred from lifting, carrying, or moving any load heavy enough to cause injury.⁴⁴⁸</p> <p>Hours of work are only explicitly limited for children working in factories, shops, and establishments. Children ages 14-15 in these sectors are barred from working between 6 p.m. and 6 a.m. and may not work more than 4 hours per day (5 hours per day inclusive of breaks.)⁴⁴⁹</p>

Labor Inspection and Enforcement

There were 163 labor inspectors for the national workforce of 22 million in 2018. The ILO recommends employing at least one inspector per 40,000 workers in developing countries, meaning Burma would need to hire 395 additional inspectors to reach this threshold. The U.S. Department of State has noted that “both resources and capacity constrained enforcement” of labor inspections.⁴⁵⁰

Agriculture, the topic of the Kachin State case study, only became part of the labor inspectorate’s mandate in 2019, so at the time of research, labor inspection in the sector was not well established. Forestry is not included among the list of sectors covered by labor inspection, however, although the law allows for notifications to be issued by the government to bring additional sectors under the jurisdiction of MOLIP.⁴⁵¹

Efforts to Combat Trafficking in Persons

According to the U.S. Department of State’s Trafficking in Persons report, Burma continues to carry a Tier 3 ranking, meaning that the country “does not fully meet the minimum standards for the elimination of trafficking and is not making significant efforts to do so.” The Burma Police Force’s Anti-Trafficking in Persons Division (ATIPD) is the primary agency responsible for monitoring and preventing trafficking in persons, including trafficking in persons for labor, via 32 regional task forces interspersed throughout the country and 490 officers.⁴⁵² Most of the trafficking in persons cases brought by the ATIPD relate to the forced marriages of Kachin ethnic women to Chinese men, in which women are deceived to travel to China by promises of employment, only to face forced labor and sexual exploitation.⁴⁵³

Efforts to Combat Child Labor

In assessing the government of Burma’s efforts to addressing worst forms of child labor, the U.S. Department of Labor (USDOL) noted that progress has been made but that some government officials are complicit in the recruitment of child soldiers. The ATIPD oversees child protection within its broader trafficking in persons mandate. The Department of Social Welfare, Relief and Resettlement investigates cases of particularly vulnerable children, and provides welfare services for child victims of trafficking as well as children affected by the conflict. Child labor is included in labor inspection training and protocols.⁴⁵⁴

The ILO has noted that law enforcement to tackle child labor is “very weak” and made more difficult due to the lack of awareness on laws related to child labor, the absence of sufficient monitoring mechanisms, and corruption, as well as the scale of children working in the informal economy.⁴⁵⁵ One positive trend in addressing child labor in Burma is the 2018 Child Rights Law and the accompanying ratification of the ILO’s Minimum Age Convention 138, which defines anyone under age 18 as “children,” forbids children from performing hazardous labor, and sets the minimum age of employment at 14.⁴⁵⁶

Annex 2: Government and International Initiatives Related to Forests, Environmental Degradation and Climate

European Union Forest Law Enforcement, Governance, and Trade (FLEGT)

The European Union Forest Law Enforcement, Governance, and Trade (FLEGT) Action Plan is multifaceted, setting out measures to prevent the import of illegal timber into the EU, improve the supply of legal timber, and increase the demand for timber from responsibly managed forests. The Plan's provisions include both demand-side and supply-side instruments, with mechanisms to support production and sale of legal timber as well as measures to reduce the consumption of illegal timber. The centerpiece of the Action Plan is the implementation of Voluntary Partnership Agreements (VPAs), and sector transparency is a key objective. VPAs, bilateral trade agreements between timber-producing countries and the EU, support improved governance in the forest sector of producer countries while providing a mechanism to ensure legality of products entering the EU market to meet compliance with the EU Timber Regulation (EUTR).⁴⁵⁷

Burma joined the EU FLEGT program in 2014 and began the preparation stage officially in 2015. The purpose of this phase is to prepare and establish strong foundations for a successful negotiation should the country and the EU decide to negotiate a VPA. A FLEGT task force is currently operational and is transitioning into becoming a multi-stakeholder group (MSG), and a negotiation roadmap has been developed. Developing the Timber Legality Assurance System (TLAS) in the country has also begun, as well as the mapping of the chain of custody for the country's timber. The task force is also investigating needs for institutional reform.⁴⁵⁸ In 2019, however, funding for EU FLEGT was abruptly halted in Burma.⁴⁵⁹

The initial scope and directives of EU FLEGT do not explicitly discuss protection for workers or labor conditions as a priority or concern. However, EU FLEGT has pointed to a pathway for member countries to incorporate labor protections as part of developing their respective TLAS. According to EU FLEGT, if stakeholders in Burma should point to labor protections as important for incorporating into Burma's VPA and its legality definition during program development, the final TLAS could include labor protections as part of the final system. In Vietnam, the country's labor code has been integrated into the country's definition of legal timber, which is verified by an independent evaluator.⁴⁶⁰ In Cameroon, increased capacity for the country's Ministry of Labor and Social Security, the country's labor protection enforcement body, has been actively incorporated into the country's process for verifying compliance with labor code, which is also a part of the VPA definition of legal timber.⁴⁶¹

European Union Trade Regulation (EUTR)

Certification of timber legality is taken a step further in the European Union, as the EU FLEGT Action Plan created and implemented the European Union Timber Regulation (EUTR) beginning in 2010.

The EUTR prohibits EU operators from placing illegal timber in the EU market, with timber legality being defined as timber produced in compliance with the laws of the country where it is harvested.⁴⁶² This includes the harvesting country's labor laws.⁴⁶³ Indeed, this program has already aided the identification of illegal timber from Burma several times, forcing several countries to purge Burmese timber from their supply chains.⁴⁶⁴

Forest Certification

The Myanmar Forest Certification Committee (MFCC) is a Burma-based apolitical nonprofit organization created by a Ministry of Forestry decree.⁴⁶⁵ In 2013, the MFCC began developing the Myanmar Timber Legality Assurance System (MTLAS), based on the ASEAN Criteria and Indicators for Legality of Timber (ASEAN C&I). When complete, it will be a multifaceted tool to monitor timber from the beginning of the supply chain to the end. Its dedication to transparency is intended to result in supply chain control, product legality assurance, and stakeholder engagement in standards, governance, and assurance throughout the supply chain. MFCC's goals in this undertaking are not only to ensure sustainable forestry yield in Burma, but also in an effort to work on ultimately complying with the regulatory standards in European Union and U.S. markets.

In 2016, supported by the FAO, the MFCC commissioned a multi-stakeholder, participatory gap analysis of the current MTLAS in an effort to aid in the development of the ongoing EU FLEGT VPA TLAS development.⁴⁶⁶ The report found that stakeholder engagement with the MFCC's MTLAS development process remained low, and as civil society stakeholders are the entities most likely to voice concerns about labor protections and insist on their inclusion into MTLAS, their absence does not bode well for such inclusion in the final VPA TLAS.⁴⁶⁷ However, the gap analysis showed that incorporation of labor standards should have been included in MTLAS, (and ultimately should be included as part of the VPA's legality definition), as social considerations like employee health and safety were included in the general definition of "legal harvest" as per ASEAN C&I.⁴⁶⁸

Burma does not currently have any internationally recognized forest certification standard, but the MFCC is working on developing a national standard, which it has said will include independent certification bodies. The MFCC is also working with the Programme for the Endorsement of Forest Certification Schemes (PEFC) on a joint venture to improve its forest governance practices,⁴⁶⁹ as well as seeking PEFC membership,⁴⁷⁰ which entails PEFC endorsement of its national policies. To obtain PEFC endorsement, MFCC's national certification system will need to submit to a comprehensive and rigorous assessment process, including independent evaluation and public consultation.⁴⁷¹ In terms of labor standards, the PEFC incorporated all eight ILO conventions into its guidelines on standard setting in 2001. The current iteration of PEFC standard setting guidelines states that an organization like MFCC will need to comply with "applicable local, national and international legislation...on labor and safety issues" in order to receive a PEFC endorsement on its forest certification standard.⁴⁷² It does not appear that Burma or the MFCC are seeking certification or input from the Forest Stewardship Council (FSC), and instead has decided a partnership with and seeking certification under the PEFC is preferential.⁴⁷³

Labor Protections in Timber Certification

Burma's timber sector is subject to multiple certification schemes, each at a different stage of implementation. Table 9 is meant to facilitate a better understanding of the different certification schemes' implications for labor protections in Burma, as well as outline the entity responsible for enforcement of the labor protections implicated.

TABLE 9: LABOR PROTECTIONS IMPLICATED BY CERTIFICATIONS RELEVANT TO BURMA

Certification	Labor Protections Implicated	Enforcement
EU FLEGT	To become an EU FLEGT member, countries must develop a Voluntary Partnership Agreement (VPA). As part of this VPA, a timber legality definition specific to the country will be developed. It is within this timber legality definition that countries have the opportunity to include labor protections, deciding what timber is considered legal based on upholding these protections. A country's legality definition emerges from multi-stakeholder discussion early in the VPA development process, largely as a result of the efforts of stakeholders like civil society organizations. ⁴⁷⁴	Responsibility for enforcement of labor standards will be determined by whatever is decided upon during the VPA development process.
MTLAS	<p>The current MTLAS is based on ASEAN C&I. In terms of specifics on labor, ASEAN C&I requires:</p> <p>“Criterion 4: The Forest Management Enterprise fulfils the requirements of relevant social laws and regulations.</p> <p>The FME shall demonstrate compliance with relevant laws and regulations relating to the social obligations of a forest management operation.</p> <p>Indicator 4.1: The FME fully observes the use rights of local communities in accordance with relevant laws and regulations.</p> <p>Indicator 4.2: The FME complies with the relevant laws and regulations on employees' and workers' occupational health and safety requirements.”⁴⁷⁵</p>	As per the ASEAN C&I, the entity responsible for enforcement is within the member country's jurisdiction and is delegated with the responsibility by the member country. The MFCC has designated four third-party certification bodies to ensure continued compliance. ⁴⁷⁶

PEFC	<p>In terms of labor standards, the PEFC incorporated all eight ILO conventions into its guidelines on standard setting in 2001.</p> <p>The current iteration of PEFC standard setting guidelines states that an organization like the MFCC will need to comply with “applicable local, national and international legislation...on labor and safety issues” in order to receive a PEFC endorsement on its forest certification standard.⁴⁷⁷ As such, to meet these standards, Burma will not only have to follow its own labor standards, but ensure compliance with all eight ILO Conventions on labor as well.</p>	Member countries are responsibly for regular internal audits, and will also be subjected annually to audits conducted by independently accredited third-party certification bodies. ⁴⁷⁸
EUTR	<p>Created and implemented as part of the EU FLEGT Action Plan. It prohibits EU operators from placing illegal timber in the EU market, with timber legality being defined as timber produced in compliance with the laws of the country where it is harvested.⁴⁷⁹ This includes the harvesting country’s labor laws.⁴⁸⁰</p> <p>This program has already aided the identification of illegal timber from Burma several times, forcing several countries to purge Burmese timber from their supply chains.⁴⁸¹</p>	Each EU Member State is responsible for implementing and enforcing the EUTR at the national level. The European Commission monitors each country’s enforcement. Member States determine and enforce penalties on violating states. ⁴⁸²

Burma Climate Change Strategy and Action Plan

The Burma Climate Change Strategy and Action Plan (MCCSAP) (2016-2030), and its Intended Nationally Determined Contribution (INDC), established in 2017, detail the country’s comprehensive plans for addressing climate change. The goals of the MCCSAP and the NDC is to attain climate change resilience while maintaining a low-carbon development pathway that supports inclusive and sustainable growth. The role of forests is critical in both initiatives. The ecosystem services forests provide, including protection from extreme weather and flooding, and the role they play in maintaining healthy water, air, and soil, contribute greatly to Burma’s climate change resilience and potential for adaptation.⁴⁸³

Burma is also part of the REDD and REDD+ programs, and benefits from the involvement of the FAO in its forest management, which further contributes to the country’s potential for climate change resilience.⁴⁸⁴ Burma is currently in the planning stages of REDD+ program implementation. REDD+ programs include the implementation of safeguards derived from the UNFCCC’s Cancun Agreements. These safeguards do not include protections for workers or labor conditions. Most are intended to protect forests and respect for forest governance, but several are geared toward the protection of indigenous people and local communities. REDD+ safeguards also focus on the participation of diverse stakeholders in creating and implementing its programs and determining what is made a

priority. As such, it is possible that civil society or other stakeholders may seek to incorporate labor protections into Burma's REDD+ program, but REDD+ does not itself make labor protections a priority.⁴⁸⁵

Extractive Industries Transparency Initiative (EITI)

The Extractive Industries Transparency Initiative (EITI) was officially launched in 2003, and currently operates in 51 countries around the world. EITI is a global standard of natural resource management aimed at promoting transparency and accountability of management systems. Its goals include strengthening government and company systems, informing public debates, and enhancing trust among stakeholders. The EITI Standard is comprised of requirements a member government must meet in order to apply for and retain its standing within the Initiative. In each implementing country, the country's efforts are supported by a coalition of stakeholders both nationally and internationally, including governments, companies, and civil society organizations. Burma announced its commitment to EITI in 2012 and applied for and was accepted as a candidate country in 2014. Its first EITI report was published in 2019.⁴⁸⁶

Annex 3: Forest Frameworks and Community Forestry Instruction

Forest Frameworks

TABLE 10: FOREST LAND CLASSIFICATIONS IN BURMA AND CORRESPONDING ADMINISTRATIVE BODIES RESPONSIBLE

Permanent Forest Estate Sub-Category ⁴⁸⁷	Description	Overseeing Government Body
Protected Area System	Formal state conservation areas such as national parks and wildlife reserves in which any logging is illegal, although enforcement is inconsistent in practice.	Forest Department (FD), Ministry of Natural Resources and Environmental Conservation (MONREC)
Forest Reserve	Nearly 20 percent of Permanent Forest Estate falls into this category. A Forest Reserve designation permits sustainable commercial logging as well as local use harvesting. Forest Reserve areas may be assigned for agricultural concession development, which in practice also results in timber clearing rather than fully maintaining the protected forest status as described in law.	Forest Department (FD), Ministry of Natural Resources and Environmental Conservation (MONREC)
Protected Public Forest	Protected Public Forest areas appear to have a similar legal profile to Forest Reserve areas. Both permit some degree of commercial logging. According to expert Kevin Woods, Protected Public Forest areas “are intended more for conservation purposes compared to forest reserve areas. PPF tend to be better demarcated on maps and on the ground, so less discrepancy problems are encountered compared to forest reserve lands.” ⁴⁸⁸	Forest Department (FD), Ministry of Natural Resources and Environmental Conservation (MONREC)

Non- Permanent Forest Estate Sub-Category ⁴⁸⁹	Description	Overseeing Government Body
Public Forest/Unclassified	State-controlled forests, typically with some degree of existing deforestation. This designation allows for local subsistence extraction, but not for commercial timber extraction although “these regulations can be overridden with special permission from high-level authorities.” Unclassified forests can also be allocated for agricultural development. ⁴⁹⁰ A 2019 analysis from the International Bank for Development and Reconstruction and the World Bank notes that “unclassified forests outside of the PFE have ambiguous tenure and so are vulnerable to informal extraction and land-use change... [they] are vulnerable to conversion, including through appropriation for agricultural plantations through the VFV Land Law...” ⁴⁹¹	Forest Department (FD), Ministry of Natural Resources and Environmental Conservation (MONREC), Ministry of Agriculture, Livestock and Irrigation (MOALI)
Wasteland (sometimes used to refer to unclassified forested areas)	Wasteland is “without clear delineation on purported use or institutional control.” ⁴⁹² It appears to sometimes be used to refer to land that could otherwise simply be referred to as unclassified. ⁴⁹³ The Master Plan for the Agriculture Sector (2000–2001 to 2030–2031) specifically calls for the conversion of large areas of “wasteland” to be converted to export-oriented agricultural plantations. ⁴⁹⁴	Ministry of Agriculture, Livestock and Irrigation (MOALI)

Burma’s Community Forestry Instruction

While community rights were briefly discussed in Burma’s two main forestry regulations, they were widely expanded with the adoption of the Community Forestry Instruction (CFI) in 1995 and updated with the law’s revision in 2016. The policy gives legal backing for rural communities to manage forests via leasing, with the goal of expanding economic development throughout the country while providing basic needs to local communities and encouraging active participation of rural populations in environmental conservation through reforestation degraded areas. The growth

in popularity of community forestry recognizes the rights of communities to have equitable use of forest adjacent to their villages because of its importance to their livelihoods. However, such a policy remains controversial among ethnic groups, who consider the law's practice of leasing as potentially undermining the existence of customary land tenure claims.

The CFI stipulates that community forestry certificates can be issued to a community forest user group (CFUG) for a 30-year lease. To qualify for a community forestry certificate, a CFUG must commit itself to manage the forest systematically, according to the forest management plan they develop. The Forestry Department (FD) is responsible for supplying supplies and access to markets, while the community reaps benefits including income from the CFUG and access to forest products, as well as a way to diversify its crops and lessen economic vulnerability. As of December 2018, CFUGs were responsible for managing a total of 537,434 acres (217,492 ha).⁴⁹⁵ Timber from CF timber currently makes up only a small portion of overall timber sources, in part due to the fact that CF's were first established relatively recently in 2006.⁴⁹⁶ CF has subsequently not yet been integrated into the MTLAS process.⁴⁹⁷ International institutions have encouraged Burma's burgeoning community forestry sector, with the World Bank seeking to potentially provide a loan of USD 200 million for the FD, which would in part be dedicated to reforestation efforts and include CF initiatives.⁴⁹⁸

Annex 4: Relevant Land Designations in Burma

TABLE 11: RELEVANT LAND DESIGNATIONS AND CORRESPONDING ADMINISTRATIVE BODY RESPONSIBLE

Type of land	Governed by:	Governing Law
Farmland	Farmland Administration Body, Ministry of Agriculture, Livestock and Irrigation (MOALI)	Farmland Act 2012
Forestland (Permanent Forest Estate) Reserved Forests Protected Public Forests Protected areas	Forest Department (FD), Ministry of Natural Resources and Environmental Conservation (MONREC)	Forestry Law 2018
Unclassified Forests	MOALI	Vacant, Fallow and Virgin Land (VFV) Law 2012 + 2018 amendment
Local Community Protected Area	Forest Department (FD), MONREC	Biodiversity Conservation and Protected Areas Law 2018
Vacant, Fallow and Virgin Land (VFV Land)	Central VFV Committee, MOALI	Vacant, Fallow and Virgin Land (VFV) Law 2012 + 2018 amendment
Grazing Land	General Administration Department, Ministry of Home Affairs	Land and Revenue Act 1879

For more detailed analysis, see: Large-Scale Land Acquisitions for Agricultural Development in Myanmar: A Review of Past and Current Processes

Annex 5: A Summary of Forest Legal Reforms in Burma

Forest Legal Reforms in Burma

In conjunction with political reforms in 2012, Burma has instituted a series of forestry reforms and initiatives aimed at stemming the rate of deforestation and bringing forestry practices in line with international standards. The following provides a list of legislation and regulations relevant to forest management.

- The Forest Law (2018): Replaces the 1992 Forestry Law. Comprised of nine objectives for ensuring long-lasting forest management and sustainable development, including providing residents who use traditional management methods a path to official recognition. The law encourages increased commercialization and community forestry by allowing ownership of previously restricted high-value species and more flexible zoning, but also stipulates harsher penalties for violation of the law than the 1992 version.⁴⁹⁹
- Conservation of Biodiversity and Protected Areas Law (2018): Establishes the basis for a much greater role for local communities by recognizing Community Protected Areas (CPAs) as a category of protected area. The law also allows communities to benefit economically from forest activities including ecotourism, development activities, and via a payment program for ecosystem services.⁵⁰⁰
- National Forest Master Plan (NFMP) (2001-2030): Mandates that over 2 million acres of community forests will be established by 2030 in order to shift the commercial market and increase sustainability. There has been a recent scale up of community forest establishment and activity, but the current rate is below NFMP targets.⁵⁰¹
- National Code of Forest Harvesting Practice (2000): Provides guidelines and prescriptions to all stakeholders operating in the forest harvesting industry, with the stated goal of minimally disturbing the surrounding ecosystem during the course of harvesting, thereby maximizing both short- and long-term profit by maintaining forest sustainability.⁵⁰²
- Environmental Conservation Law (ECL) (2012): Law implementing the Myanmar National Environmental Policy, providing the overall legal framework for environmental conservation in the country. This law gives the government the power to “reclaim” an area by designating the particular ecosystem to be in danger of degradation, as well as providing the government blanket powers to carry out the conservation, management, use, and enhancement of forest resources as it sees fit. The law encourages international engagement in the sector, but also tasks the government with monitoring polluting companies and compelling polluters to pay into a government fund.⁵⁰³
- Community Forestry Instructions (CFI) (2016): Revision of the 1995 law of the same name. Encourages community forestry management by allowing for forest that has been traditionally managed by the local community to be designated as Community Forest, and has the stated goal of better serving the local community by addressing basic timber product needs, creating job opportunities and opportunities for income generation, and enhancing and promoting sustainability of environmental services that aid in climate change adaptation and mitigation.⁵⁰⁴
- Myanmar Reforestation and Rehabilitation Program (MRRP) (2017–2026): The law outlines a plan to restore about 32,400-40,500 hectares a year by cultivating nurseries, planting saplings

and replanting trees in reserve areas that have been degraded. It will also accomplish this by establishing a network of community forestry communities, as well as planting and designating numerous state-owned and private plantations. The law also stipulates training courses for forest reserve staff and relevant local residents involved in the projects. Progress will be evaluated after five years and revisions to the plan made based on findings.⁵⁰⁵

For a comprehensive view of Burma's forest- and timber-related legislation, see Myanmar Extractive Industries Transparency Initiative (EITI) report: https://myanmareiti.org/sites/myanmareiti.org/files/publication_docs/myanmar_forestry_eiti_report_2015-16_final_signed.pdf (pg. 45)

Additional non-legislative forest conservation measures have also been taken in recent years, including:

- 2018: A Memorandum of Understanding (MOU) for cooperation in the forestry sector between MONREC and China's State Forestry Administration (SFA) was signed. Discussions on forming a joint working group between the two agencies are ongoing.⁵⁰⁶
- 2016/2017: 10-year logging ban in the Bago Yoma Region was introduced. This region was targeted for a ban because of its high production of teak; a high-value timber species.⁵⁰⁷
- 2016-2017: Temporary logging ban, introduced as part of the National League for Democracy's 100-day plan.⁵⁰⁸
- 2014: Log Export Ban (LEB) introduced. Specifically bans raw log exports, requiring that all log exports be processed within the country. The reasons cited for the ban include slowing down deforestation, protecting old-growth forests, assessing forest reserves and reforming the Forest Department. In addition, the government wanted to promote domestic wood-based industries and production.⁵⁰⁹ In 2019, the government began allowing the export of raw teak from some state- and privately-owned plantations but retains the ban on raw teak from natural forests.⁵¹⁰

Myanmar Timber Enterprise (MTE) Reforms

In addition to legislation, the Burma government and the Myanmar Timber Enterprises (MTE), a state-owned enterprise, have undergone several reforms aimed to increase transparency in the forestry sector. In 2017, the MTE announced that all timber extraction would be conducted directly by the MTE, as such a practice was expected to curb over extraction by enhancing transparency within the sector. Up until 2016, the MTE had previously subcontracted up to 70 percent of extraction responsibilities to subcontractors.⁵¹¹ Many of the 54 approved logging companies⁵¹² have close ties with the government, and are thought in some cases to have secured contracts through bribery of senior military and MTE staff in the past.⁵¹³ Despite this announcement, the MTE has indicated that they will continue to utilize ‘service providers’ to meet significant portions of extraction needs, including for services such as felling, road construction, trucking, and loading/unloading.⁵¹⁴ There is a lack of clarity as to the difference between service providers and subcontractors.⁵¹⁵

The MTE is also seeking to aid the conservation effort by continuing to decrease its annual production targets, announcing in 2017 its lowest target yet of 365,000 tons, significantly lower than annual rates of extraction over the previous decade and less than 44 percent of the AAC set by the Forest Department for the year.⁵¹⁶ In 2017, the MTE’s harvesting capacity was 220,000 tons, or approximately 60 percent of their 365,000 tons target.⁵¹⁷

It remains unclear if bringing all extraction under the purview of the MTE will curb illegal extraction by enhancing transparency within the sector. The MTE’s reliance on subcontractors and service providers contributes to this issue. According to the MTE, the compensation system for service providers will now change from timber allotment to cash.⁵¹⁸ Subcontractors were known to export surplus timber (which they could claim was MTE-approved timber) and would often do so to recoup the losses they would suffer by selling their contracted-for volume of timber to the MTE for the MTE’s fixed price.⁵¹⁹ There is no evidence that suggests the changes to the MTE would preclude subcontractors from continuing to export its surplus timber. In addition, the MTE has a revenue-generating responsibility, making it vulnerable to corrupt practices and political influence. In the past the MTE has used subcontractor hiring as a form of currency exchange among top leaders and influential companies and businessmen, and no evidence suggests the changes in the MTE would preclude this from continuing to occur.⁵²⁰

Annex 6: Requirements of Companies Investing in Agriculture

Company Registration – Treatment of Labor

In some cases, foreign and domestic companies who are investing in the agricultural sector will likely require a Myanmar Investment Commission (MIC) permit in order to do business, as they would meet the criteria for “projects which are likely to cause a large impact on the environment and the local community.”⁵²¹ This would likely be the case for companies involved in the banana plantation sector in Kachin State as demonstrated in the present report. As part of the MIC permit process, the Myanmar Investment Law (MIL) outlines “Responsibilities of Investors,” which stipulates that companies “shall respect and comply with the labor laws [of Burma], among other clauses which pertain to labor.”⁵²² The importance of labor considerations is further implicated in the screening stage of the permit process. To assess a company applying for a permit, the MIC uses a set of criteria that contains several requirements that implicate labor. As per the 2017 Myanmar Investment Rules (MIR), which apply to all investments in Burma, in order to receive a permit, an applying company’s investors, associates, and holding company must be “of good character and business reputation.” (MIR Art. 64(g)). In assessing this, the MIC may consider whether any of these entities has acted in contravention to the laws governing labor or human rights law in Burma and in other countries and can choose to deny a permit based on what they find (MIR Art. 66). Companies must also submit a document which details plans for the social security and welfare of employees during the application process.⁵²³

An additional part of the process is the submission of a project proposal to the Environmental Conservation Department (ECD) to determine the process for assessing the projects’ social and environmental impacts – known as Environmental Impact Assessments (EIAs).

Environmental Impact Assessments (EIAs) – Treatment of Labor

The concept of the Environmental Impact Assessment has become increasingly popular as the recognition for proper planning in the face of manmade environmental degradation and climate change has grown. In general, an EIA is used as a tool to identify and predict the potential impacts of a project on the environment and, increasingly, a project’s impact on community health and wellbeing, as well as the health of workers employed in the project.⁵²⁴ Burma’s formal history with EIAs began in 2012, when the government adopted the Environmental Conservation Law (2012), which included provisions for creating an EIA program. In 2015, Burma adopted the Environmental Impact Assessment (EIA) Procedures (2015). This document establishes the legal framework for environmental assessment and regulation in the country, which includes not only EIA reporting but also the use and regulation of Initial Environmental Examinations (IEEs) and Environmental Management Plans (EMPs). The government then created an EIA Division within the ECD, tasked

with the review and approval of EIAs, IEEs, and EMPs. International organizations have sought to aid the development and capacity-building of Burma's ECD through support for training and the development of more sector-specific guidelines within the country.⁵²⁵ The mining sector, for example, has EIA guidelines specific to their sector.⁵²⁶ Agriculture, however, has not received sector-specific guidelines at the time of writing.

Capacity issues of the ECD include inadequate staffing, inadequate training of existing staff, and poor quality of the documents ECD staff receive from companies seeking an assessment. There currently exists a major backlog of projects for approval as a result of these issues. To combat this issue, the ECD plans to devote more resources to the EIA Division, hiring an additional 19,000 staff across every level of the EIA Division and establishing over 400 additional offices at the district and township levels to increase capacity. It is currently unclear if this will translate directly to more regulation of development in the agribusiness sector. Between the application years of 2011/2012 and 2017/2018, zero companies in the agriculture, livestock, and forestry sectors submitted reports to the ECD for approval.⁵²⁷

As part of the Environmental Conservation Law (2012), agricultural plantations, including banana plantations, greater than 494 acres (200 hectares) but less than 1235 acres (500 hectares) must undergo an Initial Environmental Evaluation (IEE), while plantations over 1235 acres must undergo a full Environmental Impact Assessment (EIA).⁵²⁸ As estimates of banana plantation land acreage range from 60,000 – 142,000 acres and with between 36-40 companies involved in the sector,⁵²⁹ it is very likely that some companies would meet the threshold for the IEE/EIA process. For example, one company noted that they controlled around 16,000 acres of plantation land in Kachin State.⁵³⁰

Kachin-based civil society organizations such as the Land Security and Environmental Conservation Networking Group (LSECNNG) have called for the government to perform EIAs or IEEs in plantation areas.⁵³¹ Despite the high number of companies involved in the banana sector, only one company has registered with the MIC and submitted the paperwork necessary for an EIA approval from the Environmental Conservation Department (ECD) in the sector.⁵³² It is likely that due to the location of plantations on lands controlled by the military and militias, access for the ECD to perform EIA's would likely impede investigations, allowing companies to bypass the process. Additionally, powerful interest groups may discourage the ECD from enforcing legally mandated laws in relation to IEE/EIA in banana plantations.

Social impacts are meant to be included as part of the EIA process. Businesses must show that they conform/will conform not only to the country's environmental laws in these assessments, but also to labor laws, and that potential adverse effects related to occupational safety and health (OSH) have been identified and addressed.⁵³³ After a project is approved, monitoring is conducted by the Pollution Control Division (within ECD), who is responsible in theory for following up on companies handling of OSH and implementation of a Worker Grievance Mechanism system. It is unclear if the Pollution Control Division is currently carrying out these assessments.⁵³⁴

Annex 7: List of Stakeholders Interviewed

TABLE 12: LIST OF STAKEHOLDERS INTERVIEWED FOR REPORT

Number of Experts and Stakeholders Interviewed	Type of Institution / Area of work	Location of interview
2	Local Non-Government Organization (LNGO) – Corporate Social Responsibility	Yangon, Burma
1	INGO (International Non-Government Organization (INGO) – Environmental Conservation	Yangon, Burma
5	INGO – Environmental Conservation	Yangon, Burma
1	INGO- Environmental Conservation	Yangon, Burma
1	LNGO – Environment	Yangon, Burma
1	INGO – Funding Organization	Yangon, Burma
1	INGO – Funding Organization	Yangon, Burma
1	International Finance Institution	Yangon, Burma
1	International Finance Institution	Yangon, Burma
1	Consultant – Resource Governance	Remote
3	INGO – Development	Yangon, Burma
1	Academic – Resource Governance	Remote
1	Academic – Environment and Development	Yangon, Burma
1	INGO – Human Rights	Yangon, Burma
1	LNGO – Human Rights	Yangon, Burma
2	INGO – Migration	Bangkok, Thailand
1	INGO – Migration	Yangon, Burma
1	Trade Union	Yangon, Burma
1	Trade Union	Yangon, Burma
1	LNGO – Land Tenure	Yangon, Burma
1	LNGO – Land Tenure	Yangon, Burma
1	Advisor – EU FLEGT	Yangon, Burma
1	Advisor – Environmental Impact Assessments (EIA)	Remote
1	Advisor – REDD+	Remote
1	LNGO – Land Tenure	Yangon, Burma
1	Labor Lawyer	Yangon, Burma
1	Businessperson	Mandalay, Burma

1	INGO – Labor	Yangon, Burma
1	Labor Activist	Yangon, Burma
1	INGO – Human Rights	Remote
1	INGO – Development	Yangon, Burma
1	INGO – Environment	Yangon, Burma
1	INGO – Transparency	Yangon, Burma
1	INGO – Refugee Resettlement	Yangon, Burma
3	LNGO- Environment	Mandalay, Burma
2	Environmental Activists	Htigyaing, Sagaing Region, Burma
1	Former Politician	Mohnyin, Kachin State, Burma
1	Environmental Activist	Katha, Sagaing Region, Burma
3	LNGO	Myitkyina, Kachin State, Burma
2	LNGO	Myitkyina, Kachin State, Burma
4	LNGO	Myitkyina, Kachin State, Burma
1	LNGO	Myitkyina, Kachin State, Burma
2	LNGO	Waingmaw, Kachin State, Burma
3	LNGO	Waingmaw, Kachin State, Burma
1	Internally Displaced Persons (IDP) camp leader	Kachin State, Burma
1	IDP camp leader	Kachin State, Burma
1	Local community leader	Kachin State, Burma
5	Focus Discussion Group (FDG)- Environmental Activists	Htigyaing, Sagaing Region, Burma
Total experts consulted: 72		
7	FDG - Trade Union members	Myitkyina, Kachin State, Burma
6	FDG- Waingmaw community members	Waingmaw, Kachin State, Burma
3	FDG – Internally Displaced Persons	Kachin State, Burma

Total number of Focus Discussion Group (FDG) community member participants: 16

Total number of experts consulted: 72

Total number of Focus Discussion Group (FDG) community member participants: 16

Total number of workers interviewed – Kachin State banana plantation case study: 18

Total number of workers interviewed – Informal logging case study: 11

Total number of stakeholders interviewed: 117

Endnotes

- 1 The present report will refer to the country as Burma, as per the official name designated by the U.S. Department of State. The official name of the country is the Republic of the Union of Myanmar, or Myanmar.
- 2 *Global Forest Resources Assessment 2015: How are the world's forest changing?* Food and Agriculture Organization, 2015. <http://www.fao.org/3/a-i4793e.pdf>. Accessed 11 November 2019.
- 3 According to the Minimum Wage Law (2013) Notification No. 2/2018, for businesses which employ ten or more employees, the daily minimum wage is MMK 4,800 (USD 3.33) per day. According to the Burma minimum wage of MMK 4,800 per day, even the highest monthly allowance (noted by workers) of MMK 105,000 (USD 72.83) does not meet the national minimum wage. Additionally, the Payment of Wages Law (2016) stipulates that the period of time for receiving a paycheck shall not exceed one month. Therefore, all permanent workers should, at a minimum, receive the equivalent of MMK 4,800 per days worked after each month in order to be compliant Burma labor law. None of the workers interviewed by Verité met this criterion.
- 4 According to the interviews with permanent workers, 10 of 13 workers reported to paying 100 percent of the costs associated with pesticides and herbicides. Two workers reported that the costs for pesticides and herbicides were shared between them and the management at 50 percent each. In every case, the pesticides and herbicides were purchased by the Chinese employer, and workers were unaware of their actual cost and had to accept the rate the employer charged. One interviewee noted that they were aware that a bottle of herbicide cost around MMK 4,500 (USD 3.12) but Chinese employers deducted MMK 6,500 (USD 4.51) per bottle. Only one worker reported that the management bared all of the costs of pesticide and herbicide use costs.
- 5 The typical daily rate for a day laborer is approximately MMK 5000 – 12000 (USD 3.47 – 8.32).
- 6 According to Burma's Leave and Holidays Act (1951), each employee is entitled to one paid rest day per week.
- 7 Jenssen, Thale Solnordal. "Half a million identities." *Relief Web*, 8 Jun 2017. <https://reliefweb.int/report/myanmar/half-million-identities>. Accessed 20 Feb 2020.
- 8 The translator interviewed by Verité did not perform manual labor.
- 9 Under the Pesticides Law (2016), children 16 and under are forbidden from handling pesticides
- 10 *R190- Worst Forms of Child Labour Recommendation, 1999 (No.190)*. NORMLEX, ILO, 1999. https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:R190_. Accessed 25 Feb 2020.
- 11 Win, Thin Lei. "FEATURE: Conflict and powerful companies stoke land disputes in Myanmar's Kachin." *Reuters*, 23 Feb 2016. <https://www.reuters.com/article/myanmar-land/feature-conflict-and-powerful-companies-stoke-land-disputes-in-myanmars-kachin-idUSL8N1622WY>; Khaing, Htun. "Kachin IDPs fear land grab in the villages they once called home." *Frontier Myanmar*, 19 Jan 2018. Accessed 25 Feb 2020.
<https://frontiermyanmar.net/en/kachin-idps-fear-land-grabs-in-the-villages-they-once-called-home.>; Win, Thin Lei. "Land grabs rampant in conflict-ridden Kachin State." *Relief Web*, 23 Feb 2016.
<https://reliefweb.int/report/myanmar/land-grabs-rampant-conflict-ridden-kachin-state>. Accessed 25 Feb 2020.
- 12 Land Security and Environmental Conservation Networking Group (LSECNG). *Green Business Dilemma*. 2019. Myitkyina, Kachin State, Myanmar. Report on file with Verité.
- 13 Focus Discussion Group. November 2019. Waingmaw.
- 14 Jangma, Elizabeth. "Five From China Charged Over Illegal Banana Plantation in Myanmar Protected Forest." *Radio Free Asia*, 20 May 2019. <https://www.rfa.org/english/news/myanmar/five-from-china-charged-over-illegal-banana-plantation-05202019162743.html>. Accessed 20 Feb 2020.
- 15 The incident was never reported by media outlets and could not be corroborated by other interviews conducted by Verité

- 16 Fishbein, Emily. “‘All the fish died’: Kachin communities alarmed at impact of banana plantations.” *Frontier Myanmar*, 22 Mar 2019. <https://frontiermyanmar.net/en/all-the-fish-died-kachin-communities-alarmed-at-impact-of-banana-plantations>. Accessed 25 Feb 2020.
- 17 Fishbein, Emily. “‘All the fish died’: Kachin communities alarmed at impact of banana plantations.” *Frontier Myanmar*, 22 Mar 2019. <https://frontiermyanmar.net/en/all-the-fish-died-kachin-communities-alarmed-at-impact-of-banana-plantations>. Accessed 25 Feb 2020.
- 18 *The 2014 Myanmar Population and Housing Census: Waingmaw Township Report*. The Republic of the Union of Myanmar, Ministry of Labour, Immigration and Population, Department of Population, Oct 2017. https://themimu.info/sites/themimu.info/files/documents/TspProfiles_Census_Waingmaw_2014_ENG.pdf. Accessed 27 Sep 2019.
- 19 Nyein, Nyein. “Chinese-Backed Banana Plantations in Myanmar’s Kachin State Prompt Fear of Environmental Damage, Land Loss.” *The Irrawaddy*, 4 Dec 2019. <https://www.irrawaddy.com/features/chinese-backed-banana-plantations-myanmars-kachin-state-prompt-fear-environmental-damage-land-loss.html>. Accessed 25 Feb 2020.
- 20 Springate-Baginski et al. “Working together for a better Kachin landscape.” *The Water Security Research Centre, School of International Development, University of East Anglia*, Dec 2016. <https://wle-mekong.cgiar.org/wp-content/uploads/Working-Together-Kachin-summary-paper.pdf>. Accessed 25 Sep 2019.
- 21 Interviews with Kachin-based civil society representatives. November 2019. Myitkyina (2) and Waingmaw (1). Focus Discussion Group. November 2019. Waingmaw.
- 22 Interviews with Kachin-based civil society representatives. November 2019. Myitkyina (2) and Waingmaw (1).
- 23 *R190- Worst Forms of Child Labour Recommendation, 1999 (No.190)*. NORMLEX, ILO, 1999. https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:R190. Accessed 25 Feb 2020.
- 24 Interviews with environmental activists from Katha, Kawlin, and Htigyaing Townships. November 2018. Interview Location: Htigyaing and Katha.
- 25 Interviews with environmental activists from Katha, Kawlin, and Htigyaing Townships. November 2018. Interview Location: Htigyaing and Katha.
- 26 Interviews with environmental activists from Katha, Kawlin, and Htigyaing Townships. November 2018. Interview Location: Htigyaing and Katha.

- 27 See for example: The Rise of Environmental Crime. UNEP and Interpol, 2016. http://unep.org/documents/itw/environmental_crimes.pdf; Mujica, Jaris. Precariedad y Trabajo Forzoso en la Extracción de Madera. ILO and Ministerio de Trabajo y Promoción del Empleo, 2015. http://www.ilo.org/wcmsp5/groups/public/---americas/---ro-lima/documents/publication/wcms_427032.pdf; The Intersection Between Environmental Degradation and Human Trafficking. U.S. Department of State, June 2014. <https://2009-2017.state.gov/documents/organization/228266.pdf>; and The Nexus of Illegal Gold Mining and Human Trafficking in Global Supply Chains. Verité, 2016. https://www.verite.org/wp-content/uploads/2016/11/Verite-Report-Illegal_Gold_Mining-2.pdf. Accessed 25 Feb 2020.
- 28 See: Mozambique Case Studies: Illicit Harvesting of *Pterocarpus Tinctorius* in Tete Province and Road Construction in Niassa Province
- 29 “Annex II: The definition of trafficking in persons and mandate for the Global Report.” United Nations Office on Drugs and Crime (UNODC), 2016. https://www.unodc.org/documents/data-and-analysis/glotip/Annex_II_-_Definition_and_mandate.pdf. Accessed 20 Feb 2020.
- 30 “CO29- Forced Labour Convention, 1930 (No. 29).” NORMLEX, International Labour Organization (ILO), 1930. https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:CO29. Accessed 20 Feb 2020.
- 31 Guidelines Concerning the Measurement of Forced Labour. International Labour Office, Department of Statistics. 20th International Conference of Labour Statisticians, Geneva, Oct 2018. https://www.ilo.org/wcmsp5/groups/public/---dgreports/-stat/documents/meetingdocument/wcms_648619.pdf. Accessed 25 Feb 2020.
- 32 Hard to See, Harder to Count- Survey guidelines to estimate forced labour of adults and children. International Labour Organization, 1 Jun 2012. http://ilo.org/global/topics/forced-labour/publications/WCMS_182096/lang--en/index.htm Accessed 25 Feb 2020.
- 33 “CO29- Forced Labour Convention, 1930 (No. 29).” NORMLEX, International Labour Organization (ILO), 1930. https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:CO29. Accessed 25 Feb 2020.
- 34 These indicator lists are not intended to be exhaustive or inflexible. The Guidelines Concerning the measurement of forced labour notes that the individually listed indicators are provided inter alia. That is, the indicator list should not be considered exhaustive and leaves open the possibility that additional indicators might create involuntary work or menace of penalty in different contexts. The International Labour Organization (ILO) has also described, in previous guidance documents on conducting forced labor research such as Hard to see, harder to count (2012), the importance of creating local definitions for indicators.
- 35 Hard to See, Harder to Count- Survey guidelines to estimate forced labour of adults and children. International Labour Organization, 1 Jun 2012. http://ilo.org/global/topics/forced-labour/publications/WCMS_182096/lang--en/index.htm
- 36 “Myanmar”. Freedom in the World, 2019. <https://freedomhouse.org/report/freedom-world/2019/myanmar>. Accessed 11 Feb 2020.
- 37 “AAPP’s Monthly Chronology of December 2019 and Current Political Prisoners List”. Assistance Association for Political Prisoners (AAPP), 14 Jan 2020, <https://aappb.org/2020/01/aapps-monthly-chronology-of-december-2019-and-current-political-prisoners-list/>. Accessed 11 Feb 2020.;
- Freeman, Joe and Rangoon. “How will Burma Remember its Political Prisoners?” Time, 8 Aug 2016, <https://time.com/4418572/burma-myanmar-political-prisoners/>. Accessed 11 Feb 2020.
- 38 MacDonald, Adam. “The Tatmadaw’s new position in Myanmar politics.” East Asia Forum, 1 May 2013. <http://www.eastasiaforum.org/2013/05/01/the-tatmadaws-new-position-in-myanmar-politics.>; Beehner, Lionel. “State-building, Military Modernization and Cross- border Ethnic Violence in Myanmar.” Journal of Asian Security and International Affairs, 5(1) 1–30, 2018, P. 16. <https://journals.sagepub.com/doi/pdf/10.1177/2347797017748464>.

- 39 MacDonald, Adam. "The Tatmadaw's new position in Myanmar politics." East Asia Forum, 1 May 2013. <http://www.eastasiaforum.org/2013/05/01/the-tatmadaws-new-position-in-myanmar-politics>.
- 40 OHCHR. "The economic interests of the Myanmar military- Independent International Fact-Finding Mission on Myanmar." OHCHR, 16 Sep. 2019, P. 18-20. <https://www.ohchr.org/EN/HRBodies/HRC/MyanmarFFM/Pages/EconomicInterestsMyanmarMilitary.aspx>; United Nations. "Myanmar companies bankroll 'brutal operations' of military, independent UN experts claim in new report." UN News, 5 Aug. 2019. <https://news.un.org/en/story/2019/08/1043701>.
- 41 The government does not count the group self-identifying as 'Rohingya' as one of the country's 135 'National Races', excluding over one million people from citizenship. A citizenship law from 1982 outlines over 135 "national races", many of which are disputed by ethnic groups.
- 42 Sawa, Benjamin Elisha. "Largest Ethnic Groups in Myanmar". World Atlas, 19 Jul 2018. <https://www.worldatlas.com/articles/largest-ethnic-groups-in-myanmar-burma.html>. Accessed 11 Feb 2020.
- 43 Burke, Adam et al. "The Contested Areas of Myanmar: Subnational Conflict, Aid, and Development." The Asia Foundation, 2017. <https://asiafoundation.org/wp-content/uploads/2017/10/ContestedAreasMyanmarReport.pdf>. Accessed 25 Feb 2020.
- 44 Rieffel, Lex. "Peace in Myanmar depends on settling centuries-old ethnic conflicts." Brookings Institute, 20 Mar. 2017. <https://www.brookings.edu/blog/up-front/2017/03/20/peace-in-myanmar-depends-on-settling-centuries-old-ethnic-conflicts/>. Accessed 25 Feb 2020.
- 45 Burke, Adam et al. "The Contested Areas of Myanmar: Subnational Conflict, Aid, and Development." The Asia Foundation, 2017, P. 2. <https://asiafoundation.org/wp-content/uploads/2017/10/ContestedAreasMyanmarReport.pdf>. Accessed 11 Feb 2020.
- 46 "Myanmar Rohingya: What you need to know about the crisis." BBC, 24 April 2018. <https://www.bbc.com/news/world-asia-41566561>. Accessed 3 Oct 2019.
- 47 Burke, Adam et al. "The Contested Areas of Myanmar: Subnational Conflict, Aid, and Development." The Asia Foundation, 2017, P. 1. <https://asiafoundation.org/wp-content/uploads/2017/10/ContestedAreasMyanmarReport.pdf>. Accessed 11 Feb 2020.
- 48 Burke, Adam et al. "The Contested Areas of Myanmar: Subnational Conflict, Aid, and Development." The Asia Foundation, 2017, P. 1. <https://asiafoundation.org/wp-content/uploads/2017/10/ContestedAreasMyanmarReport.pdf>. Accessed 11 Feb 2020.
- 49 Woods, Kevin. "The Conflict Resource Economy and Pathways to Peace in Burma." United States Institute of Peace, Nov. 2018 (144), P. 2. https://www.usip.org/sites/default/files/2018-11/pw_144_the_conflict_resource_economy_and_pathways_to_peace_in_burma.pdf. Accessed 11 Feb 2020.
- 50 Burke, Adam et al. "The Contested Areas of Myanmar: Subnational Conflict, Aid, and Development." The Asia Foundation, 2017, P. 14. <https://asiafoundation.org/wp-content/uploads/2017/10/ContestedAreasMyanmarReport.pdf>. Accessed 11 Feb 2020.
- 51 "MYANMAR: IDP Sites in Kachin State (as of 31 August 2018)." United Nations. United Nations Office for the Coordination of Humanitarian Affairs, Aug 2018, https://reliefweb.int/sites/reliefweb.int/files/resources/MMR_Kachin_IDP_Site_A0_August2018_20180913.pdf. Accessed 20 Feb 2020.
- 52 Interview with Myitkyina-based civil society organization. February 2018. Myitkyina.
- 53 2019 Trafficking in Persons Report: Burma. U.S. Department of State. Office to Monitor and Combat Trafficking in Persons, 20 June 2019. <https://www.state.gov/reports/2019-trafficking-in-persons-report-2/burma/>. Accessed 4 October 2019.
- 54 "Observation (CEACR)- adopted 2018, published 108th ILC session (2019): Worst Forms of Child Labour Convention." International Labour Organization, Committee of Experts on the Application of Conventions and Recommendations, 2019. https://www.ilo.org/dyn/normlex/en/f?p=1000:13100:0::NO:13100:P13100_COMMENT_ID:3956513. Accessed 9 Oct 2019.

- 55 2019 Trafficking in Persons Report: Burma. U.S. Department of State. Office to Monitor and Combat Trafficking in Persons, 20 June 2019. <https://www.state.gov/reports/2019-trafficking-in-persons-report-2/burma/>. Accessed 4 October 2019.
- 56 Brunner, Jake et al. "Logging Burma's Frontier Forests: Resources and the Regime." World Resources Institute, Aug. 1998, P. 5. <http://www.mekonginfo.org/assets/midocs/0003009-environment-logging-burma-s-frontier-forests-resources-and-the-regime.pdf>; Kyi, Maung Khin et al. "A Vision and a Strategy: Economic Development of Burma." Olof Palme International Center, 200, P. 2. <http://www.burmalibrary.org/docs3/Vision-strategy.ocr.pdf>. Accessed 11 Feb 2020.
- 57 Kyi, Maung Khin et al. "A Vision and a Strategy: Economic Development of Burma." Olof Palme International Center, 200, P. 120-122, 134. <http://www.burmalibrary.org/docs3/Vision-strategy.ocr.pdf>. Accessed 11 Feb 2020.
- 58 Rab, Habib. "All Aboard! Policies for shared prosperity in Myanmar." World Bank Group, 16 Feb. 2016, P. 1, 6-7. <http://documents.worldbank.org/curated/en/743511467995899332/pdf/103334-WP-P158050-PUBLIC-AllAboard.pdf>. Accessed 11 Feb 2020.
- 59 Rab, Habib. "All Aboard! Policies for shared prosperity in Myanmar." World Bank Group, 16 Feb. 2016, P. 1, 6-7. <http://documents.worldbank.org/curated/en/743511467995899332/pdf/103334-WP-P158050-PUBLIC-AllAboard.pdf>. Accessed 11 Feb 2020.
- 60 "Trafficking in persons from Cambodia, Lao PDR and Myanmar to Thailand." UNODC, Aug. 2017, P. 103. https://www.unodc.org/documents/southeastasiaandpacific/Publications/2017/Trafficking_in_persons_to_Thailand_report.pdf. Accessed 11 Feb 2020.
- 61 Myanmar labour force, child labour and school to work transition survey. Ministry of Labour, Employment and Social Security and Central Statistical Organization. 2015. p. 11. www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_516117.pdf. Accessed 11 Feb 2020.
- 62 Myanmar labour force, child labour and school to work transition survey. Ministry of Labour, Employment and Social Security and Central Statistical Organization. 2015. p. 10. www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_516117.pdf. Accessed 11 Feb 2020.
- 63 Myanmar labour force, child labour and school to work transition survey. Ministry of Labour, Employment and Social Security and Central Statistical Organization. 2015. p. 18. www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_516117.pdf. Accessed 11 Feb 2020.
- 64 Myanmar labour force, child labour and school to work transition survey. Ministry of Labour, Employment and Social Security and Central Statistical Organization. 2015. p. 20. www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_516117.pdf. Accessed 11 Feb 2020.
- 65 Myanmar labour force, child labour and school to work transition survey. Ministry of Labour, Employment and Social Security and Central Statistical Organization. 2015. p. 20. www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_516117.pdf. Accessed 11 Feb 2020.
- 66 "Country Profiles: Myanmar". ILOSTAT. <https://ilostat.ilo.org/data/country-profiles/>. Accessed 11 Feb 2020.
- 67 The Republic of the Union of Myanmar, Pyidaungsu Hluttaw, The Labour Organization Law. The Republic of the Union of Myanmar, 11 Oct 2011, https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/genericdocument/wcms_185567.pdf. Accessed 11 Feb 2020.
- 68 Myanmar labour force, child labour and school to work transition survey. Ministry of Labour, Employment and Social Security and Central Statistical Organization, 2015, p. 11. www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_516117.pdf. Accessed 11 Feb 2020.
- 69 Myanmar labour force, child labour and school to work transition survey. Ministry of Labour, Employment and Social Security and Central Statistical Organization, 2015, p. 7. www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_516117.pdf. Accessed 11 Feb 2020.
- 70 Myanmar labour force, child labour and school to work transition survey. Ministry of Labour, Employment and Social Security and Central Statistical Organization, 2015, p. 7. URL: www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_516117.pdf.

ro-bangkok/---ilo-yangon/documents/publication/wcms_516117.pdf. Accessed 11 Feb 2020.

71 The 2014 Myanmar Population and Housing Census. The Government of the Republic of the Union of Myanmar. Ministry of Immigration and Population. Department of Population, May 2015. <http://data.unhcr.org/thailand/download.php?id=421>. Accessed 7 Oct 2019.

72 Human Development Report 2018: Human Development for Everyone. United Nations Development Programme, 2018. http://hdr.undp.org/sites/default/files/2018_summary_human_development_statistical_update_en.pdf. Accessed 3 Oct 2019.

73 Part 2: An Analysis of Poverty in Myanmar. The World Bank, Dec 2017. <http://documents.worldbank.org/curated/en/829581512375610375/pdf/121822-REVISED-PovertyReportPartEng.pdf>. Accessed 3 Oct 2019.

74 Part 2: An Analysis of Poverty in Myanmar. The World Bank, Dec 2017. <http://documents.worldbank.org/curated/en/829581512375610375/pdf/121822-REVISED-PovertyReportPartEng.pdf>. Accessed 3 Oct 2019.

75 Myanmar labour force, child labour and school to work transition survey. Ministry of Labour, Employment and Social Security and Central Statistical Organization, 2015, p. 7. URL: www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_516117.pdf. Accessed 25 Feb 2020.

76 Myanmar labour force, child labour and school to work transition survey. Ministry of Labour, Employment and Social Security and Central Statistical Organization. 2015, p. 9. URL: www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_516117.pdf. Accessed 25 Feb 2020.

77 Part 2: An Analysis of Poverty in Myanmar. The World Bank, Dec 2017. <http://documents.worldbank.org/curated/en/829581512375610375/pdf/121822-REVISED-PovertyReportPartEng.pdf>. Accessed 3 Oct 2019.

78 Part 2: An Analysis of Poverty in Myanmar. The World Bank, Dec 2017. <http://documents.worldbank.org/curated/en/829581512375610375/pdf/121822-REVISED-PovertyReportPartEng.pdf>. Accessed 3 Oct 2019.

79 Part 2: An Analysis of Poverty in Myanmar. The World Bank, Dec 2017. <http://documents.worldbank.org/curated/en/829581512375610375/pdf/121822-REVISED-PovertyReportPartEng.pdf>. Accessed 3 Oct 2019.

80 Myanmar: Ending poverty and boosting shared prosperity in a time of transition. The World Bank, Nov 2014. https://www.worldbank.org/content/dam/Worldbank/document/EAP/Myanmar/WBG_SCD_Full_Report_English.pdf. Accessed 3 Oct 2019.

81 Part 2: An Analysis of Poverty in Myanmar. The World Bank, Dec 2017. <http://documents.worldbank.org/curated/en/829581512375610375/pdf/121822-REVISED-PovertyReportPartEng.pdf>. Accessed 3 Oct 2019.

82 Part 2: An Analysis of Poverty in Myanmar. The World Bank, Dec 2017. <http://documents.worldbank.org/curated/en/829581512375610375/pdf/121822-REVISED-PovertyReportPartEng.pdf>. Accessed 3 Oct 2019.

83 Delivering Prosperity in Myanmar's Dry Zone: Lessons from Mandalay and Magwe on Realizing the Economic of Small-scale Farmers. Oxfam, 28 Aug 2014.

https://www-cdn.oxfam.org/s3fs-public/file_attachments/bp-myanmar-dryzone-smallscale-farmers-280814-en.pdf
Accessed 25 Feb 2020.

84 Part 2: An Analysis of Poverty in Myanmar. The World Bank, Dec 2017. <http://documents.worldbank.org/curated/en/829581512375610375/pdf/121822-REVISED-PovertyReportPartEng.pdf>. Accessed 3 Oct 2019.

85 Agricultural Sub-Sector Child Labour Surveys. International Labour Organization, 2016. https://www.ilo.org/ipec/Informationresources/WCMS_IPEC_PUB_29335/lang--en/index.htm. Accessed 9 Oct 2019.

86 "Primary completion rate, total (% of relevant age group". UNESCO Institute of Statistics, 2017. <https://data.worldbank.org/indicator/SE.PRM.CMPT.ZS>. Accessed 10 Oct 2019.

87 Middle school refers to standards 6-8, secondary school refers to standards 9-10

88 Knowledge, attitudes and practices (KAP) study on child labour in Yangon, Ayeyarwady Region and Mon State. International Labour Organization, 26 Jan 2016. https://www.ilo.org/ipec/Informationresources/WCMS_IPEC_PUB_27675/lang--en/index.htm. Accessed 10 Oct 2019.

- 89 The 2014 Myanmar Population and Housing Census: Policy Brief on Migration and Urbanization. The Government of the Republic of the Union of Myanmar, Ministry of Immigration and Population, Department of Population, May 2015. <http://data.unhcr.org/thailand/download.php?id=421>. Accessed 7 Oct 2019.
- 90 Internal Labour Migration in Myanmar. International Labour Organization, 2015. https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_440076.pdf. Accessed 26 Sept 2019.
- 91 The 2014 Myanmar Population and Housing Census: Policy Brief on Migration and Urbanization. The Government of the Republic of the Union of Myanmar, Ministry of Immigration and Population, Department of Population, May 2015. <http://data.unhcr.org/thailand/download.php?id=421>. Accessed 7 Oct 2019.
- 92 “Labour Migration in Myanmar.” International Labour Organization. <https://www.ilo.org/yangon/areas/labour-migration/lang--en/index.htm> Accessed 25 Feb 2020.
- 93 The 2014 Myanmar Population and Housing Census: Policy Brief on Migration and Urbanization. The Government of the Republic of the Union of Myanmar, Ministry of Immigration and Population, Department of Population, May 2015. <http://data.unhcr.org/thailand/download.php?id=421>. Accessed 7 Oct 2019.
- Internal Labour Migration in Myanmar. International Labour Organization, 2015. https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_440076.pdf. Accessed 26 Sep 2019.
- 94 Internal Labour Migration in Myanmar. International Labour Organization, 2015. https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_440076.pdf. Accessed 26 Sep 2019.
- 95 Overview of Internal Migration in Myanmar. UNESCO. <https://bangkok.unesco.org/sites/default/files/assets/article/Social%20and%20Human%20Sciences/publications/myanmar.pdf>. Accessed 27 Sept 2019.
- 96 Internal Labour Migration in Myanmar. International Labour Organization, 2015. https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_440076.pdf. Accessed 26 Sep 2019.
- 97 Internal Labour Migration in Myanmar. International Labour Organization, 2015. https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_440076.pdf. Accessed 26 Sep 2019.
- 98 Overview of Internal Migration in Myanmar. UNESCO. <https://bangkok.unesco.org/sites/default/files/assets/article/Social%20and%20Human%20Sciences/publications/myanmar.pdf>. Accessed 27 Sept 2019.
- 99 The period in which a person must have resided at their current usual place of residence in order for that place to be considered as their usual place of residence was a minimum of six months in the previous 12 months, or if they had lived there for less than six months they must have intended to reside there for a period exceeding six months (Department of Population, 2014).
- 100 The 2014 Myanmar Population and Housing Census: Thematic Report on Migration and Urbanization. The Republic of the Union of Myanmar, Ministry of Labour, Immigration and Population, Department of Population, Dec 2016. https://reliefweb.int/sites/reliefweb.int/files/resources/Migration_insidedpages_FINAL_lowrespreview.pdf. Accessed 27 Sep 2019.
- 101 Internal Labour Migration in Myanmar. International Labour Organization, 2015. https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_440076.pdf. Accessed 26 Sep 2019.
- 102 Internal Labour Migration in Myanmar. International Labour Organization, 2015. https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_440076.pdf. Accessed 26 Sep 2019.
- 103 Internal Labour Migration in Myanmar. International Labour Organization, 2015. https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_440076.pdf. Accessed 26 Sep 2019..

- 104 Internal Labour Migration in Myanmar. International Labour Organization, 2015. https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_440076.pdf. Accessed 26 Sep 2019.
- 105 2018 Findings on the Worst Forms of Child Labor: Burma. U.S. Department of Labor, Bureau of International Labor Affairs, 2019. <https://www.dol.gov/agencies/ilab/resources/reports/child-labor/burma>. Accessed 9 Oct 2019.
- 106 2018 Findings on the Worst Forms of Child Labor: Burma. U.S. Department of Labor, Bureau of International Labor Affairs, 2019. <https://www.dol.gov/agencies/ilab/resources/reports/child-labor/burma>. Accessed 9 Oct 2019.
- “Surviving in Shadow: Widespread Militarization and the Systemic Use of Forced Labour in the Campaign for Control of Thaton District.” Karen Human Rights Group, 17 Jan 2006. <https://khrgh.org/2006/01/khrgh0601j/surviving-shadow-widespread-militarization-and-systematic-use-forced-labour>. Accessed 20 Feb 2020.
- 107 2019 Trafficking in Persons Report: Burma. U.S. Department of State, Office to Monitor and Combat Trafficking in Persons, 20 Jun 2019. <https://www.state.gov/reports/2019-trafficking-in-persons-report-2/burma/>. Accessed 4 Oct 2019.
- 108 2018 Findings on the Worst Forms of Child Labor: Burma. U.S. Department of Labor, Bureau of International Labor Affairs, 2019. <https://www.dol.gov/agencies/ilab/resources/reports/child-labor/burma>. Accessed 9 Oct 2019.
- 109 “Artisanal jade mining in Myanmar.” International Growth Centre, 28 Jul 2017. <https://www.theigc.org/project/artisanal-jade-mining-myanmar/>. Accessed 18 Oct 2019.
- 110 Internal Labour Migration in Myanmar. International Labour Organization, 2015. https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_440076.pdf. Accessed 26 Sep 2019..
- 111 . Report on Child Labour in Myanmar. The Government of the Republic of the Union of Myanmar, Ministry of Labour, Immigration and Population, Department of Labour, 2015. http://www.mol.gov.mm/mm/wp-content/uploads/downloads/2017/02/MMR-CL-Child-labour-in-Myanmar-IB-edit-final-version_21.11.2.pdf Accessed 3 Oct 2019.
- 112 The Government of the Republic of the Union of Myanmar. Ministry of Labour, Immigration and Population. Department of Labour. Report on Child Labour in Myanmar. 2015. http://www.mol.gov.mm/mm/wp-content/uploads/downloads/2017/02/MMR-CL-Child-labour-in-Myanmar-IB-edit-final-version_21.11.2.pdf Accessed 3 October 2019.
- 113 2018 Findings on the Worst Forms of Child Labor: Burma. U.S. Department of Labor, Bureau of International Labor Affairs, 2019. <https://www.dol.gov/agencies/ilab/resources/reports/child-labor/burma>. Accessed 9 Oct 2019.
- 114 2018 Findings on the Worst Forms of Child Labor: Burma. U.S. Department of Labor, Bureau of International Labor Affairs, 2019. <https://www.dol.gov/agencies/ilab/resources/reports/child-labor/burma>. Accessed 9 Oct 2019.
- 115 Report on Child Labour in Myanmar. The Government of the Republic of the Union of Myanmar, Ministry of Labour, Immigration and Population, Department of Labour, 2015. http://www.mol.gov.mm/mm/wp-content/uploads/downloads/2017/02/MMR-CL-Child-labour-in-Myanmar-IB-edit-final-version_21.11.2.pdf Accessed 3 Oct 2019.
- 116 Report on Child Labour in Myanmar. The Government of the Republic of the Union of Myanmar, Ministry of Labour, Immigration and Population, Department of Labour, 2015. http://www.mol.gov.mm/mm/wp-content/uploads/downloads/2017/02/MMR-CL-Child-labour-in-Myanmar-IB-edit-final-version_21.11.2.pdf Accessed 3 Oct 2019.
- 117 2019 Trafficking in Persons Report: Burma. U.S. Department of State, Office to Monitor and Combat Trafficking in Persons, 20 Jun 2019. <https://www.state.gov/reports/2019-trafficking-in-persons-report-2/burma/>. Accessed 4 Oct 2019.
- 118 Internal Labour Migration in Myanmar. International Labour Organization, 2015. https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_440076.pdf. Accessed 26 Sep 2019.
- 119 “Burma- Agriculture.” International Trade Administration, 13 Oct 2019. <https://www.trade.gov/knowledge-product/burma-agriculture>. Accessed 20 Feb 2020.

- 120 "What we do: Landesa in Myanmar." Landesa. <https://www.landesa.org/what-we-do/asia/myanmar/>. Accessed 20 Feb 2020.
- 121 Part 2: An Analysis of Poverty in Myanmar. The World Bank, Dec 2017. <http://documents.worldbank.org/curated/en/829581512375610375/pdf/121822-REVISED-PovertyReportPartEng.pdf>. Accessed 3 Oct 2019.
- 122 Formulation and Operationalization of National Action Plan for Poverty and Rural Development through Agriculture (NAPA). Working Paper 10. Ministry of Agriculture, Livestock and Irrigation, FAO, Jun 2016. <http://www.fao.org/3/a-bl833e.pdf>. Accessed 20 Feb 2020.
- 123 Formulation and Operationalization of National Action Plan for Poverty and Rural Development through Agriculture (NAPA). Working Paper 10. Ministry of Agriculture, Livestock and Irrigation, FAO, Jun 2016. <http://www.fao.org/3/a-bl833e.pdf>. Accessed 20 Feb 2020.
- 124 "Myanmar land ownership could displace millions of farmers." DW, 1 Mar 2019. <https://www.dw.com/en/myanmar-land-ownership-law-could-displace-millions-of-farmers/a-47740259>
- 125 Aguirre, Daniel. "Outdated Laws and an Inadequate Judiciary: A Recipe for Land Related Human Rights Violations and Conflict." Business and Human Rights in Myanmar/Burma, 21 Oct 2015. <https://businesshumanrightsburma.wordpress.com/2015/10/21/outdated-laws-and-an-inadequate-judiciary-a-recipe-for-land-related-human-rights-violations-and-conflict/>. Accessed 17 Jul 2019.; "New land law threatens millions of livelihoods in Myanmar." IWGIA, 28 Nov 2018. <https://www.iwgia.org/en/news/3292-new-land-law-threatens-millions-of-livelihoods-in-myanmar>. Accessed 17 Jul 2019.
- 126 "A Declaration of War on Us: the 2018 VFV Law Amendment and its Impact on Ethnic Nationalities." TNI, 13 Dec 2018. <https://www.tni.org/en/article/a-declaration-of-war-on-us>; "Civil Society Organizations' statement on the vacant, fallow & virgin land management 2018 and related announcement." 346 Civil Society Organizations, 16 Nov 2016. <https://progressivevoicemyanmar.org/2018/11/16/civil-society-organizations-statement-on-the-vacant-fallow-virgin-land-management-2018-and-related-announcement/>. Accessed 12 Feb 2020.
- 127 Formulation and Operationalization of National Action Plan for Poverty and Rural Development through Agriculture (NAPA). Working Paper 10. Ministry of Agriculture, Livestock and Irrigation, FAO, Jun 2016. <http://www.fao.org/3/a-bl833e.pdf>. Accessed 20 Feb 2020.
- 128 Goldberg, Jason. "Nowhere to go: Myanmar farmers under siege from land law." Al Jazeera, 3 Apr 2019. <https://www.aljazeera.com/news/2019/03/myanmar-farmers-siege-land-law-190328003658355.html>. Accessed 25 Feb 2020.
- 129 "Land in Our Hands: securing rights to land." Land in Our Hands, 12 Dec 2018. <https://lioh.org/?p=517> Accessed 25 Feb 2020.
- 130 Destroying People's Lives: the Impact of Land Grabbing on communities in Myanmar. Lands in our Hands Network, 2015. https://www.tni.org/files/article-downloads/lioh_research_report_eng_0.pdf. Accessed 12 Feb 2020.
- 131 "Nothing for Our Land: Impact of land confiscation on farmers in Myanmar." Human Rights Watch, 17 Jul 2018. <https://www.hrw.org/report/2018/07/17/nothing-our-land/impact-land-confiscation-farmers-myanmar>. Accessed 12 Feb 2020.
- 132 Corruption Perceptions Index 2018. Transparency International, 2018. https://www.transparency.org/news/feature/corruption_perceptions_index_2018. Accessed 12 Feb 2020.
- 133 Corruption Perception Index 2019. Transparency International, 2019. <https://www.transparency.org/cpi2019?/news/feature/cpi-2019>. Accessed 12 Feb 2020.
- 134 "Worldwide Governance Indicators." World Bank. <http://info.worldbank.org/governance/wgi/Home/Reports>. Accessed 12 Feb 2020.
- 135 Bribery, Corruption and Bureaucratic Hassle: Evidence from Myanmar. Asia-Pacific Research and Training Network on Trade, Working Paper No. 152, 2015. https://www.unescap.org/sites/default/files/AWP_152.pdf
- 136 People and Corruption: Asia Pacific- Global Corruption Barometer. Transparency International, 7 Mar 2017. https://www.transparency.org/whatwedo/publication/people_and_corruption_asia_pacific_global_corruption_

barometer Accessed 25 Feb 2020.

137 People and Corruption: Asia Pacific- Global Corruption Barometer. Transparency International, 7 Mar 2017. https://www.transparency.org/whatwedo/publication/people_and_corruption_asia_pacific_global_corruption_barometer Accessed 25 Feb 2020.

138 2018 Country Report on Human Rights Practices: Burma. U.S. Dept. of State, 2018. <https://www.state.gov/reports/2018-country-reports-on-human-rights-practices/burma/>. Accessed 12 Feb 2020.

139 “Global Forest Resources Assessment 2015: How are the world’s forest changing?” Food and Agriculture Organization, 2015. <http://www.fao.org/resources/infographics/infographics-details/en/c/325836>. Accessed 12 Feb 2020; Bhagwat, Tejas, and Andrea Hess, Ned Horning, Thiri Khaing, Zaw Min Thein, et al. “Losing a jewel—Rapid declines in Myanmar’s intact forests from 2002-2014.” PLOS One, 12(5): e0176364, 2017. journals.plos.org/plosone/article?id=10.1371/journal.pone.0176364;

“Myanmar.” Conservation International, 2013. themimu.info/sites/themimu.info/files/documents/Snapshot_Env_Deforestation%20in%20Myanmar_Conservation%20International_2011.pdf. Accessed 12 Feb 2020.

140 This report uses the measurement of acres to follow both Burma and USA standard measurements, using conversion rate of 1 hectares = 2.471 acres

141 “Organised Chaos: The Illicit Overland Timber Trade Between Myanmar and China,” Environmental Investigation Agency, 2015. p. 4. content.eia-global.org/assets/2015/09/Organised_Chaos.pdf. Accessed 12 Feb 2020.

142 “Myanmar.” Conservation International, 2013. themimu.info/sites/themimu.info/files/documents/Snapshot_Env_Deforestation%20in%20Myanmar_Conservation%20International_2011.pdf. Accessed 12 Feb 2020.

143 The FAO’s definition is considerably lower, at 40 percent.

144 Bhagwat, Tejas, and Andrea Hess, Ned Horning, Thiri Khaing, Zaw Min Thein, et al. “Losing a jewel—Rapid declines in Myanmar’s intact forests from 2002-2014.” PLOS One, 12(5): e0176364, 2017. journals.plos.org/plosone/article?id=10.1371/journal.pone.0176364. Accessed 25 Feb 2020.

145 “Organised Chaos: The Illicit Overland Timber Trade Between Myanmar and China,” Environmental Investigation Agency, 2015. p. 4. content.eia-global.org/assets/2015/09/Organised_Chaos.pdf. Accessed 12 Feb 2020.

146 “Organised Chaos: The Illicit Overland Timber Trade Between Myanmar and China,” Environmental Investigation Agency, 2015. p. 4. content.eia-global.org/assets/2015/09/Organised_Chaos.pdf. Accessed 12 Feb 2020.

147 “Global Forest Resources Assessment 2010.” FAO, 2010, P. 85. <http://www.fao.org/3/a-i1757e.pdf>. Accessed 25 Feb 2020.

148 Jepsen, Martin Rudbeck. “What Awaits Myanmar’s Uplands Farmers? Lessons Learned from Mainland Southeast Asia.” MDPI: Land, 2 Feb 2019, P. 5. <https://www.mdpi.com/2073-445X/8/2/29/pdf>; Springate-Baginski, Oliver. “Rethinking Swidden Cultivation in Myanmar: Policies for sustainable upland livelihoods and food security.” University of East Anglia, 2013. http://www.burmalibrary.org/docs20/Springate-Baginski-2013-Rethinking_Swidden_Cultivation_in_Myanmar-en-red.pdf. Accessed 25 Feb 2020.

149 Heinemann, Andreas et al. “A global view of shifting cultivation: Recent, current, and future extent.” PLoS ONE, 8 Sep 2017. <https://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0184479&type=printable>. Accessed 25 Feb 2020.

150 Springate-Baginski, Oliver. “Rethinking Swidden Cultivation in Myanmar: Policies for sustainable upland livelihoods and food security.” University of East Anglia, 2013. http://www.burmalibrary.org/docs20/Springate-Baginski-2013-Rethinking_Swidden_Cultivation_in_Myanmar-en-red.pdf; Jepsen, Martin Rudbeck. “What Awaits Myanmar’s Uplands Farmers? Lessons Learned from Mainland Southeast Asia.” MDPI: Land, 2 Feb 2019, P. 6. <https://www.mdpi.com/2073-445X/8/2/29/pdf>.

151 Kissinger, Gabrielle. “Background report for identifying the drivers of deforestation and forest degradation in Myanmar.” UN-REDD Programme, 16 May 2017, P.79. <https://www.unredd.net/documents/redd-papers-and-publications-90/un-redd-publications-1191/un-redd-publications-by-technical-topic/developing-a-national-redd-strategy/16059-background-report-for-identifying-the-drivers-of-deforestation-and-forest-degradation-in-myanmar>.

html?path=redd-papers-and-publications-90/un-redd-publications-1191/un-redd-publications-by-technical-topic/developing-a-national-redd-strategy.; Springate-Baginski, Oliver. "Rethinking Swidden Cultivation in Myanmar: Policies for sustainable upland livelihoods and food security." University of East Anglia, 2013, P. 4. http://www.burmalibrary.org/docs20/Springate-Baginski-2013-Rethinking_Swidden_Cultivation_in_Myanmar-en-red.pdf. Accessed 25 Feb 2020.

152 Springate-Baginski, Oliver. "Rethinking Swidden Cultivation in Myanmar: Policies for sustainable upland livelihoods and food security." University of East Anglia, 2013. http://www.burmalibrary.org/docs20/Springate-Baginski-2013-Rethinking_Swidden_Cultivation_in_Myanmar-en-red.pdf. Accessed 25 Feb 2020.

153 The World Bank. "Myanmar Country Environmental Analysis." The World Bank, 2019, P. 8. <http://documents.worldbank.org/curated/en/907811560180123305/pdf/Myanmar-Country-Environmental-Analysis-Sustainability-Peace-and-Prosperity-Forests-Fisheries-and-Environmental-Management-Forest-Resources-Sector-Report.pdf>.

154 Thandar Soe, Khang and Yeo-Chang, Youn. "Livelihood Dependency on Non-Timber Forest Products: Implications for REDD+." MDPI: Forests, 16 May 2019. <https://www.mdpi.com/1999-4907/10/5/427/pdf>; Feurer, Melanie et al. "Community Forestry for Livelihoods: Benefiting from Myanmar's Mangroves." MDPI: Forests, 17 Mar 2018, P. 10. <https://www.mdpi.com/1999-4907/9/3/150/htm>. Accessed 25 Feb 2020.

155 All MMK to USD conversions were completed on 27 Feb 2020 based on a value of 1 MMK = 0.00069 USD

156 "Third EITI Report For the Fiscal Year 2016/17." Myanmar Extractive Industries Transparency Initiative, Apr 2020, P. 33. https://myanmareiti.org/sites/myanmareiti.org/files/publication_docs/myanmar_forestry_eiti_final_report_2016-17_final_-_signed.pdf.

157 Thandar Soe, Khang and Yeo-Chang, Youn. "Livelihood Dependency on Non-Timber Forest Products: Implications for REDD+." MDPI: Forests, 16 May 2019, P. 1, 3. <https://www.mdpi.com/1999-4907/10/5/427/pdf>. Accessed 25 Feb 2020.

158 Kollert, W., Thuy, L. T., Voan, V. L., Oo, T. S., & Khaing, N. "Forests and trees supporting rural livelihoods: Case studies from Myanmar and Vietnam." Food and Agriculture Organization of the United Nations, Rome, 2017.

159 Thandar Soe, Khang and Yeo-Chang, Youn. "Livelihood Dependency on Non-Timber Forest Products: Implications for REDD+." MDPI: Forests, 16 May 2019. <https://www.mdpi.com/1999-4907/10/5/427/pdf>. Accessed 25 Feb 2020.

160 "Myanmar Statistical Yearbook." Naypyitaw: Ministry of Planning and Economic Development, Central Statistical Organization. 2016, P. 180. www.mmsis.gov.mm/sub_menu/statistics/fileDb.jsp?code_;

"Myanmar Country Environmental Analysis." The World Bank, 2019, P. 10. <http://documents.worldbank.org/curated/en/907811560180123305/pdf/Myanmar-Country-Environmental-Analysis-Sustainability-Peace-and-Prosperity-Forests-Fisheries-and-Environmental-Management-Forest-Resources-Sector-Report.pdf>. Accessed 25 Feb 2020.

"An Analysis of Poverty in Myanmar." MOPF and the World Bank Group, Sep 2017, P. 92. <http://documents.worldbank.org/curated/en/829581512375610375/pdf/121822-REVISED-PovertyReportPartEng.pdf>; Htun, Khin. "Myanmar Forestry Outlook Study." FAO, 2009, P. 10. <http://www.fao.org/3/a-am252e.pdf>. Accessed 25 Feb 2020.

161 Feurer, Melanie et al. "Community Forestry for Livelihoods: Benefiting from Myanmar's Mangroves." MDPI: Forests, 17 Mar 2018, P. 10. <https://www.mdpi.com/1999-4907/9/3/150/htm>.

Emerton, Lucy and Yan Ming Aung. "The Economic Value of Forest Ecosystem Services in Myanmar and Options for Sustainable Financing." International Management Group, Sep 2013, P. 17. http://www.burmalibrary.org/docs22/IMG_2013_Myanmar_forest_valuation_-_full_report.pdf. Accessed 25 Feb 2020.

162 Tint, Kyaw et al. "Community Forestry in Myanmar: Progress & Potentials." Ecosystem Conservation and Community Development Initiative, Aug 2011, P. 10. <http://www.burmalibrary.org/docs13/Community+Forestry+in+Myanmar-op75-red.pdf>. Accessed 25 Feb 2020.

Ministry of Planning and Finance and the World Bank Group. "An Analysis of Poverty in Myanmar." MOPF and the World Bank Group, Sep 2017, P. 46. <http://documents.worldbank.org/curated/en/829581512375610375/pdf/121822->

REVISED-PovertyReportPartEng.pdf. Accessed 25 Feb 2020.

163 Protection of water resources includes reducing surface erosion and sedimentation, filtering water pollutants, regulating water yield and flow, moderating floods, enhancing precipitation (e.g. ‘cloud forests’) and mitigating salinity.

164 This research focuses on those protective functions that have the potential to impact livelihoods or vulnerabilities to labor trafficking.

165 “Protective Functions of Forest Resources.” FAO, 2010, P. 110. <http://www.fao.org/3/i1757e/i1757e06.pdf>. Accessed 25 Feb 2020.

166 “FAO Country Programming Framework for Myanmar, 2017-2022.” FAO, 2019, P. 2. <http://www.fao.org/3/ca3663en/ca3663en.pdf>. Accessed 25 Feb 2020.

167 “Assessing Climate Risk in Myanmar.” World Wildlife Fund, Mar 2017, P. 6. https://reliefweb.int/sites/reliefweb.int/files/resources/climate_risk_assessment_summary_eng.pdf. Accessed 25 Feb 2020.

168 Emerton, Lucy and Yan Ming Aung. “The Economic Value of Forest Ecosystem Services in Myanmar and Options for Sustainable Financing.” International Management Group, Sep 2013, P. 22. http://www.burmalibrary.org/docs22/IMG_2013_Myanmar_forest_valuation_-_full_report.pdf.

169 <http://www.fao.org/3/a-az283e.pdf> Accessed 25 Feb 2020.

170 “Organised Chaos: The Illicit Overland Timber Trade Between Myanmar and China,” Environmental Investigation Agency, 2015. p. 4. content.eia-global.org/assets/2015/09/Organised_Chaos.pdf. Accessed 12 Feb 2020.

171 Bhagwat, Tejas, and Andrea Hess, Ned Horning, Thiri Khaing, Zaw Min Thein, et al. “Losing a jewel—Rapid declines in Myanmar’s intact forests from 2002-2014.” PLOS One, 12(5): e0176364, 2017. journals.plos.org/plosone/article?id=10.1371/journal.pone.0176364.

172 Global Forest Resources Assessment 2015: How are the world’s forest changing? Food and Agriculture Organization, 2015. <http://www.fao.org/3/a-i4793e.pdf>. Accessed 11 Nov 2019.

173 For more information on differing rates related to deforestation, forest cover, intact forests, and degraded forests, see ‘Comparison with existing data sets’ here: Bhagwat, Tejas, and Andrea Hess, Ned Horning, Thiri Khaing, Zaw Min Thein, et al. “Losing a jewel—Rapid declines in Myanmar’s intact forests from 2002-2014.” PLOS One, 12(5): e0176364, 2017. journals.plos.org/plosone/article?id=10.1371/journal.pone.0176364.

174 Bhagwat, Tejas, and Andrea Hess, Ned Horning, Thiri Khaing, Zaw Min Thein, et al. “Losing a jewel—Rapid declines in Myanmar’s intact forests from 2002-2014.” PLOS One, 12(5): e0176364, 2017. journals.plos.org/plosone/article?id=10.1371/journal.pone.0176364. Accessed 25 Feb 2020.

175 Bhagwat, Tejas, and Andrea Hess, Ned Horning, Thiri Khaing, Zaw Min Thein, et al. “Losing a jewel—Rapid declines in Myanmar’s intact forests from 2002-2014.” PLOS One, 12(5): e0176364, 2017. journals.plos.org/plosone/article?id=10.1371/journal.pone.0176364. Accessed 25 Feb 2020.

176 Bhagwat, Tejas, and Andrea Hess, Ned Horning, Thiri Khaing, Zaw Min Thein, et al. “Losing a jewel—Rapid declines in Myanmar’s intact forests from 2002-2014.” PLOS One, 12(5): e0176364, 2017. journals.plos.org/plosone/article?id=10.1371/journal.pone.0176364. Accessed 25 Feb 2020.

177 For more on direct and indirect drivers of deforestation, see: Drivers of deforestation and forest degradation in Myanmar. UN-REDD Programme, Dec 2017. http://www.myanmar-redd.org/wp-content/uploads/2017/10/Myanmar-Drivers-Report-final_Eng-Version.pdf Accessed 25 Feb 2020.

178 Drivers of deforestation and forest degradation in Myanmar. UN-REDD Programme, Dec 2017. http://www.myanmar-redd.org/wp-content/uploads/2017/10/Myanmar-Drivers-Report-final_Eng-Version.pdf Accessed 25 Feb 2020.

179 Mon Myat Su, and Mizoue N, Htun NZ, Kajisa T, Yoshida S. “Factors affecting deforestation and forest degradation in selectively logged production forest: A case study in Myanmar.” Forest Ecology and Management, 267:190–8, 2012. <https://www.sciencedirect.com/science/article/abs/pii/S0378112711007213>.

- 180 Bhagwat, Tejas, and Andrea Hess, Ned Horning, Thiri Khaing, Zaw Min Thein, et al. “Losing a jewel—Rapid declines in Myanmar’s intact forests from 2002-2014.” PLOS One, 12(5): e0176364, 2017. journals.plos.org/plosone/article?id=10.1371/journal.pone.0176364. Accessed 25 Feb 2020.
- 181 Woods, Kevin. Expansion of Agribusiness in Myanmar: Driver of deforestation, conversion timber and land conflicts in Myanmar. Forest Trends, Washington DC, 2015, Pg. 12-13.. https://forest-trends.org/wp-content/uploads/2018/04/Conversion_Timber_in_Myanmar.pdf Accessed 25 Feb 2020.
- 182 For more on the process of large-scale land acquisitions, see Large-Scale Land Acquisitions for Agricultural Development in Myanmar: A Review of Past and Current Processes.
- 183 Bhagwat, Tejas, and Andrea Hess, Ned Horning, Thiri Khaing, Zaw Min Thein, et al. “Losing a jewel—Rapid declines in Myanmar’s intact forests from 2002-2014.” PLOS One, 12(5): e0176364, 2017. journals.plos.org/plosone/article?id=10.1371/journal.pone.0176364. Accessed 25 Feb 2020.
- 184 Moe, Moe. “Myanmar MP’s Vote to Regulate, Tax Chinese-Backed Banana Trade.” The Irrawaddy, 17 Dec 2019. <https://www.irrawaddy.com/news/burma/myanmar-mps-vote-regulate-tax-chinese-backed-banana-trade.html> Accessed 25 Feb 2020.
- 185 For example, in February of 2019, two Kachin-based journalists were detained and assaulted by staff members of a Chinese company involved in banana plantations. According to a report by The Irrawaddy, the company staff were unhappy with an article written by the Myitkyina Journal entitled “Two Chinese companies start tissue-culture banana plantation in Mandaung village tract,” which discussed negative social and environmental impacts of banana plantations.
- “Chinese joint venture assaults two journalists in Kachin: local media.” The Myanmar Times, 26 Feb 2019. <https://www.mmtimes.com/news/chinese-joint-venture-assaults-two-journalists-kachin-local-media.html> Accessed 25 Feb 2020.
- 186 “Chinese joint venture assaults two journalists in Kachin: local media.” The Myanmar Times, 26 Feb 2019. <https://www.mmtimes.com/news/chinese-joint-venture-assaults-two-journalists-kachin-local-media.html> Accessed 25 Feb 2020.
- 187 “Myanmar: Quash Conviction of Kachin Activists.” Human Rights Watch, Dec 2018. <https://www.hrw.org/news/2018/12/08/myanmar-quash-conviction-kachin-activists>. Accessed 25 Feb 2020.
- Fishbein, Emily. Frontier Myanmar. “Kachin activist pair picks jail over fine for street performance.” 3 Sep 2019. <https://frontiermyanmar.net/en/kachin-activist-pair-picks-jail-over-fine-for-street-performance>. Accessed 16 Sep 2019.
- 188 The 2014 Myanmar Population and Housing Census: Kachin State. The Republic of the Union of Myanmar, Ministry of Immigration and Population, May 2015. <https://myanmar.unfpa.org/sites/default/files/pub-pdf/Kachin%20State%20Census%20Report%20-%20ENGLISH.pdf>. Accessed 25 Feb 2020.
- 189 Jade. Global Witness, 2015. <https://www.globalwitness.org/en/campaigns/oil-gas-and-mining/myanmarjade/>. Accessed 6 March 2020.
- 190 “MYANMAR: IDP Sites in Kachin State (as of 31 August 2018).” United Nations Office for the Coordination of Humanitarian Affairs, Aug 2018. https://reliefweb.int/sites/reliefweb.int/files/resources/MMR_Kachin_IDP_Site_AO_August2018_20180913.pdf Accessed 25 Feb 2020.
- 191 “Untold Miseries: Wartime Abuses and Forced Displacement in Burma’s Kachin State.” Human Rights Watch, 2012. <https://www.hrw.org/report/2012/03/20/untold-miseries/wartime-abuses-and-forced-displacement-burmas-kachin-state> Accessed 25 Feb 2020.
- 192 Woods, Kevin. “The Conflict Resource Economy and Pathways to Peace in Burma.” United States Institute of Peace, Nov. 2018 (144). https://www.usip.org/sites/default/files/2018-11/pw_144_the_conflict_resource_economy_and_pathways_to_peace_in_burma.pdf.
- 193 For more information on root causes of the conflict in Kachin State, see:
- Jaquet, Carine. The Kachin Conflict: A Search for Common Narratives. The International Management Group, 2014. https://themimu.info/sites/themimu.info/files/assessment_file_attachments/The_Kachin_Conflict_-_EU_2014.pdf.

- 194 The Republic of the Union of Myanmar. Ministry of Labour, Immigration and Population. Department of Population. The 2014 Myanmar Population and Housing Census: Waingmaw Township Report. October 2017. https://themimu.info/sites/themimu.info/files/documents/TspProfiles_Census_Waingmaw_2014_ENG.pdf. Accessed 27 September 2019.
- 195 Jade. Global Witness, 2015. <https://www.globalwitness.org/jade-story/>; Woods, Kevin. "Ceasefire capitalism: military-private partnerships, resource concessions and military-state building in the Burma-China borderlands." *Journal of Peasant Studies*, 38:4, 2011, P. 749-750. <https://doi.org/10.1080/03066150.2011.607699>;
- 196 Woods, Kevin. "Conflict Timber along the China-Burma Border: Connecting the global timber consumer with violent extraction sites." 2011, P. 966-1009. In: Tagliacozzo E. and Wen-Chin Chang (Eds.). "Ethnic Chinese Merchants and Chinese Capitalism in Southeast Asia: A History through Commodities." Durham: Duke University Press, 2011. <https://www.lindenwood.edu/files/resources/107-109.pdf> Accessed 25 Feb 2020.
- 197 Woods, Kevin. 2011. "Conflict Timber along the China-Burma Border: Connecting the global timber consumer with violent extraction sites." Pp. 966-1009. In: Tagliacozzo, E. and Wen-Chin Chang (Eds.), *Ethnic Chinese Merchants and Chinese Capitalism in Southeast Asia: A History through Commodities*. Durham: Duke University Press, 2011. <https://www.lindenwood.edu/files/resources/107-109.pdf> Accessed 25 Feb 2020.
- 198 Woods, Kevin. "Ceasefire capitalism: military-private partnerships, resource concessions and military-state building in the Burma-China borderlands." *Journal of Peasant Studies*, 38:4, 2011, P. 747-770. <https://doi.org/10.1080/03066150.2011.607699>. Accessed 25 Feb 2020.
- 199 Woods, Kevin. "'China in Burma': A multi-scalar political economy analysis." P. 227-255. In: Tan, D. and P. Nyiri (Eds.), *Chinese encounters in Southeast Asia: How people, money and ideas from China are changing a region*. Seattle: U Washington Press, 2016. Accessed 25 Feb 2020.
- 200 Kramer, T. and K. Woods. *Financing Dispossession: China's opium substitution programme in northern Burma*. Transnational Institute (TNI), Netherlands, 2012.
- 201 Woods, Kevin. "Rubber out of the ashes: Locating Chinese agribusiness investments in 'armed sovereignties' in the Myanmar-China borderlands." *Territory, Politics, Governance*, 7(1), 2019. P. 79-95. Accessed 25 Feb 2020.
- 202 "Guns, Cronies, and Cops." Global Witness, 26 Mar 2015. <https://www.globalwitness.org/en/campaigns/land-deals/guns-cronies-and-cops/>. Accessed 25 Feb 2020.
- 203 Woods, Kevin. *Expansion of Agribusiness in Myanmar: Driver of deforestation, conversion timber and land conflicts in Myanmar*. Forest Trends, Washington DC, 2015. Pg.13. https://forest-trends.org/wp-content/uploads/2018/04/Conversion_Timber_in_Myanmar.pdf Accessed 25 Feb 2020.
- 204 "New land law threatens millions of livelihoods in Myanmar." IWGIA, 28 Nov 2018. <https://www.iwgia.org/en/news/3292-new-land-law-threatens-millions-of-livelihoods-in-myanmar>. Accessed 17 Jul 2019.
- 205 "Most Farmers Do Not Know about the Vacant, Fallow and Virgin Land Management Law as the Grace Period to Register Closes." NAMATI, 2 Apr 2019. [http://www.iwgia.org/images/documents/briefings/VFV%20Survey%20Report\(%20English\).pdf](http://www.iwgia.org/images/documents/briefings/VFV%20Survey%20Report(%20English).pdf). Accessed 17 Jul 2019.
- 206 "Statement on 2018 VFV Law by IDPS from Kachin and Northern Shan State." Progressive Myanmar, 26 Nov 2018. <https://progressivevoicemyanmar.org/2018/11/26/statement-on-2018-vfv-law-by-idps-from-kachin-and-northern-shan-state/>. Accessed 25 Feb 2020.
- 207 Ko Soe, Hein and Dunant, Ben. "Kachin's plantation curse." *Frontier Myanmar*, 17 Jan 2019. <https://frontiermyanmar.net/en/kachins-plantation-curse>. Accessed 31 Jul 2019.
- 208 See: Htun Khaing, "Kachin IDPs fear land grabs in the villages they once called home" *Frontier Myanmar*. 19 January 2018. <https://frontiermyanmar.net/en/kachin-idps-fear-land-grabs-in-the-villages-they-once-called-home>. Accessed 30 October 2019.
- Nyein Nyein. "KIA Objects to Use of Vacant IDP Lands." *The Irrawaddy*. December 2017. <https://www.irrawaddy.com/news/burma/kia-objects-use-vacant-idp-lands.html>. Accessed 30 October 2019.

- 209 Bhagwat, Tejas, and Andrea Hess, Ned Horning, Thiri Khaing, Zaw Min Thein, et al. "Losing a jewel—Rapid declines in Myanmar's intact forests from 2002-2014." PLOS One, 12(5): e0176364, 2017. journals.plos.org/plosone/article?id=10.1371/journal.pone.0176364. Accessed 25 Feb 2020.
 - 210 Bhagwat, Tejas, and Andrea Hess, Ned Horning, Thiri Khaing, Zaw Min Thein, et al. "Losing a jewel—Rapid declines in Myanmar's intact forests from 2002-2014." PLOS One, 12(5): e0176364, 2017. journals.plos.org/plosone/article?id=10.1371/journal.pone.0176364. Accessed 25 Feb 2020.
 - 211 Woods, Kevin. Commercial Agriculture Expansion in Myanmar: Links to Deforestation, Conversion Timber, and Land Conflicts. Forest Trends, Mar 2015. https://forest-trends.org/wp-content/uploads/2018/04/Conversion_Timber_in_Myanmar.pdf. Accessed 25 Feb 2020.
 - 212 Global Forest Resources Assessment 2015. Country Report: Myanmar. FAO, Rome, 2014. <http://www.fao.org/3/a-az283e.pdf> Accessed 25 Feb 2020.
 - 213 Nan Lwin. "Five Chinese Arrested for Trespassing, Illegal Immigration in Kachin." The Irrawaddy. 20 May 2019. <https://www.irrawaddy.com/news/burma/five-chinese-arrested-for-trespassing-illegal-immigration-in-kachin.html>. Accessed 24 Sep 2019.
 - 214 Land Security and Environmental Conservation Networking Group (LSECNG). Green Business Dilemma. 2019. Myitkyina, Kachin State, Myanmar. Report on file with Verité.
 - 215 Nan Lwin. "Infographic: China's Plantation Greed." The Irrawaddy. 8 Mar 2019. <https://www.irrawaddy.com/opinion/analysis/infographic-chinas-plantation-greed.html>. Accessed 24 Sep 2019.
 - 216 Land Security and Environmental Conservation Networking Group (LSECNG). Green Business Dilemma. 2019. Myitkyina, Kachin State, Myanmar. Report on file with Verité.
 - 217 Ko Soe, Hein and Dunant, Ben. "Kachin's plantation curse." Frontier Myanmar, 17 Jan 2019. <https://frontiermyanmar.net/en/kachins-plantation-curse>. Accessed 31 Jul 2019.
 - Nachemson, Andrew and Lun Min Mang, Eaint Thet Su. "The Gambia Comes Out Swinging." Frontier Myanmar, 13 Dec 2019. <https://mailchi.mp/frontiermyanmar.net/the-gambia-comes-out-swinging?e=d9fb76c585>. Accessed 20 Feb 2020.
 - 218 Land Security and Environmental Conservation Networking Group (LSECNG). Green Business Dilemma. 2019. Myitkyina, Kachin State, Myanmar. Report on file with Verité.
 - 219 Interviews with Kachin-based Civil Society Organizations. Feb 2019. Kachin State.
 - 220 Buchanan, John. Militias in Myanmar. The Asia Foundation. P. 15. Jul 2016. <https://asiafoundation.org/wp-content/uploads/2016/07/Militias-in-Myanmar.pdf> Accessed 25 Feb 2020.
- For more information on the organizational structures of Border Guard Forces (BGF) and People's Militia Forces (PMF), see pages 24-28
- 221 "Kachin Farmers Condemn Tissue Culture Banana Plantations." BNI, 8 March 2019. <https://www.bnionline.net/en/news/kachin-farmers-condemn-tissue-culture-banana-plantations>. Accessed 20 Feb 2020.
 - 222 Ko Soe, Hein and Dunant, Ben. "Kachin's plantation curse." Frontier Myanmar. 17 Jan 2019. <https://frontiermyanmar.net/en/kachins-plantation-curse>. Accessed 31 Jul 2019.
 - 223 Moe Myint. "Ex-Ministers, Armed Groups Operate Farms in Kachin's Conflict Areas." The Irrawaddy. 3 Oct 2017. <https://www.irrawaddy.com/features/ex-ministers-armed-groups-operate-farms-kachins-conflict-areas.html>. Accessed 16 Sep 2019.
 - 224 Verité field observation. Waingmaw Township, Kachin State. Mar 2019.
 - 225 Moe Myint. "Ex-Ministers, Armed Groups Operate Farms in Kachin's Conflict Areas." The Irrawaddy. 3 Oct 2017. <https://www.irrawaddy.com/features/ex-ministers-armed-groups-operate-farms-kachins-conflict-areas.html>. Accessed 16 Sep 2019.
 - 226 Interview with Kachin-based civil society representative. March 2019. Myitkyina.
 - 227 Win, Thin Lei. "FEATURE: Conflict and powerful companies stoke land disputes in Myanmar's Kachin."

Reuters, 23 Feb 2016. <https://www.reuters.com/article/myanmar-land/feature-conflict-and-powerful-companies-stoke-land-disputes-in-myanmars-kachin-idUSL8N1622WY>; Khaing, Htun. "Kachin IDPs fear land grab in the villages they once called home." *Frontier Myanmar*, 19 Jan 2018.

<https://frontiermyanmar.net/en/kachin-idps-fear-land-grabs-in-the-villages-they-once-called-home.>; Win, Thin Lei. "Land grabs rampant in conflict-ridden Kachin State." *Relief Web*, 23 Feb 2016.

<https://reliefweb.int/report/myanmar/land-grabs-rampant-conflict-ridden-kachin-state>. Accessed 25 Feb 2020.

228 Ko Soe, Hein and Dunant, Ben. "Kachin's plantation curse." *Frontier Myanmar*. 17 Jan 2019. <https://frontiermyanmar.net/en/kachins-plantation-curse>. Accessed 31 Jul 2019.

229 Ko Soe, Hein and Dunant, Ben. "Kachin's plantation curse." *Frontier Myanmar*. 17 Jan 2019. <https://frontiermyanmar.net/en/kachins-plantation-curse>. Accessed 31 Jul 2019.

230 Nachemson, Andrew and Lun Min Mang, Eaint Thet Su. "The Gambia Comes Out Swinging." *Frontier Myanmar*, 13 Dec 2019. <https://mailchi.mp/frontiermyanmar.net/the-gambia-comes-out-swinging?e=d9fb76c585>. Accessed 20 Feb 2020.

231 Interview with Kachin-based Civil Society Representative. March 2019. Myitkyina.

232 Interview with Kachin-based Civil Society Representative. March 2019. Myitkyina.

233 Nyein, Nyein. "Chinese-Backed Banana Plantations in Myanmar's Kachin State Prompt Fear of Environmental Damage, Land Loss." *The Irrawaddy*, 4 Dec 2019. <https://www.irrawaddy.com/features/chinese-backed-banana-plantations-myanmars-kachin-state-prompt-fear-environmental-damage-land-loss.html>. Accessed 25 Feb 2020.

Verité Field Interview Interview with IDP. March 2019. Maina KBC IDP camp.

234 Ko Soe, Hein and Dunant, Ben. "Kachin's plantation curse." *Frontier Myanmar*, 17 Jan 2019. <https://frontiermyanmar.net/en/kachins-plantation-curse>. Accessed 31 Jul 2019.; "Myanmar land grab fears stoked by new law." *VOA*, 21 Dec 2018. <https://www.voanews.com/east-asia-pacific/myanmar-land-grab-fears-stoked-new-law>. Accessed 25 Feb 2020.; Displaced and Dispossessed. Durable Peace Programme, May 2018. https://d1tn3vj7xz9fdh.cloudfront.net/s3fs-public/file_attachments/bp-displaced-dispossessed-land-myanmar-210518-en.pdf. Accessed 25 Feb 2020.;

Jangma, Elizabeth. "Five From China Charged Over Illegal Banana Plantation in Myanmar Protected Forest." *Radio Free Asia*, 20 May 2019. <https://www.rfa.org/english/news/myanmar/five-from-china-charged-over-illegal-banana-plantation-05202019162743.html>. Accessed 20 Feb 2020.

235 Land Security and Environmental Conservation Networking Group (LSECNG). *Green Business Dilemma*. 2019. Myitkyina, Kachin State, Myanmar. Report on file with Verité.

236 Land Security and Environmental Conservation Networking Group (LSECNG). *Green Business Dilemma*. 2019. Myitkyina, Kachin State, Myanmar. Report on file with Verité.

237 Moe Myint. "Ex-Ministers, Armed Groups Operate Farms in Kachin's Conflict Areas." *The Irrawaddy*. 3 Oct 2017. <https://www.irrawaddy.com/features/ex-ministers-armed-groups-operate-farms-kachins-conflict-areas.html>. Accessed 16 Sep 2019.

238 Displaced and Dispossessed. Durable Peace Programme, May 2018. Pg. 19. https://www-cdn.oxfam.org/s3fs-public/file_attachments/bp-displaced-dispossessed-land-myanmar-210518-en.pdf. Accessed 25 Feb 2020.

239 The 2014 Myanmar Population and Housing Census. The Government of the Republic of the Union of Myanmar, Ministry of Immigration and Population, Department of Population, May 2015. <http://data.unhcr.org/thailand/download.php?id=421>. Accessed 7 Oct 2019.

240 Interview with expert on Kachin State. March 2019. Yangon.

241 "Artisanal jade mining in Myanmar." International Growth Centre. <https://www.theigc.org/project/artisanal-jade-mining-myanmar/>. Accessed 18 Oct 2019.

242 International Labour Organization. *Internal Labour Migration in Myanmar*. 2015. <https://www.ilo.org/>

wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_440076.pdf. Accessed 26 September 2019.

243 Kramer, Tom and Kevin Woods. *Financing Dispossession: China's Opium Substitution Programme in Northern Burma*. Transnational Institute, Amsterdam, 2012. http://www.burmalibrary.org/docs13/tni-financing_dispossession.pdf Accessed 25 Feb 2020.

244 "The Production and Import of the Banana Industry in China in 2019 Shows That There Is a Rising Trend for Domestic Demand for Bananas" Huajingqingbao Wang, 29 Sep 2019. <http://baijiahao.baidu.com/s?id=1645903276196660392&wfr=spider&for=pcor>. Accessed 25 Feb 2020.

"China Is Going Bananas for Bananas as Purchases Surge to Record." Bloomberg, 23 Jul 2019. <https://www.bloomberg.com/professional/blog/china-going-bananas-bananas-purchases-surge-record/>. Accessed 25 Feb 2020.

245 "The Production and Import of the Banana Industry in China in 2019 Shows That There Is a Rising Trend for Domestic Demand for Bananas ." Huajingqingbao Wang, 29 Sep 2019. <http://baijiahao.baidu.com/s?id=1645903276196660392&wfr=spider&for=pcor>. Accessed 25 Feb 2020.

246 "Laos Government Vows to Enforce Ban on Concessions for New Banana Plantations." Radio Free Asia, 14 May 2019. <https://www.rfa.org/english/news/laos/bananas-05142019145031.html> Accessed 25 Feb 2020.

247 "0803- Bananas, including plantains; fresh or dried." UN Comtrade Database, United Nations. <https://comtrade.un.org/data>. Accessed 17 Sep 2019.

248 "0803- Bananas, including plantains; fresh or dried." UN Comtrade Database, United Nations. <https://comtrade.un.org/data>. Accessed 17 Sep 2019.

249 "Border trade ban on KIO hurts Chinese banana investors." BNI, 6 Dec 2010. <https://www.bnionline.net/en/kachin-news-group/item/9889-border-trade-ban-on-kio-hurts-chinese-banana-investors.html> Accessed 25 Feb 2020.

250 "0803- Bananas, including plantains; fresh or dried." UN Comtrade Database, United Nations. <https://comtrade.un.org/data>. Accessed 17 Sep 2019.

251 "Burmese banana imports to China arriving soon." Fresh Plaza, 8 Nov 2019. <https://www.freshplaza.com/article/9161564/burmese-banana-imports-to-china-arriving-soon/> Accessed 25 Feb 2020.

252 "0803- Bananas, including plantains; fresh or dried." UN Comtrade Database, United Nations. <https://comtrade.un.org/data>. Accessed 17 Sep 2019.

253 "Large Banana Supply from Myanmar to China." Fresh Plaza. 25 Mar 2019. <https://www.freshplaza.com/article/9085982/large-banana-supply-from-myanmar-to-china/>

254 Nyein, Nyein. "Chinese-Backed Banana Plantations in Myanmar's Kachin State Prompt Fear of Environmental Damage, Land Loss." The Irrawaddy, 4 Dec 2019. <https://www.irrawaddy.com/features/chinese-backed-banana-plantations-myanmars-kachin-state-prompt-fear-environmental-damage-land-loss.html>. Accessed 25 Feb 2020.

255 Nachemson, Andrew and Lun Min Mang, Eaint Thet Su. "The Gambia Comes Out Swinging." Frontier Myanmar, 13 Dec 2019. <https://mailchi.mp/frontiermyanmar.net/the-gambia-comes-out-swinging?e=d9fb76c585>. Accessed 20 Feb 2020.

256 Using a conservative estimate of each permanent worker being responsible for six acres (based on Verité interviews with workers), combined with minimum estimates by the government of 60,000 acres and maximum estimates from LSECNG of 142,000 acres, the number of permanent workers could fall between 10,000 and 23,666. However, this number does not include the thousands and day laborers and seasonal workers who have been reported to work on banana plantations in differing parts of the year. These estimates have not been validated but do begin to illustrate to volume of workers potentially laboring on these plantations.

257 Interview with Myitkyina-based civil society organization. March 2019. Myitkyina.

258 Nyein, Nyein. "Chinese-Backed Banana Plantations in Myanmar's Kachin State Prompt Fear of Environmental Damage, Land Loss." The Irrawaddy, 4 Dec 2019. <https://www.irrawaddy.com/features/chinese-backed-banana-plantations-myanmars-kachin-state-prompt-fear-environmental-damage-land-loss.html>

banana-plantations-myanmars-kachin-state-prompt-fear-environmental-damage-land-loss.html. Accessed 25 Feb 2020.

259 In interview questionnaires, interviewees were asked to self-identify as a 'migrant' or 'local'.

260 The Kachin ethnic group is represented by several subethnic groups with distinct dialects, including Jinghpaw, Nung (Rawang), Lisu, Atsi, Maru, and Lashi. While some members of these groups consider themselves as part of a multi-ethnic Kachin society, some only identify as part of their specific ethnic group (i.e. Lisu)

261 "MYANMAR: IDP Sites in Kachin State (as of 31 August 2018)." United Nations Office for the Coordination of Humanitarian Affairs, Aug 2018. https://reliefweb.int/sites/reliefweb.int/files/resources/MMR_Kachin_IDP_Site_AO_August2018_20180913.pdf Accessed 25 Feb 2020.

262 For more, see: Kachin and Northern Shan State Context and Vulnerability Review." HARP Facility, Oct 2018. https://themimu.info/sites/themimu.info/files/documents/Report_Context_and_Vulnerability_Review_-_Kachin_N_Shan_HARP_Oct2018.pdf Accessed 25 Feb 2020.

263 Nickerson, James. "The Kachin IDP crisis: Myanmar's other humanitarian disaster." Aljazeera, 2 Dec 2018. <https://www.aljazeera.com/indepth/features/kachin-idp-crisis-myanmar-humanitarian-disaster-181202225600024.html> Accessed 25 Feb 2020.

264 Xiangrui, Lui and Li Yingqing. "On Myanmar border, a city thrives." China Daily, 15 Nov 2018. <https://www.chinadailyhk.com/articles/210/212/177/1542255502093.html>

265 Data from worker interviews demonstrates that the size of land assigned to permanent workers can vary widely. In one reported case, a plot of 40 acres was shared between seven workers, with each individual worker responsible for approximately 5.7 acres. In another case, an estimated ten acres was cared for by six workers, leaving each individual responsible for approximately 1.66 acres. Other estimates provided by the workers include 12 acres shared by four workers, or four acres each; an individual worker responsible for six acres each; and an individual worker for three acres each.

266 Internal Labour Migration in Myanmar. International Labour Organization, 2015. https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_440076.pdf. Accessed 26 Sep 2019.

267 Employment and Skills Development Law (2013), Section 5 states that all full-time workers should have a contract within 30 days of employment. All three interviewees cited met this requirement and should have been provided with a written contract.

268 For more, see: Myanmar Employment Law. Luther, 6 Aug 2018, P.34. https://www.luther-lawfirm.com/fileadmin/user_upload/PDF/Veroeffentlichungen/180806_Luther_Employment_Law_in_Myanmar.pdf. Accessed Aug 2019

269 Workers who resign or are terminated do not have to repay the monthly stipends they have received, or for any of the various deductions or financial penalties noted throughout the year.

270 Interview with Kachin-based civil society organization. March 2019. Myitkyina.

271 According to the interviews with permanent workers, 10 of 13 workers reported to paying 100 percent of the costs associated with pesticides and herbicides. Two workers reported that the costs for pesticides and herbicides were shared between them and the management at 50 percent each. In every case, the pesticides and herbicides were purchased by the Chinese employer, and workers were unaware of their actual cost and had to accept the rate the employer charged. One interviewee noted that they were aware that a bottle of herbicide cost around MMK 4,500 (USD 3.12) but Chinese employers deducted MMK 6,500 (USD 4.51) per bottle. Only one worker reported that the management bared all of the costs of pesticide and herbicide use costs.

272 March 2018 – March 2019

273 One permanent worker interviewed had not been employed for an entire harvest year, and therefore was unaware of their final salary

274 The typical daily rate for a day laborer is approximately MMK 5000 – 12000 (USD 3.47 – 8.32).

- 275 For more see: Myanmar Employment Law. Luther, 6 Aug 2018, P.55. https://www.luther-lawfirm.com/fileadmin/user_upload/PDF/Veroeffentlichungen/180806_Luther_Employment_Law_in_Myanmar.pdf. Accessed Aug 2019
- 276 Two workers reported that they regularly worked 10+ hour days without overtime compensation – in one case the worker had agreed only to an 8-hour work day, while in the other case, the worker was not informed of the requirement to work overtime and subsequently worked 12-hour days on a regular basis.
- 277 Myanmar Employment Law. Luther, 6 Aug 2018, https://www.luther-lawfirm.com/fileadmin/user_upload/PDF/Veroeffentlichungen/180806_Luther_Employment_Law_in_Myanmar.pdf Accessed Aug 2019.
- 278 “General Survey concerning the Forced Labour Convention, 1930 (No. 29) and the Abolition of Forced Labour Convention, 1957 (No. 105).” NORMLEX, ILO, 2007, para 132. https://www.ilo.org/ilc/WCMS_089199/lang--en/index.htm. Accessed 20 Feb 2020.
- 279 Jenssen, Thale Solnordal. “Half a million identities.” Relief Web, 8 Jun 2017. <https://reliefweb.int/report/myanmar/half-million-identities>. Accessed 20 Feb 2020.
- 280 Interview with Kachin-based civil society representative. November 2019. Myitkyina.
- 281 “Agriculture: a hazardous work.” ILO, 23 Mar 2015. https://www.ilo.org/global/topics/safety-and-health-at-work/areasofwork/hazardous-work/WCMS_356550/lang--en/index.htm Accessed 25 Feb 2020.
- 282 The translator interviewed by Verité did not perform manual labor.
- 283 This incident could not be corroborated by other interviews conducted by Verité
- 284 Focus Group Discussion. November 2019. Waingmaw Township.
- 285 ProMusa. “Fungicides used in banana plantations.” September 2016. <http://www.promusa.org/Fungicides+used+in+banana+plantations#Chlorotalonil>
- 286 Ko Soe, Hein and Dunant, Ben. “Kachin’s plantation curse.” Frontier Myanmar. 17 Jan 2019. <https://frontiermyanmar.net/en/kachins-plantation-curse>. Accessed 31 Jul 2019.
- Interview with Myitkyina-based civil society organization. Nov 2019. Myitkyina.
- 287 Pesticide Law. Ministry of Agriculture, Livestock and Irrigation, Department of Agriculture. http://www.doa.gov.mm/doa/index.php?route=product/product&path=75&product_id=130. Accessed 20 Feb 2020.
- 288 “A New Legal Environment for Occupational Safety and Health in Myanmar.” International SOS Foundation & Audier & Partner Myanmar Co. Ltd, 2019. <https://www.internationalsos.co.id/-/media/international-sos-foundation/files/resources/asia-pacific/myanmar/myanmar-osh-white-paperfinal-0919.pdf?la=en>. Accessed 20 Feb 2020.
- 289 Worker who have been employed for six months or more are entitled to 30 days of sick leave without a wage deduction, upon presentation of a medical certificate
- 290 ILO Guide to Myanmar Labour Law 2017. ILO, 2017, P. 23. https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_577563.pdf. Accessed 25 Feb 2020.
- 291 Due to human subject considerations, Verité did not interview any children directly. This research reflects only the perceptions of adult workers about child labor, not those of children or juveniles. Some informants reported that it was difficult for them to know exactly how young these children are due to their limited interactions, and that it could be difficult to accurately guess their ages based on their appearance
- 292 The Republic of the Union of Myanmar. Ministry of Labour, Immigration and Population. Department of Population. The 2014 Myanmar Population and Housing Census: Waingmaw Township Report. October 2017. https://themimu.info/sites/themimu.info/files/documents/TspProfiles_Census_Waingmaw_2014_ENG.pdf. Accessed 27 September 2019.
- 293 Land Security and Environmental Conservation Networking Group (LSECNG). Green Business Dilemma. 2019. Myitkyina, Kachin State, Myanmar. Report on file with Verité.
- 294 Pesticide Law. Ministry of Agriculture, Livestock and Irrigation, Department of Agriculture. http://www.doa.gov.mm/doa/index.php?route=product/product&path=75&product_id=130. Accessed 20 Feb 2020.

- 295 R190- Worst Forms of Child Labour Recommendation, 1999 (No.190). NORMLEX, ILO, 1999. https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:R190. Accessed 25 Feb 2020.
- 296 Interview with Myitkyina-based civil society organization. November 2019. Myitkyina.
- 297 Interview with Myitkyina-based civil society organization. November 2019. Myitkyina.
- 298 Wai, Khin Su. "Tissue culture bananas called a threat." Myanmar Times, 12 Feb 2018. <https://www.mmmtimes.com/news/tissue-culture-bananas-called-threat.html> Accessed 25 Feb 2020.
- 299 The 2014 Myanmar Population and Housing Census: Waingmaw Township Report. The Republic of the Union of Myanmar, Ministry of Labour, Immigration and Population, Department of Population, Oct 2017. https://themimu.info/sites/themimu.info/files/documents/TspProfiles_Census_Waingmaw_2014_ENG.pdf. Accessed 27 Sep 2019.
- 300 "Kachin Farmers Condemn Tissue Culture Banana Plantations". BNI, 8 Mar 2019. <https://www.bnionline.net/en/news/kachin-farmers-condemn-tissue-culture-banana-plantations>.
- Thar, Chan. "Chinese banana plantations flourish as villagers lose their land in Kachin". The Myanmar Times, 22 Jun 2018. <https://www.mmmtimes.com/news/chinese-banana-plantations-flourish-villagers-lose-their-land-kachin.html>. Accessed 25 Feb 2020.
- 301 Fishbein, Emily. "'All the fish died': Kachin communities alarmed at impact of banana plantations." Frontier Myanmar, 22 Mar 2019. <https://frontiermyanmar.net/en/all-the-fish-died-kachin-communities-alarmed-at-impact-of-banana-plantations>. Accessed 25 Feb 2020.
- 302 Fishbein, Emily. "'All the fish died': Kachin communities alarmed at impact of banana plantations." Frontier Myanmar, 22 Mar 2019. <https://frontiermyanmar.net/en/all-the-fish-died-kachin-communities-alarmed-at-impact-of-banana-plantations>. Accessed 25 Feb 2020.
- 303 Where the Change Has Yet to Reach: Exposing Ongoing Earth Rights Abuses in Burma (Myanmar). EarthRights International, 2012. <https://earthrights.org/wp-content/uploads/where-the-change-has-yet-to-reach.pdf> Accessed 25 Feb 2020.
- 304 Jangma, Elizabeth. "Five From China Charged Over Illegal Banana Plantation in Myanmar Protected Forest." Radio Free Asia, 20 May 2019. <https://www.rfa.org/english/news/myanmar/five-from-china-charged-over-illegal-banana-plantation-05202019162743.html>. Accessed 20 Feb 2020.
- 305 Focus Group Discussion. November 2019. Waingmaw.
- 306 Nyein, Nyein. "Chinese-Backed Banana Plantations in Myanmar's Kachin State Prompt Fear of Environmental Damage, Land Loss." The Irrawaddy, 4 Dec 2019. <https://www.irrawaddy.com/features/chinese-backed-banana-plantations-myanmars-kachin-state-prompt-fear-environmental-damage-land-loss.html>. Accessed 25 Feb 2020.
- 307 Springate-Baginski et al. "Working together for a better Kachin landscape." The Water Security Research Centre, School of International Development, University of East Anglia, Dec 2016. <https://wle-mekong.cgiar.org/wp-content/uploads/Working-Together-Kachin-summary-paper.pdf>. Accessed 25 Sep 2019.
- 308 Note: The Burma government has acknowledged that census activities were not able to take place in areas controlled by ethnic armed organizations (EAOs). Migrants to China from Burma are heavily composed of people from these areas.
- The 2014 Myanmar Population and Housing Census. The Government of the Republic of the Union of Myanmar, Ministry of Immigration and Population, Department of Population, May 2015. <http://data.unhcr.org/thailand/download.php?id=421>. Accessed 7 Oct 2019.
- 309 Interviews with Kachin-based civil society representatives. November 2019. Myitkyina (2) and Waingmaw (1).
- 310 2019 Trafficking in Persons Report: Burma. U.S. Department of State, Office to Monitor and Combat Trafficking in Persons, 20 Jun 2019. <https://www.state.gov/reports/2019-trafficking-in-persons-report-2/burma/>. Accessed 4 Oct 2019.

- 311 Johns Hopkins Bloomberg School of Public Health's Center for Humanitarian Health and Kachin Women's Association of Thailand. Estimating trafficking of Myanmar women for forced marriage and childbearing in China. December 2018. <https://kachinwomen.com/estimating-trafficking-of-myanmar-women-for-forced-marriage-and-childbearing-in-china/> (Accessed 29 October 2019).
- 312 Nachemson, Andrew and Lun Min Mang. "Thein Sein warns of Neocolonialism." *Frontier Myanmar*, 6 Jan 2020. <https://mailchi.mp/frontiermyanmar.net/thein-sein-warns-of-neocolonialism?e=d9fb76c585> Accessed 25 Feb 2020.
- 313 Interview with Kachin-based civil society representative. November 2019. Myitkyina.
- 314 Overlooked and Undermined. Swedwatch, Report #91, 20 Jun 2018. https://swedwatch.org/wp-content/uploads/2018/06/91_Overlooked-and-undermined.pdf Accessed 25 Feb 2020.
- 315 "Artisanal jade mining in Myanmar." International Growth Centre. <https://www.theigc.org/project/artisanal-jade-mining-myanmar/>. Accessed 18 Oct 2019.
- 316 Internal Labour Migration in Myanmar. International Labour Organization, 2015. https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_440076.pdf. Accessed 26 September 2019.
- 317 Sector Wide Impact Assessment of Limestone, Gold, and Tin Mining in Myanmar. MCRB, IHRB, DIHR, May 2018, P. 144. <https://www.myanmar-responsiblebusiness.org/pdf/SWIA/Mining/00-Myanmar-Mining-Sector-Wide-Assessment.pdf>. Accessed 25 Feb 2020.
- 318 Blood Amber: Military resource grab clears out indigenous peoples in Kachin State's Hugawng Valley. KDNG, 2019, P. 12. https://kdng.org/wp-content/uploads/2019/08/BloodAmber_English.pdf Accessed 25 Feb 2020.
- 319 Nachemson, Andrew and Lun Min Mang, Thomas Kean. "Government greenlights new gas project." *Frontier Myanmar*, 17 Dec 2019. <https://mailchi.mp/frontiermyanmar.net/government-greenlights-new-gas-project?e=d9fb76c585> Accessed 25 Feb 2020.
- 320 "Lao Government Vows to Enforce Ban on Concessions for New Banana Plantations." *Radio Free Asia*, 14 May 2019. <https://www.rfa.org/english/news/laos/bananas-05142019145031.html> Accessed 25 Feb 2020.
- 321 2018 Country Reports on Human Rights Practices: Burma. U.S. Department of State, 2018. <https://www.state.gov/reports/2018-country-reports-on-human-rights-practices/burma/>. Accessed 20 Feb 2020.
- 322 The following list of relevant labor laws is specific to the agricultural sector and violations identified by Verité in the present case study. For a comprehensive list of labor laws, see the International Labor Organization's (ILO) Guide to Myanmar Labor Law (2017)
- 323 "List of importing markets for a product exported by Myanmar. Product: 44 Wood and articles of wood; wood charcoal". TradeMap.org, International Trade Center. [https://trademap.org/Country_SelProductCountry_TS.aspx?nvpm=1%7c104%7c%7c%7c%7c44%7c%7c%7c2%7c1%7c1%7c2%7c2%7c1%7c2%7c1%7c1](https://trademap.org/Country_SelProductCountry_TS.aspx?nvpm=1%7c104%7c%7c%7c%7c44%7c%7c%7c2%7c1%7c1%7c2%7c2%7c1%7c2%7c1%7c1%7c1). Accessed 11 Feb 2020.
- 324 Myanmar Forest sector legality analysis. NEPCon, Sep 2013. https://forestlegality.org/sites/default/files/country_documents/Myanmar%20Forestry%20Sector%20Legal%20Analysis%20%282013%29.pdf; Framework for Assessing Legality of Forestry Operations, Timber Processing and Trade Annex: Myanmar. WWF, Nov 2013. http://awsassets.panda.org/downloads/national_legality_framework_myanmar.pdf. Accessed 25 Feb 2020.
- 325 EITI Report for the Period April 2015 – March 2016 (Final). Myanmar Extractive Industries Transparency Initiative (MEITI), 2019. https://myanmareiti.org/sites/myanmareiti.org/files/publication_docs/myanmar_forestry_eiti_report_2015-16_final_signed.pdf. Accessed 28 Jan 2020.
- 326 'Formal interviews' indicate that workers participated in the long-form structured interview process. 'Informal interviews' mean that workers participated in the short-form interview process.
- 327 Interview with Forest Governance Expert. November 2018. Yangon.
- 328 As Worker 10 did not reveal the length of time working in the sector, he was not included in the estimate.

- 329 At time of interview, March 2019
- 330 Lewis, Simon. "Myanmar reporter who covered logging industry found beaten to death." Reuters, 13 Dec 2016. <https://www.reuters.com/article/us-myanmar-journalist-idUSKBN14218M>. Accessed 28 Jan 2020.
- 331 Htusan, Esther. "Myanmar forest-cutting continues despite government efforts." The San Diego Union-Tribune, 1 Sep 2016. <http://www.sandiegouniontribune.com/sdut-myanmar-forest-cutting-continues-despite-2016sep01-story.html>. Accessed 28 Jan 2020.
- 332 Food and Agriculture Organization of the United Nations. FAOSTAT. <http://www.fao.org/faostat/en/#home>. Accessed 28 Jan 2020.
- 333 Interview with Forest Governance Expert. November 2018. Yangon.
- 334 Myanmar Timber Risk Profile. NEPCon: Sourcing Hub, Timber, 19 Jun 2017. <https://www.nepcon.org/sourcinghub/timber/timber-myanmar>. Accessed 28 Jan 2020.
- 335 Organised Chaos: The Illicit Overland Timber Trade Between Myanmar and China. Environmental Investigation Agency. Sept 2015. p. 5. [Content.eia-global.org/assets/2015/09/Organised_Chaos.pdf](http://content.eia-global.org/assets/2015/09/Organised_Chaos.pdf). Accessed 28 Jan 2020.
- 336 "Myanmar." Conservation International, 2013. themimu.info/sites/themimu.info/files/documents/Snapshot_Env_Deforestation%20in%20Myanmar_Conservation%20International_2011.pdf. Accessed 25 Feb 2020.
- 337 McLaughlin, Timothy and Aung Hla Tun. "Myanmar bans lucrative logging in bid to preserve forests." Reuters, 28 Apr 2016. <https://www.reuters.com/article/us-myanmar-economy-logging/myanmar-bans-lucrative-logging-in-bid-to-preserve-forests-idUSKCN0XP1JT>. Accessed 28 Jan 2020.
- 338 Kissinger, Gabrielle. Background Report for identifying drivers of deforestation and forest degradation in Myanmar. UN-REDD, 8 Feb 2017. https://static1.squarespace.com/static/58d6cc1e17bffc801edde/t/5970ed2cdb29d61b7a95b450/1500572980265/Background+report_Identifying+the+drivers+of+deforestation+and+forest+degradation+in+Myanmar.pdf. Accessed 28 Jan 2020.
- 339 McLaughlin, Timothy and Aung Hla Tun. "Myanmar bans lucrative logging in bid to preserve forests." Reuters, 28 Apr 2016. <https://www.reuters.com/article/us-myanmar-economy-logging/myanmar-bans-lucrative-logging-in-bid-to-preserve-forests-idUSKCN0XP1JT>. Accessed 28 Jan 2020.
- 340 "Myanmar logging ban a major step to forest sector reform." Environmental Investigation Agency, 4 Aug 2016. <https://eia-international.org/press-releases/myanmar-logging-ban-major-step-forest-reform/>. Accessed 25 Feb 2020.
- 341 Bhagwat, Tejas, and Andrea Hess, Ned Horning, Thiri Khaing, Zaw Min Thein, et al. "Losing a jewel—Rapid declines in Myanmar's intact forests from 2002-2014." PLOS One, 12(5): e0176364, 2017. journals.plos.org/plosone/article?id=10.1371/journal.pone.0176364. Accessed 25 Feb 2020.
- 342 O'Toole, Bill. "Doubts of log export ban." Myanmar Times, 10 Apr 2014. <http://www.mmmtimes.com/index.php/in-depth/10154-doubts-over-log-export-ban.html>. Accessed 28 Jan 2020.
- 343 Data Corruption: Exposing the true scale of logging in Myanmar. Environmental Investigation Agency, 2014. <https://www.illegal-logging.info/sites/files/chlogging/EIA-Data-Corruption-FINAL.pdf>. Accessed 28 Jan 2020.
- 344 "Myanmar's forests still being illegally logged and shipped to India, China, despite government ban." South China Morning Post, 2 Sept 2016. www.scmp.com/news/asia/southeast-asia/article/2012971/myanmars-forests-still-being-illegally-logged-and-shipped. Accessed 28 Jan 2020.
- 345 Myanmar Country Environmental Analysis. The World Bank, 2019, P. 7. <http://documents.worldbank.org/curated/en/907811560180123305/pdf/Myanmar-Country-Environmental-Analysis-Sustainability-Peace-and-Prosperity-Forests-Fisheries-and-Environmental-Management-Forest-Resources-Sector-Report.pdf>. Accessed 28 Jan 2020.
- 346 Myanmar Country Environmental Analysis. Sustainability, Peace, Prosperity: Forest, Fisheries and

Environmental Management. International Bank for Reconstruction and Development and International Finance Corporation, The World Bank Group, 2019. <http://documents.worldbank.org/curated/en/388671560181443963/pdf/Myanmar-Country-Environmental-Analysis-Sustainability-Peace-and-Prosperity-Forests-Fisheries-and-Environmental-Management-Environmental-Impact-Assessment-System-Diagnostic.pdf>. Accessed 24 Feb 2020.

Environmental Impact Assessment Guidelines for the Mining Sector. Myanmar Mining EIA Guidelines Working Group, Draft working document, Oct 2018. [http://www.ecd.gov.mm/sites/default/files/6.%20TechnicalGuidance_19October2018_finaldraft\(EN\).pdf](http://www.ecd.gov.mm/sites/default/files/6.%20TechnicalGuidance_19October2018_finaldraft(EN).pdf) Accessed 25 Feb 2020.

347 EITI Report for the period April 2015-March 2016, Forestry Sector. Myanmar Extractive Industries Transparency Initiative (MEITI), 2016. https://myanmareiti.org/sites/myanmareiti.org/files/publication_docs/myanmar_forestry_eiti_report_2015-16_final_signed.pdf Accessed 25 Feb 2020.

348 Treue, Thorsten and Oliver Springate-Baginski, Kyaw Htun. "Legally and illegally logged out: The status of Myanmar's timber sector and options for reform." ALARM, 2016. www.burmalibrary.org/docs24/Springate-Baginski_et_al-2016-status.pdf. Accessed Sep 23, 2018.

349 EITI Report for the period April 2015-March 2016, Forestry Sector. Myanmar Extractive Industries Transparency Initiative (MEITI), 2016. https://myanmareiti.org/sites/myanmareiti.org/files/publication_docs/myanmar_forestry_eiti_report_2015-16_final_signed.pdf Accessed 25 Feb 2020.

350 Treue, Thorsten and Oliver Springate-Baginski, Kyaw Htun. "Legally and illegally logged out: The status of Myanmar's timber sector and options for reform." ALARM, 2016, P. 4. www.burmalibrary.org/docs24/Springate-Baginski_et_al-2016-status.pdf. Accessed 23 Sep 2018.

351 EITI Report for the period April 2015-March 2016, Forestry Sector. Myanmar Extractive Industries Transparency Initiative (MEITI), 2016. https://myanmareiti.org/sites/myanmareiti.org/files/publication_docs/myanmar_forestry_eiti_report_2015-16_final_signed.pdf. Accessed 25 Feb 2020.

352 Myanmar Country Environmental Analysis. Sustainability, Peace, Prosperity: Forest, Fisheries and Environmental Management. International Bank for Reconstruction and Development and International Finance Corporation, The World Bank Group, 2019. <http://documents.worldbank.org/curated/en/388671560181443963/pdf/Myanmar-Country-Environmental-Analysis-Sustainability-Peace-and-Prosperity-Forests-Fisheries-and-Environmental-Management-Environmental-Impact-Assessment-System-Diagnostic.pdf>. Accessed 24 Feb 2020.

353 EITI Report for the period April 2015-March 2016, Forestry Sector. Myanmar Extractive Industries Transparency Initiative (MEITI), 2016. https://myanmareiti.org/sites/myanmareiti.org/files/publication_docs/myanmar_forestry_eiti_report_2015-16_final_signed.pdf. Accessed 25 Feb 2020.

354 Htusan, Esther. "Myanmar forest-cutting continues despite government efforts." The San Diego Union-Tribune, 1 Sep 2016. www.sandiegouniontribune.com/sdut-myanmar-forest-cutting-continues-despite-2016sep01-story.html. Accessed 25 Feb 2020.

355 Aung Ye Ko. "2,000 Illegal Logs seized in Sagaing, Shan." Eleven, May 7, 2017. www.elevenmyanmar.com/local/9238. Accessed 25 Feb 2020.

356 "Myanmar's forests still being illegally logged and shipped to India, China, despite government ban." South China Morning Post, 2 Sep 2016. www.scmp.com/news/asia/southeast-asia/article/2012971/myanmars-forests-still-being-illegally-logged-and-shipped. Accessed 28 Jan 2020.

357 "700 'Corrupt' Forestry Officials Targeted." Eleven Media Group, 2015. <http://elevenmyanmar.com/local/700-%E2%80%98corrupt%E2%80%99-forestry-officials-targeted>. Accessed 2 Mar 2019.

358 Treue, Thorsten and Oliver Springate-Baginski, Kyaw Htun. "Legally and illegally logged out: The status of Myanmar's timber sector and options for reform." ALARM, 2016, P. 4. www.burmalibrary.org/docs24/Springate-Baginski_et_al-2016-status.pdf. Accessed 23 Sep 2018.

359 Chan Mya Htwe. "Ministry struggles to control illegal logging." Myanmar Times, 30 Jun 2016. www.mmmtimes.com/business/21130-ministry-struggles-to-control-illegal-logging.html. Accessed 25 Feb 2020.

360 Forest law enforcement governance and trade in Myanmar: a conflict sensitivity analysis. International

- Alert, 2017, P. 24. https://www.international-alert.org/sites/default/files/Myanmar_ForestGovernanceTrade_EN_2017.pdf Accessed 24 Feb 2020.
- 361 Chan Mya Htwe. "Ministry struggles to control illegal logging." Myanmar Times, 30 Jun 2016. www.mmtimes.com/business/21130-ministry-struggles-to-control-illegal-logging.html.
- 362 Htusan, Esther. "Myanmar forest-cutting continues despite government efforts." The San Diego Union-Tribune, 1 Sep 2016. www.sandiegouniontribune.com/sdut-myanmar-forest-cutting-continues-despite-2016sep01-story.html. Accessed 25 Feb 2020.
- 363 EITI Report for the period April 2015-March 2016, Forestry Sector. Myanmar Extractive Industries Transparency Initiative (MEITI), 2016. https://myanmareiti.org/sites/myanmareiti.org/files/publication_docs/myanmar_forestry_eiti_report_2015-16_final_signed.pdf. Accessed 25 Feb 2020.
- 364 Htusan, Esther. "Myanmar forest-cutting continues despite government efforts." The San Diego Union-Tribune, 1 Sep 2016. www.sandiegouniontribune.com/sdut-myanmar-forest-cutting-continues-despite-2016sep01-story.html. Accessed 25 Feb 2020.
- 365 Myo, Kyaw. "143K Tons of Trafficked Timber Seized Ove 3 Years." The Irrawaddy, 8 Apr 2019. <https://www.irrawaddy.com/news/burma/143k-tons-trafficked-timber-seized-3-years.html>. Accessed 25 Feb 2020.
- 366 Criminal Justice response to wildlife and forest crime in Myanmar. UNODC, Nov 2015. https://www.unodc.org/documents/southeastasiaandpacific/Publications/wildlife/Myanmar_Illicit_Timber_Trade_Report_15.pdf. Accessed 25 Feb 2020.
- 367 Thar Nyunt Oo. "Myanmar Arrests Dozens of Chinese for Illegal Logging." Voice of America, 6 Jan 2015. <https://www.voanews.com/east-asia/myanmar-arrests-dozens-chinese-illegal-logging>. Accessed 25 Feb 2020.
- 368 "Organised Chaos: The Illicit Overland Timber Trade Between Myanmar and China," Environmental Investigation Agency, 2015. content.eia-global.org/assets/2015/09/Organised_Chaos.pdf. Accessed 25 Feb 2020.
- 369 Su Phyo Win. "Timber industry faces challenges in the voluntary partnership agreement process in forest governance." Myanmar Times, 31 Jul 2017. URL: www.mmtimes.com/business/27031-timber-industry-faces-challenges-in-the-voluntary-partnership-agreement-process-in-forest-governance.html. Accessed 20 Sep 2018.
- 370 Treue, Thorsten and Oliver Springate-Baginski, Kyaw Htun. "Legally and illegally logged out: The status of Myanmar's timber sector and options for reform." ALARM, 2016, P. 4. www.burmalibrary.org/docs24/Springate-Baginski_et_al-2016-status.pdf. Accessed 23 Sep 2018.
- 371 "Organised Chaos: The Illicit Overland Timber Trade Between Myanmar and China," Environmental Investigation Agency, 2015, P. 5. content.eia-global.org/assets/2015/09/Organised_Chaos.pdf.
- 372 "Myanmar Timber Enterprise Now Off US Sanctions List." Panels and Furniture, 2016. <https://www.panelsfurnitureasia.com/en/news-archive/myanma-timber-enterprise-now-off-us-sanctions-list/362> Accessed 25 Feb 2020.
- 373 Treue, Thorsten and Oliver Springate-Baginski, Kyaw Htun. "Legally and illegally logged out: The status of Myanmar's timber sector and options for reform." ALARM, 2016, P. 4. www.burmalibrary.org/docs24/Springate-Baginski_et_al-2016-status.pdf. Accessed 23 Sep 2018.
- "Organised Chaos: The Illicit Overland Timber Trade Between Myanmar and China," Environmental Investigation Agency, 2015, P. 5. content.eia-global.org/assets/2015/09/Organised_Chaos.pdf. Accessed 25 Feb 2020.
- 374 "Forestry Sector- EITI Report for the Period April 2015-March 2016." Myanmar Extractive Industries Transparency Initiative, Jan 2019, P. 24. https://myanmareiti.org/sites/myanmareiti.org/files/publication_docs/myanmar_forestry_eiti_report_2015-16_final_signed.pdf. Accessed 25 Feb 2020.
- 375 Win, Su Phyo. "Timber group replaces sub-contractors with service providers," Myanmar Times, July 2017. <https://www.mmtimes.com/business/27013-timber-group-replaces-sub-contractors-with-service-providers.html>. Accessed 1 Mar 2020.
- 376 Myanmar Country Environmental Analysis. Sustainability, Peace, Prosperity: Forest, Fisheries and Environmental Management. International Bank for Reconstruction and Development and International Finance

Corporation, The World Bank Group, 2019. <http://documents.worldbank.org/curated/en/388671560181443963/pdf/Myanmar-Country-Environmental-Analysis-Sustainability-Peace-and-Prosperity-Forests-Fisheries-and-Environmental-Management-Environmental-Impact-Assessment-System-Diagnostic.pdf>. Accessed 24 Feb 2020.

377 Fox J, Castella J-C, Ziegler AD. "Swidden, rubber and carbon: Can REDD+ work for people and the environment in Montane Mainland Southeast Asia?" *Global Environmental Change*, 29, 2014, P.318–26.

378 Myanmar Forest Sector Legality Study. NEPCON, Sep 2013. <https://www.nepcon.org/library/report/myanmar-forest-legality-study>. Accessed 25 Feb 2020.

379 "Organised Chaos: The Illicit Overland Timber Trade Between Myanmar and China," Environmental Investigation Agency, 2015, P. 5. content.eia-global.org/assets/2015/09/Organised_Chaos.pdf. Accessed 25 Feb 2020.

380 "Organised Chaos: The Illicit Overland Timber Trade Between Myanmar and China," Environmental Investigation Agency, 2015, P. 5. content.eia-global.org/assets/2015/09/Organised_Chaos.pdf. Accessed 25 Feb 2020.

381 Myanmar Forest Sector Legality Study. NEPCON, Sep 2013. <https://www.nepcon.org/library/report/myanmar-forest-legality-study>. Accessed 25 Feb 2020.

382 As both case studies in the present report focus on territory controlled by the central government and/or militias associated with the Burma military, it is beyond the scope of the present to report to analyze their policies.

383 "Bilateral trade between China and Myanmar." Trademap.org, Product: 4403 Wood in the rough. https://www.trademap.org/Bilateral_Spx?nvpm=1%7c156%7c%7c104%7c%7c4403%7c%7c4%7c1%7c1%7c1%7c2%7c1%7c1%7c1%7c1. Accessed 25 Feb 2020.

384 "Bilateral trade between China and Myanmar." Trademap.org, Product: 4403 Wood in the rough. https://www.trademap.org/Bilateral_Spx?nvpm=1%7c156%7c%7c104%7c%7c4403%7c%7c4%7c1%7c1%7c1%7c2%7c1%7c1%7c1%7c1. Accessed 25 Feb 2020.;

"Bilateral trade between India and Myanmar." Trademap.org, Product: 4403 Wood in the rough. https://www.trademap.org/Bilateral_Spx?nvpm=1%7c699%7c%7c104%7c%7c4403%7c%7c4%7c1%7c1%7c1%7c2%7c1%7c1%7c1%7c1. Accessed 25 Feb 2020.

"Bilateral Trade between Malaysia and Myanmar." Trademap.org, https://www.trademap.org/Bilateral_S.aspx?nvpm=1%7c458%7c%7c104%7c%7c4403%7c%7c4%7c1%7c1%7c1%7c2%7c1%7c1%7c1%7c1. Accessed 25 Feb 2020.

385 "State of Corruption." EIA, Feb 2019, P. 7. <https://eia-international.org/wp-content/uploads/EIA-report-State-of-Corruption.pdf>.

386 "FLEGT Action Plan." FLEGT. <http://www.flegtactionplan.eu/monthlyeuimports.htm>. Accessed 25 Feb 2020.

387 "Myanmar Country Overview." UN Environment, Oct 2018. https://ec.europa.eu/environment/forests/pdf/Country_overview_Myanmar_25_10_2018.pdf. Accessed 25 Feb 2020.

388 "FLEGT Action Plan." FLEGT. <http://www.flegtactionplan.eu/monthlyeuimports.htm>. Accessed 25 Feb 2020.

389 Myanmar Country Overview, UN Environment, https://ec.europa.eu/environment/forests/pdf/Country_overview_Myanmar_25_10_2018.pdf

390 "State of Corruption." EIA, Feb 2019, P. 30. <https://eia-international.org/wp-content/uploads/EIA-report-State-of-Corruption.pdf>. Accessed 25 Feb 2020.

391 Doyle, David. "Myanmar's logging ban feeds shadow economy of illegal trade." Mongabay, 1 Nov 2016. <https://news.mongabay.com/2016/11/myanmars-logging-ban-feeds-shadow-economy-of-illegal-trade/>. Accessed 25 Feb 2020.

392 "State of Corruption." EIA, Feb 2019, P. 34. <https://eia-international.org/wp-content/uploads/EIA-report-State-of-Corruption.pdf>. Accessed 25 Feb 2020.

- 393 Interview with Forest Governance Expert. November 2018. Yangon.
- 394 “Organised Chaos: The Illicit Overland Timber Trade Between Myanmar and China,” Environmental Investigation Agency, 2015. content.eia-global.org/assets/2015/09/Organised_Chaos.pdf. Accessed 25 Feb 2020.
- 395 “Myanmar’s Rosewood Crisis.” EIA, Jun 2014. <https://eia-international.org/wp-content/uploads/Myanmars-rosewood-crisis-FINAL.pdf>. Accessed 25 Feb 2020.
- 396 “State of Corruption.” EIA, Feb 2019, P. 6. <https://eia-international.org/wp-content/uploads/EIA-report-State-of-Corruption.pdf>. Accessed 25 Feb 2020.
- 397 Nyein, Nyein. “German company found supplying illegal Myanmar teak to EU.” The Irrawaddy, 22 Mar 2019. <https://www.irrawaddy.com/news/burma/german-company-found-supplying-illegal-myanmar-teak-eu.html>.
- 398 For more information on the complex supply chain dynamics related to illegal logging for teak and rosewood, see for example the following studies: NEPCon – Myanmar forest legality analysis (2013); Treue, Springate-Baginski, and Kyaw Htun – Legally and Illegally Logged out: Extent and Drivers of Deforestation & Forest Degradation in Myanmar (2016); Environmental Investigation Agency (EIA)- State of Corruption: The top-level conspiracy behind the global trade in Myanmar’s stolen teak; EIA- Organised Chaos: The illicit overland timber trade between Myanmar and China
- 399 Third EITI Report For the Fiscal Year 2016/17. Myanmar Extractive Industries Transparency Initiative (MEITI), April 2020, P. 33. https://myanmareiti.org/sites/myanmareiti.org/files/publication_docs/myanmar_forestry_eiti_final_report_2016-17_final_-_signed.pdf.
- 400 Although the 2014 Burma government census reveal 54.2 percent of all employment in Burma is the “agriculture, forestry, and fishing sectors”, this information is not further disaggregated to reveal information specific to the forestry sector. Similarly, the 2020 EITI report reveals approximately 34,218 workers employed in the forestry sector, but does not disaggregate data based on gender, age, ethnic group, or state/region of origin
- 401 McPherson, Poppy. “Chainsaw injuries in Myanmar tied to illegal logging.” Mongabay Series: Global Forests, Mekong Forest Trade. 12 Feb 2017. <https://news.mongabay.com/2017/02/chain-saw-injuries-in-myanmar-tied-to-illegal-logging/>. Accessed 28 Jan 2020.
- Wang, Anna and Genevieve Melmaker. “A fight to control chainsaws in Myanmar could turn tide on illegal logging.” Mongabay Series: Global Forests, Mekong Forest Trade, 4 May 2017. <https://news.mongabay.com/2017/05/a-fight-to-control-chainsaws-in-myanmar-could-turn-the-tide-on-illegal-logging/>. Accessed 28 Jan 2020.
- 402 McPherson, Poppy. “Chainsaw injuries in Myanmar tied to illegal logging.” Mongabay Series: Global Forests, Mekong Forest Trade, 12 Feb 2017. <https://news.mongabay.com/2017/02/chain-saw-injuries-in-myanmar-tied-to-illegal-logging/>. Accessed 28 Jan 2020.
- Wang, Anna and Genevieve Melmaker. “A fight to control chainsaws in Myanmar could turn tide on illegal logging.” Mongabay Series: Global Forests, Mekong Forest Trade, 4 May 2017. <https://news.mongabay.com/2017/05/a-fight-to-control-chainsaws-in-myanmar-could-turn-the-tide-on-illegal-logging/>. Accessed 28 Jan 2020.
- Freudenthal, Emmanuel. “Burning down the house: Myanmar’s destructive charcoal trade.” Mongabay Series: Global Forests, Mekong Forest Trade, 26 Oct 2017. <https://news.mongabay.com/2017/10/burning-down-the-house-myanmars-destructive-charcoal-trade/>. Accessed 28 Jan 2020.
- 403 Interview with Forest Governance Expert. November 2018. Yangon.
- 404 Employment and Skills Development Law (2013), Section 5 states that all full-time workers should have a contract within 30 days of employment.
- 405 Part 2: An Analysis of Poverty in Myanmar. The World Bank, Dec 2017. <http://documents.worldbank.org/curated/en/829581512375610375/pdf/121822-REVISED-PovertyReportPartEng.pdf>. Accessed 3 Oct 2019.
- 406 Part 2: An Analysis of Poverty in Myanmar. The World Bank, Dec 2017. <http://documents.worldbank.org/curated/en/829581512375610375/pdf/121822-REVISED-PovertyReportPartEng.pdf>. Accessed 3 Oct 2019.
- 407 Aung, Nyan Linn and Pyae Thet Phyo. “Government sets new daily minimum wage at K4800.” Myanmar Times, 6 Mar 2018. <https://www.mmtimes.com/news/government-sets-new-daily-minimum-wage-k4800.html>

- 408 Myanmar labour force, child labour and school to work transition survey. Ministry of Labour, Employment and Social Security and Central Statistical Organization, 2015, P. 10. www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_516117.pdf. Accessed 28 Jan 2020.
- 409 Internal Labour Migration in Myanmar. International Labour Organization, 2015. https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_440076.pdf. Accessed 26 Sept 2019.
- 410 Aung, Myat Moe. "Government enacts tougher forest law." Myanmar Times, 26 Sep 2018. <https://www.mmmtimes.com/news/government-enacts-tougher-forest-law.html> Accessed 25 Feb 2020.
- 411 Wang, Anna and Genevieve Melmaker. "A fight to control chainsaws in Myanmar could turn tide on illegal logging." Mongabay Series: Global Forests, Mekong Forest Trade, 4 May 2017. <https://news.mongabay.com/2017/05/a-fight-to-control-chainsaws-in-myanmar-could-turn-the-tide-on-illegal-logging/>. Accessed 28 Jan 2020.
- 412 Saw John Shwe Ba. "Role of MTE in Myanmar Timber Industry." Myanmar Timber Enterprise, 19 Oct 2017, P. 16. forestlegality.org/sites/default/files/Role%20of%20MTE%20in%20Myanmar%20Timber%20Industry.pdf. Accessed 25 Feb 2020.
- 413 Interview with INGO representative. March 2019. Yangon.
- 414 Saw John Shwe Ba. "Role of MTE in Myanmar Timber Industry." Myanmar Timber Enterprise, 19 Oct 2017, P. 16. forestlegality.org/sites/default/files/Role%20of%20MTE%20in%20Myanmar%20Timber%20Industry.pdf. Accessed 25 Feb 2020.
- 415 Baseline Study 4, Myanmar- Overview of Forest Governance, Markets and Trade. EU FLEGT, Version 1.0, 2014, P. 41. http://www.euflegt.efi.int/documents/-/asset_publisher/ltjOjWpjtTO1/document/id/162913. Accessed 25 Feb 2020.
- 416 Forest law enforcement governance and trade in Myanmar: a conflict sensitivity analysis. International Alert, 2017, P. 29. https://www.international-alert.org/sites/default/files/Myanmar_ForestGovernanceTrade_EN_2017.pdf. Accessed 28 Jan 2020.
- 417 Garland, J.J. Accident reporting and analysis in forestry: guidance on increasing the safety of forest work. FAO, Forestry Working Paper No. 2. Rome, 2018. <http://www.fao.org/3/i9180en/i9180EN.pdf>. Accessed 28 Jan 2020.
- 418 International Year of Forests 2011: What about the labour aspect of forestry? International Labour Office, 2011. https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---sector/documents/publication/wcms_160879.pdf. Accessed 28 Jan 2020.
- 419 McPherson, Poppy. "Chainsaw injuries in Myanmar tied to illegal logging." Mongabay Series: Global Forests, Mekong Forest Trade. 12 Feb 2017. <https://news.mongabay.com/2017/02/chain-saw-injuries-in-myanmar-tied-to-illegal-logging/>. Accessed 28 Jan 2020.
- 420 Internal Labour Migration in Myanmar. International Labour Organization, 2015. https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_440076.pdf. Accessed 26 Sept 2019.
- 421 Gerin, Roseanne. "Malaria Cases in Myanmar See Huge Drop, Thanks to Efforts by Community Health Workers." Radio Free Asia, 1 Nov 2018. <https://www.rfa.org/english/news/myanmar/malaria-cases-in-myanmar-see-huge-drop-11012018162156.html>. Accessed 28 Jan 2020.
- 422 McPherson, Poppy. "Chainsaw injuries in Myanmar tied to illegal logging." Mongabay Series: Global Forests, Mekong Forest Trade. 12 Feb 2017. <https://news.mongabay.com/2017/02/chain-saw-injuries-in-myanmar-tied-to-illegal-logging/>. Accessed 28 Jan 2020.
- 423 Due to the small sample size and the fact that Verité did not interview children under 18 engaged in illegal logging, it should be not assumed that forced child labor is absent from the legal or illegal timber sectors in Burma
- 424 Garland, J.J. Accident reporting and analysis in forestry: guidance on increasing the safety of forest work. FAO, Forestry Working Paper No. 2. Pg. X. Rome, 2018. <http://www.fao.org/3/i9180en/i9180EN.pdf>. Accessed 28 Jan 2020.

- 425 According to ILO Convention 182, the term child applies to all persons under the age of 18.
- 426 Pyidaungsu Hluttaw Law No. 29/2018- Forestry. Myanmar Law Library. Available in Burmese: <http://myanmar-law-library.org/law-library/laws-and-regulations/laws/myanmar-laws-1988-until-now/national-league-for-democracy-2016/myanmar-laws-2018/pyidaungsu-hluttaw-law-no-29-2018-forestry-burmese.html> Accessed 25 Feb 2020.
- 427 R190- Worst Forms of Child Labour Recommendation, 1999 (No.190). NORMLEX, ILO, 1999. https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:R190. Accessed 25 Feb 2020.
- 428 Bhagwat, Tejas, and Andrea Hess, Ned Horning, Thiri Khaing, Zaw Min Thein, et al. "Losing a jewel—Rapid declines in Myanmar's intact forests from 2002-2014." PLOS One, 12(5): e0176364, 2017. journals.plos.org/plosone/article?id=10.1371/journal.pone.0176364. Accessed 25 Feb 2020.
- 429 "Teak week of action." Rainforest Relief, 1997. www.rainforestinfo.org.au/wrr36/teakweek.htm.
- 430 Interviews with environmental activists from Katha, Kawlin, and Htigyaing Townships. November 2018. Interview Location: Htigyaing and Katha.
- 431 Interviews with environmental activists from Katha, Kawlin, and Htigyaing Townships. November 2018. Interview Location: Htigyaing and Katha.
- 432 Interviews with environmental activists from Katha, Kawlin, and Htigyaing Townships. November 2018. Interview Location: Htigyaing and Katha.
- 433 Myanmar Forest Sector Legality Study. NEPCon, Sep 2013. <https://www.nepcon.org/library/report/myanmar-forest-legality-study>. Accessed 25 Feb 2020.
- 434 "Ratifications for Myanmar." NORMLEX, ILO. https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:11200:0::NO::P11200_COUNTRY_ID:103159;
- "Child labour in Myanmar robs 1 million children away from their aspirations." ILO, 11 Jun 2019. https://www.ilo.org/yangon/press/WCMS_712254/lang--en/index.htm. Accessed 25 Feb 2020.
- 435 A protocol to prevent, suppress, and punish trafficking in persons, especially women and children, supplementing the United Nations Convention against Transnational Organized Crime. United Nations Treaty Collection, New York, 15 Nov 2000. https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XVIII-12-a&chapter=18&lang=en. Accessed 25 Feb 2020.
- 436 "The enactment of the new Child Rights Law by the Government of Myanmar a landmark step." UNICEF, 24 Jul 2019. <https://www.unicef.org/myanmar/press-releases/enactment-new-child-rights-law-government-myanmar-landmark-step-unicef>. Accessed 25 Feb 2020.
- 437 Burma 2018 Human Rights Report. US Embassy, 2018. <https://mm.usembassy.gov/wp-content/uploads/sites/41/2018-Human-Rights-Report-Burma.pdf>. Accessed 25 Feb 2020.
- 438 2018 Country Reports on Human Rights Practices: Burma. U.S. Department of State, 2018. <https://www.state.gov/reports/2018-country-reports-on-human-rights-practices/burma/>. Accessed 20 Feb 2020.
- 439 Burma 2018 Human Rights Report. US Embassy, 2018. <https://mm.usembassy.gov/wp-content/uploads/sites/41/2018-Human-Rights-Report-Burma.pdf>. Accessed 25 Feb 2020.
- 440 ILO Guide to Myanmar Labour Law. ILO, 2017. https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_577563.pdf. Accessed 25 Feb 2020.
- 441 Burma 2018 Human Rights Report. US Embassy, 2018. <https://mm.usembassy.gov/wp-content/uploads/sites/41/2018-Human-Rights-Report-Burma.pdf>. Accessed 25 Feb 2020.
- 442 ILO Guide to Myanmar Labour Law. ILO, 2017. https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_577563.pdf. Accessed 25 Feb 2020.
- 443 ILO Guide to Myanmar Labour Law. ILO, 2017. https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_577563.pdf. Accessed 25 Feb 2020.

- 444 ILO Guide to Myanmar Labour Law. ILO, 2017. https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_577563.pdf. Accessed 25 Feb 2020.
- 445 Occupational Health and Safety Law. Pyidaungsu Hluttaw Law No 8 of 2019. SCM Legal, 15 Mar 2019. <https://www.ilo.org/dyn/natlex/docs/ELECTRONIC/108180/133583/F-114180113/MMR108180%20Eng.pdf>
- 446 Burma 2018 Human Rights Report. US Embassy, 2018. <https://mm.usembassy.gov/wp-content/uploads/sites/41/2018-Human-Rights-Report-Burma.pdf>. Accessed 25 Feb 2020.
- 447 Burma 2018 Human Rights Report. US Embassy, 2018. <https://mm.usembassy.gov/wp-content/uploads/sites/41/2018-Human-Rights-Report-Burma.pdf>. Accessed 25 Feb 2020.
- 448 ILO Guide to Myanmar Labour Law. ILO, 2017. https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_577563.pdf. Accessed 25 Feb 2020.
- 449 ILO Guide to Myanmar Labour Law. ILO, 2017. https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-yangon/documents/publication/wcms_577563.pdf. Accessed 25 Feb 2020.
- 450 Liu, John. "Myanmar leads ASEAN on child rights and protection," Myanmar Times, Jan 2020. <https://www.mmtimes.com/news/myanmar-leads-asean-child-rights-and-protection.html>. Accessed 1 March 2020.
- Burma 2018 Human Rights Report. US Embassy, 2018. <https://mm.usembassy.gov/wp-content/uploads/sites/41/2018-Human-Rights-Report-Burma.pdf>. Accessed 25 Feb 2020.
- 451 "Child Labor and Forced Labor Reports: Burma." Bureau of International Labor Affairs, U.S. Department of Labor. <https://www.dol.gov/agencies/ilab/resources/reports/child-labor/burma>. Accessed 25 Feb 2020.
- 452 2019 Trafficking in Persons Report: Burma, Office to Monitor and Combat Trafficking in Persons, U.S. Department of State, 20 Jun 2019. <https://www.state.gov/reports/2019-trafficking-in-persons-report-2/burma/>. Accessed 4 Oct 2019.
- 453 2018 Trafficking in Persons Report: Burma, Office to Monitor and Combat Trafficking in Persons, U.S. Department of State, 2019. <https://www.state.gov/wp-content/uploads/2019/01/282798.pdf>. Accessed 4 Oct 2019.
- 454 "Child Labor and Forced Labor Reports: Burma." Bureau of International Labor Affairs, U.S. Department of Labor. <https://www.dol.gov/agencies/ilab/resources/reports/child-labor/burma>. Accessed 25 Feb 2020.
- 455 Observation (CEACR)- adopted 2018, published 108th ILC session (2019): Worst Forms of Child Labour Convention. Committee of Experts on the Application of Conventions and Recommendations, ILO, 2019. https://www.ilo.org/dyn/normlex/en/f?p=1000:13100:0::NO:13100:P13100_COMMENT_ID:3956513. Accessed 9 Oct 2019.
- 456 Liu, John. "Myanmar leads ASEAN on child rights and protection," Myanmar Times, Jan 2020. <https://www.mmtimes.com/news/myanmar-leads-asean-child-rights-and-protection.html>. Accessed 1 March 2020.
- 457 "Linking FLEGT and REDD+ to Improve Forest Governance." ETFRN, 2014, P. VII. <http://www.etfrn.org/file.php/222/etfrn55-webfinal.pdf>. Accessed 25 Feb 2020.
- 458 "Forestry Sector- EITI Report for the Period April 2015-March 2016." Myanmar Extractive Industries Transparency Initiative, Jan 2019. https://myanmareiti.org/sites/myanmareiti.org/files/publication_docs/myanmar_forestry_eiti_report_2015-16_final_signed.pdf. Accessed 25 Feb 2020.
- 459 Interview with INGO representative. March 2019. Yangon.
- 460 Voluntary Partnership Agreement between the European Union and the Socialist Republic of Vietnam on Forest Law Enforcement, Governance and Trade. EU-Vietnam FLGFT VPA, 5 Nov 2017. https://ec.europa.eu/environment/forests/pdf/11_05_2017_EU_Vietnam_VPA.pdf. Accessed 25 Feb 2020.
- 461 "Factsheet: VPAs for SDGs." EU FLEGT, 30 Mar 2016. <http://www.euflegt.efi.int/publications/vpas-for-sdgs;> "VPA annex on the legality definition." EU FLEGT, 2020. <http://www.vpaunpacked.org/legality-definition>. Accessed 25 Feb 2020.
- 462 "What are the requirements for operators?" EU FLEGT. <http://www.euflegt.efi.int/es/what-are-the-requirements-for-operators->. Accessed 25 Feb 2020.
- 463 "Frequently Asked Questions." EU FLEGT. <http://flegt.info/en/preguntas-frecuentes/>. Accessed 25 Feb 2020.

- 464 “Major Dutch company found guilty of dealing in illegal teak.” Mongabay, 2 Nov 2017. <https://news.mongabay.com/2017/11/major-dutch-timber-company-found-guilty-of-dealing-in-illegal-teak/>
- 465 “History.” MFCC. <https://www.myanmarforestcertification.org/about/>. Accessed 25 Feb 2020.
- 466 Forest law enforcement governance and trade in Myanmar: a conflict sensitivity analysis. International Alert, 2017, P. 24. https://www.international-alert.org/sites/default/files/Myanmar_ForestGovernanceTrade_EN_2017.pdf Accessed 24 Feb 2020.
- 467 “Myanmar Timber Legality Assurance System (MTLAS) Gap Analysis Project.” Myanmar Forest Certification Committee, 2017, P. 3-6. http://www.fao.org/fileadmin/user_upload/FLEGT/docs/MTLAS_Gap_Analysis_Consolidated_Report_2017_.pdf. Accessed 25 Feb 2020.
- 468 “Myanmar Timber Legality Assurance System (MTLAS) Gap Analysis Project.” Myanmar Forest Certification Committee, 2017, P. 29. http://www.fao.org/fileadmin/user_upload/FLEGT/docs/MTLAS_Gap_Analysis_Consolidated_Report_2017_.pdf. Accessed 25 Feb 2020.
- 469 “Forestry Sector- EITI Report for the Period April 2015-March 2016.” Myanmar Extractive Industries Transparency Initiative, Jan 2019. https://myanmareiti.org/sites/myanmareiti.org/files/publication_docs/myanmar_forestry_eiti_report_2015-16_final_signed.pdf. Accessed 25 Feb 2020.
- 470 “Drivers of deforestation and forest degradation in Myanmar.” REDD Programme, 2017, P. iv. http://www.myanmar-redd.org/wp-content/uploads/2017/10/Myanmar-Drivers-Report-final_Eng-Version.pdf. Accessed 25 Feb 2020.
- 471 “PROMOTING SUSTAINABLE FOREST MANAGEMENT AROUND THE WORLD: PEFC & FSC.” PEFC, 2016, P. 4. <https://www.pefc.co.uk/system/resources/W1siZiIsIjIwMTYvMDVMDcVODRhdxEyNTAyN19QRUZDX1Byb21vdGluZ19TdXN0YWluYWJsZV9Gb3Jlc3RfTWFuYWdlbWVudF9HbG9iYWxseV9XRUIucGRmIl1d/PEFC%20Promoting%20Sustainable%20Forest%20Management%20Globally%20WEB.pdf>. Accessed 25 Feb 2020.
- 472 “PEFC’s Story, the Early Years.” PEFC, 16 Jul 2019. [https://pefc.org/news/pefcs-story-the-early-years.](https://pefc.org/news/pefcs-story-the-early-years;); “Sustainable Forest Management – Requirements.” PEFC, 2018, P. 15, 29. <https://storage.googleapis.com/pefc-platform/pefc.org/media/2019-01/b296ddcb-5f6b-42d8-bc98-5db98f62203e/6c7c212a-c37c-59ee-a2ca-b8c91c8beb93.pdf>. Accessed 25 Feb 2020.
- 473 “Community Forestry Certification in Myanmar.” MFCC, 2018. https://www.myanmarforestcertification.org/community-forestry-certification-myanmar/?__cf_chl_jschl_tk__=616dc452e4d44a2609625080acc868ae69015019-1579138689-0-AdqlfFReazJrRSmvH3mtaFPtOXYNdCkA5usrM_u57A541041qjXdv8UclKUyNgd8PgaUe4MCsvK3BQUNBreKIMrP-Bj7jEQCPuk8GtWlKr8FXyhQi8fN6o2RqpoDq59oNECwn_sAcTxon0MP-ruMV02WFY23M97kMp2TJBJYmcxbnv7SsnWZfrCwAgssyxSandAZlXVLt6cS1PEYIGR2pn1p-Pea8nJZzx6KK-uuNCOMYe-RHblc9JU0d2w1sr4yyjRBHXOxOJBI5IDl25ncdyzx2oqPL_Nxy75UkyF7f3HlwETehiyR5s3XjDcwGSYA. Accessed 25 Feb 2020.
- 474 “Factsheet: VPAs for SDGs.” EU FLEGT, 30 Mar. 2016. [http://www.euflegt.efi.int/publications/vpas-for-sdgs.](http://www.euflegt.efi.int/publications/vpas-for-sdgs;); “VPA annex on the legality definition.” EU FLEGT, 2020. <http://www.vpaunpacked.org/legality-definition>. Accessed 25 Feb 2020.
- 475 Hinrichs, Alexander. “Briefing note on: ASEAN Criteria and Indicators for Legality of Timber.” ASEAN-German ReFOP, Nov 2009. <https://www.illegal-logging.info/sites/files/chlogging/uploads/Hinrichs2009BriefingNote.pdf>. Accessed 25 Feb 2020.
- 476 “Forest and Product Certification.” MFCC. https://www.myanmarforestcertification.org/certification/?__cf_chl_jschl_tk__=dee139ec83d0b6c529c1fea980aa6a041c50f06d-1579609174-0-AVb1SKVuArEy3G6Dyzzcccd8QMCR4xmyrIqWkVzqADPCOWwoYAU-EPm22rCLefSI2MQ2HtIz-EGnJlRxtDprmdf7ksf6xcyNlDcBYBjgkN3-DtOaIcVYduVFScZNL3V69LT3dbvWDLRzxYygcMnz-eJPrp-Jd_sAftMguM7aOkiwkq8-ZPKKCdlyhKNlPkzv6jz-F6HH8zaxE3uxpip_khE18H-ryoXIMEHAAAOxoz2xyl6ayJPDOySTpKbWNv4Nrsn6Dfrv5FCMWQAWZcuRprE. Accessed 25 Feb 2020.
- 477 “PEFC’s Story, the Early Years.” PEFC, 16 Jul 2019. [https://pefc.org/news/pefcs-story-the-early-years.](https://pefc.org/news/pefcs-story-the-early-years;); “Sustainable Forest Management – Requirements.” PEFC, 2018, P. 15, 29. <https://storage.googleapis.com/pefc-platform/pefc.org/media/2019-01/b296ddcb-5f6b-42d8-bc98-5db98f62203e/6c7c212a-c37c-59ee-a2ca-b8c91c8beb93.pdf>.

b8c91c8beb93.pdf. Accessed 25 Feb 2020.

478 “Assuring compliance with your standards.” PEFC. <https://www.pefc.org/standards-implementation/assuring-compliance>. Accessed 25 Feb 2020.

479 “What are the requirements for operators?” EU FLEGT. <http://www.euflegt.efi.int/es/what-are-the-requirements-for-operators->. Accessed 25 Feb 2020.

480 “Frequently Asked Questions.” EU FLEGT. <http://flegt.info/en/preguntas-frecuentes/>

481 “Major Dutch company found guilty of dealing in illegal teak.” Mongabay, 2 Nov 2017. <https://news.mongabay.com/2017/11/major-dutch-timber-company-found-guilty-of-dealing-in-illegal-teak/>. Accessed 25 Feb 2020.

482 “Europe bolsters the global fight to end the illegal timber trade.” Environmental Investigation Agency. <https://eia-global.org/subinitiatives/eu-timber-regulation-eutr>. Accessed 25 Feb 2020.

483 “Climate Change Strategy and Action Plan 2016–2030.” FAO, 19 Jan 2017. <http://www.fao.org/faolex/results/details/en/c/LEX-FAOC171444>; “Myanmar’s Intended Nationally Determined Contribution (INDC).” UNFCCC, Republic of the Union of Myanmar, 2015. <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Myanmar%20First/Myanmar%27s%20INDC.pdf>. Accessed 25 Feb 2020.

484 Kukharava, Maryia. “Significant Progress in Myanmar’s REDD+ Readiness Phase.” REDD Programme, 28 Nov 2018. <https://www.unredd.net/announcements-and-news/2938-significant-progress-in-myanmar-s-redd-readiness-phase.html>. Accessed 25 Feb 2020.

485 “Myanmar REDD+ Safeguards Roadmap.” REDD Programme, Sep 2017, P. 10. http://www.myanmar-redd.org/wp-content/uploads/2017/10/Final-Myanmar-Safeguards-Roadmap_Eng-Version-1.pdf.

486 “Forestry Sector- EITI Report for the Period April 2015-March 2016.” Myanmar Extractive Industries Transparency Initiative, Jan 2019. https://myanmareiti.org/sites/myanmareiti.org/files/publication_docs/myanmar_forestry_eiti_report_2015-16_final_signed.pdf. Accessed 25 Feb 2020.

487 All content in table adapted from https://www.illegal-logging.info/sites/files/chlogging/Conversion_Timber_in_Myanmar.pdf

488 Woods, Kevin. Commercial Agriculture Expansion in Myanmar: Links to deforestation, conversion timber, and land conflicts. Forest Trends Report Series, Forest Trade and Finance, Mar 2015. https://www.illegal-logging.info/sites/files/chlogging/Conversion_Timber_in_Myanmar.pdf

489 All content in table adapted from https://www.illegal-logging.info/sites/files/chlogging/Conversion_Timber_in_Myanmar.pdf

490 All content in table adapted from https://www.illegal-logging.info/sites/files/chlogging/Conversion_Timber_in_Myanmar.pdf

491 Country Environmental Analysis. A Road towards Sustainability, Peace and Prosperity: Synthesis Report. The World Bank, May 2019. <http://documents.worldbank.org/curated/en/464661560176989512/pdf/Synthesis-Report.pdf>. Accessed 25 Feb 2020.

492 Woods, Kevin. Commercial Agriculture Expansion in Myanmar: Links to deforestation, conversion timber, and land conflicts. Forest Trends Report Series, Forest Trade and Finance, Mar 2015. https://www.illegal-logging.info/sites/files/chlogging/Conversion_Timber_in_Myanmar.pdf. Accessed 25 Feb 2020.

493 Country Environmental Analysis. A Road towards Sustainability, Peace and Prosperity: Synthesis Report. The World Bank, May 2019. <http://documents.worldbank.org/curated/en/464661560176989512/pdf/Synthesis-Report.pdf>. Accessed 25 Feb 2020.

494 Country Environmental Analysis. A Road towards Sustainability, Peace and Prosperity: Synthesis Report. The World Bank, May 2019. <http://documents.worldbank.org/curated/en/464661560176989512/pdf/Synthesis-Report.pdf>. Accessed 25 Feb 2020.

495 Greijmans, Martin et al. “Community Forestry Enterprise development in Myanmar through socially responsible business approaches.” The Center for People and Forests, Dec 2018, P. 5. <https://www.researchgate.net/>

publication/330211642_Community_forestry_enterprise_development_in_Myanmar_through_socially_responsible_business_approaches. Accessed 25 Feb 2020.

496 Interview with INGO representative. March 2019. Yangon.

497 Myanmar Timber Legality Assurance System (MTLAS) Gap Analysis Project Final Report. Myanmar Forest Certification Committee, Apr 2017. http://www.fao.org/fileadmin/user_upload/FLEGT/docs/MTLAS_Gap_Analysis_Consolidated_Report_2017_.pdf. Accessed 25 Feb 2020.

498 “Forest Sector and Restoration and Reforestation Program Review in Myanmar.” PROFOR, 2019. <https://www.profor.info/countries/myanmar>. Accessed 25 Feb 2020.

499 For legal analysis, see: “New Forest Law, 2018- A Check on Deforestation and Degradation.” <https://newsviews.thuraswiss.com/new-forest-law-deforestation-degradation/>; “Government Enacts Tougher Forest Law.” <https://www.mmtimes.com/news/government-enacts-tougher-forest-law.html>.

500 For legal analysis, see: “Issue 7: The New Protected Areas Law – What does it mean for REDD+?” <http://www.myanmar-redd.org/the-new-protected-areas-law-what-does-it-mean-for-redd.html>.

501 “Myanmar Country Environmental Analysis: 2019.” World Bank, 2019, P. 3.

<http://documents.worldbank.org/curated/en/426331560178787853/pdf/Myanmar-Country-Environmental-Analysis-Forest-Resources.pdf>; For legal analysis, see: <https://www.burmalibrary.org/docs13/Community+Forestry+in+Myanmar-op75-red.pdf>.

502 For legal analysis, see: “Current State of the Development and Implementation of the National Code of Harvesting Practices in Myanmar.” https://www.rinya.maff.go.jp/code-h2003/PART_4/U_Kin_Zaw.pdf.

503 For legal analysis, see: “Laws Relating to Environmental Conservation in Myanmar.” https://link.springer.com/chapter/10.1007/978-981-13-2101-6_17.

504 For legal analysis, see: “Community forest business in Myanmar: Pathway to peace and prosperity?” <https://pubs.iied.org/pdfs/G04020.pdf>.

505 For legal analysis, see: “Myanmar Country Environmental Analysis” <http://documents.worldbank.org/curated/en/907811560180123305/pdf/Myanmar-Country-Environmental-Analysis-Sustainability-Peace-and-Prosperity-Forests-Fisheries-and-Environmental-Management-Forest-Resources-Sector-Report.pdf>; “Maynmar to implement a 10-year reforestation plan.” http://www.xinhuanet.com/english/2018-02/11/c_136966586.htm.

506 “Forestry Sector- EITI Report for the Period April 2015-March 2016.” Myanmar Extractive Industries Transparency Initiative, Jan 2019. https://myanmareiti.org/sites/myanmareiti.org/files/publication_docs/myanmar_forestry_eiti_report_2015-16_final_signed.pdf. Accessed 25 Feb 2020.

507 “Myanmar Country Environmental Analysis: Forest Resources Sector Report.” World Bank, 2019, P. 3, 72. <http://documents.worldbank.org/curated/en/907811560180123305/pdf/Myanmar-Country-Environmental-Analysis-Sustainability-Peace-and-Prosperity-Forests-Fisheries-and-Environmental-Management-Forest-Resources-Sector-Report.pdf>. Accessed 25 Feb 2020.

508 “Myanmar Country Environmental Analysis: Forest Resources Sector Report.” World Bank, 2019, P. 72. <http://documents.worldbank.org/curated/en/907811560180123305/pdf/Myanmar-Country-Environmental-Analysis-Sustainability-Peace-and-Prosperity-Forests-Fisheries-and-Environmental-Management-Forest-Resources-Sector-Report.pdf>. Accessed 25 Feb 2020.

509 “Myanmar Country Environmental Analysis: Forest Resources Sector Report.” World Bank, 2019, P. 72. <http://documents.worldbank.org/curated/en/907811560180123305/pdf/Myanmar-Country-Environmental-Analysis-Sustainability-Peace-and-Prosperity-Forests-Fisheries-and-Environmental-Management-Forest-Resources-Sector-Report.pdf>. Accessed 25 Feb 2020.

510 Htun, Htun. “Gov’t Lifts Ban on Plantation Teak Exports.” The Irrawaddy, 11 Jun 2019. <https://www.irrawaddy.com/news/burma/govt-lifts-ban-plantation-teak-exports.html>. Accessed 25 Feb 2020.

511 “Forestry Sector- EITI Report for the Period April 2015-March 2016.” Myanmar Extractive Industries Transparency Initiative, Jan 2019. https://myanmareiti.org/sites/myanmareiti.org/files/publication_docs/myanmar_

forestry_eiti_report_2015-16_final_signed.pdf. Accessed 25 Feb 2020.

512 “Forestry Sector- EITI Report for the Period April 2015-March 2016.” Myanmar Extractive Industries Transparency Initiative, Jan 2019, P. 112. https://myanmareiti.org/sites/myanmareiti.org/files/publication_docs/myanmar_forestry_eiti_report_2015-16_final_signed.pdf. Accessed 25 Feb 2020.

513 “Organised Chaos: The Illicit Overland Timber Trade Between Myanmar and China,” Environmental Investigation Agency, 2015. p. 4. content.eia-global.org/assets/2015/09/Organised_Chaos.pdf. Accessed 12 Feb 2020.
Treue, Thorsten and Oliver Springate-Baginski, Kyaw Htun. “Legally and illegally logged out: The status of Myanmar’s timber sector and options for reform.” ALARM, 2016. www.burmalibrary.org/docs24/Springate-Baginski_et_al-2016-status.pdf. Accessed 23 Sep 2018.

514 “Forestry Sector- EITI Report for the Period April 2015-March 2016.” Myanmar Extractive Industries Transparency Initiative, Jan 2019, P. 24. https://myanmareiti.org/sites/myanmareiti.org/files/publication_docs/myanmar_forestry_eiti_report_2015-16_final_signed.pdf. Accessed 25 Feb 2020.

515 Win, Su Phyo. “Timber group replaces sub-contractors with service providers,” Myanmar Times, July 2017. <https://www.mmtimes.com/business/27013-timber-group-replaces-sub-contractors-with-service-providers.html>. Accessed 1 Mar 2020.

516 “Forestry Sector- EITI Report for the Period April 2015-March 2016.” Myanmar Extractive Industries Transparency Initiative, Jan 2019. https://myanmareiti.org/sites/myanmareiti.org/files/publication_docs/myanmar_forestry_eiti_report_2015-16_final_signed.pdf. Accessed 25 Feb 2020.

Saw John Shwe Ba. “Role of MTE in Myanmar Timber Industry.” Myanmar Timber Enterprise, 19 Oct 2017, P. 16. forestlegality.org/sites/default/files/Role%20of%20MTE%20in%20Myanmar%20Timber%20Industry.pdf. v

517 Saw John Shwe Ba. “Role of MTE in Myanmar Timber Industry.” Myanmar Timber Enterprise, 19 Oct 2017, P. 16. forestlegality.org/sites/default/files/Role%20of%20MTE%20in%20Myanmar%20Timber%20Industry.pdf. Accessed 25 Feb 2020.

518 “Forestry Sector- EITI Report for the Period April 2015-March 2016.” Myanmar Extractive Industries Transparency Initiative, Jan 2019. https://myanmareiti.org/sites/myanmareiti.org/files/publication_docs/myanmar_forestry_eiti_report_2015-16_final_signed.pdf. Accessed 25 Feb 2020.

519 “Baseline Study Four: Myanmar.” Forest Trends, 2011, P. 40-41. http://www.euflegt.efi.int/es/documents/-/asset_publisher/ltjOjWpjT01/document/id/162913. Accessed 25 Feb 2020.

520 “In addition to the MTE, subcontractors may also be involved in harvest operations. The companies that receive logging contracts from the MTE are nearly all large, influential and well-known Myanmar companies from Yangon. All companies work across numerous sectors, assisting the military government in construction, hotel and tourism development and agribusiness as well. Logging concessions can be granted as payment for the assistance of the companies in other sectors, such as in helping to build the new capital Nay Pyi Daw. In this way the logging concessions act as a currency of exchange between the top military leaders and the companies.” Excerpt from: Forest Trends. “Baseline Study Four: Myanmar.” Forest Trends, 2011, P. 41-42. http://www.euflegt.efi.int/es/documents/-/asset_publisher/ltjOjWpjT01/document/id/162913. Accessed 25 Feb 2020.

521 Myanmar Investment Law, 2016. https://www.dica.gov.mm/sites/dica.gov.mm/files/document-files/myanmar_investment_law_official_translation_3-1-2017.pdf Accessed 25 Feb 2020.

522 Myanmar Investment Law, 2016, Article 65. https://www.dica.gov.mm/sites/dica.gov.mm/files/document-files/myanmar_investment_law_official_translation_3-1-2017.pdf Accessed 25 Feb 2020.

523 Email correspondence with Myanmar Centre for Responsible Business (MCRB). November 2019.

524 “Environmental Impact Assessment (EIA) and Environmental Auditing (EA).” FAO. <http://www.fao.org/3/V9933E/V9933E02.htm> Accessed 25 Feb 2020.

525 Myanmar Country Environmental Analysis. Sustainability, Peace, Prosperity: Forest, Fisheries and Environmental Management. International Bank for Reconstruction and Development and International Finance Corporation, The World Bank Group, 2019. <http://documents.worldbank.org/curated/en/388671560181443963/pdf/>

Myanmar-Country-Environmental-Analysis-Sustainability-Peace-and-Prosperity-Forests-Fisheries-and-Environmental-Management-Environmental-Impact-Assessment-System-Diagnostic.pdf Accessed 25 Feb 2020.

526 Environmental Impact Assessment Guidelines for the Mining Sector. Myanmar Mining EIA Guidelines Working Group, Draft working document, Oct 2018. [http://www.ecd.gov.mm/sites/default/files/6.%20TechnicalGuidance_19October2018_finaldraft\(EN\).pdf](http://www.ecd.gov.mm/sites/default/files/6.%20TechnicalGuidance_19October2018_finaldraft(EN).pdf) Accessed 25 Feb 2020.

527 Country Environmental Analysis. A Road towards Sustainability, Peace and Prosperity: Synthesis Report. The World Bank, May 2019. <http://documents.worldbank.org/curated/en/464661560176989512/pdf/Synthesis-Report.pdf>. Accessed 25 Feb 2020.

528 Environmental Impact Assessment Procedures. Myanmar Centre for Responsible Business, 25 Jan 2016. <https://www.myanmar-responsiblebusiness.org/resources/environmental-impact-assessment-procedures.html>. Accessed 25 Feb 2020.

529 Government estimates between 60,000-70,000 acres and 36 companies. LSECNG estimates 142,000 acres and 40 companies

530 “Burmese banana imports to China arriving soon.” Fresh Plaza, 8 Nov 2019. <https://www.freshplaza.com/article/9161564/burmese-banana-imports-to-china-arriving-soon/>. Accessed 25 Feb 2020.

531 Land Security and Environmental Conservation Networking Group (LSECNG). Green Business Dilemma. 2019. Myitkyina, Kachin State, Myanmar. Report on file with Verité.

532 Email communications with Kachin-based civil society organization. February 2020.

533 Environmental Impact Assessment Procedures. Myanmar Centre for Responsible Business, 25 Jan 2016. <https://www.myanmar-responsiblebusiness.org/resources/environmental-impact-assessment-procedures.html>. Accessed 25 Feb 2020.

534 Interview with Environmental Impact Assessment (EIA) Expert. June 2019. Phone call.

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