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

Summary Report of a Verité Initiative

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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Allison Arbib and Erin Klett led the analysis and writing of the capstone report. This report contains references to original research conducted in Mozambique and Burma.

In Mozambique, research and writing was led by Maureen Moriarty-Lempke, PhD and Estacio Valoi. Verité would like to thank Mário Paulo Falcão, PhD from the Eduardo Mondlane University, Faculty of Agronomy and Forest Engineering for research support; Professor Doreen Boyd, Rights Lab Associate Director (Data and Measurement Programme) and Professor of Earth Observation, University of Nottingham; and Dr. Chloe Brown, Rights Lab Research Fellow in Antislavery Remote Sensing, University of Nottingham.

The Burma 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.

For both reports, Verité would like to thank Stephanie Leombruno, who performed background research and assisted in the write up of findings. Lawrence David, Julie Sobkowicz Brown and Carrie Schwartz assisted with the design and layout of the reports. Erin Klett provided oversight and management of the broader initiative.

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Introduction

Forests and forested areas are vital for human development and wellbeing. According to the U.S. Department of State, an estimated 20 percent of the world's population relies on thriving forests to survive, highlighting the critical importance of adequately managing, monitoring, and protecting forested areas around the world.[1] Previous research has begun to document the ways in which environmental degradation tied to deforestation "acts to exacerbate existing vulnerabilities and inequalities of local populations that may render them susceptible to exploitative labor practices."[2]

How might this susceptibility play out? Through a set of comparative qualitative case studies across multiple sectors in two countries – Mozambique and Burma[1] – Verité sought to better understand the linkages between deforestation and associated environmental degradation and vulnerability to trafficking in persons (TIP) and other abusive labor practices. Findings from this research illustrate a diversity in specific root cause issues and resulting exploitative practices, with some common themes.

There is an existing literature in the human rights and human development spheres on potential linkages between the use of exploited or forced labor and increasing rates of deforestation. In parallel, there is substantive documentation on how environmental degradation and deforestation can impact human populations. However, there is an apparent gap between the two spheres in documenting specific patterns of labor exploitation, including forced labor indicators and child labor, that workers directly involved in forestry or adjacent sectors experience, as well as identification of the types of deforestation-linked vulnerability that can be linked in some way to trafficking in persons. This, in turn, can lead to lost opportunities to leverage coordinated policy and program interventions in environment and land tenure to stem vulnerability to human trafficking and vice versa.

With support from the U.S. State Department's Office to Monitor and Combat Trafficking in Persons (J/TIP), Verité conducted exploratory research to contribute to this knowledge gap through a set of case studies in different geographic locations, sectors and contexts illustrating potential links between environmental degradation in the context of active deforestation and vulnerability to TIP and other labor abuses. The research project had three specific 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.

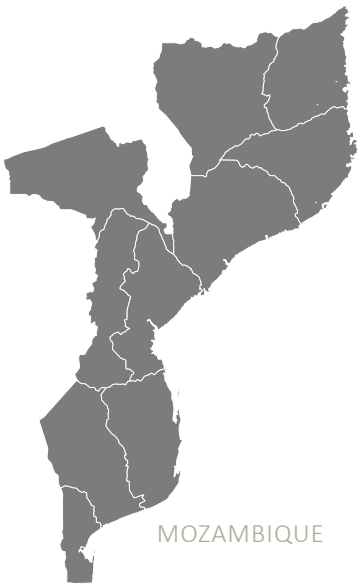
1 The present report will refer to the country as Burma, as per the official name designated by the U.S. Department of State. The official name of the country is the Republic of the Union of Myanmar, or Myanmar.

Two countries – Burma and Mozambique – were identified for research, based on large volumes of export of tropical roundwood, high rates of deforestation, evidence of illegal logging and the potential for TIP risk, and a lack of existing research and feasibility and safety of access to research locations. Two case studies were then selected within each country, to provide a diverse set of illustrative examples of potential intersections between labor vulnerability and environmental degradation, building on previous J/TIP-supported frameworks for assessing country- and sector-based risk for trafficking in persons.[3] In Mozambique, research focused on illicit logging in Tete Province and road construction in Niassa Province. In Burma, one case study was conducted on banana cultivation in Kachin State while the other focused on informal small-scale logging in parts of northern Burma.

In conducting this research and sharing out the findings from the four case studies, Verité has sought to engage in dialogue across a diverse set of stakeholders in environmental protection, land rights, indigenous community protection, labor rights, wildlife trafficking, and others. Throughout the project, Verité has engaged with local and global experts, particularly organizations focused on environmental protection and adjacent issues. Each country report provides a set of recommendations for stakeholders including governments, companies, and civil society organizations in related spheres of practice, on potential avenues for increasing integration between protections for workers and environment in each context.

This summary report describes the overall methodology used to conduct this research and proposes an analytic framework for other practitioners in the field to examine the relationships between deforestation and vulnerability to trafficking in persons. A thematic approach to understanding these intersections is presented, and each theme is elaborated by drawing on examples of findings from country case studies as well as related phenomenon documented in the existing literature. More comprehensive findings from field research – particularly the working conditions experienced by workers – are provided in separate case study reports. Finally, this report discusses methodological learnings and recommended next steps for future work at the intersection of trafficking in persons and environmental degradation.

BURMA

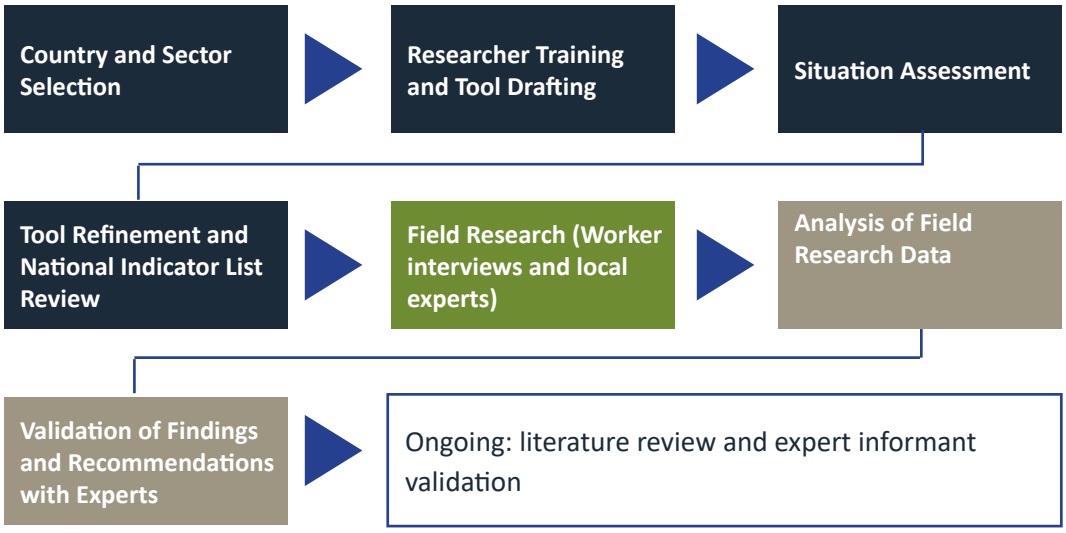


MOZAMBIQUE

Methodology

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

FIGURE 1. RESEARCH METHODOLOGY



The process and method for country selection and identification of case studies for research is described in detail in the **Annex**.

Situation Assessment and Tool Development

Research began with a preliminary phase of expert consultations and review of existing secondary source information (desk research), including national surveys, censuses, and reports on forced labor and trafficking from NGOs and international organizations. Relevant laws, government initiatives, and data from existing international programs to combat forced labor and trafficking in persons were also reviewed.

Verité completed the Situation Assessment research between July – December 2018. This entailed a high-level exploration of the key dynamics related to the nexus between deforestation and environmental degradation and vulnerability to labor abuses and trafficking in persons. The information gathered was used to select specific communities within case study regions in which to conduct further field research, as well as to identify and illuminate specific issues that may be promising interventions or policy options to explore in greater depth during the Field Research phase. The Situation Assessments also identified access, logistic, and security issues that were considered in developing an engagement strategy during the Field Research phase as well as any issues of seasonal timing that could impact the availability of workers.

Rapid qualitative field assessments were then conducted, in which the geographic scope, core research questions, research timing, and methods of data gathering were confirmed. Based on these results, Verité further refined field research tools, including a worker interview questionnaire, to assess the presence of forced labor indicators and other labor issues, including worst forms of child labor. To build interview tools aligned with international standards and definitions, Verité drew on definitions from the United Nations ***Protocol to Prevent, Suppress and Punish Trafficking in Persons Especially Women and Children*** as well as the International Labour Organization and the International Conference of Labour Statisticians as described below. Interview tools were constructed to provide insight into individual experiences (but current and within prescribed recall periods) as well as perceptions on the nature of conditions for others working in the sector.

Field Research

Field research was conducted using semi-structured qualitative interview tools to elicit narrative information from workers and other expert informants. Timing for field research in each country was planned based on a number of factors including seasonality of sectors and weather, the availability of field researchers, and necessary preparations to ensure the safety of field researchers.

In Mozambique, a total of 74 stakeholders with direct experience in either logging or road construction were interviewed, including 30 workers, 21 affected community members, and 15 subject matter experts with a range of academic, government and civil society backgrounds. In Burma, in-country field research yielded a total of 117 stakeholder interviews, including: 18 banana plantation workers and 16 community members (through focus discussion groups) affected by banana plantations in Kachin State; 11 interviews with former and current logging workers in Northern Burma; and 72 additional key informant interviews with representatives from local and international NGOs, academics, community members, and environmental activists.

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 experience. 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.

While findings are qualitative in nature, when possible, the analysis provides quantitative details on the number of interviewed workers reporting a given phenomenon to illustrate broader trends and themes in findings. Due to the largely qualitative nature of data and purposive sampling techniques used, findings are not representative at a national or sectoral level. These limitations are counterbalanced by the strengths of a qualitative approach. First, the flexibility of a semi-structured approach allowed researchers to further probe themes as they emerged. The narrative data emerging from worker and key informant interviews provided insight into the primary issues as

perceived by each interviewee, rather than limiting findings to a pre-determined set of questions. As these case studies were exploratory in nature, the depth of narrative findings provides a broader range of potential topics for further research. Finally, the qualitative nature of research lends itself particularly well to research focusing on vulnerability to trafficking in persons; many interview topics are extremely sensitive and a robust analysis of vulnerability is highly situation-specific and dependent on deep descriptive detail.

Analysis

After completion of field research, research teams aggregated and coded qualitative data. Narrative information from workers or local community members was divided into three primary (and sometimes overlapping) categories: information on preexisting vulnerabilities of communities in target regions that pushed workers into employment in the target sectors; information on working conditions in target sectors; and information on the impact of target sectors – and associated environmental degradation – on vulnerable populations in local communities. Information from expert informants was used to validate worker and community interviews and to inform researcher understanding of national and regional dynamics.

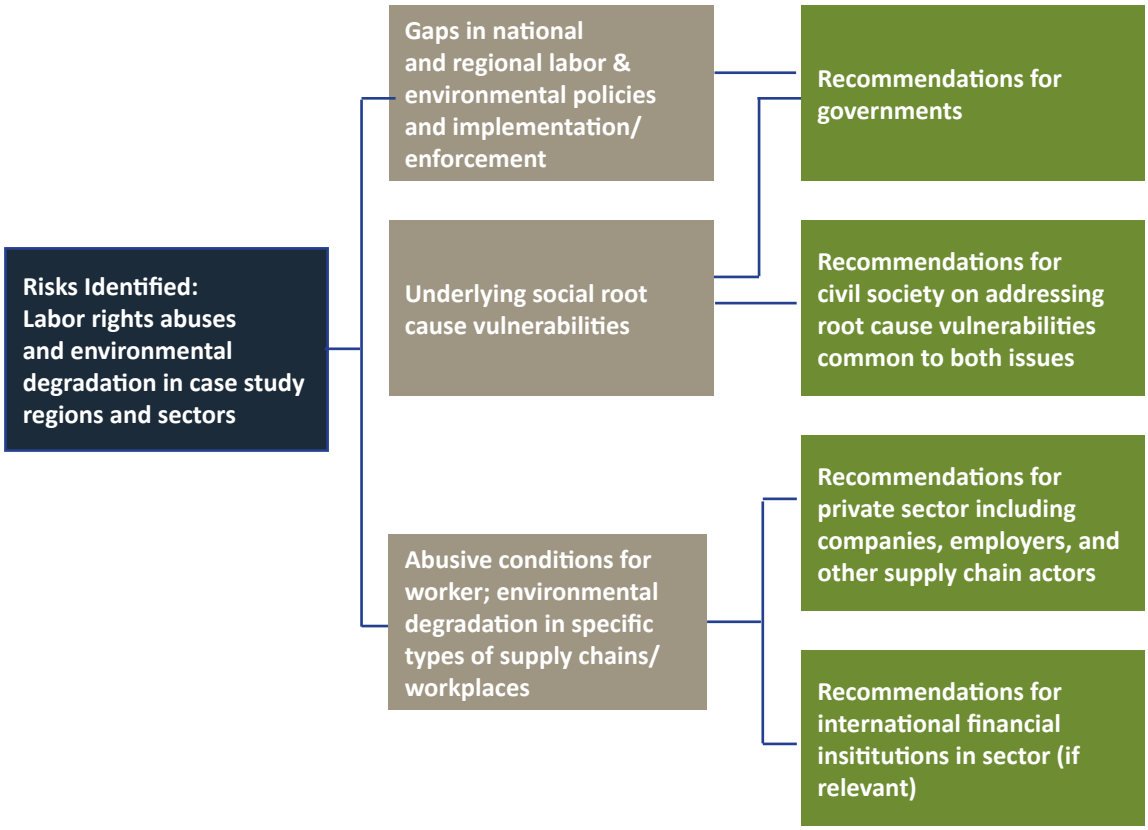
Information specific to working conditions in target sectors was analyzed using indicators of forced labor (as a result of trafficking in persons risk) as discussed below. Given the overlap in issues between the list of forced labor indicators (that is, a factor compelling involuntary work or preventing a worker from leaving a coercive work situation) and working conditions that are abusive but not necessarily coerced, where potential indicators of forced labor were present, researchers sought to explore whether a given phenomenon rose to the level of a forced labor indicator. Where forced labor indicators were determined to be present, they are summarized in tables embedded in the Findings section of each case study report.

Validation of Findings and Recommendations

Upon preliminary drafting of findings, Verité sought external validation from stakeholders such as academics and civil society experts in fields such as forest management, land rights, human rights, as well as regional expertise. Inputs were sought through bilateral consultations with experts. These conversations also served as an opportunity to discuss potential avenues for collaboration between social and environmental stakeholders and to vet and co-develop potential recommendations.

Recommendations were developed using the project's analytic framework (described below) and mapping findings and root causes to potential intervention points for each main stakeholder group: government, the private sector, and civil society organizations. Recommendations specific to each case study are presented in the Mozambique and Burma case study reports. High level recommendations for stakeholders interested in interrupting the intersections between environmental degradation and trafficking in persons vulnerability are presented in the final section of this report.

FIGURE 2. DEVELOPMENT OF RECOMMENDATIONS FOR LABOR RISKS IDENTIFIED

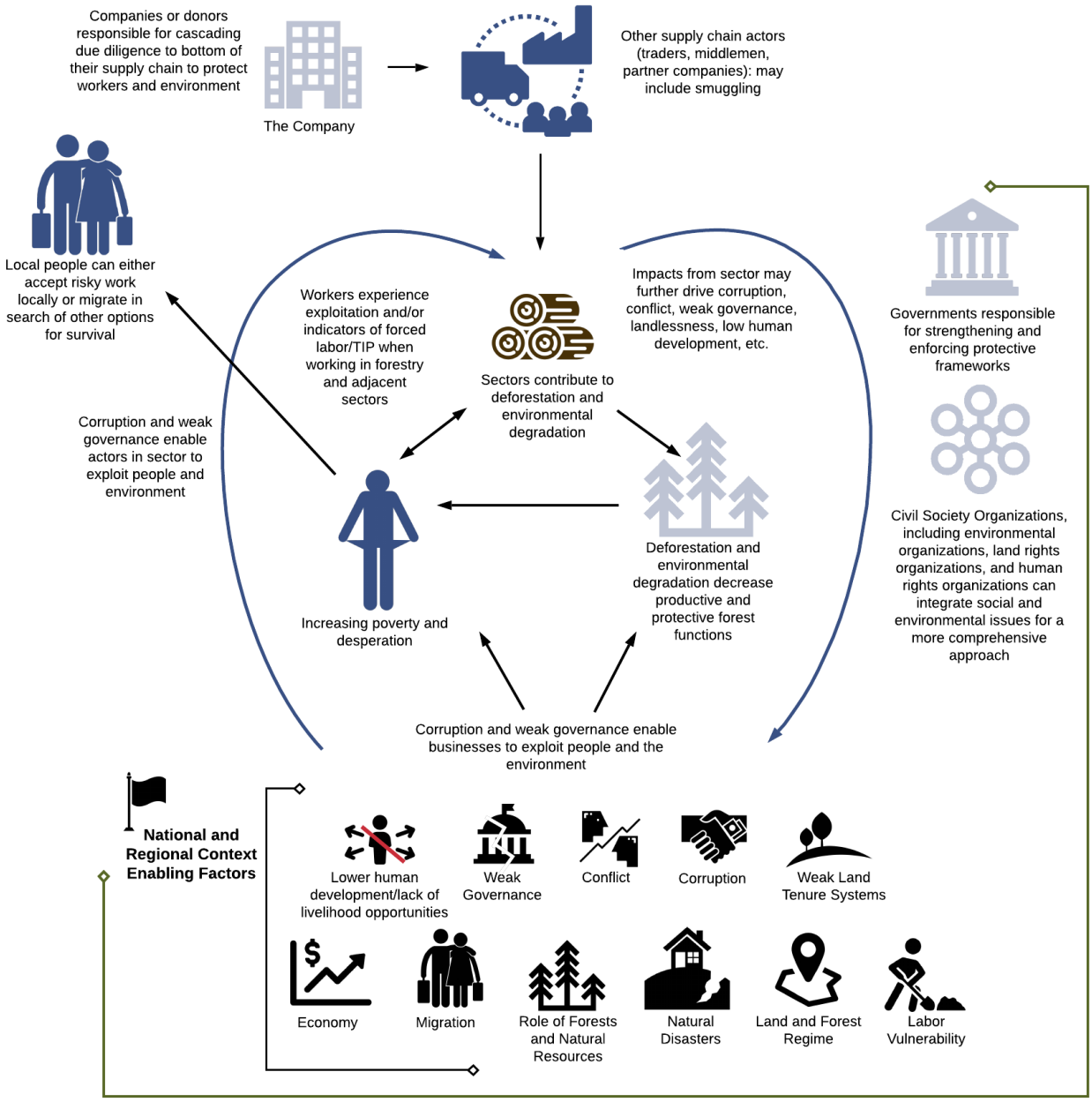


Analytic Framework

A framework was developed to capture key thematic elements that link deforestation and associated environmental degradation with a vulnerability to trafficking in persons. Case study field research sought to understand how these themes manifest in particular contexts. Themes were incorporated into the research design, including survey tool development, data analysis, and supplementary desk research.

Linkages are overlapping and interrelated rather than discrete. Given that both environmental degradation of forested areas and labor abuse of workers in sectors that contribute to deforestation are ongoing concerns, there is no time-ordered dimension to the matrix below; that is, there is no single "entry" place for the framework. Instead, the framework seeks to describe the various linkages between environmental degradation and vulnerability to trafficking in persons that are occurring in forest-adjacent sectors at any given time.

FIGURE 3. ANALYTIC FRAMEWORK: INTERSECTIONS OF TRAFFICKING IN PERSONS VULNERABILITY AND ENVIRONMENTAL DEGRADATION



The first level of risk in the framework is tied to contextual factors at both the national and regional level that contribute to worker vulnerability as well as deforestation and 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 types. The first type is related to preexisting social vulnerabilities. Poverty and low human development outcomes, combined with a lack of viable livelihood options, are notable issues in rural and forested areas. The presence of these factors creates a bind for workers: either accept the risky working conditions in whatever sectors are

locally available or migrate elsewhere to seek employment. Either option can leave individuals and families vulnerable to exploitation and, in some cases, trafficking in persons.

The second type of national and regional contextual factors are those related to the overarching issue of weak governance. These factors enable operators in the research target sectors (illegal logging, banana plantations, road and infrastructure development) to conduct business without sufficient regard for impact on human and environmental outcomes. National factors include legal and regulatory frameworks covering labor, forest management, land management, and environmental protection. National and regional geographic factors tend to be highly interrelated. This report describes identified factors that contribute to the vulnerability of workers and community members at both the national level as well as at the regional level in both case studies. National and regional contributing factors tend to be intersectional; that is, they are associated with other contributing factors and some factors may impact both governance and social vulnerability.

The next area of the matrix is the working conditions – including any specific indicators of forced labor identified – experienced by individuals in target sectors that contribute to deforestation and environmental degradation. Poor working conditions and indicators of forced labor, such as low wages, in these sectors also exacerbate the preexisting social vulnerabilities that exist among local populations. There may also be working conditions specific to the sector or supply chain that enable both labor abuses as well as deforestation.

Deforestation, loss of access to forested lands, or degradation of forested areas caused by illegal logging, agricultural expansion, firewood harvesting, some forms of mining activities, forest fires and livestock grazing can create a cascade of interrelated impacts on humans as the protective and productive functions of the forest are disrupted.

The pressure people experience to enter into vulnerable work is compounded by past and ongoing deforestation and environmental degradation. Deforestation, loss of access to forested lands, or degradation of forested areas – which can be caused by a wide variety of factors, including illegal

WORKER HOMES ON BANANA PLANTATION, KACHIN STATE, BURMA

logging, agricultural expansion, firewood harvesting, some forms of mining activities, forest fires and livestock grazing[4] – can create a cascade of interrelated impacts on humans as the protective and productive functions of the forest are disrupted. Where applicable, researchers sought information from community members to better understand the impact that deforestation and environmental degradation has had on their wellbeing and livelihood options. Information on these dynamics from case study regions are provided in the following sections.

Productive functions are "the economic and social utility of forest resources to national economies and forest-dependent local communities."[2] This can include small-scale sustainable harvesting of forestry products (such as game hunting, honey production, and wood) to large-scale forestry/timber operations that provide formal employment. If managed responsibly, the productive functions of forests can provide livelihoods and income for rural communities. Forests also serve protective functions such as preventing soil erosion, preventing landslides, reducing the risks of floods, and mitigating climate change on both a global and localized level.

To map out which recommendations could be made to a range of stakeholders for ameliorating 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. These stakeholders include companies, other supply chain actors, international donors, governments, and civil society groups. More information about stakeholder recommendations is provided below.

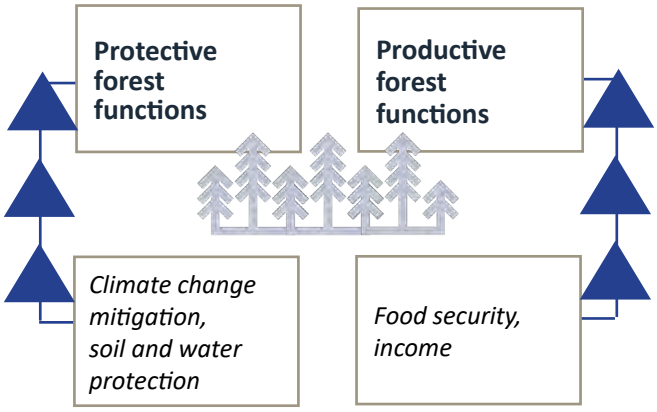


FIGURE 4. PRODUCTIVE AND PROTECTIVE FOREST FUNCTIONS

Defining Trafficking in Persons and Forced Labor

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."[4] This definition includes three elements – the act, the means, and the ends – that together constitute trafficking in persons.

Verité also relies on International Labour 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."[5]

In order to evaluate the risk of forced labor and the underlying practices that contribute to forced labor risk, Verité analyzed for the existence of the ILO's forced labor indicators presented in the ***Guidelines Concerning the Measurement of Forced Labour*** published in 2018 by the International Labour Organization and the International Conference of Labour Statisticians (ICLS).[6] The ICLS Guidelines, in conjunction with earlier guidance on indicators provided by the ILO,[7] specify indicators that can contribute to conditions of involuntary work and threat or menace of penalty, the two primary components of forced labor.[8] These indicators can also demonstrate the "means" element 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 research presented here focused on identifying which indicators of forced labor are present, how these indicators operate in practice, and what contextual issues enable the presence of vulnerability to and presence of risk factors for forced labor."

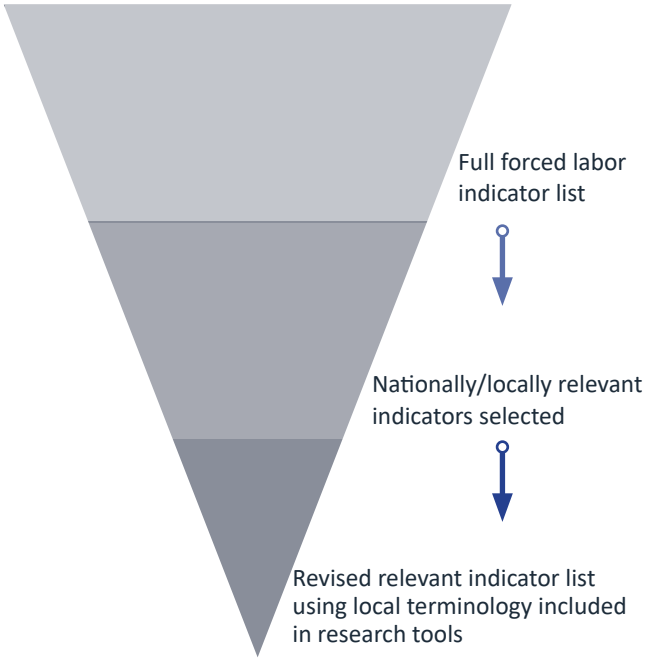
The indicator approach can be applied to identify an individual case of forced labor or to understand which indicators are present across a given population of workers. The research presented here focused on identifying which, if any, indicators of forced labor are present in the given sectors under 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.

The indicators provided by the ICLS guidance are as follows:[9]

*Indicators of involuntary work**	*Indicators of threat and menace of any penalty***
→ 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 **any work taking place without the free and informed consent of the worker*	→ 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.[10] ***coercion used to impose work on a worker against a person's will*

To ensure that the indicators used in the research framework and tools were relevant to each national context, Verité undertook a process of generating a national list of relevant indicators, following the guidance provided by the International Labour Organization.[11] After starting with the full list of forced labor indicators as listed below, each was validated against a review of existing secondary source information (desk research). Then, Verité 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 5. REVIEW PROCESS WITH EXPERTS



National and Regional Contextual Factors that Enable Deforestation/Environmental Degradation and Vulnerability to Trafficking in Persons

Drawing on the analytical approach described in **Figure 5**, the national and regional contextual factors that can have bearing on trafficking in persons and forced labor vulnerability are elaborated below by drawing on examples of findings from country case studies as well as related phenomenon documented in the existing literature. Comprehensive findings from the field research, particularly the working conditions experienced by workers, are provided in separate case study reports.

Poverty and Low Human Development Outcomes

The level and extent of existing poverty is known to be a "push" factor for trafficking in persons and forced labor vulnerability. The ILO has noted that household food insecurity and income shocks "increase the likelihood of exposure to forced labor."[12] People suffering from extreme poverty generally have few options, and may take risks or make choices that increase their risk of being trafficked or caught in situations of debt bondage or forced labor. Interviewed workers in each geography and sector studied for this project reported that a lack of livelihood options pushed them to seek employment in the target research sector, whether it be banana plantations in Burma, illicit logging in Burma and Mozambique, or infrastructure development in Mozambique. Lack of alternative employment or livelihood can also prevent workers from leaving a job when exploitation begins and can contribute to the inability to refuse poor or abusive conditions. For example, workers on banana plantations in Kachin State cited lack of any livelihood alternative as a motivation for remaining on banana plantations even after they discovered the extremely low wages, unreasonable wage deductions, and coerced overtime.

The UN Food and Agriculture Organization estimates that 80 percent of the world's extremely poor population lives in rural areas.[13] Poor populations in rural areas also tend to be concentrated in remote geographies, including forested areas.[14] Although both urban and rural poor are vulnerable to trafficking in persons, rural populations living in extreme poverty differ from urban populations in poverty in several ways. Because of a high rate of subsistence agriculture and waged agricultural employment, any factor that hinders agricultural activity will also directly impact both food security and livelihood.[15] For example, Tete Province, a case study area for illicit logging, is one of the most food-insecure areas in Mozambique particularly in the months before the agricultural harvest season.[16] Interviewed workers involved in illicit logging in Tete reported that a lack of other livelihood options and dependence on subsistence agriculture had pushed them to work in illicit forest activities in order to support themselves and their families. Among informal loggers interviewed in Burma, multiple workers also mentioned income and food insecurity associated with small-scale farming as a driving factor in seeking work in logging. This vulnerability was compounded for landless

farmers, who farmed under sharecropping arrangements and tended to generate less revenue than farmers who owned land.[17] This illustrates the negative impacts of land acquisition and conflict that has left large groups landless and with heightened vulnerability to labor exploitation. Workers also described how healthcare shocks necessitated a more rapid source of cash and thus a turn to illicit logging for survival.

Small-Scale Agriculture, Rural Poverty, and Deforestation

Small-scale agriculture can itself contribute to deforestation, and the degree of deforestation attributed to large-scale versus small-scale agriculture can be geographically specific. In Latin America, less than 30 percent of deforestation is thought to be caused by small-scale agriculture.[18] A study in the Brazilian Amazon found that although smallholder farmers caused approximately 12 percent of forest loss in the study period from 2004–2011; in the period from 2011–2014, small-holder contribution to deforestation in the area grew nearly 70 percent.[19] In the Congo Basin in Africa, approximately 80 percent of deforestation is attributed to smallholders.[20]

When growing techniques exhaust the soil in one area, farmers often clear additional land to shift their cultivation area, which leads to increased regions of tree loss.[21] However, forest cleared for shifting small-scale agriculture can typically regrow,[22] decreasing the long-term environmental and social implications. Conversely, deforestation for the purposes of large-scale commercial farming is generally permanent.[23] Therefore organizations such as the The Food and Agriculture Organization of the United Nations (FAO) have highlighted the fact that rather than attempt to halt the small-scale agriculture that may be critical for community survival, agronomic efforts to intensify the productivity of smallholder farmers can improve food security of local communities while maintaining forest integrity.[24]

Further, previous research has shown that human development outcomes in an area (such as poverty rates, educational attainment, and health outcomes) are more determinative of deforestation than population growth. That is, even in areas with high population growth, when human development indicators are high, deforestation has been shown to be low,[25] suggesting that issues of social vulnerability and human development are critical considerations for conservation agendas.

Limited infrastructure and public services such as education[26] can limit the ability of residents to seek work in the formal sector even where these jobs exist. Within case study regions, this dynamic was particularly notable in Niassa Province, the site of the infrastructure development case study. Niassa Province is one of the most isolated and most impoverished regions in Mozambique. The area is highly dependent on subsistence agriculture and has a poverty rate that that nearly doubled between 2009 and 2016[27] due to limited economic opportunity, lack of infrastructure, and the impacts of environmental disasters

such as cyclones and flooding.[28] A concentrated population of Muslim residents has been particularly marginalized. Local workers reported that although jobs in road construction were promised to local residents – and jobs for local residents were indeed specified under international donor agreements – the most desirable jobs were filled by skilled workers from non-African countries. While a direct cause for this dynamic was not attributed by interviewees, it is possible that the degree of local employment was affected in part by low levels of educational attainment.

It is important to note that poverty is a relative phenomenon. Even in impoverished areas, natural resource extractions or other booms can bring the promise of jobs or an opportunity for a cash influx that can draw migrants from other domestic regions or other countries. This is the case in Mozambique, where work in both logging and road construction has drawn workers from neighboring countries including Malawi, Zambia, and Zimbabwe. These workers experienced some risks unique to transnational migrants. In the case of logging workers, they experienced threats of deportation as a means to prevent them from expressing grievances to the police. In some cases, transnational migrants appear to earn less overall than Mozambican workers.

NKULA LOG STOCKPILE IN TETE PROVINCE

Corruption

A high degree of corruption in a country can be associated with a risk of labor exploitation and trafficking in persons[29] as well as a risk of deforestation. Transparency International summarizes the importance of identifying the role of corruption in the context of forested areas: "The link between corruption and deforestation has been almost universally recognised. Corruption within and around the forest sector undermines design, implementation and subsequent monitoring of policies aimed at conserving forest cover, while also jeopardising development goals and poverty alleviation in many countries."[30]

According to the United Nations Office on Drugs and Crime (UNODC), the role that corruption plays in facilitating trafficking can take many forms: "corrupt behavior of law enforcers may help traffickers to recruit, transport and exploit their victims; corrupt criminal justice authorities may obstruct the investigation and prosecution of cases, and/or impede the adequate protection of victims of the crime… corruption involving the private sector …may also contribute to trafficking in persons."[31]

A report from Global Witnesses on illegal logging in Africa noted that corruption among "political elites, forestry officials, and logging companies" allowed logging to continue in areas where it was legally restricted, allowing operators to "bypass[ing] new laws and environmental safeguards designed to protect forests and the communities that live in them."[32] The International Criminal Police Organization (INTERPOL) has noted common instances in an illegal logging supply chain that are directly enabled by corruption at some level. These include the acquisition of logging licenses outside legally defined purposes, bribes to local law enforcement officials for the purposes of allowing illicit harvesting to continue, falsification of transport or export documents, traders and middlemen intentionally "laundering" illegally logged timber with legal timber, and bribes to inspectors.[33] Corruption can occur at any level from local actors, to state actors to national government actors.

Corruption also plays a role in the degree to which land rights are upheld; even with a strong legal framework around land rights for communities and individuals, corruption may prevent these rights from being upheld in practice. A report from Transparency International found that 50 percent of citizens surveyed reported that they had to pay a bribe when registering their land.[34] Transparency International also notes that local political elites and leaders can fail to represent the interests of local communities if they are colluding for financial gain with business interests. (More on land rights and intersections with trafficking in persons and environmental degradation below.)

The link between corruption and deforestation has been almost universally recognised. Corruption within and around the forest sector undermines design, implementation and subsequent monitoring of policies aimed at conserving forest cover, while also jeopardising development goals and poverty alleviation in many countries.

***About Forest Governance*, Transparency International**

Corruption played out in multiple ways in the current case study research. In Burma, corruption at the under-resourced Forestry Department, which is mandated to ensure regulatory compliance of logging activities,[35] was reportedly common, enabling illegal logging to continue. One logging worker interviewed in Burma reported that people who were imprisoned for illegal logging were the ones who did not adequately build relationships with government officials, suggesting that some form of bribery is likely required to avoid criminal penalties.

The ILO has also reported that corruption is a factor in regulating child labor in Burma,[36] which is particularly relevant because child labor was identified in logging areas under study.

In the case of banana plantations, the expansion of commercial plantations in the area studied was reportedly facilitated by relationships between investors and the varied groups that control access to land, including the National Democratic Army of Kachin (NDA-K), a Kachin militia group which allied to the Burmese military as part of the Border Guard Force (BGF), a subdivision of the Burma military; and 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.[37] 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.[38]

In Tete Province in Mozambique, illicit timber exploitation was found to be occurring in the context of corruption and weak governance – in combination with pervasive poverty – that enabled a range of activities underpinning both labor rights abuses and deforestation. Corruption allowed logging to occur without proper licensing and therefore without oversight. Logging operators were found to use the cover of a commercial license valid only for another geographic region of the country and to improperly use simple licenses. In many cases, access to licenses and to forested land was secured through collusion with local elites who did not always fully advocate for the interests of local community members. Simple licenses did not require transparency in names or locations of concessions.

The lack of oversight in Mozambique has had both severe environmental implications and social implications: volumes and species of wood outside of legal limits have been felled, and harvesting has occurred outside of designated areas. Corruption has also reportedly facilitated smuggling and sale of the illegally logged timber after harvest. The lack of oversight also allowed employers and/or supervisors to continue to exploit workers without any penalty – including children in some cases. When workers sought to express grievances, a combination of potential corruption and a lack of capacity among local law enforcement officials meant that workers had no recourse in the case of abuse. In fact, they themselves risked being criminalized, further deterring other workers from expressing any grievances about their work. In several cases, workers engaged in illicit logging in Mozambique interviewed in the course of the research reported that they went to the police to lodge grievances against a trader who had been acting abusively, only to have the police side with the trader or threaten to penalize the worker.

Corruption in Burma

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 high rates of corruption).[39] 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.[40] A Transparency International study in 2017[41] analyzing bribery in public services found that significant numbers of respondents reported paying bribes to police (49%).[42] Corruption and bribery are also reportedly present among labor inspectors.[43]

Corruption in Mozambique

Transparency International rated Mozambique at 25/100 for perceived level of public corruption in 2019, where a score of 0 means highly corrupt and a score of 100 means very clean.[44] The U.S. Department of Commerce stated in 2018 that "corruption is a concern across the government and senior officials often have conflicts of interest between their public roles and their private business interests. The problem of corruption and bribery also remain a major problem for Mozambican police forces."[45] Several key agencies measuring public sector corruption have made similar determinations, concluding that corruption in Mozambique is widespread throughout all levels of governance,[46] including the forestry sector.[47]

Political Instability or Conflict

The relationships between political instability, conflict, trafficking in persons and other labor exploitation, and deforestation/environmental degradation are complex. Conflict can have a general destabilizing effect on a country, diminishing rule of law. This instability can compound existing social vulnerabilities. In areas with ongoing conflict or profound political upheaval, local people often lack economic opportunity and few survival options, leaving them more vulnerable to unethical recruiters or employers. Trafficking in persons vulnerability is often particularly acute for refugees or Internally Displaced Persons (IDPs), who typically experience a set of compounded intersecting risks: low economic opportunity, landlessness, and potentially social marginalization. The IOM has noted that, in some cases, traffickers or other unethical recruiters and employers may "take advantage of populations receiving humanitarian assistance... through fraudulent and ultimately exploitative opportunities for employment or onward migration."[48]

Political instability has particular implications for forests. USAID has noted that "conflict timber" has historically posed a particular risk to countries in Africa and Asia.[49] Conflict timber is associated with other national contextual issues such as weak governance and corruption.[50] Recent research has also demonstrated that post-conflict states are also vulnerable to deforestation, in part because of the ensuing instability, and weak policy implementation.[51]

Conflict can leave some areas of a country outside government control, potentially allowing illicit activities, including trafficking in persons, to occur. In some cases, proceeds from illegal logging or other activities that contribute to environmental degradation can fund parties to the conflict. Two prominent examples of this linkage are Liberia's President Taylor's use of revenue from logging to "procure arms in breach of UN sanctions [and] to wage a campaign of violence, which saw over 250,000 people killed and almost 1 million displaced"[52]; and in the Central African Republic, when international companies paid for "protection" to continue operating in the country, thus financing arms purchases.[53]

Conflict can also be prolonged due to contested control over natural resources, including timber and forested areas. While the The Food and Agriculture Organization of the United Nations (FAO) has noted that conflict has rarely been solely motivated by control of forested areas, "insurgent groups [have] dragged out their struggles in part to engage in illegal logging operations."[54]

Forestry Management in Previously FARC Controlled Areas in Colombia

Areas previously controlled by the Revolutionary Armed Forces of Colombia (FARC) have been identified as deforestation hotspots, with deforestation rates doubling in a single year following FARC disarmament.[55] Experts attribute the increase in deforestation to the end of the FARC presence, whose violent control of the area "deterred the implementation of extensive extractive operations"[56] and enforced codes for the behavior of local populations.[57] Oil exploration and small-scale agricultural growth have increased in these areas since FARC demobilization. Some experts have noted that wealthier landholders are actually financing some of the farming expansion that appears to be driven by smaller-scale farmers, in hopes of land consolidation for future commercial operations.[58] However, human rights activists argue that it is the small-scale ***campesino*** farmers who have been criminalized for land-grabbing, rather than wealthier land owners or commercial interests.[59] Indigenous community leaders have called for interventions, including: supporting formal land titles for small-scale farming; providing training on agricultural practices that minimize deforestation; providing health, education, and livelihood support; and partnering with indigenous communities in conservation efforts while increasing prosecution of wealthy parties backing land grabs.[60]

Finally, environmental and human rights groups have noted that in countries with active or recent histories of conflict, identification and protection of land rights typically become more challenging, particularly when claims are made by multiple stakeholders.[61] (See the following sections on land and forestry regulatory frameworks for more discussion.) The case studies in Burma and Mozambique provide some illustrations of how political instability or conflict can play out.

Although Burma transitioned to civilian rule in 2010 after 49 years of political conflict and violence, ethnic conflict remains high. Ethnic Armed Organizations (EAOs) – many of which were previously part of communist insurgencies – now represent ethnic minority groups in the mountainous borderlands and regularly clash with the military. Three quarters of the country's regions experienced conflict according to a 2016 study.[62] The conflict has led to depressed economic growth and development, and perpetuated military presence in government affairs.

Ethnic minority groups internally displaced by conflict are also highly vulnerable to trafficking in persons and forced labor. The 98,000 internally displaced persons (IDPs) in Kachin State and northern Shan State, the majority of whom are ethnic Kachin,[63] lack employment opportunities and sufficient rations. Lacking alternatives, some IDPs seek employment in jade mining and agribusiness – including banana plantations – in the case study area of Kachin State, while others migrate and seek employment in China.[64]

Dynamics of ceasefire deals have also contributed to land grabs in Kachin State, demonstrating the intersectionality of these issues. Companies with relationships to top military officials have wide-ranging presence in Kachin State, receiving business deals and

access to concessions as part of what has been termed "ceasefire capitalism."[65] Chinese companies, predominately from Yunnan, have long-established familial and business relations that allow them to profit from Kachin State's conflict resource economy. China's opium substitution program, intended to help transform Kachin State's illicit economy into a post-poppy agribusiness sector,[66] has resulted in a proliferation of Chinese agribusiness estates, sometimes in partnership with local business elites (many of whom are tied to paramilitaries or EAOs), dominating land-based investments since the mid-2000s.[67] Agribusiness land grabs have since become commonplace.[68]

In Tete Province in Mozambique, ongoing national conflict between the ruling FRELIMO and minority RENAMO parties have resulted in attacks and displacement of people living in some communities in Tete.[69] The region experiences some of the nation's highest poverty rates[70] and low educational and living standards outcomes. The conflict has also lessened capacity for natural resource management, including oversight of forest activities.[71] Similarly, Niassa Province and other northern provinces in Mozambique experience high rates of rural poverty, which, in combination with the impacts of natural disasters that have caused property loss and insecurity, have contributed to social exclusion and armed group conflict in the region.[72]

YOUNG BAOBAB TREES, TETE PROVINCE, MOZAMBIQUE

Weak Legal Frameworks for Land and Property Rights

A strong regulatory framework around land and property rights is critical for preventing deforestation and environmental degradation as well as vulnerability to trafficking in persons.

Land rights in general, including in forested areas, are critical for upholding human rights. Landless populations are often left without livelihood options; the loss of land for subsistence agriculture can create a labor force that must either accept risky work locally or migrate out of the area. Risk of exploitation for displaced populations is heightened when land is acquired through coercion. Socially marginalized groups, such as women and some indigenous groups or minorities, may be at increased risk of displacement as their property rights may be less acknowledged under land rights regimes.

According to the UN High Commissioner on Human Rights, "an increasing number of people are forcibly evicted or displaced from their land to make way for large-scale development or business projects, such as dams, mines, oil and gas installations or ports. In many countries the shift to large-scale farming has also led to forced evictions, displacements and local food insecurity, which in turn has contributed to an increase in rural to urban migration and consequently further pressure on access to urban land and housing. A considerable portion of this displacement is carried out in a manner that violates the human rights of the affected communities, thus further aggravating their already precarious situation."[73]

Land Pressure, Migration, and Deforestation

Many countries have parallel tracks of land tenure systems – both traditional and official systems – creating opacity around actual land rights. This can be exploited by corporate or state actors to facilitate commercial access and financial gain. In forested areas, this type of land acquisition is likely to be associated with deforestation. For example, one particular law has contributed to land grabbing in Kachin State in the area surrounding the banana plantations studied in Burma – the Vacant, Fallow, and Virgin (VFV) Land Management Law. This law allows the government to categorize over 40 percent of land as vacant or fallow and therefore available for allocation to commercial concessions,[74] including land that is used for crop rotation in subsistence agriculture. Much of the land characterized as VFV land is reportedly actively used under customary and ancestral land tenure claims.[75] The law has been especially criticized by groups representing IDPs in Kachin State and northern Shan State, as they are not able to safely return to their land plots to defend against state confiscation, essentially thereby setting legal support to accelerate land grabbing.[76] The law has affected many IDPs, potentially increasing their vulnerability to exploitation.[77]

Sectors that require large, consolidated areas of land, such as commercial agriculture are more likely to be associated with large-scale land acquisition. Kachin State has an estimated 27 percent of the country's land allocated for agricultural concessions,[78] and the agribusiness plantations of Kachin State in Burma have encroached on community land as they have grown.

The World Resources Institute notes that when companies or governments displace local populations, they often "promise jobs or social services to displaced communities… [that] seldom materialize."[79] This was borne out in the Niassa, Mozambique case study where many jobs promised to local community members impacted and displaced by the road development did not materialize. When displaced community members were able to gain employment, they faced the same exploitative conditions as other workers. Legal frameworks around land rights in Mozambique are largely silent around matters related to just compensation for landholders impacted by public projects such as infrastructure development.[80] Although the international donor institutions funding the development of the N13 corridor in Niassa Province ostensibly followed rigorous safeguards that cover such issues, field research found some community members who reported significantly inadequate compensation or assistance for people who lost homes or other property as a result of the construction. The loss of property, livelihood, and food security created by this project contributes to worker vulnerability to labor abuses.

SETTLEMENTS NEAR THE N13 HIGHWAY, NIASSA PROVINCE, MOZAMBIQUE

Inadequate Forest Governance

According to the FAO, forest governance "is defined as the way in which public and private actors, including formal and informal institutions, smallholder and indigenous organizations, small, medium-sized and large enterprises, civil-society organizations and other stakeholders negotiate, make and enforce binding decisions about the management, use and conservation of forest resources."[81] Forest governance can include "rules about how forests should be governed…. regulations about who benefits from forest resources… traditional and customary rights... the use of private sector mechanisms… and international measures to promote timber legality and good governance."[82]

Organizations such as the Rights and Resources Initiative have pointed out that "more regulation" or "stronger enforcement" is not usually sufficient to protect community and individual land rights, thus reducing deforestation and dispossession. Instead, they note that regulatory frameworks that are participatory and responsive to the needs of local people are critical to upholding human rights.[83] Weak regulatory frameworks around forest and land – particularly in conjunction with weak implementation and corruption – enable unethical behaviors on the part of business actors seeking to exploit natural resources or to use land for commercial purposes.

De jure forestry legislation has been assessed to be relatively strong in the case study countries. However, even where legislation is strong, illegal logging can persist due to corruption and weak enforcement. In Mozambique, illicit logging has been facilitated by improper use of licenses as well as corruption as a means of gaining access to forested lands. In Burma, observers have noted that corruption within the Forestry Department has led to a lack of sufficient oversight (see the Corruption section above for more details).

Another critical issue that emerged from the Mozambique logging case study is the challenge associated with sustainable forest management in the face of shifting patterns of timber exploitation. This case study highlights the degree to which shifting consumer demand can rapidly necessitate new social and environmental frameworks related to harvesting a species of tree that had been absent from development and conservation agendas. Because the species was not previously in high demand, it had not benefited from international regulations around extraction rates or trade.[84] The exploitation of *Pterocarpus tinctorius* (referred to locally as *Nkula*) ramped up in Mozambique quickly and was never included in government efforts at mapping distribution and volume of commercial tree species. It had not been included in Mozambique tree species census efforts, so a record of overall volume and distribution is not available and hence has created difficulty in estimating the extent of species loss.

The effects of regulatory and enforcement gaps on the harvesting of *Pterocarpus* species have extended beyond just Mozambique. The boom in Mozambique was preceded by unsustainable harvesting of related species in neighboring Zambia and Malawi. Malawi banned all exports of roundwood in 2008[85], but illegal *Nkula* harvesting and trade with China has continued.[86] Zambia banned exports of a similar look-alike species in 2014, although illegal harvesting reportedly continued, largely unabated, leading to a subsequent ban in 2017. Zambia is estimated to have lost over a million hectares of *Pterocarpus* species between 2000 and 2014. *Nkula* only became protected under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in 2019.

Weak Labor Rights Framework or Implementation

A strong labor rights framework should include specific protections around trafficking in persons and child labor. However, even strong legal frameworks will not protect workers in instances where implementation is not fully realized. In many national contexts, labor laws do not apply to work in the informal sector, which typically includes some types of forestry and forest-adjacent work. For example, although minimum wage laws apply to agricultural workers in Burma, the agricultural sector was not covered under the Ministry of Labor, Immigration, and Population's (MOLIP) mandate until 2019, leaving large populations of workers without adequate protection.[87] Lack of formal legal protections around labor rights leaves workers with little recourse in the face of exploitative labor. Forced labor vulnerability increases in environments of weak regulatory oversight.

Implementation of protective frameworks around labor rights and trafficking in persons protection typically requires participation of government actors at local and national levels including police, labor inspectors, and relevant government ministries as well as cooperation with civil society and the private sector. Forestry and forest-adjacent activity tends to occur in remote areas where it is more difficult to enforce labor and environmental protections, and corruption can significantly hinder enforcement. In some parts of the Amazon, Central Africa, and Southeast Asia, the International Criminal Police Organization (INTERPOL) estimated that illegal logging may account for as much as 50 – 90 percent of all forestry activity.[88]

In the Tete Province of Mozambique, when interviewed workers sought to express grievances for abuse, corruption of local law enforcement led workers themselves to face criminalization. Managers took advantage of this and sometimes threatened to denounce workers to police for participating in illicit activities, a potential indicator of forced labor. In Niassa Province, challenges around implementation of labor law appeared to be largely related to a lack of capacity, although some workers noted corruption there as well.

Most private sector actors in the case study supply chains were not active participants in communicating and upholding information about labor rights and working conditions. This can be linked in part to a lack of regulatory frameworks in relevant importing countries. The Niassa infrastructure development case study also illustrates how a lack of implementation of donor safeguards can endanger both workers and the environment. The U.S. Lacey Act and EU Forest Law [on] Enforcement, Governance and Trade (FLEGT) ban any imports of timber that are illegally harvested. The United States also bans imports of goods produced with trafficking in persons or forced labor and holds corporations liable for foreign corrupt practices undertaken on foreign soil on their behalf. Organizations including the International Institute for Environment and Development and the Environment Investigation Agency have called for legislation similar to the Lacey Act in China – the primary importer of illegally harvested wood from Mozambique and Burma – but none currently exists.

Linking Deforestation and Environmental Degradation to Trafficking in Persons Vulnerability

Deforestation and other environmental degradation in rural and forested areas have direct impacts on surrounding communities and can act to intensify preexisting social vulnerability. Heightened social vulnerability linked to deforestation can have significant impacts on local populations, as it is estimated that rural communities derive up to a quarter of their income from forested areas.[89] As productive and protective functions of forest areas are degraded, soil and water become polluted and unable to support subsistence agriculture. Local communities lose access to other productive functions of forests such as foraged/hunted foods, traditional medicines, and fuelwood and become more vulnerable to labor exploitation. As discussed by Kevin Bales and other experts, workers who are exploited for forestry and other activities that contribute to deforestation are then exploited to enable further deforestation, as they provide low-cost and easily replaceable labor, continuing a downward spiral.[90]

In communities surrounding banana plantations in Kachin State, the environmental impacts of plantations have harmed community health and livelihoods. Local water – used for drinking water, crops, fishing and livestock – has become polluted. Community members exposed to plantation agrochemicals have reported livestock deaths, respiratory disease, skin diseases, and other illnesses. Most households living around banana plantations are farmers and 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 Kachin-based plantation companies, and requires several years to recover.[91] 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.[92]

AERIAL VIEW WAIGMAW REGION IN KACHIN STATE, BURMA

Forests also provide important protection against climate change. While climate change is a global concern, and will continue to impact rural communities, deforestation in an area can also contribute to much more local climate changes. In areas that have lost tree coverage, less water can evaporate, meaning fewer clouds and warmer temperatures. This can have a much more immediate impact on agriculture and food security for rural areas. Deforestation can also amplify the impact of storms and extreme weather events by contributing to floods and landslides. In Mozambique, which has already experienced several extreme cyclones in recent years, it is likely that the loss of tree cover will contribute to soil erosion and water table instability, worsening the impacts of future storms and cyclones.

Food insecurity in areas where native forest loss has occurred is likely to increase.[93] The impacts are likely to be heightened for already vulnerable, marginalized, or disadvantaged populations including indigenous people, women, and children/youth.[94] While deforestation may not be the initial cause of the vulnerability of these populations, it can act to intensify it. The disruption of both the protective and productive functions of forests, therefore, poses a critical threat to human stability and the pressure on workers to enter vulnerable work increases even further.

Threats to forests and the environment can be caused by sectors outside of logging. In Niassa Province in Mozambique, infrastructure development caused tree felling in an area that went on to experience signs of desertification and soil erosion. Local communities also perceived increased temperatures as the result of the loss of tree coverage. During field research, several interviewees noted that the growth of the road might further facilitate the expansion of natural resource extraction such as logging, illegal mining, and wildlife poaching in surrounding areas. Illegal mining is reportedly associated with the worst forms of child labor and environmental degradation in the region.

AERIAL VIEW TETE PROVINCE IN MOZAMBIQUE

Links to Other Illicit Activities and Sectors

In addition to human trafficking vulnerability, deforestation stemming from logging and other sectors in forested areas has been associated with other types of illicit activity such as poaching, illegal mining, and illegal drug supply chains; which, in turn, increase the vulnerability of workers and communities and the risk of trafficking in persons.

Often, the presence of one form of illicit activity signals the presence of other types. For example, in Mozambique, the flow of the ivory trade in the Niassa area has reportedly helped strengthen criminal networks and fortify smuggling routes while facilitating other profitable sectors that contribute to environmental degradation such as small-scale mining, illegal timber extraction, and bushmeat poaching.[95] According to the UNODC, "organized criminal syndicates are moving poached or illegally harvested wildlife with the help of the same sophisticated techniques and networks used for illicit trafficking in persons, weapons, and drugs and other contraband."[96] Further, the UNODC points to enabling criminal activity for wildlife crime including "fraud, counterfeiting, money-laundering, violence and corruption,"[97] many of which overlap with the factors that enable vulnerability to human trafficking and environmental degradation. A 2018 article in Nature makes the case that increased logging (whether legal or illegal) and the human activity and infrastructure associated with it is a direct enabling factor for illegal wildlife trade that further degrades the forested environment.[98] The Brookings Institution and UNODC point out that wildlife trafficking, in addition to degrading natural biomes, directly decreases human security via disease spread[99] such as "Ebola, SARS (Severe Acute Respiratory Syndrome) and various influenza types."[100]

Verité research found that workers experienced deceptive recruitment, restricted freedom of movement, imposed isolation, debt manipulation, withholding of wages, physical violence, and psychological manipulation. Verité research also found that illegal mining activities were driving widespread demand for commercial sex trafficking, including exploitation of children.

The mere presence of criminal groups in an area has implications for human safety and security. And, as demonstrated elsewhere in this report, any kind of environmental degradation, regardless of which actors drive it, can contribute to increased human vulnerability. It is important to remember that even where illicit/illegal activity is taking place, some of the workers involved may themselves be victims of human trafficking or abuse, and so interventions should not further victimize them but should instead focus on the larger criminal actors "behind the scenes." While case studies in Mozambique and Burma did not directly assess the role that criminal groups and other illicit activities might have on deforestation and human vulnerability, these relationships have been documented elsewhere.

WORKER LOOKING OUT AT DEFORESTATION DUE TO MINING IN MADRE DE DIOS, PERU

Illegal mining has long been regarded as a significant driver of both deforestation as well as human trafficking risk. In Peru, where Verité has conducted research into the presence of forced labor indicators among illegal gold miners, over 30,000 acres of forest have been degraded as of 2016.[101] Verité research found that workers experienced deceptive recruitment, restricted freedom of movement, imposed isolation, debt manipulation, withholding of wages, physical violence, and psychological manipulation.[102] Verité research also found that illegal mining activities were driving widespread demand for commercial sex trafficking, including exploitation of children.[103] Similarly, risk of commercial sexual exploitation has been noted around illegal mining camps in countries including Mali[104] and Senegal,[105] where gold mining also contributes to environmental degradation and poses risks of child labor.

In Brazil, indigenous groups have reported that the environmental degradation and deforestation in their native areas – some of which is caused by infrastructure development and larger legal mines – have left them no choice for survival but to take up illegal mining, which further contributes to deforestation and encourages drug trafficking and commercial sexual exploitation.[106] Sometimes deforestation occurs as a result of drug cultivation. In protected forest areas in the Brazilian Amazon, indigenous groups have found forest areas raised for marijuana plantings.[107] The groups behind the drug cultivation are thought to be the same armed criminal groups who illegally harvest and process timber, using cleared land for cattle and agricultural operations.

Verité research also found that illegal mining activities were driving widespread demand for commercial sex trafficking, including exploitation of children.

The remoteness and lack of government oversight and the rule of law in forested areas can also facilitate drug trafficking in some areas. There are reports that South American drug traffickers invest in ranching and agriculture operations along trafficking routes in Central America, allowing them to launder profits into seemingly legal operations. The ranching and other agriculture operations, however, contribute to deforestation and displace local communities through intimidation and violence.[108] "Narco-deforestation" as it is known, is thought to have spread south from Mexico following Mexican crackdowns on drug trafficking.[109] Indigenous groups are forced to leave their land or are "recruited by the drug traffickers – voluntarily or by force – to fell the trees or work on their farms," according to an academic researcher,[110] suggesting forced labor directly at the hands of organized criminal groups.

Indicators of Forced Labor and Other Key Aspects of Labor Vulnerability for Workers in Sectors that Contribute to Deforestation and Environmental Degradation

Many of the same indicators of forced labor were detected in various manifestations in three of the four case studies in Burma and Mozambique (banana cultivation in Burma, and illicit logging and road construction in Mozambique). While the four case studies do not comprise a sufficient sample to draw fully generalizable conclusions about the linkages between deforestation and trafficking in persons vulnerability, they offer a solid body of evidence of the ways in which various risk factors intersect, as well as a path for engagement by companies, governments and civil society (as discussed in the Recommendations section).

FIGURE 6. SOCIO-ECONOMIC AND ENVIRONMENTAL SPIRAL

Deceptive and Coercive Recruitment

Workers interviewed across countries and sectors experienced different forms of deceptive recruitment. In Tete, interviewees reported that they had been deceived regarding the legality of the operation, noting that they had been told that ***Nkula*** is a legal species and they should not be afraid to work. Several interviewed workers reported pressure by local elites to participate in logging. Deceptive recruitment in the Mozambican ***Nkula*** logging context was driven in part by the booming consumer demand for Rosewood "look-alike" species and previous overexploitation of related species in neighboring countries. Logging supply chain actors and operators were motivated to quickly staff up operations in Tete to capitalize on this demand, using deceptive and coercive recruitment tactics among local workers. Operators of a large company with a legal concession elsewhere in Mozambique used deception to transfer some workers from the concession to the illicit operations in Tete. In addition to deception around the legality of logging activities, workers interviewed reported consistent deception around working conditions, most notably around how earnings would be calculated.

Road workers in Niassa faced similar "boom" conditions; the constant movement of road crews meant that newly hired workers had little opportunity to vet actual working conditions. Workers

were widely promised higher wages or raises that never materialized. Some workers were promised housing, which was not provided and therefore left them with significantly less saving potential than anticipated. Many reported that they were given inaccurate information about the tasks for which they would be responsible.

A growing demand for bananas in China has expanded agribusiness operations in Burma, requiring an increase in workers. However, in contrast to ***Nkula*** logging operations in Mozambique, banana plantations in Kachin State have had a relatively long history of operating in the region, meaning that deceptive recruitment cannot be directly attributed to a rapid "boom" in operations. Still, all workers interviewed on banana plantations in Kachin State reported that they were inadequately informed about the tasks that they would be required to perform prior to beginning work.

Workers were also deceived about the wages and earnings structure. Many of the banana plantation 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 and the significant financial deductions that would be taken from their wages. This had direct implications for forced labor vulnerability.

Work with Low or No Wages

Given the lack of economic options, as well as the deceptive recruitment practices present, it is unsurprising that many workers interviewed across sectors experienced work with extremely low wages and felt they had few alternatives. In some cases, workers experienced other forms of wage withholding or financial penalties that lowered wages further.

Workers on banana plantations in Kachin State, Burma, are paid a minimal monthly stipend for 10 months, with the majority of their earnings coming only at the end of the 10-month agricultural harvest period. While workers are typically not deceived about the wage payment structure, they were in many cases deceived about the levels of deductions and total take-home pay. Most notably, should permanent workers fail to complete the work on their allocated plot or trees, their supervisor can mandate the hiring of a day laborer, with wages for the day laborer deducted from the earnings of the permanent worker. Deductions can also be taken for disciplinary reasons with no recourse for the worker. The extent of these deductions is often unknown to workers at the time of their recruitment. If workers were to leave the plantation before the 10-month period for any reason, including abusive working conditions, they would sacrifice all earnings above their minimum monthly stipend. This coercive wage structure is likely driven in large part by the seasonal nature of agriculture; plantations are motivated to ensure they have adequate staffing during the time-sensitive and labor-intensive harvest season and thus use withheld wages to prevent workers from leaving prior to harvest.

Interviewed workers who participated in small-scale illicit logging in Mozambique also experienced wage withholding, particularly workers who were providing logs directly to foreign traders. Logging workers also reported that the agreed-upon earnings structure for volume and size of logs might not ultimately be honored, but that the hope of eventual payment and recouping of losses could keep some workers engaged, particularly in the face of a dearth of alternative jobs. Interviewed workers engaged in illegal logging in Burma did not report severely low earnings; however, they took on significant financial risks, as fines for illegal logging activities in Burma can total USD 2,000.[111]

Coercive or Forced Overtime

The ILO's indicator for overtime associated with potential forced labor is defined as "abusive requirements for overtime or on-call work that were not previously agreed with the employer."[112]

LOGGING VILLAGE IN BURMA

Among sectors studied, overtime tended to be a common experience, often coupled with an implied threat of termination for refusal. In illegal logging, long hours were tied to the work structure of a number of relatively short-term trips into heavily forested areas, during which the goal was to harvest as much timber as possible and therefore to earn as much money as possible. Loggers in Burma reported the use of methamphetamines to enable these long hours, but did not indicate that long hours were unanticipated. Among workers in Tete Province, Mozambique, workers reported working up to 17 hours per day without breaks and did report that these long shifts were sometimes on-call and unexpected, with loss of the job as a consequence for refusal.

Workers on banana plantations in Kachin State, Burma, faced coercive overtime under the threat of wage deductions; with the refusal to work overtime or to complete an unrealistic assigned amount of work resulting in the mandatory use of hired day laborers to complete tasks. The costs of this hired day labor was then deducted from permanent workers' annual salaries. This arrangement was in some cases unanticipated by workers in the hiring phase. Workers also reported that they were not free to take days off, sometimes interfering with their religious obligations. Several informants reported that consistent refusal to work overtime would result in termination, meaning they would be deprived of the totality of their year-end salary.

Hazardous Work

The 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.[113] Worksites, especially in illegal logging operations, are often found in remote and temporary locations, making access to health care and labor inspection difficult.[114]

Interviewees involved in logging in both Burma and Mozambique were typically not provided with adequate protective equipment, nor did they receive any safety training. Many had witnessed severe injuries – including injuries that required amputation – or death. Workers living in forest logging camps are exposed to infectious diseases, particularly mosquito-borne illnesses such as malaria.

For logging workers in Mozambique, the most significant health and safety risk discussed by interviewees pertains to an illness that is reportedly experienced by workers who participate in log peeling. Timber workers interviewed described chills, fever, fatigue and cough, which can require rest for up to one week before returning to work. Interviews with forest specialists and tropical medical experts indicate that log peeling may result in protracted organic dust exposure that can cause "organic dust toxic syndrome (ODTS) or "Woodworker's Lung,"[115] a type of respiratory disease, although there is no definitive evidence linking these specific illnesses with ***Nkula***. Workers also reported an illness they associate with contact with ***Nkula*** sap, rather than the dust, although researchers could not find references to this illness in medical literature reviewed. In Burma, workers in illegal logging noted the use of "yaba," an illicit drug that includes methamphetamines to enable workers to work for long periods. Children were also witnessed using yaba.

On banana plantations in Kachin State, Burma, nearly all informants interviewed by Verité reported being exposed to potentially harmful pesticides and herbicides, with most having carried out manual pesticide and herbicide application. Pregnant women and children under 18 also reportedly manually applied pesticides on some plantations, in violation of Myanmar law. 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.

The ILO's indicator for hazardous work associated with potential forced labor is defined as "work in hazardous conditions to which the worker has not consented, with or without compensation or protective equipment."[116] The extreme health and safety risks presented by these sectors do not necessarily rise to the level of a forced labor indicator; workers were largely cognizant of risks involved with the sector broadly. However, the widespread acceptance of extremely hazardous conditions, including work that can result in death or amputation, demonstrates the economic

desperation and preexisting vulnerabilities of many of the workers involved. There was clear deception around participation in specific tasks as well as the availability of PPE. Further, the nature of consent to hazardous conditions was difficult to fully assess. While workers generally reported having understood the hazardous nature of the work before accepting the job, in some cases the health effects of exposure to harsh chemicals or toxic dust was not well understood by workers.

Abuse of Vulnerability and Harassment

Abuse and harassment of workers was notable across both countries studied, in both legal and illegal sectors. In some cases these conditions met the definition of a forced labor indicator, which the ILO expresses as "abuse of workers' vulnerability through the denial of rights or privileges, threats of dismissal or deportation" and "threats or violence against workers or workers' families and relatives, or close associates."[117] In Tete Province in Mozambique, workers engaged in illegal ***Nkula*** logging were threatened with denunciation to the police for their participation in criminal activities. This threat represents a realistic scenario due to the corruption of local law enforcement agents. The threat of denunciation to authorities is particularly leveraged against migrant workers. Migrant workers interviewed reported secondhand knowledge of other migrants who had been physically beaten by police. Migrant workers also feared deportation at the hands of police. Abuse was also used by employers across sectors as a means of discipline. One worker in Tete reported physical abuse from a supervisor as a form of discipline for being late. Workers on banana plantations in Kachin State reported secondhand knowledge of physical assault perpetrated by supervisors. Some plantation workers also described anecdotal knowledge of potential sexual assault of female workers by supervisors.

WOOD MARKET IN MANDALAY, BURMA

Child Labor

Verité identified evidence of child labor, including worst forms of child labor, as being present in the logging case studies in both Burma and Mozambique, as well as in the banana sector of Kachin State, Burma. In the banana case study in Kachin State, 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. Child labor was also identified in small-scale informal logging in northern Burma, which Verité believes 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."[118]

Child labor was also identified in small-scale informal logging in northern Burma, including worst forms of child labor. All workers interviewed by Verité reported witnessing children under the age of 18 employed in informal logging on at least two occasions. Juveniles in the logging sector were reported to be participating in hazardous tasks such as using chainsaws to fell trees. Multiple worker interviewees reported to witnessing juveniles under 18 operating chainsaws, as well as juveniles involved in hazardous tasks such as carrying heavy loads and working in extreme weather. Children under 18 were also reported to be using "yaba" (methamphetamine) and/or heroin while being present in logging camp sites. Several interviewees noted that drug use is so severe that it can shorten life expectancy of juveniles involved in the logging sector.

Child labor was also identified in small-scale informal logging in northern Burma, which Verité believes 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.

In the logging sector in Tete, Mozambique, interviewed adult workers reported that they had observed children ranging in age from 12 to 18 peeling ***Nkula*** logs in timber yards. This was confirmed by community experts. The scale of children engaged in logging activity was not able to be determined by the research. Verité researchers also detected anecdotal evidence that in Zumbo District, children were known to be working on a concession peeling logs under "slave like" conditions and living in primitive structures described as "grass huts." These children were reportedly living without parents or caretakers present. The research could not confirm these reports due to the remoteness and inaccessibility of referenced concession sites.

Conclusions

We cannot separate human wellbeing from a thriving environment. They are linked on multiple fronts and threatening the security of either side of the equation necessarily threatens the other. Via comparative case studies in Mozambique and Burma and supportive literature review, the following linkages have been established:

- When communities face severe social vulnerability or insecurity – including poverty and low human development outcomes – environmental degradation and deforestation follow as communities turn to various forms of natural resource extraction to survive. They may have no choice but to take risky work in sectors that are contributing to environmental degradation and deforestation.
- The sectors and supply chains that contribute to deforestation and environmental degradation often exploit the workers in those sectors, with working conditions that sometimes rise to the level of indicators of forced labor.
- With environmental degradation and deforestation come immediate threats to the livelihoods of local people and communities. Traditional livelihoods decrease, poverty increases, and preexisting social vulnerabilities are exacerbated, particularly for marginalized communities.
- The same national and regional factors that contribute to environmental degradation and deforestation – such as weak governance, corruption, and conflict – also drive social vulnerability. In some cases, the parties financially profiting from sectors that contribute to environmental degradation – such as organized criminal groups or parties to armed conflict – further weaken the rule of law.

In worst-case scenarios, these factors can create a downward spiral of harm to people and the planet. The promising news is that there are multiple areas where the spiral can be interrupted. Because the linkages are so tightly interwoven, interventions that seek to disrupt the spiral at one point can have a positive impact in others. The recommendations below are based on that hopeful concept.

TEAK LOGS LOADED ON TO TRUCK BESIDE A RIVER IN BURMA

Recommendations

The specific linkages between environmental degradation and vulnerability to trafficking in persons are unique from one location to another, from one sector to another, and from one worker to another. However, several themes emerge: the theme of poverty and low human development outcomes in exploitive work; the role of corruption and weak implementation of protective frameworks; supply chain actors that failed to communicate or uphold any responsibility expectations; and a lack of recourse for workers experiencing exploitation.

There are rich communities of experts focusing on relevant issues such as deforestation/environmental degradation, corruption, governance, and land rights, and these stakeholders have already published recommendations specific to their missions. Given the intersectional nature of contributing factors to trafficking in persons vulnerability and environmental degradation, action on any of these fronts can improve outcomes for both people and planet. However, a direct focus on labor rights has been absent from many of these discussions. Similarly, where a labor rights or anti-trafficking perspective is present, it may not adequately integrate broader issues of governance and the environment.

Given Verité's expertise in labor rights – and a recognition that peer organizations hold expertise in topics such as governance, environmental conservation, and land rights – this report focuses on high-level recommendations that start from a labor rights perspective. These recommendations are not intended to be exhaustive; instead, Verité hopes that organizations with a wide range of relevant missions consider how they could be integrated into and support their existing broader agendas.

Supply Chain Accountability

Companies can prioritize traceability and risk assessment for their supply chains, for both timber/wood products as well as other "forest-adjacent" supply chains such as palm oil, soy, cattle, rubber, cocoa, and other forms of plantation-based agriculture. Risk assessments should consider social and environmental risks related to the unique combination of sector and geography or production. Companies should also engage with direct and indirect supplier of these goods. Tracing supply chains and taking an integrated approach to environmental and social risk assessments will allow companies to ensure that strategies are aligned and not working at cross purposes.

Companies should also continue to uphold and strengthen commitments to purchase only legally logged timber. Beyond the rampant deforestation caused by illegally logged timber, timber smuggling deprives source country with income and therefore contributes to low human development outcomes – and overall trafficking in persons vulnerability – for all citizens. While companies typically make commitments to supply chain traceability and legality under environmental frameworks, companies should also recognize that there are direct social implications of these decisions as well.

Addressing Worker and Community Vulnerability through Community Engagement

Once forest-related raw materials supply chains have been mapped, Oxfam has called on companies with supply chains that contribute to deforestation to engage with initiatives that support the "rights and livelihoods of all small-scale farmers, local communities and indigenous peoples"[119] in forested areas touched by their supply chains. These efforts will help remediate both deforestation and vulnerability to trafficking in persons and other labor abuses by ensuring that communities in forested areas are not forced to choose between seeking exploitative employment or increasing their own natural resource extraction/environmentally destructive agricultural practices to survive.

Indigenous communities are critical stakeholders to conservation and social protection efforts and their protection is paramount. Governments should take a rights-based approach to protecting indigenous communities to ensure that any actions taken in the name of economic development or forest conservation are not ultimately detrimental to indigenous communities. For more information on a rights-based approach, see: Cornered by Protected Areas, by the Rights and Resources Initiative.

Civil society organizations with programming in forested areas can also play a role in actively seeking firsthand information from workers in logging and forest-adjacent sectors on working conditions as well as environmental practice. With resources and capacity, civil society organizations can play an important role in providing workers with information about their rights, helping them organize, and seeking assistance when necessary. Civil society organizations in communities that send migrants to areas with natural resource extraction – such as logging, mining, agriculture, or other forest-adjacent sectors – could conduct trainings to ensure workers have accurate information about what working conditions they are likely to find to limit the potential for deceptive recruitment.

Living Income and Wages

Companies should prioritize understanding what income levels would constitute a living income or living wage for producers and workers in their supply chains. While implementing living income approaches may be challenging in the context of opaque and complex supply chains, companies should begin identifying strategies to work towards living incomes and wages for raw material producers and workers as a goal. Verite has identified several resources that aid in strengthening companies' living income approach.[120]

Corruption and Governance

Corruption was also identified as a key driving force, preventing fair oversight and implementation of social and environmental protective frameworks. Transparency International Europe writes that current development programs addressing deforestation have not sufficiently integrated an anti-corruption approach and that, in fact, such programs can actually "perpetuate corruption by partnering with corrupt companies, officials and politicians at the root of the problem." [121]

Companies with supply chains that contribute to deforestation, particularly in countries with a high risk of corruption, should commit to understanding the specific ways that corruption might contribute to deforestation and labor rights abuses in their supply chains, integrating an anti-corruption angle into existing programming.

Governments seeking to address corruption should consider specific integration of elements of corruption that enable both deforestation and vulnerability to trafficking, such as the risk of bribery among local law enforcement agents in forested areas, smuggling of illegally harvested timber, and corruption among other government bodies responsible for oversight of environmental and social efforts.

Avenues for Monitoring and Remediating Labor Abuses

In part due to under-capacitated labor and forestry inspectors, as well as due to the remoteness of many forested areas, vulnerable workers often lack a viable avenue for recourse or expressing grievances. Governments should seek to ensure that bodies responsible for monitoring labor conditions and environmental practices have adequate resources and capacity.

As part of the capacity building process, local law enforcement and labor inspectors should be trained to recognize vulnerability to trafficking and to respond in ways that do not criminalize or further harm potential victims. Given the remoteness of forested areas, governments should consider cross-training any potential "boots on the ground" on environmental and social issues. For example, if government inspectors visit logging sites to verify the legality of logging operations, they could also be trained on basic red flags to identify indicators of trafficking in persons and forced labor.

Labor inspectors could be trained to recognize signs that work is flouting environmental regulations and contributing to degradation. Governments should also seek to ensure that teams of labor inspectors include women so that women working and living in isolated areas can speak to a female inspector about issues such as sexual harassment and abuse. Where work in the informal sector falls outside of the scope or mandate of labor inspectors, governments should consider policy reform to enlarge their mandate, given that so much vulnerable work takes place in the informal sector; in rural forested areas, much of this work like logging or mining is also likely to be associated with environmental degradation.

Companies, governments and civil society organizations together could work to develop or support grievance mechanisms and other avenues for workers to share their experiences and seek remediation if necessary. For additional guidance on developing grievance mechanisms and other avenues of worker engagement suitable for informal sectors, see Verite's Responsible Sourcing Tool.

Considerations for Law Enforcement and Prosecution

The U.S. Department of State highlights the important role that effective law enforcement, including prosecution, plays in effort to combat trafficking in persons.[122] In the case of human trafficking that plays out in the context of deforestation and environmental degradation, law enforcement can consider that criminal activities may span environmental crimes, corrupt practices and human trafficking.

It is also critical that efforts to protect workers, including prosecution, are victim-centered and trauma-informed.[123] Particularly where victims are coerced into participation in criminal activities, such as illegal logging, the involvement of law enforcement can create a risk that victims themselves will be criminalized, hindering their freedom to report abuses. Therefore, initiatives to increase prosecution of trafficking in persons and related crimes should take this dynamic into consideration, and whenever possible, consult victims and survivors themselves in crafting an approach that will not further harm vulnerable communities.[124]

Law enforcement efforts and prosecution should also make efforts to equitably address the vulnerabilities of groups that tend to be under-served by efforts to address trafficking in persons. Guidance from the United States Advisory Council on Human Trafficking lists multiple under-served groups with direct relevance to the case studies presented here, as well as populations that tend to be vulnerable in forest-related sectors. These groups include labor trafficking victims, boys and men, and indigenous populations.[125] Consultation with leaders from these communities and/or CSOs working on behalf of these communities will be essential in pursuing law enforcement strategies that are equitable and victim-centered.

Annex:

Methodology for Country Selection and Identification of Case Studies for Research

Country Selection

The methodology and rationale for selection of the target countries in each region have been based partially on work under the J/TIP-funded project, "Strengthening Protections Against Trafficking in Persons in Federal and Corporate Supply Chains." Using the analytic framework for understanding country- and sector-level TIP risk that was developed for that project, Verité identified a set of relevant criteria for use in comparing potential countries for inclusion. These include: overall level of TIP risk in the country of production; level of TIP and other human rights risk associated with the country of production's forestry sector; environmental degradation associated with the forestry sector; economic and trade implications of the forestry sector in the country of production; strength of forestry management regimes in each country (including participation in global conservation agreements and protocols); and the feasibility and sustainability of the proposed project activities given the current national context and availability/quality of relevant implementing partners. Whenever possible, statistics allowing for cross-country comparison were used.

Indicator scores under each criterion were collected in either narrative or quantitative form and, when possible, cleaned to a high, medium, or low risk scale to better allow for comparison. These criteria and the relevant indicators are summarized below.

- Criteria: Overall level of trafficking in persons (TIP) risk in country of production
  - Indicator: U.S. Department of State Trafficking in Persons Tier Ranking
  - Indicator: Overall levels of socioeconomic and human development
  - Indicator: Scale of vulnerable populations (migrants, refugees, and internally displaced persons)
  - Indicator: Level of socio-economic development in top migrant sending countries to country of production, if relevant
  - Indicator: Level of corruption
  - Indicator: Level of violence and political stability in country of production.
- Criteria: Level of TIP and human rights abuse risk associated with country of production's forestry sector
  - Indicator: Documented presence of migrants in forestry-adjacent sectors
  - Indicator: Documented presence of other vulnerable or marginalized populations in forestry-adjacent sectors
  - Indicator: Documented labor or other human rights abuses associated with forestry sector or

adjacent sectors

- Indicator: Documented land grabs associated with forestry sector

→ Criteria: Strength of forestry and land management regimes
  - Indicator: Country participation in global conservation agreements, frameworks, and protocols
  - Indicator: Overall status of protective frameworks for natural resources

→ Criteria: Environmental degradation associated with forestry sector in country of production
  - Indicator: Rate of illegal logging
  - Indicator: Deforestation rates

→ Criteria: Economic/trade implications of forestry sector in country of production
  - Indicator: Volume of non-coniferous tropical roundwood exports by cubic meters (relative to other countries in region)
  - Indicator: Trade partners/role of forestry sector in global supply chains

→ Criteria: Feasibility and sustainability of project activities
  - Indicator: Availability/quality of relevant implementing partners
  - Indicator: Ease of access to likely field study locations
  - Indicator: Ability to ensure safety and security of research subjects and field teams
  - Indicator: Level of project sustainability based on perceived capacity and interest of partners to engage in sector beyond the life of the project
  - Indicator: Ability to implement research based on field context (political, security, and logistical factors)

Final decisions were made based on comparison and evaluation of the various factors in the matrix; the review sought to identify two countries that represented two countries that represented a diversity of types of deforestation and associated environmental degradation and TIP vulnerability, potential modes of partnership and frameworks for stakeholder engagement, sustainability of engagement beyond the life of the project, and potential for supply chain interventions. Discussions of how these factors play out in each country are summarized earlier in this report and discussed in further detail in the separate Mozambique and Burma case study reports.

It should be noted that the challenges relating to the ability to ensure the safety and security of research subjects and field teams were significant, as were the logistics associated with accessing study locations. Several countries, and potential case studies within countries, were set aside based on these criteria. In some cases, the presence of active conflict or significant presence of organized criminal groups precluded travel to potential study areas. Other potential cases were set aside due to the remote and isolated nature of locations of production – which precluded the ability to interact with workers or community members in a confidential way – beyond the notice and potential surveillance of employers or, in some cases, government authorities. Human vulnerability

to exploitation is heightened in these contexts of remoteness and isolation, conflict, and crime. New methods and approaches for safely accessing workers in these types of environments are an urgent need for the global human rights community.

Sector and Case Study Area Selection

Following identification of countries, research teams worked to identify regions and specific sectors for case study field research. Selection of case study areas were ultimately informed by literature review, input from experts in target countries, feasibility of field research (including access to workers and security concerns for informants and researchers), and a broader analysis of findings from preliminary Situation Assessments in each target country.

In Mozambique, case study regions selected included Tete and Niassa Provinces. Logging in Tete Province was selected due to the rapid increase in deforestation in the area, the role of international supply chains in driving demand for illegally logged timber, the preexisting vulnerability of local populations, and the potential to analyze stakeholder responses to such rapid natural resource exploitation. Infrastructure development in Niassa Province was selected due to reported preexisting vulnerability of local populations, the unique impact on local populations due to displacement and property loss associated with road construction, and the opportunity to analyze the role of international donors in the sector.

In Burma, case studies selected include commercial banana plantations in Kachin State and logging in northern Burma. These case studies were selected considering preliminary indicators of trafficking in persons vulnerability identified through desk review and the Situation Assessment phase, high levels of deforestation, and Verité research networks.

Scope of Sectors Selected

The forestry sector refers to the growing and harvesting of timber.[126] Work in this sector includes cutting down trees with handheld tools or felling machines, dragging logs with tractors, separating and classifying logs, and grading logs according to specific characteristics, and inspecting relevant equipment.[127] The Food and Agriculture Organization of the United Nations (FAO) estimates that the formal forestry sector employs 13 million workers globally and that another 41 million workers are employed in the informal forestry sector.[128] Timber is harvested either from native forests or from plantation-based operations planted for the purposes of commercial extraction; it is harvesting from native forests that typically contributes to deforestation.

In addition to the forestry sector and resulting exported wood products, the production of several other global commodities contributes significantly to deforestation. Timber, palm oil, soy, and cattle production (sometimes known as “the big four”) have, in combination, contributed to over 3.8 million hectares of deforestation worldwide.[129] Other supply chains, such as some forms of mining, coffee, rubber, cocoa, sugar, and other agricultural production can also contribute to deforestation, [130]

as can small-scale logging and agricultural production for local use.

Research in both Mozambique and Burma included a case study in the informal native forestry sector; in both cases, logging was illegal or otherwise illicit. Illegal logging can take several forms: logging in environmentally protected areas, logging protected species of trees, or logging in excess of production limits. Illegal logging decreases tax revenue base for governments and generates significant revenue for armed groups and organized crime. More information on the dynamics of illegal logging can be found in a discussion of findings below.

Both country studies also include research in a sector that is not part of the forestry sector directly but has an impact on forests and local communities in forested areas. In Mozambique, the "forestry-adjacent" case study was carried out in infrastructure and road development in Niassa Province, as the development has led to [remove direct] deforestation [remove redundant words] and associated environmental degradation in the area. In Burma, the "forestry-adjacent" sector is commercial banana plantations, which have contributed to deforestation for the purpose of mono-cropped export-focused agriculture, acquired land from local vulnerable populations, and and polluted local soil and water.

Endnotes

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