

Assessing Forced Labor in the Oil Palm Supply Chain in Guatemala

Report

January 2026

This publication was produced for review by the U.S. Department of Labor, Bureau of International Labor Affairs, Office of Child Labor, Forced Labor, and Human Trafficking. It was prepared by ICF Macro, Inc.



ACKNOWLEDGMENTS

This report presents research on forced labor in the palm oil industry in Guatemala. ICF prepared this report according to the terms specified in its contract with the U.S. Department of Labor. The research team would like to express sincere thanks to all the parties involved for their support and valuable contributions.

Funding for this research was provided by the U.S. Department of Labor under contract number GS-00F189CA and order number 1605C2-22-F-00060. This material does not necessarily reflect the views or policies of the U.S. Department of Labor, nor does the mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government. These studies were designed to help U.S. businesses map supply chains across multiple tiers and trace raw materials back to their sources, enabling them to detect likely risks and safeguard operations. By exposing where exploitative labor hides in global production networks, these studies contribute to efforts to strengthen supply chain resilience and level the playing field for American workers and businesses.

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ABBREVIATIONS

CPO	crude palm oil
CPKO	crude palm kernel oil
ILO	International Labor Organization
KII	key informant interview
MY	market year
PPE	personal protective equipment
RPO	refined palm oil
RPKO	refined palm kernel oil
RSPO	Roundtable on Sustainable Palm Oil

GLOSSARY

By-product	Palm by-products are the materials remaining after the extraction of palm oil from the fruit. They can include palm kernels, oilcake, and mesocarp.
Child labor	Child labor is defined by International Labor Organization Conventions 138 on the Minimum Age for Admission to Employment and 182 on the Worst Forms of Child Labor. It includes employment below the minimum age as established in national legislation, hazardous unpaid household services, and the worst forms of child labor: all forms of slavery or practices similar to slavery, such as the sale or trafficking of children, debt bondage and serfdom, or forced or compulsory labor; the use, procuring, or offering of a child for prostitution, for the production of pornography, or for pornographic purposes; the use, procuring, or offering of a child for illicit activities; and 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.
Crude palm kernel oil	After separating the liquid and solid components of the palm fruit, the remaining palm nuts are processed further. Palm nuts must be cracked and separated to extract the kernels, which are then dried and cleaned, before being pressed in expeller machines to extract crude palm kernel oil. After pressing, crude palm kernel oil is filtered and can then be refined further into downstream products.
Crude palm oil	Crude palm oil, also known as unrefined palm oil, is obtained through pressing the flesh of the palm fruit, and separating the fruit's liquids and solids. To remove impurities and separate water from the oil, crude palm oil undergoes a process of clarification via settling tanks or centrifuges. The use of centrifuges is the more expensive and more efficient option and allows solid components and oilcakes to be collected for downstream use. Crude palm oil can be refined further into numerous downstream products.
Forced labor	The design of the survey and the operational definition of forced labor were guided by the 20th International Conference of Labor Statisticians <i>Guidelines Concerning the Measurement of Forced Labor</i> (2018) and the International Labor Organization's recently released <i>Hard to See, Harder to Count</i> (2024) (for more details, see <i>Section 3.3, Measuring Forced Labor</i>).
Fresh-fruit bunches	Palm fruit clusters harvested directly from palm oil trees on palm oil plantations. Each bunch weighs between 10 and 25 kilograms and can contain up to 1,500 individual fruits. They are the initial input in the palm oil production supply chain.
Oilcake	The palm fruit fibers remaining after fruits or kernels are pressed to extract crude palm oil are dried into palm oilcake. Oilcake can be used as animal feed, burned to generate electricity, or used in the production of biofuels.
Oleochemicals	Chemical compounds that can be derived from natural oils, including crude palm oil and crude palm kernel oil. These compounds include fatty acids, fatty alcohols, glycerin, and fatty methyl extracted during the oils' production.

Oleochemicals can then undergo further processing into various end-use products, including soaps, cosmetics, agrochemicals, animal feed, and more.

- Palm oil** Refers to both crude palm oil and refined palm oil in aggregate. Does not include palm kernel oil.
- Palm oil fruit** Palm oil fruits are the individual fruits that make up fresh-fruit bunches. Each fruit contains a kernel that is surrounded by a wet, fleshy mesocarp that is rich in oil. Once the palm oil fruits are removed from the bunches, the fruit is then pressed for processing into crude palm oil.
- Palm oil mill** A facility for extracting oil from palm fruit. Some palm oil mills can also refine crude palm oil, extract oil from palm kernels, and refine palm kernel oils. Also known as extractors or oil mills.
- Refined palm kernel oil** Refined palm kernel oil is refined from crude palm kernel oil and can be used to produce numerous downstream goods, particularly in shortening, pastries, and bakery margarine.
- Refined palm oil** Refined palm oil is refined from crude palm oil and can be used to produce numerous downstream goods, particularly in food industry products such as snack foods, margarines, confectionaries, and ice cream, and other consumer goods like cosmetics, detergents, soaps, shampoos, and other cleaning supplies.

EXECUTIVE SUMMARY

PURPOSE OF STUDY

This mixed-methods study aimed to examine the presence of forced labor within the supply chain of palm oil in Guatemala and to understand the harvesting, processing, and distribution of Guatemalan palm oil and associated downstream products. This study focused on working and living conditions of workers at palm oil plantations. Extant literature on forced labor in the Guatemala palm oil industry is scarce, and this exploratory mixed-methods study aimed to shed light on the presence of forced labor within the sample.

CONTEXT

Site selection for survey and interview participants was guided by scoping research that examined the geographical distribution of palm oil industry-related activities, focusing on the North (Alta Verapaz Department) and South (Suchitepéquez, Quetzaltenango, and Retalhuleu Departments) regions in Guatemala. Participants were recruited through the support of local leaders, with data collection spanning June 2024 to March 2025. The survey encompassed 89 workers, who conducted tasks ranging from palm oil fruit harvesting, fertilization, and fumigation to transportation of the harvest within the plantation.

METHODOLOGY AND DATA COLLECTION

A total of 82 surveys were completed in the North region, and 7 were completed in the South region. In addition, qualitative interviews were conducted with 58 workers in the North region and 25 key informants. The survey employed convenience sampling and identified respondents primarily with the support of local civil society actors and through snowball sampling for a limited number of respondents. The findings are not representative of workers at the selected sites or the sector as a whole. The study also mapped the domestic supply chain, tracing the journey of the palm oil from capture to export, and trade data were used to identify destination markets and potential end-use products. Key informant interviews further supplemented the supply chain tracing.

This study used the definition of forced labor contained in International Labor Organization Convention 29 and operationalized this definition according to the guidelines provided in the 20th International Conference of Labor Statisticians *Guidelines Concerning the Measurement of Forced Labor* (2018) and the International Labor Organization's *Hard to See, Harder to Count* (2024). According to the guidelines, a case of forced labor requires performing work that is both involuntary and under the threat or menace of a penalty (coercion).

The study faced several challenges. Recruitment of workers posed a significant challenge, resulting in a smaller quantitative sample size than originally envisioned despite alterations to the protocol to increase recruitment. Accessing research sites was also a challenge. The study protocol originally planned for a larger number of worker participants from the South, but safety concerns impeded fieldwork in the South. In addition, supply chain tracing efforts were challenging due to limited disclosures and co-mingling from various sources.

KEY FINDINGS

Labor

Recruitment: More than one-third (37%) of workers reported having written contracts, with a higher proportion of men (50%) than women (13%). Nearly all workers without written contracts had verbal agreements. Nine percent of respondents indicated that the conditions of their job did not match what they were promised before taking the job, mostly regarding work tasks.

Safety and Schedules: Most (82%) respondents indicated that their work involves health or safety risks, with injuries or illnesses from wild animals or insects being the most common (53% of those facing risks). Other risks included extreme heat (35% of those facing risks), carrying heavy loads (25%), injuries from fruit clusters or thorns (22%), dangerous chemicals (19%), and sharp tools or heavy machinery (19%).

Nearly half (47%) of respondents reported injuries or illnesses due to their jobs, with back strain being the most common (24% of those reporting injuries). Other common injuries included hand injuries (22% of those reporting injuries), foot injuries (22%), cuts or wounds (22%), and heat stroke (20%). Eight percent reported being required to work when seriously sick or injured.

Work in palm plantations is inherently hazardous, but employers have an obligation to mitigate the risk in accordance with Guatemala's occupational safety and health laws and regulations.¹ Despite this, 44% of respondents facing risks reported that their employer did not provide necessary personal protective equipment, and 60% indicated that their employer endangered their life by failing to take proper safety precautions. In addition, 29% of those facing risks reported that their employer did not provide necessary training.

Most (80%) palm workers work 8-hour days, with 9% working fewer hours. Eleven percent work more than 8 hours per day, but none exceed the legal maximum of 12 hours per day. Fifteen percent of workers are required to work non-stop without breaks during the workday.²

Earnings and Quotas: On average, respondents reported earning Q92 (\$11.94) per day, with men earning more (Q99 [\$12.85]) than women (Q80 [\$10.38]). Seventy-two percent earned below the legal minimum wage of Q102.44 (\$13.29), with 61% of men and 91% of women earning below the minimum wage, and 79% reported that their earnings were insufficient to meet basic needs. Two-thirds had a target or quota imposed by their employer, with only half considering it reasonable.

Threats of Dismissal: More than one-fourth (27%) of respondents reported facing threats of dismissal for failing to meet employer demands. Respondents faced being threatened with dismissal if they complained about unmet promises made during recruitment, failed to meet unreasonable quotas, refused to work in hazardous conditions, refused to work while sick or injured, and refused to work overtime. Qualitative interviewees described their income as being necessary for survival, and thus they felt compelled to accept the negative working conditions.

¹ See Instituto Guatemalteco de Seguridad Social's [Reglamento General sobre Higiene y Seguridad en el trabajo](#).

² Article 119 of the labor code indicates that "the ordinary workday may be continuous or divided into two or more periods with rest intervals that are rationally adapted to the nature of the work involved and the needs of the worker. Whenever a continuous ordinary workday is agreed upon, the worker is entitled to a minimum half-hour rest break within that workday, which must be counted as actual working time." To minimize respondent burden, the survey asked one question about working non-stop without breaks ("Are you required to work non-stop without breaks during the working day?") of all respondents, rather than determining each respondent's schedule in more detail.

Forced Labor: Two-thirds (65%) reported at least one indicator of involuntary work. The most common indicator was hazardous or degrading working conditions, experienced by 63% of workers. The indicator was defined for this study as the failure of the employer to mitigate the risks involved in their work (respondent reported that the employer does not provide personal protective equipment needed to perform the job safely, that the employer endangers respondent's life by failing to take proper safety precautions, or that the employer does not provide the training needed to perform the job safely) or being required to work while seriously ill or injured. The second most common indicator of involuntary work was onerous working hours or work schedule (15% of workers). These workers reported being required to work non-stop without breaks during the workday. Four percent of workers experienced deceptive or fraudulent recruitment, which was the third most common indicator of involuntary work. Among survey respondents, deceptive recruitment most frequently occurred in relation to hours, remuneration levels, or the nature of the work.

Seven percent of respondents experienced at least one indicator of coercion, which “refers to the means used to compel someone to work without their free and informed consent” (International Labor Organization, 2024, p. 3). Seven percent of respondents experienced at least one indicator of coercion: half of these respondents experienced restrictions on their movements, and the remaining experienced retention of identity documents. All of those who experienced coercion also experienced involuntary work. **In total, 6 respondents (7% of the sample) experienced forced labor.**

Child Work: The participation of children in the palm oil supply chain was not a focus of the study, but the survey included one question³ about whether children work at the worksite of the respondent. Nearly half (43%) of respondents indicated that children under age 18 work at their place of employment. Adult reports indicate that palm work may involve exposure to extreme temperatures, carrying of heavy loads, and exposure to dangerous chemicals, and hazardous work of this type is prohibited for children according to Guatemalan law (Article 4 of Ministerial Accord 154-2008). These findings raise the possibility that hazardous child labor in the palm industry may be occurring and demonstrates that further research is warranted.

Supply Chain

The destination of fruit bunches was difficult to determine, as most workers did not know the destination of the fresh-fruit bunches harvested from the farms where they work, and companies and stakeholders did not provide this information. The co-mingling of fresh-fruit bunches at palm oil mills and the co-mingling of oil for transportation after production further reduces the visibility of the supply chain.

However, an examination of international trade data illuminates some ways that Guatemalan palm oil or its end products could enter the United States. Guatemala exports more crude palm oil than any other palm by-products or downstream goods. Although Guatemala does not export crude palm oil to the United States, it could be refined in a destination country and then re-exported to the United States as refined palm oil or as an end-use product. Trade data show that the United States imports refined palm oil from Mexico, Honduras, and Costa Rica—all export markets for Guatemalan palm oil.

Interviews with key informants, combined with a review of trade data, also suggest that end-use products imported into the United States from Mexico could contain palm oil originating in Guatemala. Mexico is a top export market for Guatemala and a top exporter to the United States; however, this study could not definitively trace any product directly from Guatemala, through a third country, and into

³ Respondents were asked: “Do children under age 18 work at the place where you work?”

the United States. Products manufactured in Mexico by companies known to source palm oil from Guatemala include soaps, toothpaste, prepared food products, chocolate, ice cream, and other products.

CONCLUSION AND RECOMMENDATIONS

This study reveals that even though forced labor is relatively rare among the sampled workers, with only 7% (6 out of 89) reporting both involuntary work and coercion, indicators of involuntary work are widespread. Two-thirds of respondents reported experiencing at least one indicator of involuntary work. Nearly two-thirds of the workers were subjected to hazardous conditions, with employers failing to mitigate the associated risks. A total of 15% of respondents endured onerous workdays without breaks, and 4% experienced deceptive recruitment practices.

Although only 7% of workers faced indicators of coercion according to the International Labor Organization definition used as the framework for this study, more than one-fourth (27%) faced threats of dismissal for failing to meet employer demands, including unmet promises made during recruitment, unreasonable quotas, hazardous working conditions, and refusal to work while sick or injured. Qualitative interviews underscored that workers' incomes were essential for their survival, compelling them to accept these negative working conditions.

The study also found that respondents received very low pay despite the hazardous nature of their work. Nearly three-quarters earned below the legal minimum wage, with a higher proportion of women earning below this threshold. In addition, 79% of respondents reported that their earnings were insufficient to meet basic needs. Two-thirds had a target or quota imposed by their employer, and half of these workers considered the targets to be unreasonable, leading to arduous efforts to meet these demands.

Although the study found relatively few cases of forced labor, the commonality of involuntary work suggests that workers in this sector are at risk. Furthermore, nearly half of the respondents reported the presence of children working at their worksites. The study sample primarily represents the North region, and scoping informants suggested that working conditions may be worse in the South than in the North. This possibility raises concerns that there may be forced labor and child labor in the South. Further intervention and research are warranted to explore and address these issues.

The study found that although Guatemala does not export palm oil to the United States, there are several possible paths for the United States to import downstream products containing Guatemalan palm oil. One of the most likely paths is through Mexican manufacturing of products for the United States, such as soaps, chocolates, or manufactured food products. The United States could also import refined palm oil from a third country that imports crude palm oil from Guatemala. However, this study did not trace any particular product into the United States that definitively contained palm oil sourced from Guatemala.

Recommendations to Foreign Governments:

- Provide advisory support to the Guatemalan government in following up on forced labor and child labor cases in the palm oil industry according to Guatemalan law.
- Support efforts by non-governmental organizations and civil society stakeholders to examine and address forced labor and child labor risks in the palm oil industry of Guatemala. Encourage independent research groups to conduct additional studies on risks and incidence of forced labor in the palm industry, particularly in the South region, and actions being taken by the Guatemalan government and the private sector to address forced labor and labor law compliance in the palm industry.

- Engage with companies and major food manufacturers that rely on palm oil as an essential ingredient in their final consumer products to raise awareness about labor abuses in the supply chain and the need to monitor labor law compliance and promote good working conditions on palm plantations.

Recommendations to Industry:

- Globally sourcing corporations and their suppliers in Guatemala should engage with labor-focused community organizations that workers trust to better understand workers' challenges and to devise corrective actions, whenever risks of forced labor are reported.
- Buyers and suppliers should engage with the Ministry of Labor and Social Welfare to ensure compliance with all labor inspections or any enforcement actions brought by the government.
- Buyers and suppliers should support workers' rights to freedom of association and collective bargaining and ensure that workers at all levels of company supply chains are informed of their rights.
- Globally sourcing corporations and their suppliers should enact robust supply chain tracing and transparency programs, mapping, disclosing, and regularly updating their disclosures of worksites in their supply chains to the raw material level. For companies making products with palm oil, this means disclosing connections to both palm oil mills and plantations and farms producing palm fruit. Many companies already disclose their palm oil mills; these companies should add plantation disclosures to their supplier lists.
- Globally sourcing corporations should ensure that effective grievance mechanisms are clearly communicated to workers in their supply chains to the raw material level, and that these grievance mechanisms are available in all languages used at each worksite.
- Globally sourcing corporations should enact human rights due diligence programs capable of detecting risks and instances of forced and child labor in their supply chains. As part of these programs, buyers and suppliers should ensure access to remedies for affected individuals, including access to remedial education and living stipends for former child laborers.

Recommendations to Governing Bodies in Guatemala:

- The Roundtable on Sustainable Palm Oil and International Sustainability and Carbon Certification should require members to publicly disclose the plantations from which they source and should strengthen accountability mechanisms related to the risks of forced labor in palm oil supply chains.
- The Ministry of Labor and Social Welfare should ensure that relevant enforcement offices are adequately funded, are able to detect instances of forced labor, and are able to enact appropriate enforcement measures with those responsible for any violations.
- The Guatemalan government should establish and strengthen communication and collaborations across different stakeholders in Guatemalan society, including academia and non-governmental and grassroots organizations, to oversee the palm oil industry to ensure labor code compliance along the palm oil supply chain.

I INTRODUCTION

The objective of this mixed-methods study was to explore the supply chain of downstream goods procured from the oil palm tree obtained through forced labor in Guatemala. The study examined the processing of oil palm fruit into downstream goods, such as crude palm oil (CPO) and refined palm oil (RPO), among others. It aimed to map the supply chain of palm oil as oil palm fruit moves from plantations within data collection areas, through domestic processing facilities, and into export markets. The study attempted to assess whether forced labor is present in the supply chain, including in the processing of oil palm fruit, as well as to identify workers' socio-demographic characteristics and their working conditions.

Current evidence from the literature suggests that exploitative labor conditions exist within the palm oil sector of Guatemala. Workers experience forced labor in the Guatemalan palm oil industry, with various cases reported in Sayaxché, Petén (Hurtado, 2008; Hurtado & Sanchez, 2011; Centro de Medios Independientes, 2015; Zepeda, 2017; Cano, 2018; Yagenova, 2019; Leonardo Castillo, 2023). The risk for forced labor is especially present in the harvest stage of Guatemalan oil palm fruit, during which workers may use strong chemicals and pesticides without personal protective equipment (PPE) (Santiago, 2018). Workers experiencing forced labor may face conditions that include workplace harassment and abuse, wage violations, poor health and safety measures, coercive recruitment practices, abusive overtime, low wages, and abuse of vulnerability (Hervas, 2019; Menchu, 2019; Santiago, 2018; Verité, 2013). Workers not native to the region and workers from indigenous communities are particularly susceptible to abusive conditions, such as large wage deductions, a lack of benefits, and extreme isolation from their communities (Santiago, 2018; Verité, 2013). Many workers in the Guatemalan palm oil sector have relocated from the department of Alta Verapaz, as well as from Honduras, Nicaragua, and El Salvador (Verité, 2013). Moreover, indigenous groups, notably the Maya Q'eqchi', have historically lost their lands directly and indirectly because of the Guatemalan palm oil industry (Cuffe, 2021; Verité, 2013; Bergamin, 2022). Due to historical socio-economic inequality, the prevalence of malnutrition, poverty, and stunting is higher in indigenous populations in Guatemala, which places them at a large labor productivity disadvantage (McClelland, 2015).

Extant literature on the production of palm oil in Guatemala indicates the use of child labor in palm oil production. There are reports of children, particularly boys, as young as 10 years old working on oil palm plantations (Hervas, 2019; Santiago, 2018). This may in part be because it is a cultural norm for children to contribute to household income in Guatemala (Hervas, 2019). In general, across monocrop plantations in Guatemala, there is evidence of child labor (ASIES, 2022). However, scoping informants mentioned that currently there are no or perhaps very limited incidences of child labor in this sector.

2 PRODUCTION AND PROCESSING OF PALM OIL IN GUATEMALA

2.1 ECONOMIC OVERVIEW

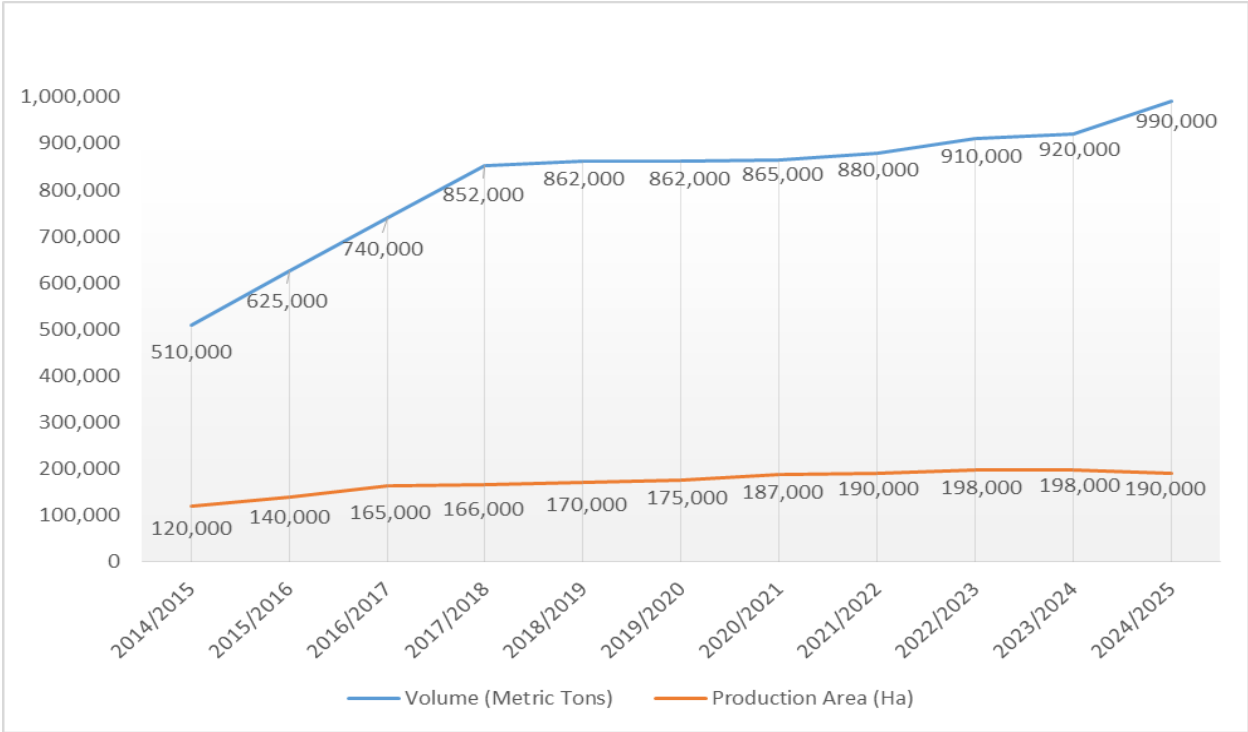
Classified as an upper-middle-income nation by the World Bank, Guatemala has both the largest population (18.4 million in 2024) and the highest gross domestic product (\$104.4 billion in 2023) of any Central American nation (World Bank Group, 2025a). Guatemala's economy exhibited higher than average growth compared to other countries in the region between 2014 and 2023 (3.2% growth per year, on average), and yet Guatemala's population experiences a high rate of poverty (55% in 2023)

(World Bank Group, 2025a). In 2023, 71.1% of the employed population was working in informal sector jobs, which collectively represented nearly half of Guatemala’s total gross domestic product (World Bank Group, 2025a).

As of 2023, the services sector employed the greatest number of workers in Guatemala (51%), followed by agriculture (27%) and industry (22%) (World Bank Group, 2025b). Agricultural products dominate Guatemala’s exports, with bananas, coffee, palm oil, and raw sugar among the country’s top five exports in 2023 (followed by knit sweaters). Guatemala led the world in 2023 in exports of cardamom, mace, and nutmeg (Observatory of Economic Complexity, n.d.).

In the agricultural sector, roughly 2.5% of Guatemala’s arable land is devoted to the cultivation of palm fruit, and the sector employs roughly 170,000 workers (Cuffe, 2021; Revista Summa, 2020). Palm oil production in Guatemala has grown rapidly in recent years, with production of CPO reaching 990,000 metric tons in the 2024/2025 market year (MY) (Foreign Agricultural Service, 2025). Guatemala has emerged as the fourth largest exporter of palm oil globally (including both CPO and RPO, and excluding palm kernel oil), accounting for 1.9% of total global palm oil exports, by volume (UN Comtrade, 2025). CPO exports account for most of this growth, with Guatemala placing third among global exporters of both CPO and crude palm kernel oil (CPKO) in 2023 (7.65% and 10.6% of global exports, respectively), while falling outside the top 20 exporters for refined versions of both products (UN Comtrade, 2025).

Figure I. Guatemala palm oil production, MY 2014/2015–2024/2025



Source: Foreign Agricultural Service, 2025

2.2 DOMESTIC PRODUCTION OF PALM OIL

The cultivation of palm oil⁴ in Guatemala dates to the early 20th century, with the introduction of African oil palm trees to the country by the United Fruit Company (Triplett, 2023). Traditionally, while much of Guatemala’s agricultural sector was, and continues to be, focused on the production of coffee and bananas, growing demand for palm oil in recent years has fueled the widespread domestic expansion of the industry (Triplett, 2023).

The palm oil supply chain begins with the cultivation and harvesting of palm fruits—the raw materials for both palm oil and palm kernel oil. As the palm oil industry has grown in Guatemala in recent years, the land used for growing oil palm trees has expanded significantly. Between 2009 and 2019, the land usage for oil palm cultivation in Guatemala increased by 191%, from 45 thousand to 133 thousand hectares, according to remote sensing (VanderWilde et al., 2023).

As of 2023, the Guild of Palm Growers of Guatemala reported that a total of 230 growers cultivated palm fruits in this growing sector (51% smallholders, 35% medium-sized producers, and 14% large-scale producers) (GREPALMA, 2024). In contrast to other oil palm-producing nations, in which smallholder growers control much of the land on which oil palm is grown, large-scale producers own most of the land used for palm cultivation in Guatemala. According to a 2021 study by the *Journal of Rural Studies*, only 3% of oil palm land is directly controlled by smallholder producers (Tras las Huellas de la Palma Alliance, 2022).

“At the level of Guatemala, we do not have small producers as such, only the example of Palmas de Ixcán [a company with a business model of working with smallholders], which seems to me to be like 42 small producers.”

—Key informant interview, civil society representative

The steady conversion of land to palm fruit production, combined with efficiency gains, has led to increasing domestic production of palm oil in Guatemala over the past decade. Between MY 2014/2015 and 2024/25, domestic production of palm oil increased by 94.1%, from 510 thousand metric tons to 990 thousand metric tons (Foreign Agricultural Service, 2025). Although available data on the production of palm kernel oil are limited, available information showcases that between 2018 and 2021, domestic production of palm kernel oil also increased, though to a far lesser extent, by 5.8%, from 191 thousand metric tons to 202 thousand metric tons (FAOSTAT, 2024).

Table 1. Domestic production of palm oil

Market year	Palm oil production, 2014–2024		Yield (MT/Ha)
	Volume (MT)	Production area (Ha)	
2014/2015	510,000	120,000	4.3
2015/2016	625,000	140,000	4.5
2016/2017	740,000	165,000	4.5
2017/2018	852,000	166,000	5.1
2018/2019	862,000	170,000	5.1
2019/2020	862,000	175,000	5.0
2020/2021	865,000	187,000	5.1
2021/2022	880,000	190,000	5.1

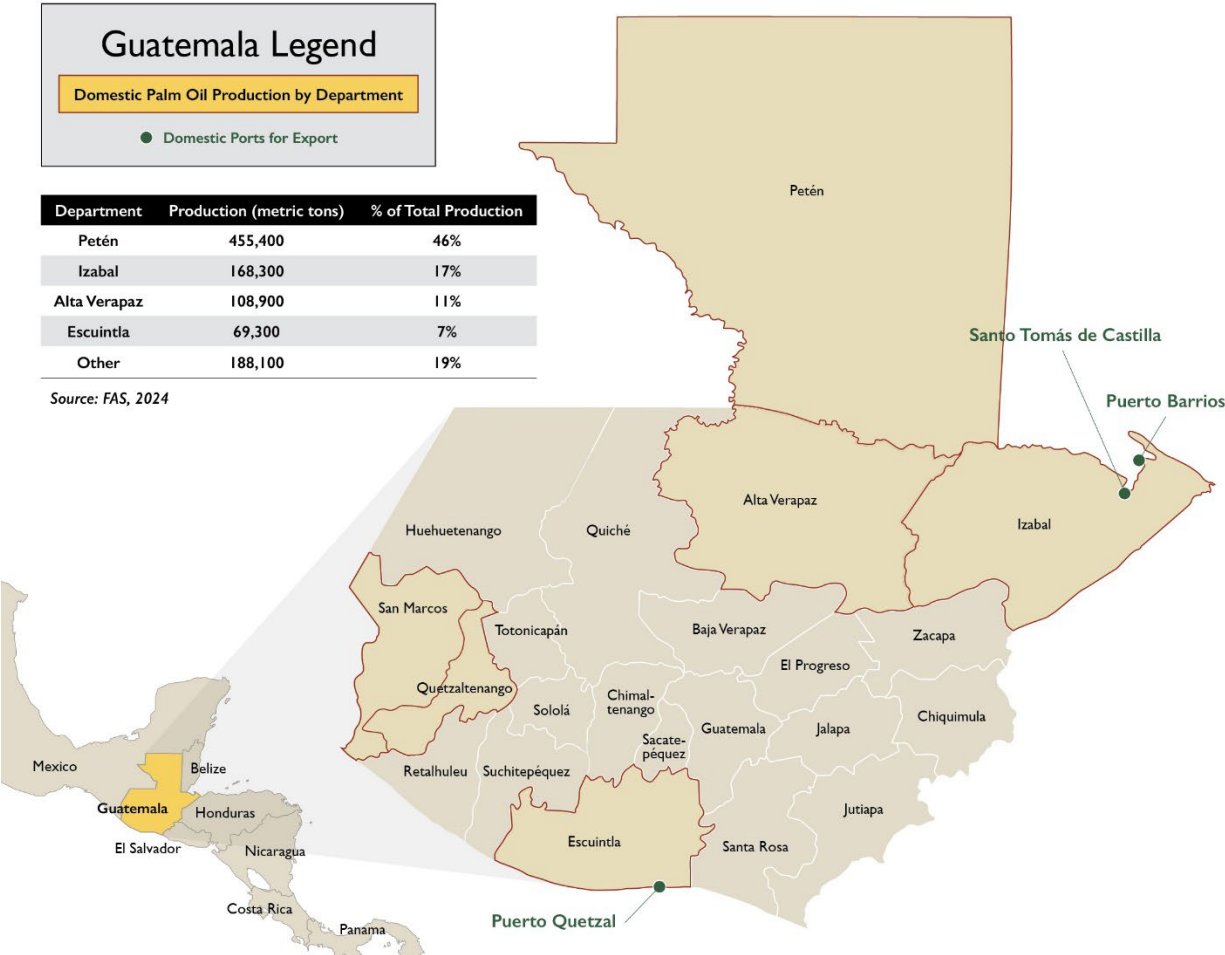
⁴ In this report, “palm oil” refers in aggregate to CPO and RPO, and does not refer to crude or refined palm kernel oil.

Palm oil production, 2014–2024			
Market year	Volume (MT)	Production area (Ha)	Yield (MT/Ha)
2022/2023	910,000	198,000	5.1
2023/2024	920,000	198,000	4.5
2024/2025	990,000	190,000	5.1

Ha=hectare, MT=metric tons
 Source: Foreign Agricultural Service, 2025

Within Guatemala, palm fruit plantations and palm oil mills are clustered in three regions: the North, the Northeast, and the South (GREPALMA, 2024). More than 80% of Guatemalan palm oil is produced the 4 departments of Petén (North), Alta Verapaz (North and Northeast), Izabal (Northeast), and Escuintla (South) (Foreign Agricultural Service, 2024).

Figure 2. Domestic production of palm oil, by department, 2024⁵



Source: ICF

⁵ This map highlights the departments of San Marcos and Quetzaltenango as the primary sources of the Guatemalan production covered by “other” in United Nations Food and Agriculture Organization data. Evidence for production in these departments comes from in-country sources such as *Gremial de Palmicultores de Guatemala* (Oil Palm Growers Association of Guatemala), company mill lists, and key informant interviews.

As of 2023, Guatemala operated 23 palm oil mills nationwide, with a capacity to process more than 1.1 million fresh-fruit bunches per hour (GREPALMA, 2024). Because fresh-fruit bunches are perishable, they must be processed quickly, usually within 24 hours of harvesting. Mills are therefore clustered in close proximity to palm farms and plantations, in the North, Northeast, and South regions of the country. As of 2023, 10 of the country's palm oil mills were located in the North (7 in Petén and 3 in northern Alta Verapaz), 7 were located in the Northeast (6 in Izabal and 1 in eastern Alta Verapaz), and 7 were located in the South (3 in Escuintla, 3 in Quetzaltenango, and 1 in San Marcos) (GREPALMA, 2024).

“That fruit must be processed the same day it is cut. On the same day of cutting, all that fruit must enter the extraction plant [palm oil mill], because if it does not enter on the same day of cutting, the acidity of the oil will increase.”

—Key informant interview, industry representative

Transportation methods from the grower to the nearby processing facilities can vary, depending on the size and capabilities of the grower and the arrangements agreed with the processor. Smaller growers may initially transport fresh-fruit bunches away from their fields with buffalo or on small boats down canals to waiting trucks (worker key informant interviews [KIIs]). Some growers transport their fresh-fruit bunches to palm processing facilities themselves, using trucks, vans, or motorized tricycles (industry KIIs). Others, particularly smaller producers, may collectively arrange for an intermediate third party to provide transportation services to local mills or to designated collection centers (industry KIIs). Larger producers may ship palm fruit to mills in their own trucks or contract for transportation services with third party transportation (industry KIIs).

“Sometimes ... there is an intermediary who offers [small producers] the transportation service, collects, weighs what he collects from each one, deposits it in the extraction plant, that intermediary is paid, and then the intermediary returns and gives proportionally to each of the small producers what they [were] paid.”

—KII, industry representative

Palm oil mills process fresh-fruit bunches into CPO, with oilcake as a by-product. Some mills also produce RPO, CPKO, or refined palm kernel oil (RPKO), although the vast majority of palm fruit in Guatemala is processed into CPO for export.

Mills extract CPO from the fleshy portion of the palm fruit, and extract palm kernel oil from the kernel in the middle nut of the fruit (WWF, n.d.). CPO and CPKO are used as ingredients in many household cleaning and personal care products, such as soaps, shampoos, deodorant, toothpaste, and cosmetics, as well as for industrial uses, such as biodiesel production and in animal feed (Gregory, 2022). Crude oils can also be used in products for human consumption, although refined oils are often preferred for food products. Palm oils are used in a variety of processed food and bakery products, and especially in products that require a smooth or creamy texture, such as margarine, mayonnaise, ice cream, and chocolates and other confectionary products (WWF, n.d.).

An estimated 60% of Guatemalan palm oil production operations maintain certifications from International Sustainability and Carbon Certification or the Roundtable on Sustainable Palm Oil (RSPO) (Solidaridad, n.d.). International Sustainability and Carbon Certification is primarily an environmental certification, though its six principles for member companies also call for safe working conditions on farms and refer to core labor standards as defined by the International Labor Organization (ILO) (International Sustainability and Carbon Certification, n.d.). RSPO also maintains both environmental and labor standards for its members and released an updated version of its “Principles and Criteria” in November 2024 (Roundtable on Sustainable Palm Oil, 2024). RSPO provides guidance on child rights, living wages, and labor auditing, and its new “Principles and Criteria” include enhanced guidance on

human rights due diligence (Roundtable on Sustainable Palm Oil, 2024). The ability of both organizations to enforce labor standards with their members is limited.



A stand selling domestic palm oil at a market in Coban. Source: ICF

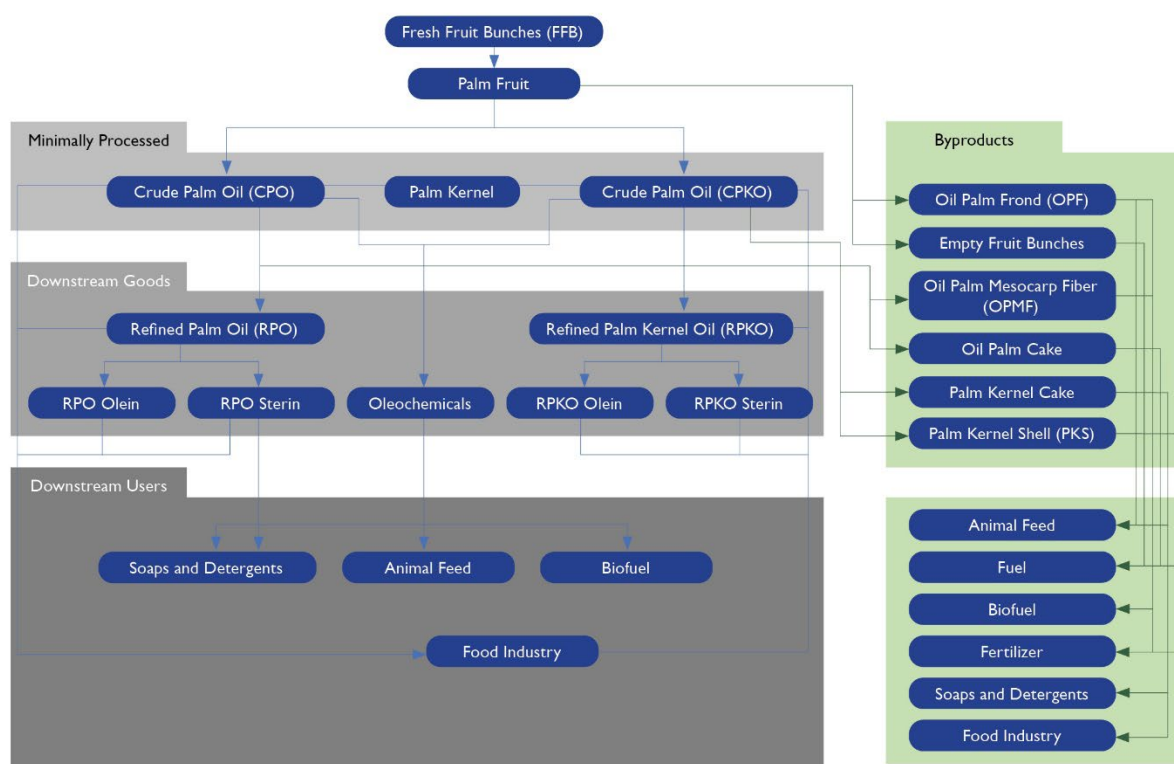
As of 2023, Guatemala exported around 88% of its palm oil production, retaining around 12% of production for local consumption (GREPALMA, 2024). Some of the domestically consumed refined oil is sold as cooking oil, for example under the brand name Capullo, marketed by the Guatemalan palm oil producer NaturAceites, which also sells baked goods for consumers and raw materials to food manufacturers, bakeries, restaurants, and food service operators (worker KII; NaturAceites, n.d.).

Other palm oil producers that manufacture products for the domestic market include Grupo Hame (marketing food products under its "Olmeca" arm), Naisa (marketing as "Ideal"), and Industrias de Jabones y Detergentes, involved in domestic soap making as part of Grupo Meme (Grupo Hame, 2025; Roundtable on Sustainable Palm Oil, 2023c). By-products of the oil extraction process are also used in Guatemala, with oilcake used as animal feed and as a source of biofuel (industry KII).

"Palm kernel cake ... is used mixed for livestock feed. The husk, which is like the wrapping that is on top of the kernel, is also used as biomass for boilers, for energy generation. Or it is sometimes used for road repair, because it is like a material to cover the holes in uncovered roads."

—KII, industry representative

Figure 3. Palm oil supply chain flowchart



Source: ICF

3 METHODOLOGY AND STUDY IMPLEMENTATION

3.1 RESEARCH QUESTIONS

This study was guided by the following research questions:

1. Are there indicators of forced labor present in the oil palm industry of Guatemala, and how and where do these occur within the supply chain?
 - a. What are the work and demographic characteristics of those experiencing forced labor indicators?
2. Who are the main stakeholders in Guatemala involved in the sale and processing of palm oil produced from oil palm fruit obtained through forced labor?
 - a. How are ownership structures and corporate relationships currently configured among industry stakeholders?
 - i. How have corporate conglomerates influenced industry dynamics and the production of oil palm fruit and associated downstream products?
 - b. What downstream oil palm products are produced in Guatemala? How is exported palm oil harvested in Guatemala and consolidated before export?
 - c. What is the present status of traceability within the palm oil industry, and are there any circumstances in which traceability is lost or compromised?
3. What role do palm oil exports from Guatemala play in international markets?
 - a. What are some selected examples of end uses of palm oil produced in Guatemala?

3.2 METHODOLOGY

The methodology for this study included a combination of secondary data analysis, a quantitative workers' survey, qualitative worker interviews, and KIIs. The process began with a review and analysis of available reports and trade data, guided by thematic areas of focus, such as forced labor and the oil palm supply chain. This review contributed both to the study design and the final report.

Quantitative workers' survey: The survey of 89 workers sought to identify the presence and characteristics of forced labor in the palm industry. The design of the survey and the operational definition of forced labor were guided by the 20th International Conference of Labor Statisticians *Guidelines Concerning the Measurement of Forced Labor* (2018) and ILO's recently released *Hard to See, Harder to Count* (2024) (for more details, see Section 3.3, *Measuring Forced Labor*). The survey captured respondents' socio-demographic information and their work activities and indicators of forced labor in their most recent job in oil palm production.

The survey targeted palm workers primarily in Alta Verapaz and Quetzaltenango departments who participated in oil palm production within the last year, who were aged 18 or older at the time of survey administration, and who worked for an employer. The survey employed convenience sampling and identified respondents primarily with the support of local civil society actors and through snowball sampling for a limited number of respondents. The survey was administered by hand-held tablets on the SurveyCTO platform.

Qualitative worker interviews: Qualitative worker interviews were intended to gather additional insights on the topics covered in the survey. These interviews were administered to a subset of 58 survey participants.

Key informant interviews: The 25 KIIs gathered information on how the oil palm supply chain in Guatemala is structured, what actors are involved and how they interact, and how oil palm produced with forced labor could find its way into downstream goods. Respondents were selected based on their expertise in these areas, with participants drawn from academia, business, media, civil society, and government.

The research instruments were adapted from ICF's global research instruments to fit the context of the palm supply chain in Guatemala. This adaptation was informed by a scoping study conducted in February 2024.

All instruments were translated into Spanish. The research did not exclude any respondents due to language barriers because the research team included Q'eqchi' speakers. Quantitative data analysis was performed using Stata 15. All interview notes and transcripts were translated into English. The research team triangulated the results of the qualitative and quantitative analyses to identify key findings and conclusions. This process ensured that all findings were supported by multiple evidence sources and analyses.

3.3 MEASURING FORCED LABOR

This study used the definition of forced labor contained in ILO Convention 29: "The term forced or compulsory labor shall mean 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." The study operationalized this definition of forced labor according to the guidelines provided in the 20th International Conference of Labor Statisticians *Guidelines Concerning the Measurement of Forced Labor* (2018) and ILO's *Hard to See, Harder to Count* (2024). *Hard to See, Harder to Count* (2024) was released during the planning stage of this

study, and it offers much more detailed guidance on conducting research on forced labor compared to previously available resources. The ICF research team consulted with the authors of the guidelines and with the U.S. Department of Labor during the adaptation of these guidelines to the context of palm oil in Guatemala.

According to the guidelines, a case of forced labor requires performing work that is both involuntary and under the threat or menace of a penalty. *Hard to See, Harder to Count* (2024) describes three employment stages: recruitment stage, employment stage, employment separation stage. For this study, a worker must have experienced both involuntary work and coercion during the same employment stage to be classified as a case of forced labor. All questions referred to the respondent's most recent job in the palm oil sector.

This study used the following indicators of involuntary work, drawn from ILO materials:

- Forced recruitment
- Deceptive or fraudulent recruitment
- Hazardous or degrading working conditions
- Onerous working hours or work schedule
- Degrading work-related living conditions
- Abuse or manipulation of debt
- Inability to terminate employment

The study used the following indicators of coercion, drawn from ILO materials:

- Physical or sexual violence
- Restrictions on workers' movement
- Abuse or manipulation of debt⁶
- Withholding of wages
- Retention of identity documents
- Threat of loss of housing or land provided by employer

See Appendix 4 for the survey questionnaire, which shows the indicators of involuntary work and coercion mapped to the survey questions.

3.4 TRAINING AND PREPARATION

Training of the research team took place in June 2024. The training comprehensively covered the study objectives, the definition of forced labor and forced labor indicators, the research design, fieldwork procedures, research ethics, informed consent protocols, data quality assurance, and a detailed review of the research tools. It also included mock surveys and interviews and feedback sessions aimed at refining interview techniques. The training concluded with a pilot. Following the pilot, the research team conducted a debriefing session to discuss challenges encountered and lessons learned. In response to these lessons learned, the research team made several minor revisions to the questionnaire to improve respondent comprehension.

Prior to data collection, the research design and instruments were approved by ICF's independent Institutional Review Board. Researchers were trained to adhere to strict ethical guidelines, including informed consent, confidentiality, and data security. The research was performed in compliance with

⁶ According to *Hard to See, Harder to Count* (2024), abuse or manipulation of debt can be both a form of involuntary work and a form of coercion. However, in this study, no respondents indicated abuse or manipulation of debt.

45 Code of U.S. Federal Regulations Part 46 on the Protection of Human Subjects. Verbal informed consent was obtained from all respondents before proceeding with the interview by reading a consent form aloud to them. All personal identifying information was redacted before data analysis.



Worker survey interviewer training in Coban, June 2024. Source: ICF

3.5 DATA COLLECTION

Data collection took place from June 2024 to March 2025. Researchers completed 89 surveys with workers and 58 qualitative interviews with workers. Data quality was closely monitored in real time by the survey supervisors present in the field to address any issues and review submissions. KIs were conducted using semi-structured interview guides tailored to each respondent’s expertise and role. A total of 25 KIs were completed. Table 2 summarizes the study sample by type of participant and type of data collection.

Table 2. Sample summary

Type of data collection	Workers	Key informants	Total
Surveys	North region: 82 workers South region: 7 workers		89 participants
Qualitative interviews	North region: 58 workers South region: 0 workers	25 participants	83 participants

3.6 CHALLENGES, LIMITATIONS, AND LESSONS LEARNED

Recruitment of workers posed a significant challenge. The original research plan called for support from a large worker organization in facilitating recruitment of respondents. However, this support was not received. To mitigate this challenge, the study protocol was altered in several ways. First, the study shifted to contacting local key informants for the recruitment of participants. This strategy was more time-consuming; however, it also fostered trust among workers, as they were familiar with the key

informants. In addition, the study attempted to adopt a paid referral mechanism to increase the number of participants, but very few respondents referred other participants. Finally, the data collection mode shifted from in person to phone for some respondents to broaden the potential pool of respondents. Despite these efforts, the ultimate sample size was lower than initially envisioned. Difficulties related to worker recruitment to participate in the study were due to security concerns and workers' fear of intimidation and repercussion if employers learned of their participation.

Accessing research sites was also a challenge. The study protocol originally planned for a larger number of worker participants from the South. Scoping informants indicated that labor conditions in the South were understudied and potentially worse than conditions in the North. However, safety concerns impeded fieldwork in the South. The final sample therefore includes only a small number of participants from the South. In addition, the original protocol included plantation observations if possible. The research team found that such observations were infeasible due to permission limitations and security concerns.

Sampling method: The quantitative workers' survey used purposive and convenience sampling rather than probability sampling, allowing for a varied pool of respondents but also introducing limitations. Findings are not statistically representative of Guatemala's palm industry or its labor practices. However, the data help identify the existence of forced labor in the study area and, when combined with qualitative insights, offer a broader understanding of the issue.

In addition, **supply chain tracing** of palm oil and related products from Guatemala is complicated by many factors. At the beginning of the supply chain, few workers knew the destination of their harvested fresh-fruit bunches, and palm oil mills rarely disclose the names of the plantations from which they source. This study found only one mill that disclosed plantation names. In addition, not all importers of palm oil disclose the mills from which they source, and those that do rarely disclose plantations. This study found only one food manufacturing company that disclosed palm fruit plantations within its supply chain.

Furthermore, fresh-fruit bunches from several plantations may be co-mingled at the palm oil mill in which they are processed, and then oil from several mills may be co-mingled after processing. CPO-importing countries may re-export oil from Guatemala or refine CPO into RPO for export, further obscuring the origins of any individual unit of oil. Palm oil is used in a large number of downstream products. The palm oil used in the manufacturing of these products may have already been traded several times before arriving at a processing facility for end-use products.

4 FINDINGS

4.1 SUPPLY CHAIN/TRADE FINDINGS

4.1.1 First-tier Supply Chain Tracing: Guatemalan Exports

Several palm oil mills in Guatemala that export to global markets are owned and operated by single parent companies, as demonstrated in Table 3. In Guatemala, companies that operate palm oil mills may also conduct other activities related to palm fruit cultivation, including operating palm fruit plantations and manufacturing and marketing consumer products for domestic markets.

The largest parent or holding companies conduct other operations outside of Guatemala unrelated to palm oil. Their complex business structures are highlighted by the following examples. The AgroAmerica Tropical Oil Holding Co., which operates three palm oil mills in Guatemala through its subsidiary companies Agrocaribe and Agroceite, also conducts operations in Panama, Ecuador, and Peru, producing

bananas and pineapple, and maintains shipping and logistics services (AgroAmerica, n.d.). Grupo Hame, which operates five palm oil mills in Guatemala, also cultivates bananas, plantains, avocados, grapes, and blueberries, and develops real estate (Grupo Hame, n.d.). Unipalma, which operates the Uniaceites mill in Petén, also manages oil palm plantations in Colombia (Roundtable on Sustainable Palm Oil, 2023d).

Although connections between palm oil mills and plantations are mostly opaque, several parent companies operating mills that are members of RSPO disclose to RSPO the scope of plantation production under their management or control. The Braden Group, which operates a mill in Alta Verapaz and a mill in Petén, disclosed managing 14 plantations totaling 8,351 hectares (Roundtable on Sustainable Palm Oil, 2023a). The KH Regional Group, which operates 1 mill in Petén, disclosed managing 2 plantations totaling 10,492 hectares. NaturAceites, which operates 4 mills in Alata Verapaz, Izabal, and Petén, disclosed managing 12 plantations totaling 12,145 hectares (Roundtable on Sustainable Palm Oil, 2023b).

Uniquely, the palm oil mill Industrias de Jabones y Detergentes provided plantation names in its latest disclosures to RSPO, naming the 6 plantations (3,021 hectares) under its management and naming 5 independent producers from which it sources (Roundtable on Sustainable Palm Oil, 2023c).⁷

Other companies operating palm oil mills in Guatemala include Unisource Holding, operating Industria Chiquibul in Alta Verapaz; Agropecuaria Nuevo San Carlos, operating Palmas del Machaquila in Petén; the companies Cadenas and Solatam (both in Izabal); and the Palma Sur company in Petén, which discloses on its website that it managed a plantation of 10,000 hectares as of 2015 (company mill lists, 2023, 2024, 2025; Palma Sur, n.d.).

Table 3. Palm oil mills in Guatemala

Parent company	HQ	Mills	Department
AgroAmerica Tropical Oil Holding Co.	Guatemala	Extractora Agroaceite	Quetzaltenango
		Extractora del Atlantico	Izabal
		Extractora la Francia	Izabal
Agropecuaria Nuevo San Carlos	Guatemala	Palmas del Machaquila	Petén
Braden Group	Panama	Agroindustria Palmera san Roman	Petén
		Palmas del Ixcán	Alta Verapaz
Grupo Hame	Guatemala	Atlantida	San Marcos
		El Triunfo	Quetzaltenango
		Repsa I	Petén
		Repsa II	Petén
KH Regional Group	Panama	Santa Rosa I	Escuintla
		Naisa	Petén
NaturAceites	Guatemala	Fray Bartolome	Alta Verapaz
		Fray Mill/Yalcobe	Alta Verapaz
		Panacte	Izabal
		Pataxte	Petén
Unisource Holding	Bahamas	Industria Chiquibul	Alta Verapaz
Unipalma	Colombia	Uniaceites	Petén

⁷ Industrias de Jabones y Detergentes reported to RSPO that it manages the farms Acacias, Quirica, San Antonio, San Francisco, San Jorge, and Alfa, and stated that “we also provide from small independent producers such as: San Augustin Farm, Murciélago and Primavera Farm, Coyolares S.A. (Coyolares Farm), Salamanca Farm and Roberto Alvarado (Manglares Farm)” (Roundtable on Sustainable Palm Oil, 2023c).

Parent company	HQ	Mills	Department
Unknown or no parent		Cadenas Industrias de Jabones y Detergentes Palma Sur Solatam	Izabal Escuintla Petén Izabal

Sources: Company mill lists, company websites, 2023, 2024, 2025

Many multinational corporations, including manufacturers of consumer products and traders working with these manufacturers, publish supplier lists that disclose their connections to palm oil mills in Guatemala. In general, these lists do not clarify which of the four types of palm oil, or a combination of them, are purchased from which mill; however, given Guatemala’s export statistics, it is evident that the vast majority would be in the form of CPO. Importing companies, like the mills themselves, also do not generally report on their supply chain connections to the plantation level,⁸ and most plantation workers interviewed for this study stated that they could not name the buyers of their harvested palm fruit, although some workers stated that their palm fruit would be processed by mills affiliated with NaturAceites (worker KIIs).

“I do not know where it is sold, I only know that the palm goes to Fray Bartolomé de las Casas [a municipality in the department of Alta Verapaz], behind the airstrip.”

—KII, worker

“The fresh-fruit bunches have to be processed in the extraction plant less than 24 hours after being [harvested], so transportation is key and that is why it is generally 30 to 50 kilometers around an extraction plant where the plantations are located.”

—KII, industry representative

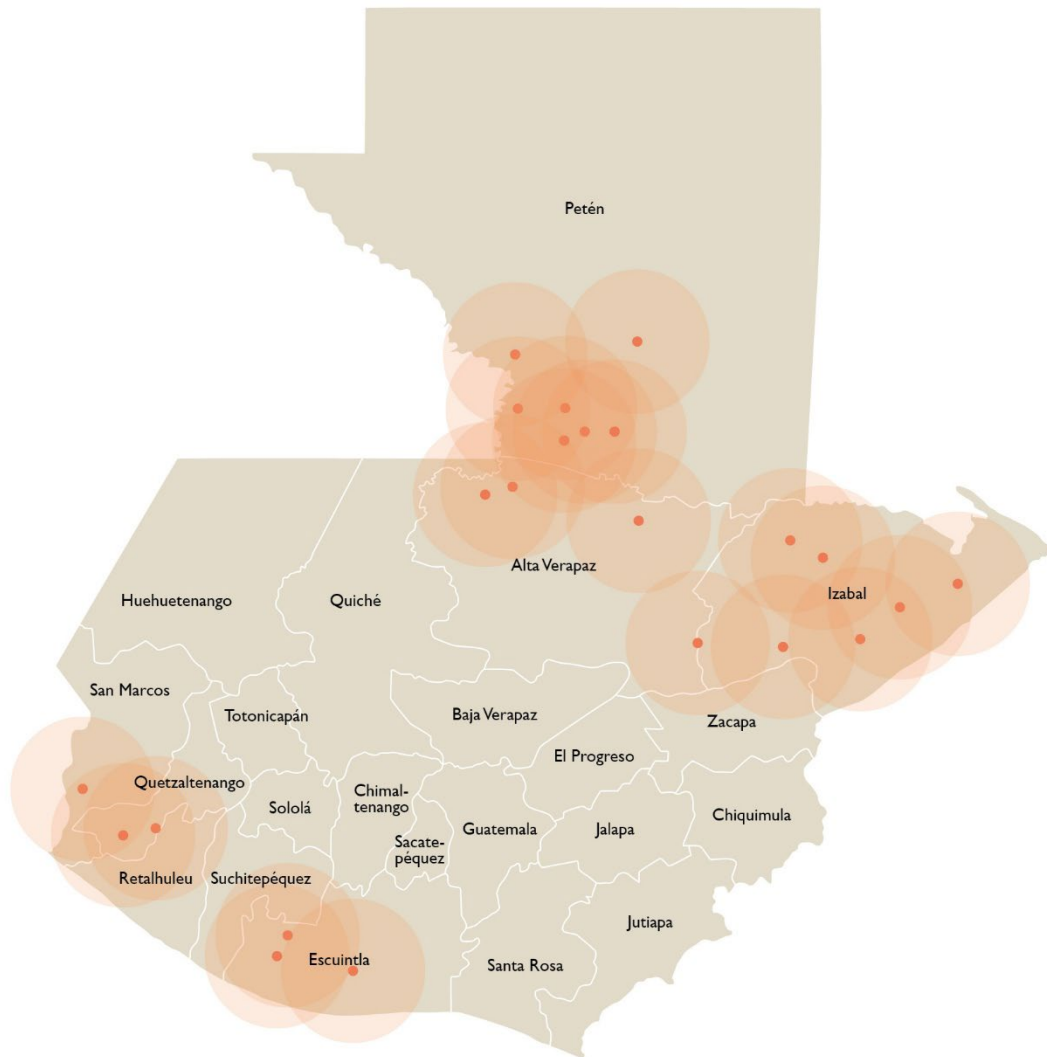
At the same time, mills can be assumed to process palm fruit from plantations that they manage and can be presumed as possible processors for independent growers within a limited geographic range. Due to the need to process fresh-fruit bunches within 24 hours of harvesting, industry sources estimate any given palm oil mill’s reach to extend primarily to plantations within a 50 km radius (industry KIIs). Figure 4 depicts the overlap between the mills’ estimated reach, demonstrating how a given plantation could be a possible supplier to multiple palm oil mills, while the co-mingling of palm fruit from multiple plantations within mills can diminish supply chain visibility further.

In the North region, 6 out of 82 survey respondents from plantations in an area of high overlap reported experiencing forced labor. In the South region, with lower overlap between mills, none of the seven survey respondents experienced forced labor.

⁸ Notably, Danone, one company sourcing palm oil from Guatemala, discloses plantation names on its supplier list. A search of specific plantation names identified by interviewed workers did not return any matches.

Figure 4. Palm oil mills, estimated range

Based on the industry assumption that palm fruit may be processed within 50 km from the plantation on which it was grown, this map shows the likely range plantations that could be served by a palm oil mills in Guatemala.



Source: ICF

According to their most recent supplier lists, the following companies are among those that have recently sourced palm oil from Guatemala: Archer Daniels Midland, Badische Anilin und Sodafabrik, Cargill, Colgate-Palmolive, Danone, Ferraro, Friesland Campina, General Mills, Grupo Bimbo, Mondelez, Nestlé, Pepsico, and Unilever (company mill lists, 2023, 2024, and 2025). This list is not exhaustive; many other companies that do not publish supplier lists, or for which no recent supplier list was available or found, may also source palm oil from Guatemala. Table 4 aggregates the mills disclosed by these companies, showing which companies have disclosed which mills, and demonstrating how many companies source palm oil from many of the same mills, in the various departments of Guatemala.

Table 4. Company disclosure of supplier relationships in Guatemala

Mills disclosed as a supplier for each company are coded in green.

DEPARTMENT/Mill	ADM	BASF	Cargill	Colgate Palmolive	Danone	Ferraro	Friesland Campina	General Mills	Grupo Bimbo	Mars	Mondelez	Nestle	Pepsico	Unilever
ALTA VERAPAZ														
Fray Bartolome														
Fray Mill/Yalcobe														
Industria Chiquibul S.A.														
Palmas del Ixcán LTDA														
ESCUINTLA														
Industrias de Jabones y Detergentes Las Palmas														
Santa Rosa I														
IZABAL														
Cadenas														
Extractora del Atlántico														
Extractora la Francia														
Panacte														
Pataxte														
Solatam S.A.														
PETEN														
Agroindustria Palmera San Roman S.A.														
Naisa														
Palmas del Machaquila														
Palma Sur S.A.														
Repsa I														
Repsa II														
Uniaceites														
SAN MARCOS														
Atlántida														
QUETZALTENANGO														
Agroservicios El Triunfo														
Extractora Agroaceite														
<i>Year of most recent supplier list</i>	2023	2024	2024	2023	2023	2024	2024	2025	2022	2023	2023	2023	2023	2023

ADM=Archer Daniels Midland, BASF=Badische Anilin und Sodafabrik

Source: Company mill lists, 2023, 2024, and 2025

Despite the clear business relationships disclosed by many companies whose products include upstream materials originating in Guatemala, direct tracing of products that include Guatemalan oils is very difficult due to co-mingling throughout the supply chain. In addition to the co-mingling of fresh-fruit bunches within Guatemala, as mentioned previously, companies may co-mingle oils for transportation, for the importing destination market warehouses, for processing, or in the production of downstream goods. Oils certified as sustainable by RSPO may be kept separate from uncertified oils, but within these categories, traceability is lost (industry KIIs). RSPO certified more than two-thirds of the oil produced in Guatemala as of 2023, with a goal to increase certification levels to 75% in 2025 (Hanbury, 2024).

“In many cases, oil from different producers can be consolidated into one shipment to optimize costs and transportation.”

—KII, industry representative

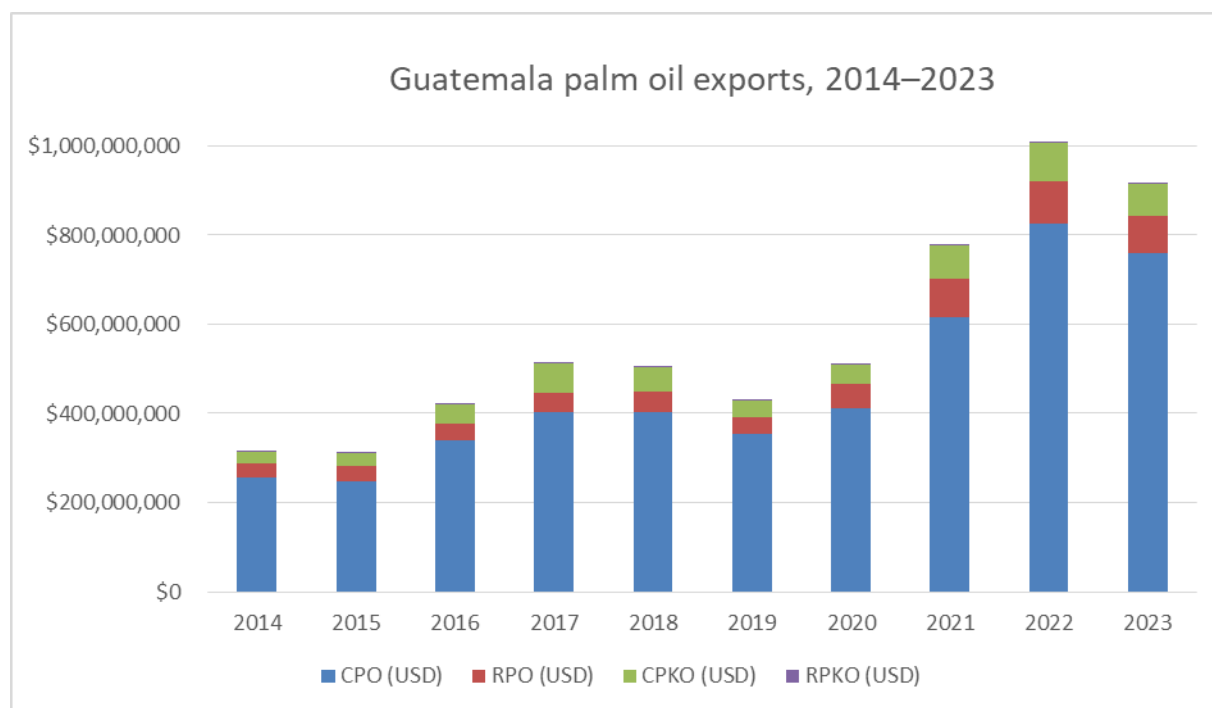
Moreover, many buyers work with traders, who may become the company of record for tracking export materials en route to many different manufacturers, to be transformed into numerous consumer products (industry KIIs). Traders disclosed by companies sourcing palm oils from Guatemala included AAK, Bunge Oils, Lipidos Santiga, Sime Darby, Vandermoortele, subsidiaries of these companies, and others. Some companies assume multiple roles in the value chain, acting as a combination of the roles of buyer, trader, and manufacturer. For example, Cargill acts as a trader for other companies while also purchasing palm products for its own manufacturing, operating a palm oil refinery in Hidalgo, Mexico, that imports CPO from Guatemala (industry KIIs).

4.1.2 Exports

Between 2014 and 2023,⁹ international trade data show that Guatemala more than doubled its exports of CPO, by far the country’s most important downstream palm fruit product (UN Comtrade, 2025).

Guatemala exported more than \$760 million worth of CPO in 2023 (or more than 800 million kg), up from around \$250 million in 2014, outpacing its value of RPO by nearly a factor of 10. While at much lower values, Guatemala’s exports of CPKO similarly outpaced its exports of RPKO, which slightly declined from 2014 to 2023 (UN Comtrade, 2025).

Figure 5. Growth of Guatemala palm oil exports, by value



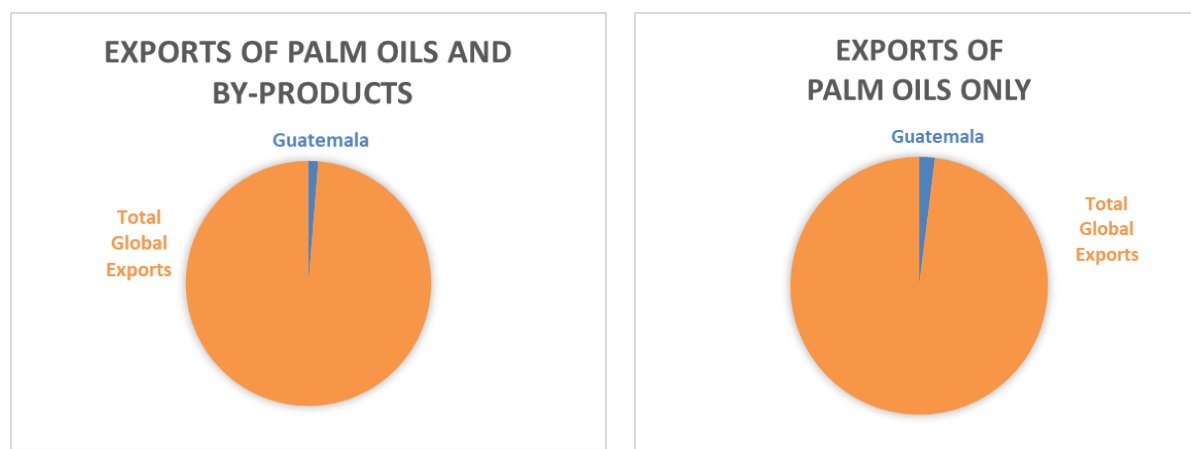
Source: UN Comtrade, 2025

In 2023, in addition to the four kinds of oil, Guatemala exported palm fruit by-products in the form of palm nuts and kernels, oilcake, and downstream oleochemicals. Overall, by value, these products

⁹ As of March 2025, 2023 was the most recent year for which robust export and import data related to Guatemala appeared on UN Comtrade.

amounted to 1.3% of global exports of palm oil and its derivatives, as represented by the pie chart in Figure 6. Looking at the four kinds of palm and palm kernel oil exports (CPO, RPO, CPKO, and RPKO), Guatemala's share of global exports accounts for 2% by value, primarily to countries in Europe (especially the Netherlands and Spain) and Latin America (especially Mexico) (UN Comtrade, 2025). The United States has not historically imported palm oil or palm kernel oil from Guatemala, except for some small quantities of RPO between 2014 and 2019 (UN Comtrade, 2025).

Figure 6. Guatemalan exports compared to global total, by value



Source: UN Comtrade, 2025

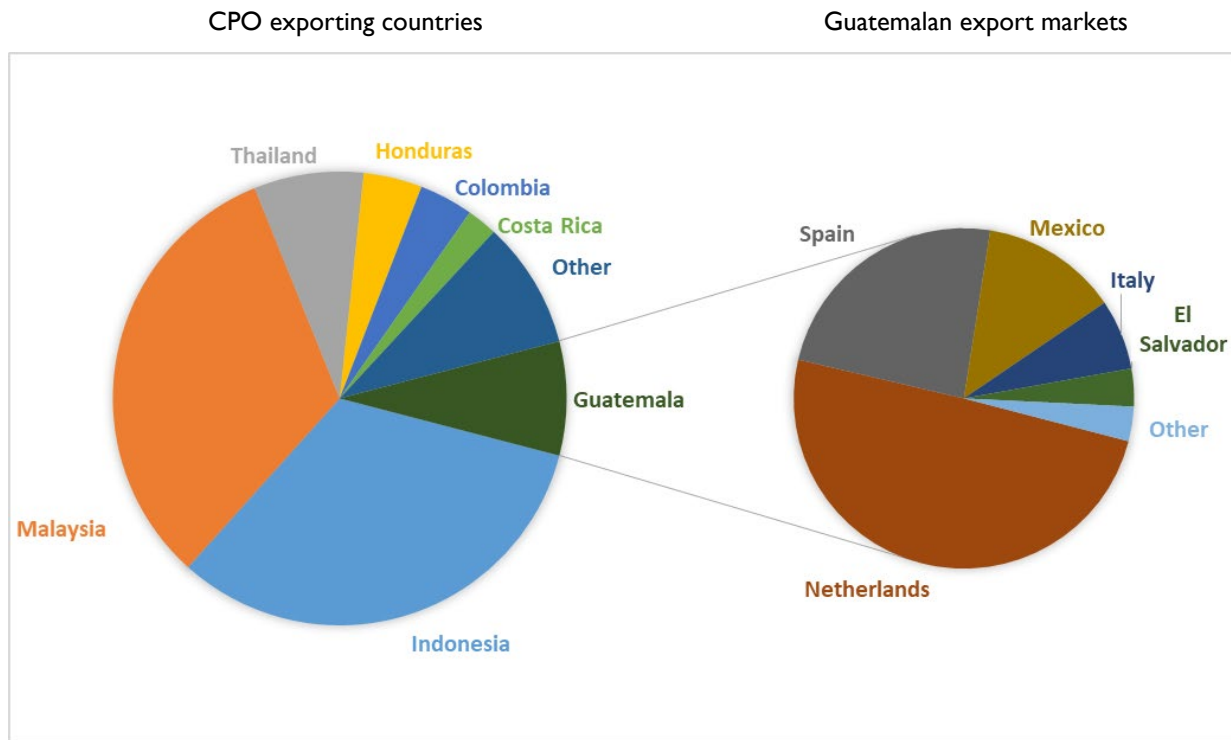
The pie charts in the following sections provide greater detail about the destinations of specific products made from palm fruit in Guatemala.

4.1.2.1 Crude Palm Oil

In 2023, Guatemala surpassed Thailand to become the third largest global exporter of CPO, accounting for 8.1% of global exports. This placed Guatemala behind only Indonesia and Malaysia, long-time leading exporters, which together accounted for slightly more than two-thirds of global exports (UN Comtrade, 2025).

The Netherlands was Guatemala's top export destination for CPO in 2023, taking in nearly half of Guatemala's total CPO export. This accounted for nearly one-quarter of the Netherlands' total CPO imports, making Guatemala the Netherlands' top supplier (UN Comtrade, 2025). Guatemala was also the top supplier to Mexico (45% of Mexico's imports of CPO), Spain (37.1% of Spain's imports of CPO), and El Salvador (83% of El Salvador's imports of CPO) (UN Comtrade, 2025).

Figure 7. Top export markets by percentage for CPO, by value in 2023

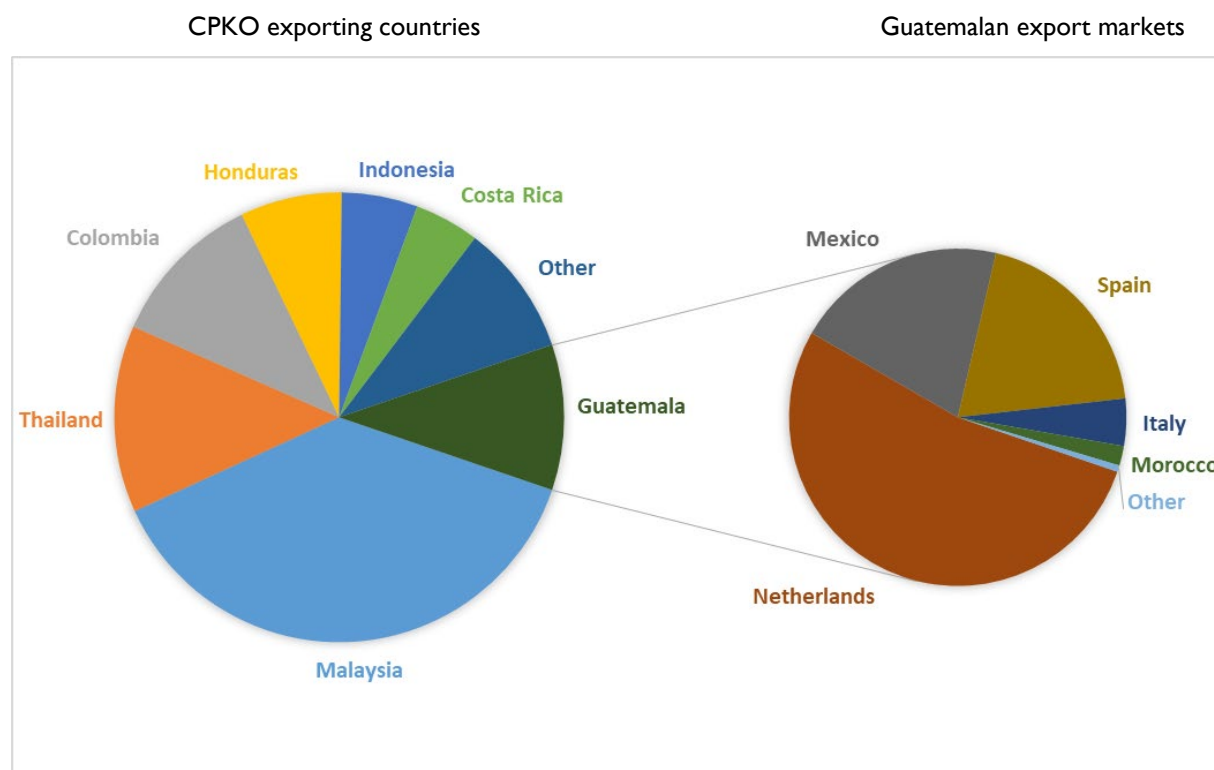


Source: UN Comtrade, 2025. HS code: 1511.10

4.1.2.2 Crude Palm Kernel Oil

Guatemala was the fourth largest exporter of CPKO in 2023, accounting for 10.5% of global exports, behind Malaysia (37.9%), Thailand (13.5%), and Colombia (11.3%). Guatemala supplied CPKO to seven countries in 2023, including four of the top five countries for its CPO exports (the Netherlands, Spain, Italy, and Mexico). Guatemala supplied far less CPKO, compared to CPO, but was still a top supplier to these countries. Guatemala was the second largest supplier of CPKO to the Netherlands (19.4% of the Netherlands' imports of CPKO) and Spain (22.9% of Spain's imports of CPKO), the third largest supplier to Italy (14.9% of Italy's imports of CPKO), and the fourth largest supplier to Mexico (12.1% of Mexico's imports of CPKO) (UN Comtrade, 2025).

Figure 8. Top export markets by percentage for CPKO, by value in 2023

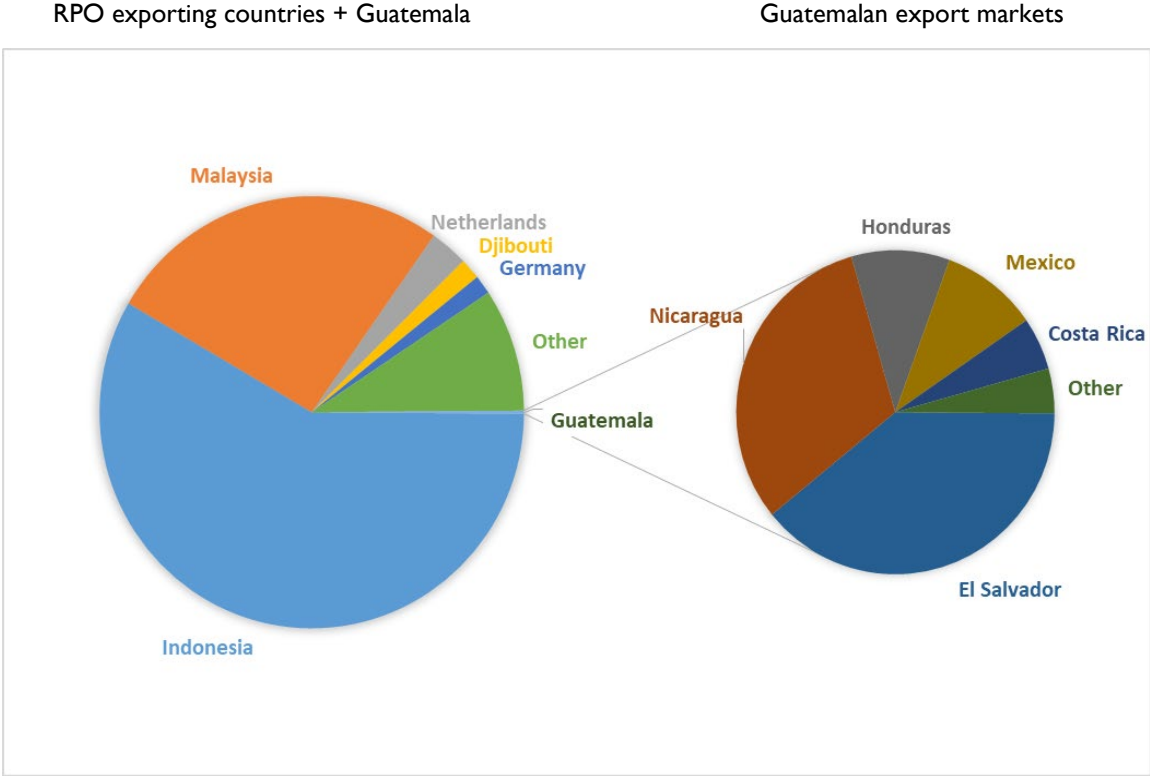


Source: UN Comtrade, 2025. HS code: 1513.21

4.1.2.3 Refined Palm Oil

Global trade data showed Guatemala to be a less significant source of RPO for the global market, accounting for only 0.2% of global exports, and ranking 21st among all exporters in 2023. As with CPO, Indonesia and Malaysia led the world in exports, together accounting for more than three-quarters of total RPO exports. Guatemala supplied RPO primarily to its nearby neighbors: El Salvador (40% of Guatemala’s exports of RPO), Nicaragua (31.4% of Guatemala’s exports of RPO), Honduras (10% of Guatemala’s exports of RPO), and Mexico (10% of Guatemala’s exports of RPO). Guatemala was the top supplier of RPO to Nicaragua (44% of Nicaragua’s imports of RPO), the second highest supplier to El Salvador (38.1% of El Salvador’s imports of RPO) and Honduras (20.3% of Honduras’ imports of RPO), and the third highest supplier to Mexico (20.5% of Mexico’s imports of RPO) (UN Comtrade, 2025).

Figure 9. Top export markets by percentage for RPO, by value in 2023



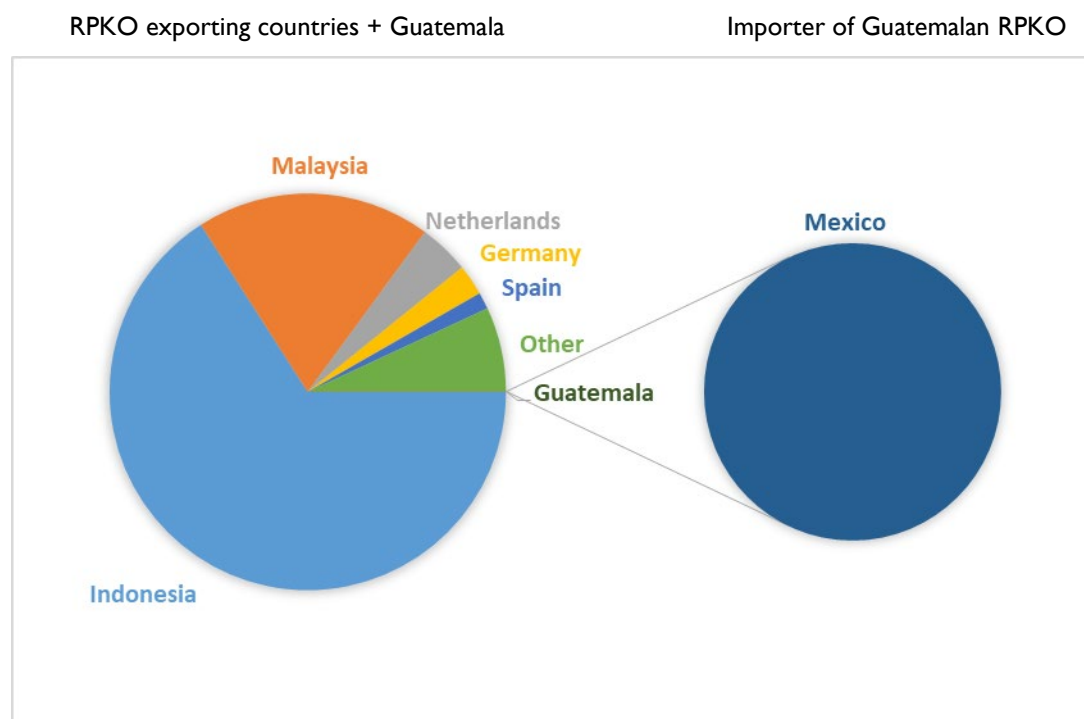
Source: UN Comtrade, 2025. HS code: 1511.90

4.1.2.4 Refined Palm Kernel Oil

Guatemala reported only one export destination—Mexico—for the small amount of RPKO it exported in 2023 (795,000 kg, valued at \$809,000, or less than 0.1% of global exports). Together, the top five exporters of RPKO account for more than 90% of exports, with Indonesia (65.6%) by far the leader. Malaysia (19.6%), the Netherlands (4.1%), Germany (2.5%), and Spain (1.4%) round out the top five (UN Comtrade, 2025).¹⁰

¹⁰ Mexico did not report the import from Guatemala for 2023 and reported importing only negligible amounts of RPKO from Italy and the United States.

Figure 10. Top export markets by percentage for RPKO, by value in 2023



Source: UN Comtrade, 2025. HS code: 1513.29

4.1.2.5 Palm Nuts and Kernels, Oilcake, and Oleochemicals

Global trade data show that Guatemala is not a globally significant exporter of palm nuts and kernels. Apart from some exports to Honduras (including \$37,055 in 2023), Guatemala has not reported significant exports of palm nuts and kernels over the past 10 years (UN Comtrade, 2025).¹¹ The data also show that palm nuts and kernels are an insignificant export for Guatemala, accounting for only .005% of palm fruit downstream exports by value in 2023.

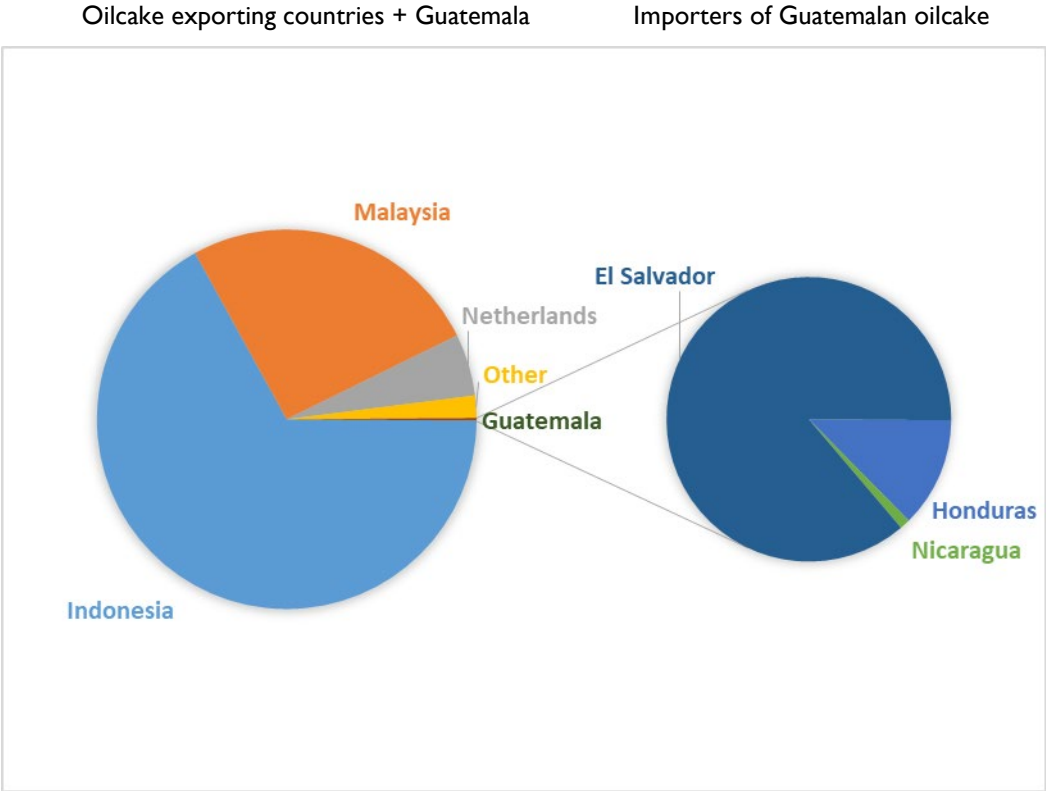
Trade data show oilcake to be an insignificant but somewhat more important export product for Guatemala, relative to palm nuts and kernels (0.4% of palm-related exports), and a low percentage of global exports. In 2023, Guatemala reported the seventh highest level of oilcake (HS 230660) exports by value, representing 0.2% of the global total. All of Guatemala's exports went to its Central American neighbors: El Salvador, Honduras, and Nicaragua (UN Comtrade, 2025). Guatemala was the only reported supplier of oilcake to Honduras and the top supplier to El Salvador (77.6%) (UN Comtrade, 2025).

Like the other palm derivatives described previously, oleochemicals from Guatemala are not a significant portion of global exports, according to international trade data. As an exporter of industrial fatty acids and acid oils, Guatemala ranks 36th, and as an exporter of binders, it ranks 42nd, both with exports of around 0.1% of the global total. Guatemala reported exporting some fatty acids to the United States and the Netherlands in 2023 (valued at around \$250,000 and \$1.2 million, respectively); otherwise,

¹¹ UN Comtrade shows that the United States reported importing trace amounts of palm nuts and kernels from Guatemala in 2023 (1,645 kg, worth \$4,500). It is unclear why Guatemalan export data reported to UN Comtrade for the same year do not confirm this shipment.

Guatemala exports oleochemicals primarily to other countries in Latin America. Mexico was Guatemala’s top importer of fatty acids (around \$5 million) (UN Comtrade, 2025).

Figure 11. Top export markets by percentage for oilcake, by value in 2023



Source: UN Comtrade, 2025. HS code: 2306.60

4.1.3 Second-tier Supply Chain Tracing: Guatemala Exports in Destination Markets

Significant limitations exist in tracing palm products in Guatemala from the plantation through production facilities and on to final downstream products and end uses. Connections between plantations and mills are uncertain, plantations are not fully disclosed by importing companies, and oils are co-mingled at various stages of production.

However, a review of importing countries’ international trade in oil palm products imported from Guatemala, and the end uses for them, can nonetheless illuminate general risks of consumer products being made with ingredients connected to worksites at risk of employing forced labor. The sections that follow track the movements of Guatemalan palm oil exports through international markets, offering insights into specific downstream products and companies involved.

4.1.3.1 Crude Palm Oil

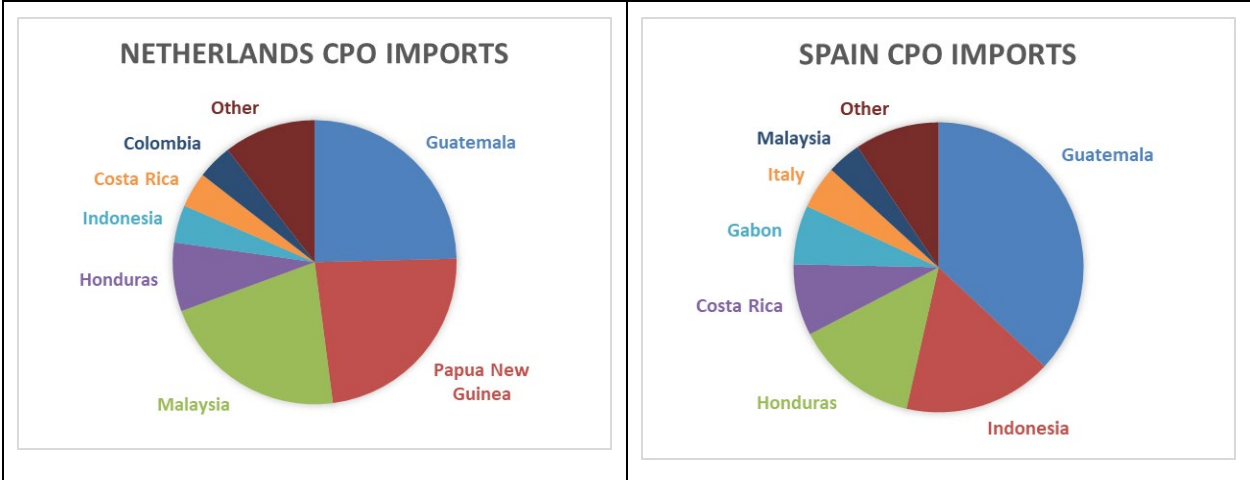
Guatemala exports more CPO than any other palm fruit by-product or downstream good. CPO may appear as an ingredient in many consumer products, such as soap, shampoo, deodorant, toothpaste, and cosmetics, and may be refined into RPO for use as an ingredient in a wide array of manufactured foods and other products.

Trade data indicate that Guatemalan CPO is primarily exported, and from there it may be re-exported by its importing countries or refined and exported or consumed by destination domestic industries as RPO.

Of the top five importers of Guatemalan CPO in 2023, the three European importers (the Netherlands, Spain, and Italy) all reported exporting CPO to other countries, primarily to other countries in Europe. Guatemala was the top supplier of CPO imports to both the Netherlands and Spain (UN Comtrade, 2025). While Guatemala was only the third-largest supplier of CPO imports to Italy, the Netherlands and Spain were Italy’s eighth and ninth largest sources, potentially boosting the amount of Guatemala-originating CPO that is then re-exported throughout Europe (UN Comtrade, 2025).

The Netherlands, as Guatemala’s top importer of CPO, exported CPO worth more than \$175 million, primarily to Germany (UN Comtrade, 2025). Spain, as Guatemala’s second largest importer, exported \$7.5 million, primarily to Portugal, France, and Czechia (UN Comtrade, 2025). Italy, as Guatemala’s fourth largest importer, exported \$4.8 million, primarily to Spain and France (UN Comtrade, 2025).¹²

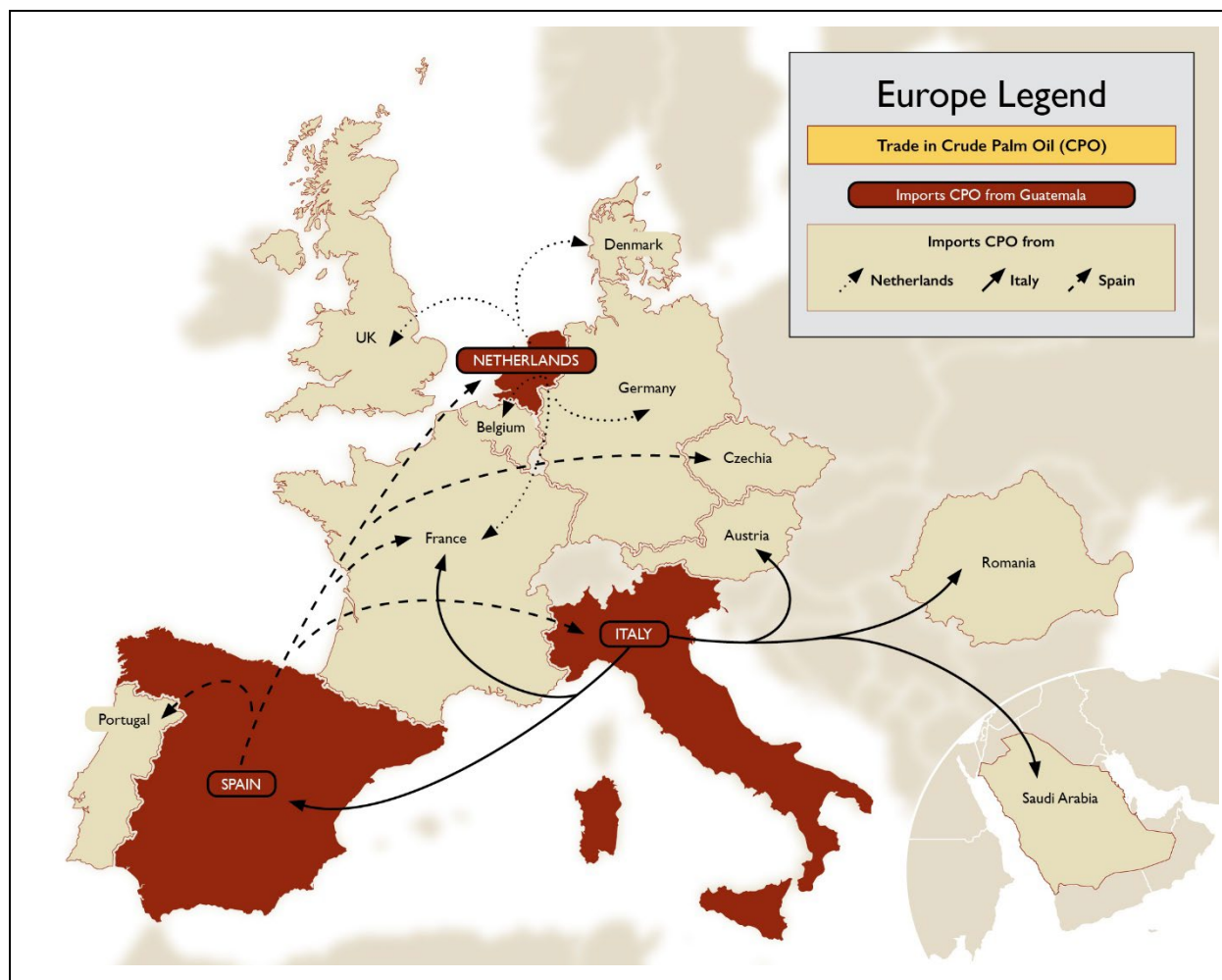
Figure 12. CPO sources for top destination countries: Netherlands and Spain, by value in 2023



Source: UN Comtrade, 2025

¹² Overall, the Netherlands imported \$1.25 billion worth of CPO worldwide in 2023, Spain imported \$437 million, and Italy imported \$566 million.

Figure 13. CPO distribution in Europe through Guatemala CPO importers¹³



Source: UN Comtrade, 2025

Mexico and El Salvador, Guatemala's third and fifth largest importers (both of which also produce their own CPO) did not report exporting CPO in 2023 (UN Comtrade, 2025).

All five CPO-importing countries also maintain refineries for processing CPO, and all five reported exporting RPO in 2023. As with CPO, the top destinations for exports from the Netherlands, Spain, and Italy were other countries in Europe (UN Comtrade, 2025). As noted in Figure 9, the Netherlands is the world's largest exporter of RPO outside of Indonesia and Malaysia. The Netherlands exported more than \$970 million worth of RPO in 2023, primarily to Germany and Belgium (UN Comtrade, 2025).

Mexico and El Salvador exported RPO only to other countries in the Americas in 2023. Aside from trace amounts to the United States (\$183), El Salvador reported exporting only to its neighbors in

¹³ Of Guatemala's top five export destinations for CPO in 2023, three (the Netherlands, Spain, and Italy) also reported exporting CPO, primarily to other countries in Europe. The Netherlands' top five export destinations for CPO were Germany (71.3%), the United Kingdom (8.6%), Belgium (5.8%), Denmark (4%), and France (3.8%). Spain's top five export destinations were Portugal (31.1%), France (16.8%), Czechia (15.2%), the Netherlands (10.2%), and Italy (8.5%). Italy's top five export destinations were Spain (44.9%), France (36.5%), Romania (7.7%), Saudi Arabia (5.4%), and Austria (3.6%) (UN Comtrade, 2025). Because of co-mingling, the exact amount of Guatemalan CPO re-exported to other countries is not known. Also, the reach of Guatemalan CPO into Europe is likely understated by this map, as the Netherlands, Italy, and Spain also export goods like RPO, derived from CPO.

Central America (UN Comtrade, 2025). Mexico reported exporting RPO to two countries in 2023, selling 52.3% of its RPO exports to Guatemala and 47.7% to the United States (UN Comtrade).

According to U.S. import data, Mexico is the United States' fourth largest source of RPO (around \$17.25 million), though this represents only 0.1% of total U.S. imports; Malaysia and Indonesia together account for 95.5% of total imports. The United States also imported a small amount (around \$200,000) of RPO from the Netherlands in 2023 but does not import significant quantities of RPO from European sources (UN Comtrade).

Overall, international trade data show Guatemalan CPO dispersing into European markets through CPO and RPO exports from the Netherlands, Spain, Italy, and others, while entry to the United States could come primarily through RPO imported from Mexico.

4.1.3.2 Crude Palm Kernel Oil

Of Guatemala's top CPKO importers in 2023, three countries—the Netherlands, Spain, and Italy—also reported exporting CPKO. As with CPO exports, other countries in Europe were the top destinations for CPKO exported from these countries (UN Comtrade, 2025). Most of the Netherlands' CPKO was exported to the United Kingdom (more than \$4 million, or 89%), and more than 99% of Italy's exports went to Spain; Spain's total exports were negligible (around \$95,000) (UN Comtrade, 2025).

All three countries also reported exporting CPKO's derivative oil, RPKO, in 2023, though only Spain reported exporting to the United States, and only in a trace amount (\$1,700, or less than 0.1%). The Netherlands, the world's third largest exporter of RPKO, as noted in Figure 10, exported RPKO to European countries, primarily Germany (30.2%), Belgium (24.7%), and the United Kingdom (17.8%) (UN Comtrade, 2025).

Overall, international trade data show that CPKO is less likely to enter U.S. markets as a re-export, or as RPKO, than as an ingredient in manufactured products (discussed in the in Section 4.1.4).

4.1.3.3 Refined Palm Oil

Two of Guatemala's largest importers of RPO—Mexico and El Salvador—export RPO to other countries, as noted above. Nicaragua, Honduras, and Costa Rica—also among Guatemala's top five RPO importers—export RPO as well (UN Comtrade, 2025). Nicaragua exported 100% of its RPO to Honduras in 2023 (UN Comtrade, 2025). Honduras and Costa Rica reported exporting RPO primarily to other countries in the Americas, with Honduras reporting El Salvador as its top export destination (48.1%), and Costa Rica reporting Nicaragua as its top destination (47.3%). Both countries reported exporting RPO to the United States, with shipments to the United States accounting for 15.7% of Honduras' total and 0.4% of Costa Rica's total (UN Comtrade, 2025).

Given the high percentage of U.S. RPO originating from Indonesia and Malaysia, imports from Central America place neither Honduras nor Costa Rica high among U.S. trading partners for this commodity. Nonetheless, international trade data do confirm some possibility of Guatemalan RPO entering the United States after being traded between Guatemala and its neighbors in Central America (UN Comtrade, 2025).

4.1.3.4 Refined Palm Kernel Oil

Guatemala reported only one importer of RPKO in 2023 (Mexico), and Mexico did not report any exports of RPKO to any other country (UN Comtrade, 2025).

4.1.3.5 Palm Nuts and Kernels, Oilcake, and Oleochemicals

As noted previously, Guatemala's exports of palm nuts and kernels were minimal and were sent only to Honduras, where traceability of Guatemala's inputs into Honduras' own palm industry is lost. Visibility is similarly unclear related to the end use of Guatemalan oilcake exported to its three trading partners (El Salvador, Nicaragua, and Honduras). However, palm nuts and kernels and oilcake have all been employed historically in production of animal feed, a likely end use of these products (Hanum, 2023).

The end uses of Guatemala's export of oleochemicals are also opaque. It is possible, though not confirmed, that Guatemala's primary importer of fatty acids, Mexico, could be using these oleochemicals in the production of soap, because Mexico has experienced recent rapid growth in this sector. Between 2019 and 2023, Mexico's exports of soap products more than doubled, from less than \$200 million to more than \$400 million (UN Comtrade, 2025).

4.1.4 End Use Imports to the United States from Mexico and Other Countries

Despite limitations in direct tracing of palm oil's uses once it leaves Guatemala, it is possible to investigate tentative—though unconfirmed—links to U.S. imports by reviewing trade data for consumer product categories known to contain palm oil. Interviewees with knowledge of the palm oil industry in Latin America pointed to Mexico as a possible intermediate step for transforming exports from Guatemala into U.S. imports (industry KII, 2024). Mexico is both a top importer from Guatemala and a top exporter to the United States (UN Comtrade, 2025).

“[Guatemalan palm oil] is generally processed in Mexico and from there it goes to the United States. ... Mexico is like the intermediate step.”

—KII, industry representative

Product categories exported from Mexico to the United States that may contain one of the four types of palm oil include, but are not limited to, prepared food products (including cookies and snack chips), chocolate, soap, cosmetics, toothpaste, and ice cream. The United States was Mexico's top export destination for each of these categories in 2023, and the United States was Mexico's only export destination for ice cream (UN Comtrade, 2025).

Company websites, annual reports, and media reports indicate that several companies that disclose palm oil sourcing from Guatemala also manufacture products in Mexico that may contain palm oil, including some for the U.S. market. For example, Colgate-Palmolive manufactures toothpaste for the U.S. market at a facility in Guanajuato (DiNapoli, 2025). Mondelez maintains several food manufacturing facilities in Mexico and exports cookies to the United States (Mondelez, n.d.; Doering, 2025). Mexico-based Grupo Bimbo distributes products in the United States through its subsidiary Bimbo Bakeries USA, including brands like Sara Lee, Entenmann's, and Lender's Bagels (Bimbo Bakeries, n.d.). Danone, Pepsico, and Nestlé also maintain manufacturing facilities for food products in Mexico, though their connections to U.S. markets were unclear (Danone, 2024; Pepsico, 2024; Nestlé, 2024).

European countries that import palm oil from Guatemala also supply products likely made with palm oil to the United States, though in less significant quantities than Mexico. The Netherlands, Spain, Italy, Belgium, and the United Kingdom all export downstream products to the United States that may contain palm inputs from Guatemala (UN Comtrade, 2025). Conversely, international shipping data do not show that the United States imports significant quantities of any of the product categories cited previously from any of the Central American nations that also import palm oil from Guatemala (UN Comtrade, 2025).

4.2 LABOR FINDINGS

This section first presents the characteristics of respondents and the nature of their work. Next, details are provided on the nature of working conditions, including recruitment and contracts, exposure to hazards, work schedules, and earnings. Finally, the section describes the presence of forced labor in the sector.

Missing responses (“don’t know” and “refused”) are excluded from the denominator for all estimates. Each row presents both an estimate and the numerator, denoted by “n,” associated with the estimate. The denominator, denoted by “N,” is included at the bottom of tables in which all rows have the same denominator, and it is presented in the final column of the row in tables in which rows have varying denominators (due to survey question filters and missing responses).

4.2.1 Characteristics of Respondents and Their Work

Respondent demographic characteristics are provided in Table 5. Respondents ranged in age from 18 to 55 years old, with a median age of 33 years old. Two-thirds (63%) of the respondents were male and one-third (37%) were female. The majority of workers were Maya Q’eqchi’ (90%), and *Ladinos*, those of mixed Spanish and indigenous descent, represented 10% of the sample. All workers were from Guatemala; there were no workers from neighboring countries in the sample. Most respondents were born in Alta Verapaz (89%), with a smaller number born in Quetzaltenango (5%), Petén (3%), San Marcos (2%), and Jutiapa (1%). More than half (54%) of respondents completed less than primary school, 22% completed primary school, and 24% completed some schooling beyond primary school.

Table 5. Respondent background characteristics

	%	n
Age (years)		
18–24	21%	19
25–39	49%	44
40–54	28%	25
55+	1%	1
Sex		
Male	63%	56
Female	37%	33
Considers self:		
<i>Ladino</i> (mixed Spanish and indigenous descent)	10%	9
Maya	90%	80
Education		
No formal schooling	15%	13
Some primary	39%	35
Completed primary	22%	20
Some secondary	18%	16
Completed secondary or higher	6%	5
Number of respondents (N)		89

All respondents in the study worked for an employer; none were self-employed. Two-thirds (65%) of respondents were still employed in the palm industry at the time of the survey, and 35% had stopped working in a job in palm in the past year. The main duties of surveyed workers were harvesting the palm fruit (52%) and gardening (15%) (i.e., planting and pruning palms, and weeding the area around the

palms); palm transportation (8%), fertilizer application (6%), administrative or supervisory work (4%), and pesticide application (3%) were less frequent primary activities (Table 6). Twelve percent of respondents were unable to name a primary palm activity and instead listed multiple activities, for example both harvesting and gardening. Qualitative findings indicate that although both men and women are involved in harvesting, men tend to harvest fruit clusters still attached to palm trees, and women tend to gather fruit that falls to the ground during the harvest. Both perform gardening tasks, but men typically conduct pruning tasks high up in the palm tree, and women typically attend to cleaning tasks around the palm tree.

Nearly two-thirds (59%) of respondents worked at large plantations of more than 500 hectares; 17% worked at medium plantations of 51 to 500 hectares; and 3% worked at small plantations of 50 or fewer hectares. Fifteen percent did not know the size of the plantation on which they worked. Six percent of respondents did not indicate at which type of site they worked and may work at a plantation, mill, or refinery.

Workers surveyed for this study worked in two regions: the North (n=82) and the South (n=7). Only 7% of respondents relocated to take their most recent palm job. Relocation to work in plantations was observed only in the North: two workers relocated from Alta Verapaz, one from Guatemala (central district), one from Escuintla, one from Petén, and one from Izabal. Five workers were provided housing by their employers, and none of these workers were required to live in the employer-provided housing.

Table 6. Job characteristics

	%	n
Primary palm activity		
Harvesting palm fruit	52%	46
Gardening (planting, pruning, weeding)	15%	13
Transporting palm fruit or palm oil	8%	7
Fertilizer application	6%	5
Administrative or supervisory work	4%	4
Pesticide application	3%	3
Other; performs multiple activities	12%	11
Type of work site		
Large plantation (more than 500 hectares)	59%	52
Medium plantation (51–500 hectares)	17%	15
Small plantation (50 or fewer hectares)	3%	3
Plantation of unknown size ¹	15%	13
Unknown type of work site (plantation, mill, or refinery) ²	6%	5
Relocated to take current job		
Yes	7%	6
No	93%	83
Number of respondents (N)		89

¹ Respondents indicated “don’t know” when asked the size of the plantation.

² One respondent indicated “don’t know” when asked whether they worked in a plantation, mill, or refinery. Four indicated that they work in “other” types of palm work sites and described work that might take place either in a plantation, mill, or refinery, such as repairing carts and tools.

4.2.2 Nature of Working Conditions

4.2.2.1 Recruitment

The survey explored pathways to respondents' jobs to understand whether deceptive recruitment took place. As is common in most sectors in Guatemala, two-thirds (44%) of respondents were helped to get their job in palm, primarily by family members (41% of those helped to get a job), friends (32%), or recruitment agents (11%).¹⁴ Qualitative interviewees indicated that family members working in the plantations spread the news about vacant jobs. Other interviewees described directly approaching the office at the plantation to ask for work. Another indicated that a contractor visits villages to look for workers. Thirteen percent of workers felt obliged to take the job. For all of these respondents, their sense of obligation was rooted in the need for funds or lack of alternative jobs.

More than one-third (37%) of workers had written contracts (Table 7), and a much greater proportion of men (50%) than women (13%) had written contracts. The percentage with written contracts was similar for workers at large plantations and workers at small and medium plantations. Nearly all of those who lacked written contracts had verbal agreements with their employers. Nine percent of respondents indicated that the conditions of their job did not match what they were promised before taking the job. A larger proportion of those working at small and medium plantations reported that the promises did not match the actual job, compared to those working at large plantations. The primary area of disconnect reported by survey respondents experiencing unmet promises was work tasks, and other concerns included unmet promises regarding hours, earnings, and the nature of the job. When these respondents were asked what they thought would have happened if they had asked for the conditions they were promised, respondents said that they would be dismissed (n=6), their movement would be restricted (n=1), their workdays would be reduced (n=1), or nothing would happen (1).¹⁵

Table 7. Recruitment conditions

	Total %	Total n	Total N
Written contract	37%	32	87
Conditions of job do not match promises	9%	8	89
Conditions not matching promises¹			
Work tasks	88%	7	8
Hours	38%	3	8
Earnings	25%	2	8
Nature of the job	25%	2	8
Hazards	13%	1	8
Job location	13%	1	8
Other	13%	1	8

¹ Multiple responses possible

When asked whether they felt misled about the conditions they were offered when hired, one qualitative interviewee replied:

“Yes, we are cheated on wages and work, it is no longer the same.”

—Palm oil worker

¹⁴ Respondents could indicate more than one source of help in getting their jobs.

¹⁵ Respondents could indicate more than one consequence.

Another said:

“The work matches what was offered from the beginning, but the goal does not. Due to the tons assigned daily, there is not enough time in the day to do what they request ... they have cheated because the daily target has increased.”

—Palm oil worker

4.2.2.2 Hazardous Work

Palm work is fundamentally hazardous work. When asked about the most hazardous parts of working in palm, one worker described multiple serious risks:

“The most dangerous parts of the work are getting hurt by the thorns, there are no proper boots, if you carry two hundred pounds on your back, there is a risk of falling in the ditches (esquinel) where the irrigation water runs, and in the mountain, there are poisonous snakes.”

—Palm oil worker

Another replied simply:

“Everything is dangerous.”

—Palm oil worker

As shown in Table 8, most (82%) survey respondents indicated that their work involves risks to their health or safety. Among those facing risks, the most common risk was injuries or illnesses from wild animals or insects (53%). Many qualitative interviewees mentioned the risk of snake bites. The North region along the tropical lowlands of the Franja Transversal del Norte hosts various species of snakes, including the lancehead (i.e., *Barba amarilla*, *Bothrops asper*), which can be deadly. It has been reported that 600 cases of snakebite envenoming occur in Guatemala annually, primarily related to the lancehead (Gutiérrez, 2014). Guatemala lacks antivenom availability and manufacture, limiting the ability of workers to receive treatment for snakebites. In addition, the remoteness of palm oil plantations in the countryside presents a significant barrier in mobilizing workers for treatment when bitten by poisonous snakes. When asked about risks, a worker responded:

“Yes, it is dangerous—snakes are to be feared because they are found in the bush. On one occasion someone was bitten by one and was taken to the hospital San Juan de Dios and on the way he died.”

—Palm oil worker

Workers also described the risk of insect-borne illnesses like malaria and dengue due to their exposure to mosquitoes while working in the fields.

More than one-third (35%) of respondents experiencing risk described risks due to extreme heat, and one-fourth described carrying unreasonably heavy loads. Another common risk was injuries from fruit clusters or thorns (22%). A worker explained:

“When the fruit clusters of the palm are cut, they can fall on the heads of the workers who do this job.”

—Palm oil worker

Many workers commented on the risk of lacerations to the hands and feet due to the thorns on the fruit clusters.

Other risks included dangerous chemicals (19%) and dangerous or sharp tools or heavy machinery (19%), such as machetes and long sickles.

Nearly half (47%) respondents have received injuries or developed illnesses because of their jobs.¹⁶ The most common type of injury was back strain, experienced by one-fourth (24%) of those who had received injuries or illnesses. Other common injuries included injury to hands (22% of those who reported injuries or illnesses), injury to feet (22%), cuts or wounds (22%), and heat stroke (20%).

A small proportion of workers, 8%, reported that their employers require them to work when seriously sick or injured. One worker described being given three days of leave to recover from a leg injury and then having to return to work whether recovered or not to avoid being dismissed.

Table 8. Exposure to hazards

	Total %	Total n	Total N
Work involves risks to health or safety	82%	72	88
Type of risk to health or safety¹			
Injuries or illnesses from wild animals and insects	53%	38	72
Extreme heat	35%	25	72
Carrying unreasonably heavy loads	25%	18	72
Injuries from fruit clusters or thorns	22%	16	72
Dangerous chemicals	19%	14	72
Dangerous or sharp tools or heavy machinery	19%	14	72
Vehicle accidents	6%	4	72
Excessive noise	4%	3	72
Rain	4%	3	72
Dust or strong fumes	3%	2	72
Sexual assault	3%	2	72
Other	8%	6	72
Ever hurt or sick because of job	47%	41	88
Main types of injuries and illnesses¹			
Back strain/pain in back	24%	10	41
Injury to or swelling in hands	22%	9	41
Injury to feet	22%	9	41
Cuts/wounds	22%	9	41
Heat stroke	20%	8	41
Injury to knees or legs	15%	6	41
Fever and insect-borne illness	15%	6	41
Head injury	12%	5	41
Injury to shoulder	12%	5	41

¹ Multiple responses possible. Injuries occurring among more than 10% shown.

¹⁶ The presence or absence of injuries or illnesses was not used to determine whether the respondent experienced the hazardous work forced labor indicator. As discussed in Section 4.2.3, *Indicators of Forced Labor*, this study defines having experienced the hazardous work forced labor indicator as the failure of the employer to mitigate the risks involved in the work (respondent reports that the employer does not provide PPE needed to perform the job safely, that the employer endangers the respondent's life by failing to take proper safety precautions, or that the employer does not provide the training needed to perform the job safely). The other circumstance giving rise to this form of involuntary work is having to work while seriously sick or injured.

Work in palm plantations is inherently hazardous, but employers have an obligation to mitigate the risk in accordance with Guatemala’s occupational safety and health laws and regulations.¹⁷ The failure to mitigate risk is an indicator of involuntary work with regard to hazardous or degrading working conditions (see *Section 4.2.3, Indicators of Forced Labor*). Survey respondents were asked about employer efforts to mitigate risks.

As shown in Table 9, 44% of respondents who faced risks reported that their employers did not provide the PPE needed to perform the job safely. The percentage reporting not being provided with PPE was slightly higher for workers at small and medium plantations, compared to large plantations. The failure to provide needed PPE is illegal; according to Article 61 of the Labor Code, employers are required to provide workers with the necessary high-quality equipment to complete their tasks. Many qualitative interviewees described feeling at risk when working outdoors in all conditions. Protective equipment, such as boots and gloves, is imperative for agricultural workers as a basic prevention measure against snake bites. In Central America, 50% of bites take place on the feet and 30% on the hands (Bolaños, 1984; Gutiérrez, 2021).

Several qualitative interviewees who are provided with PPE experience wage deductions to cover this cost:

“Every 2 weeks, if there was nothing discounted, we received the full payment of Q. 1,600.00 or Q. 1,700.00. And then there were discounts, when the company gave us shoes, masks, glasses, raincoat, we received Q. 900.00 or Q. 1,000.00. The company did not give us anything for free.”

—Palm oil worker

“They provide us with helmets and gloves, every month, but they deduct it when they pay us. We are given a voucher, and everyone should know what to ask for: Helmet Q75.00, Belt Q35.00, Gloves Q25.00, Motorcycle raincoat Q700.00. We get 100 discounted off every 15 days.”

—Palm oil worker

All respondents were asked what types of protective gear they generally wear while working, whether provided by their employer or procured themselves. More than half (57%) reported wearing gloves, 40% reported wearing a helmet, and 33% reported wearing work boots. Less than one-fourth of workers reported wearing goggles, ear plugs, respirators, or protective clothing like coveralls. Other types of gear mentioned by workers (but not asked about systematically in the survey) included hats, long sleeves, belts, and reflective vests. Many workers described buying their own protective gear, for example canvas pants and rubber boots. Others reported that they are not provided with any protective gear and do not wear any.

Sixty percent of respondents who faced risks indicated that their employer endangered their life by failing to take proper safety precautions. The percentage reporting their life being endangered was higher for workers at small and medium plantations, compared to large plantations. Respondents were also asked about training provided by their employers, and about one-third (29%) of those reporting risks reported that their employer did not provide the training needed to perform their jobs safely. The percentage reporting a lack of training was higher for workers at small and medium plantations, compared to large plantations.

¹⁷ See Instituto Guatemalteco de Seguridad Social’s [Reglamento General sobre Higiene y Seguridad en el trabajo](#).

Table 9. Mitigation of risk among workers who face risk

	Total %	Total n
Employer does not provide PPE needed to perform job safely	44%	32
Employer endangers respondent’s life by failing to take proper safety precautions	60%	43
Employer does not provide the training needed to perform job safely	29%	21
Number of respondents (N)		72

4.2.2.3 Work Schedules

Most (80%) palm workers work 8-hour days, with 9% working fewer than 8 hours per day (Table 10). The daily schedules of these workers are in alignment with the labor code in Guatemala, which indicates that the daily maximum ordinary working hours cannot exceed 8 hours (Article 116). Although 11% work more than 8 hours per day, none exceed the legal maximum of 12 hours per day, which includes both ordinary hours and overtime hours (Article 122). A qualitative interviewee described underpayment and being unable to refuse to work overtime:

“We were told that we had to finish the work until night or else we would not go out [leave the field]. They did not pay the full amount [due], we always received Q98.00. We were trying to say that we would not do those hours, but we were told that we were not in charge.”

—Palm oil worker

Ninety percent of workers work six days per week. Most workers work 48 hours per week, with 12% working fewer than 48 and 15% working more than 48 hours per week. The average hours per week was similar for men and women. A 48-hour work week is permitted by law for agricultural workers (Article 116). Fifteen percent of workers are required to work non-stop without breaks during the workday.¹⁸

Table 10. Average hours per day and per week

	Total %	Total n
Daily hours		
Fewer than 8	9%	8
8	80%	70
9–11	11%	10
Weekly hours		
Fewer than 40	3%	3
40-47	9%	8
48	72%	63
More than 48	15%	13

¹⁸ Article 119 of the labor code indicates that “the ordinary workday may be continuous or divided into two or more periods with rest intervals that are rationally adapted to the nature of the work involved and the needs of the worker. Whenever a continuous ordinary workday is agreed upon, the worker is entitled to a minimum half-hour rest break within that workday, which must be counted as actual working time.” To minimize respondent burden, the survey asked one question about working non-stop without breaks (“Are you required to work non-stop without breaks during the working day?”) of all respondents, rather than determining each respondent’s schedule in more detail.

	Total %	Total n
Required to work non-stop without breaks during the workday	15%	13
Number of respondents (N)		88¹

² Number of respondents for weekly hours and non-stop work is 87 due to non-response.

4.2.2.4 Threats of Dismissal

After respondents were asked about workplace practices, they were asked follow-up questions about the consequences for failing to meet employer demands. For example, interviewers asked respondents whether they worked overtime, and if so, they asked what would happen if the respondent refused to work overtime. By far, the most common consequence was threats of dismissal. More than one-fourth (27%) of respondents faced threats of dismissal. Respondents faced being threatened with dismissal if they complained about unmet promises made during recruitment, failed to meet unreasonable quotas, refused to work in hazardous conditions, refused to work while sick or injured, and refused to work overtime. Qualitative interviewees described their income as being necessary for survival, and thus they were forced to accept the negative working conditions.

4.2.2.5 Earnings and Debt

On average, respondents earned Q92 (\$11.94) per day (Table 11). Men earned significantly more than women. On average, men earned Q99 (\$12.85) per day, compared to Q80 (\$10.38) per day for women. The legal minimum wage for agricultural workers outside of the Department of Guatemala at the time of the survey was Q102.44 (\$13.29) (Vi, 2024), and 72% of respondents earned below the legal minimum wage, with 61% of men earning below the minimum wage and 91% of women earning below the minimum wage. Article 103 of the Guatemalan labor code states that the salary should be sufficient for persons to cover material, moral, and cultural necessities, but nearly 4 in 5 workers (79%) reported that their earnings were not enough to meet their basic needs.

Subcontracting arrangements were rare among the sample, with only 5% of workers reporting payment by a subcontractor and 1% by an employment agency.

Table 11. Earnings

	Estimate	n	N
Mean daily earnings (Quetzales)	92		85
Earns below minimum wage (%)	72%	62	86
Earnings are insufficient to meet basic needs (%)	79%	68	86
Provider of payment			
Plantation owner	74%	64	88
Supervisor, company representative, or direct deposit to bank account	22%	19	88
Subcontractor	5%	4	88
Employment agency	1%	1	88

Two-thirds (66%) of workers had a target or quota imposed by their employer. Among those with a target or quota, only half (49%) considered the target or quota to be reasonable for an individual working alone to achieve. Although 44% stated that nothing would happen if they fail to meet the quota, for others, the consequences of failing to meet the target or quota included dismissal (16% of those with

a quota), fine or salary deduction (16%), and other consequences (25%), such as verbal abuse or working extra hours.¹⁹

Qualitative interviewees described their struggles to meet the daily target:

“It is very difficult, the work is very hard, we are given a lot of work, since we have to meet the goals. We can no longer achieve what has been established due to fatigue.”

—Palm oil worker

“In the summer they force us to meet the goal, but in those dates it is difficult to collect the palm fruits, and it is more tiring because of the heat. They demand daily, they do not consider [the circumstances].”

—Palm oil worker

A minority of workers (7%) indicated that they have been in debt to their employer or recruiter; however, none of these workers reported abuse or manipulation of the debt.

4.2.3 Indicators of Forced Labor

The study explored the two components of forced labor described in *Section 3.3, Measuring Forced Labor*—involuntary work and coercion.

Two-thirds of workers (65%) reported having experienced at least one indicator of involuntary work (Table 12),²⁰ which “refers to any work undertaken without the free and informed consent of the worker” (International Labor Organization, 2024, p. 5).

- The most common indicator was hazardous or degrading working conditions, experienced by 63% of workers. A circumstance giving rise to this form of involuntary work is “hazardous work conditions posing serious risks to health and safety” (International Labor Organization, 2024, p. 11), defined for this study as the failure of the employer to mitigate the risks involved in their work (respondent reports that the employer does not provide PPE needed to perform the job safely, that the employer endangers respondent’s life by failing to take proper safety precautions, or that the employer does not provide the training needed to perform the job safely). The other circumstance giving rise to this form of involuntary work is “work while seriously debilitated by sickness or injury” (International Labor Organization, 2024, p. 11).²¹
- Fifteen percent of workers experienced onerous working hours or work schedule. Circumstances giving rise to this form of involuntary work include “onerous working hours leaving little or no rest or recovery time” (International Labor Organization, 2024, p. 11), defined for this study as usually working beyond the legal overtime limit (12 hours per day or 52 hours per week), and “non-stop work without breaks during the workday” (International Labor Organization, 2024, p. 11).
- Four percent of workers experienced deceptive or fraudulent recruitment, which “relates to the failure to deliver what has been promised to the worker, either verbally or in writing, at the time of recruitment” (International Labor Organization, 2024, p. 10). Among survey respondents, deceptive recruitment most frequently occurred in relation to hours, remuneration levels, or the nature of the work.

¹⁹ Respondents could indicate more than one consequence.

²⁰ Although “low or no wages” is included as an indicator of involuntary work in the 2018 International Conference of Labor Statisticians guidelines, the more recent *Hard to See, Harder to Count* (International Labor Organization, 2024) does not include this indicator. No measure of low wages has been incorporated into the forced labor analysis for this study.

²¹ Respondents were asked, “Does your employer require you to work when you are seriously sick or injured?” and a “yes” response indicates that this indicator is present.

Table 12. Respondents experiencing indicators of involuntary work

	%	n
Experienced at least one indicator of involuntary work	65%	58
Hazardous or degrading working conditions	63%	56
Onerous working hours or work schedule	15%	13
Deceptive or fraudulent recruitment	4%	4
Abuse or manipulation of debt	0%	0
Inability to terminate employment	0%	0
Degrading work-related living conditions	0%	0
Forced recruitment	0%	0
Number of respondents (N)		89

As mentioned previously, “involuntary work, in and of itself, is a necessary but insufficient condition for forced labor” (International Labor Organization, 2024, p. 9). Most survey questions investigating involuntary work were followed by a question to determine the presence of coercion. For example, interviewers asked, “Does your employer require you to work when you are seriously sick or injured?” and if the respondent responded in the affirmative, the interviewer then asked, “What would happen if you refused to work while sick or injured?” For this study, a worker must have experienced both involuntary work and coercion during the same employment stage (recruitment, employment, or separation) to be classified as a case of forced labor.

Two-thirds of respondents experienced involuntary work, but a much lower percentage experienced coercion, which “refers to the means used to compel someone to work without their free and informed consent” (International Labor Organization, 2024, p. 3). Seven percent of respondents experienced at least one indicator of coercion (Table 13).

Three percent of respondents experienced restriction on workers’ movement, which “refers to situations in which workers are restricted from exiting work premises outside of working hours [...]. Workers may, for example, be locked up and guarded to prevent them from escaping, either at work or while being transported. Or they may have their movements controlled inside the workplace, through the use of surveillance cameras or guards [...]” (International Labor Organization, 2024, p. 16).

Three percent of workers experienced retention of identity documents, defined as the “obligatory surrender of, and denial of on-demand access to, identify documents” (International Labor Organization, 2024, p. 17).

Table 13. Respondents experiencing indicators of coercion

	%	n
Experienced at least one indicator of coercion	7%	6
Restrictions on workers’ movement	3%	3
Retention of identity documents	3%	3
Threat of loss of housing or land provided by employer	0%	0
Withholding of wages	0%	0
Physical or sexual violence	0%	0
Abuse or manipulation of debt	0%	0
Threat of arrest	0%	0
Number of respondents (N)		89

As mentioned previously, a worker is considered to have experienced forced labor if they reported at least one indicator of menace of penalty and one indicator of involuntary work during a stage of employment (recruitment, employment, or separation). All six respondents who experienced coercion

also experienced involuntary work during the same employment stage: therefore, six respondents (7% of the sample) experienced forced labor. One experienced forced labor during the recruitment stage, and five experienced forced labor during the employment stage; none experienced forced labor during the employment separation stage.

Table 14 presents the rate of forced labor by various characteristics. Forced labor occurred in all of the age group categories except among workers older than age 55, of which there was only one respondent; 5% of workers aged 18–24 experienced forced labor, 9% of workers aged 25–39 experienced forced labor, and 4% of workers aged 40–54 experienced forced labor.

Male workers in the sample had a higher rate of forced labor (9%), compared to female workers (3%). Considering forced labor rates by level of education, those with more than a primary education had the highest rate of forced labor (14%). Those with a primary education and with less than a primary education had lower rates of forced labor at 5% and 4%, respectively. Those with and without a written contract experienced similar rates of forced labor: 6% of those with a written contract experienced forced labor, compared to 7% of those without. Notably, two of the five workers who relocated for their jobs experienced forced labor.

The comparisons presented within the sample should be interpreted with considerable caution, given the small sample size and low incidence rate. Future research could explore the relationship between sex, education, and migration and forced labor in the palm industry in Guatemala.

Table 14. Percentage experiencing forced labor by worker characteristics

	%	n	N
Total	7%	6	89
Age (years)			
18–24	5%	1	19
25–39	9%	4	44
40–54	4%	1	25
55+	0%	0	1
Sex			
Male	9%	5	56
Female	3%	1	33
Education			
Less than primary	4%	2	48
Completed primary	5%	1	20
Beyond primary	14%	3	21
Written contract			
Yes	6%	2	32
No	7%	4	55
Primary job activity			
Harvesting palm fruit	11%	5	46
Gardening-related work such as planting, weeding, and pruning	8%	1	13
Other	0%	0	31

4.2.4 Child Work

The participation of children in the palm oil supply chain was not a focus of the study, but the survey included one question²² about whether children work at the worksite of the respondent. Nearly half

²² Respondents were asked: “Do children under age 18 work at the place where you work?”

(43%) of respondents indicated that children under age 18 work at the place where they work. Adult reports indicate that palm work may involve exposure to extreme temperatures, carrying heavy loads, and exposure to dangerous chemicals, and hazardous work of this type is prohibited for children according to Guatemalan law (Article 4 of Ministerial Accord 154-2008). These findings raise the possibility that hazardous child labor in the palm industry may be occurring and demonstrates that further research is warranted.

5 CONCLUSION AND RECOMMENDATIONS

This study reveals that even though forced labor is relatively rare among the sampled workers, with only 7% (6 out of 89) reporting both involuntary work and coercion, indicators of involuntary work are widespread. Two-thirds of respondents reported experiencing at least one indicator of involuntary work. Nearly two-thirds of the workers were subjected to hazardous conditions, with employers failing to mitigate the associated risks. A total of 15% of respondents endured onerous workdays without breaks, and 4% experienced deceptive recruitment practices.

Although only 7% of workers reported indicators of coercion according to the framework for this study, more than one-fourth (27%) faced threats of dismissal for failing to meet employer demands, including unmet promises made during recruitment, unreasonable quotas, hazardous working conditions, and refusal to work while sick or injured. Qualitative interviews underscored that workers' incomes were essential for their survival, compelling them to accept these negative working conditions.

The study also found that respondents reported very low pay despite the hazardous nature of their work. Nearly three-quarters earned below the legal minimum wage, with a higher proportion of women earning below this threshold. In addition, 79% of respondents reported that their earnings were insufficient to meet basic needs. Two-thirds had a target or quota imposed by their employer, and half of these workers considered the targets to be unreasonable, leading to arduous efforts to meet these demands.

Although the study found relatively few cases of forced labor, the commonality of involuntary work suggests that workers in this sector are at risk. Furthermore, nearly half of the respondents reported the presence of children working at their worksites. The study sample primarily represents the North region, and scoping informants suggested that working conditions may be worse in the South than in the North. This possibility raises concerns that there may be forced labor and child labor in the South. Further intervention and research are warranted to explore and address these issues.

The study found that although Guatemala does not export palm oil to the United States, there are several possible paths for the United States to import downstream products containing Guatemalan palm oil. One of the most likely paths is through Mexican manufacturing of products for the United States, such as soaps, chocolates, or manufactured food products. The United States could also import RPO from a third country that imports CPO from Guatemala. However, this study did not trace any particular product into the United States that definitively contained palm oil sourced from Guatemala.

Recommendations to Foreign Governments:

- Provide advisory support to the Guatemalan government in following up on forced labor and child labor cases in the palm oil industry by ensuring the fulfillment of the labor code.
- Support efforts by non-governmental organizations and civil society stakeholders to examine and address forced labor and child labor risks in the palm oil industry of Guatemala. Encourage independent research groups to conduct additional studies on risks and incidence of forced

labor in the palm industry, particularly in the South region, and actions being taken by the Guatemalan government and the private sector to address forced labor and labor law compliance in the palm industry.

- Engage with companies and major food manufacturers that rely on palm oil as an essential ingredient in their final consumer products to raise awareness about labor abuses in the supply chain and the need to monitor labor law compliance and promote good working conditions on palm plantations.

Recommendations to Industry:

- Globally sourcing corporations and their suppliers in Guatemala should engage with labor-focused community organizations that workers trust to better understand workers' challenges and to devise corrective actions, whenever risks of forced labor are reported.
- Buyers and suppliers should engage with the Ministry of Labor and Social Welfare to ensure compliance with all labor inspections or any enforcement actions brought by the government.
- Buyers and suppliers should support workers' rights to freedom of association and collective bargaining and ensure that workers at all levels of company supply chains are informed of their rights.
- Globally sourcing corporations and their suppliers should enact robust supply chain tracing and transparency programs, mapping, disclosing, and regularly updating their disclosures of worksites in their supply chains to the raw material level. For companies making products with palm oil, this means disclosing connections to both palm oil mills and plantations and farms producing palm fruit. Many companies already disclose their palm oil mills; these companies should add plantation disclosures to their supplier lists.
- Globally sourcing corporations should ensure that effective grievance mechanisms are clearly communicated to workers in their supply chains to the raw material level, and that these grievance mechanisms are available in all languages used at each worksite.
- Globally sourcing corporations should enact human rights due diligence programs capable of detecting risks and instances of forced and child labor in their supply chains. As part of these programs, buyers and suppliers should ensure access to remedies for affected individuals, including access to remedial education and living stipends for former child laborers.

Recommendations to Governing Bodies in Guatemala:

- The RSPO and International Sustainability and Carbon Certification should require members to publicly disclose the plantations from which they source and should strengthen accountability mechanisms related to risks of forced labor in palm oil supply chains.
- The Ministry of Labor and Social Welfare should ensure that relevant enforcement offices are adequately funded, are able to detect instances of forced labor, and are able to enact appropriate enforcement measures with those responsible for any violations.
- The Guatemalan government should establish and strengthen communication and collaborations across different stakeholders in Guatemalan society, including academia and non-governmental and grassroots organizations, to oversee the palm oil industry to ensure labor code compliance along the palm oil supply chain.

APPENDIX I: REFERENCES

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APPENDIX 2: HS CODES

HS Code Glossary

Product	HS code	HS definition
Palm Nuts and Kernels	1207.10	Other oil seeds and oleaginous fruits, whether or not broken. Palm nuts and kernel.
Crude Palm Oil	1511.10	Palm oil and its fractions, whether or not refined, but not chemically modified. Crude Oil.
Refined Palm Oil	1511.90	Palm oil and its fractions, whether or not refined, but not chemically modified. Other.
Crude Palm Kernel Oil	1513.21	Palm kernel or babassu oil and fractions thereof: Crude Oil
Refined Palm Kernel Oil	1513.29	Palm kernel or babassu oil and fractions thereof: Other
Palm Oil Cake and Palm Kernel Cake	2306.60	Oil-cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of vegetable or microbial fats or oils, other than those of heading 23.04 or 23.05. Of palm nuts or kernels.
Oleochemicals	3823.19	Industrial monocarboxylic fatty acids; acid oils from refining; industrial fatty alcohols. Other.
	3824.99	Prepared binders for foundry moulds or cores; chemical products and preparations of the chemical or allied industries (including those consisting of mixtures of natural products), not elsewhere specified or included. Other.

APPENDIX 3: EXPORT VALUES

Top 5 Trade Destination Markets of CPO, 2023

Destination country	Volume (kg)	Value (USD)	% by value
Netherlands	388,717,400	\$377,105,627	49.6%
Spain	162,383,000	\$181,113,429	23.8%
Mexico	152,294,300	\$98,866,972	13.0%
Italy	50,815,400	\$50,866,990	6.7%
El Salvador	27,759,000	\$27,293,452	3.6%

Source: UN Comtrade, 2025; HS code 1511.10

Top 5 Trade Destination Markets of CPKO, 2023

Destination country	Volume (kg)	Value (USD)	% by value
Netherlands	38,312,250	\$37,791,932	53.1%
Mexico	22,355,870	\$14,461,782	20.3%
Spain	13,365,300	\$13,917,157	19.6%
Italy	2,475,500	\$3,227,044	4.5%
Morocco	1,095,000	\$1,337,875	1.9%

Source: UN Comtrade, 2025; HS code 1513.21

Top 5 Trade Destination Markets of RPO, 2023

Destination country	Volume (kg)	Value (USD)	% by value
El Salvador	26,751,380	\$32,157,787	39.0%
Nicaragua	20,047,060	\$25,909,768	31.4%
Honduras	6,517,174	\$8,237,389	10.0%
Mexico	7,473,785	\$8,135,651	10.0%
Costa Rica	2,313,604	\$4,326,458	5.2%

Source: UN Comtrade, 2025; HS code 1511.90

Top Trade Destination Market of RPKO, 2023

Destination country	Volume (kg)	Value (USD)	% by value
Mexico	795,000	\$808,842	100%

Source: UN Comtrade, 2025; HS code 1513.29

Top 5 Trade Destination Markets of Palm Nuts and Kernels, 2023

Destination country	Volume (kg)	Value (USD)	% by value
Honduras	720,000	\$37,055	100%

Source: UN Comtrade, 2025; HS code 1207.10

Top Trade Destination Markets of Oilcake, 2023

Destination country	Volume (kg)	Value (USD)	% by value
El Salvador	16,177,690	\$2,432,705	86.3%
Honduras	32,265,500	\$352,309	12.5%
Nicaragua	547,300	\$33,273	1.2%

Source: UN Comtrade, 2025; HS code 2306.60

Top 5 Trade Destination Markets of Fatty Acids, Acid Oils, and Industrial Fatty Alcohols, 2023

Destination country	Volume (kg)	Value (USD)	% by value
Mexico	9,566,840	\$5,014,071	75.2%
Netherlands	2,633,130	\$1,272,979	19.1%
USA	570,345	\$240,280	3.6%
China	88,000	\$72,099	1.1%
Honduras	40,200	\$58,926	0.9%

Source: UN Comtrade, 2025; HS code 3823.19

Top 5 Trade Destination Markets of Binders, 2023

Destination country	Volume (kg)	Value (USD)	% by value
Colombia	4,637,741	\$16,662,357	36.1%
Costa Rica	13,631,673	\$5,890,647	12.8%
El Salvador	4,666,314	\$4,808,825	10.4%
Honduras	18,233,454	\$4,714,877	10.2%
Ecuador	14,151,743	\$4,450,354	9.6%

Source: UN Comtrade, 2025; HS code 3824.99

Top Global Traders of CPO, 2023

Country	Percent of total good EX globally, by value
Indonesia	32.6%
Malaysia	32.2%
Guatemala	8.1%
Thailand	7.8%
Honduras	4.2%
Colombia	3.8%
Costa Rica	2.2%
Netherlands	1.9%
Côte d'Ivoire	1.3%
Gabon	1.0%

Source: UN Comtrade, 2025; HS code 1511.10

Top Global Traders of CPKO, 2023

Country	Percent of total good EX globally, by value
Malaysia	37.9%
Thailand	13.5%
Colombia	11.3%
Guatemala	10.5%
Honduras	7.3%
Indonesia	5.5%
Costa Rica	4.7%
Côte d'Ivoire	2.7%
Peru	2.6%
Gabon	1.1%

Source: UN Comtrade, 2025; HS code 1513.21

Top Global Traders of RPO, 2023

Country	Percent of total good EX globally, by value
Indonesia	58.3%
Malaysia	26.4%
Netherlands	2.9%
Djibouti	1.6%
Germany	1.4%
Estonia	1.1%
Italy	0.8%
Spain	0.7%
Côte d'Ivoire	0.5%
United Arab Emirates	0.5%

Source: UN Comtrade, 2025; HS code 1511.90

Top Global Traders of RPKO, 2023

Country	Percent of total good EX globally, by value
Indonesia	65.6%
Malaysia	19.1%
Netherlands	4.1%
Germany	2.5%
Spain	1.4%
Estonia	1.3%
Colombia	1.2%
USA	1.1%
Saudi Arabia	0.8%
Belgium	0.6%

Source: UN Comtrade, 2025; HS code 1513.21

Top Global Traders of Palm Nuts and Kernels, 2023

Country	Percent of total good EX globally, by value
Costa Rica	28.7%
Thailand	27.7%
Colombia	7.7%
Indonesia	5.2%
Malaysia	4.9%
Ecuador	4.5%
Nicaragua	4.1%
Cambodia	2.4%
Panama	2.0%
Nigeria	2.0%

Source: UN Comtrade, 2025; HS code 1207.10

Top Global Traders of Oilcake, 2023

Country	Percent of total good EX globally, by value
Indonesia	66.9%
Malaysia	25.7%
Netherlands	5.8%
Thailand	0.3%
Belgium	0.3%
Côte d'Ivoire	0.3%
Guatemala	0.2%
Germany	0.2%
Honduras	0.2%
Ireland	0.2%

Source: UN Comtrade, 2025; HS code 2306.60

Top Global Traders of Fatty Acids, Acid Oils, and Industrial Fatty Alcohols, 2023

Country	Percent of total good EX globally, by value
Indonesia	41.8%
Malaysia	21.4%
Netherlands	10.0%
Belgium	3.9%
India	3.6%
Germany	3.5%
Spain	2.2%
Türkiye	1.6%
Argentina	1.3%
USA	0.9%

Source: UN Comtrade, 2025; HS code 3823.19

Top Global Traders of Binders, 2023

Country	Percent of total good EX globally, by value
USA	13.4%
Germany	13.1%
China	13.1%
Japan	8.9%
Ireland	7.4%
Republic of Korea	5.3%
France	4.5%
Netherlands	3.6%
Belgium	3.3%
United Kingdom	2.5%

Source: UN Comtrade, 2025; HS code 3824.99

Export by HS Code

Good	HS code	Export value 2019	2020	2021	2022	2023	Top destination market for 2023 (percentage)
CPO	1511.10	\$353,680,324	\$410,335,486	\$617,048,392	\$825,193,147	\$760,228,658	Netherlands (49.6%)
CPKO	1513.21	\$38,601,784	\$44,318,955	\$73,960,746	\$87,061,351	\$71,176,362	Netherlands (53.1%)
RPO	1511.90	\$37,083,652	\$55,369,314	\$85,201,368	\$94,387,731	\$82,458,676	El Salvador (40.0%)
RPKO	1513.29	\$765,623	\$840,550	\$1,702,101	\$1,832,879	\$1,832,879	Mexico (100%)
Palm nuts and kernels	1207.10	\$897,218	\$1,461,172	\$404,132	\$203,837	\$37,055	Honduras (100%)
Oilcake	2306.60	\$1,750,832	\$1,538,941	\$2,059,406	\$2,484,901	\$2,818,287	El Salvador (86.3%)
Oleochemicals	3823.19	\$1,568,008	\$3,770,378	\$6,986,610	\$11,031,953	\$6,671,745	Mexico (75.2%)
	3824.99	\$12,396,722	\$19,022,296	\$30,885,890	\$64,158,386	\$46,127,777	Colombia (36.1%)

Source UN Comtrade, 2025; HS codes 1511.10, 1513.21, 1511.90, 1513.29, 1207.10, 2306.60, 3823.19, 3824.99

APPENDIX 4: FINAL RESEARCH INSTRUMENTS

FL GUATEMALA QUESTIONNAIRE—ENGLISH

Field	Question	Answer
FIELDCONTROL		
INTERVIEWER <i>(required)</i>	INTERVIEWER NAME	01 02 03 04 05 06 07 08 09 10 11
DEPARTMENT <i>(required)</i>	DEPARTMENT	1 1. Petén 2 2. Alta Verapaz 3 3. Escuintla 4 4. Retalhuleu 5 5. Suchitepéquez 6 6. Quetzaltenango
MUNICIPALITY <i>(required)</i>	MUNICIPALITY	0101 Guatemala 0102 Santa Catarina Pinula 0103 San José Pinula 0104 San José del Golfo 0105 Palencia 0106 Chinautla 0107 San Pedro Ayampuc 0108 Mixco 0109 San Pedro Sacatepéquez 0110 San Juan Sacatepéquez 0111 San Raymundo 0112 Chuarrancho 0113 Fraijanes 0114 Amatitlán 0115 Villa Nueva 0116 Villa Canales

Field	Question	Answer
		0117 Petapa
		0201 Guastatoya
		0202 Morazán
		0203 San Agustín Acasaguastlán
		0204 San Cristóbal Acasaguastlán
		0205 El Jícaro
		0206 Sansare
		0207 Sanarate
		0208 San Antonio la Paz
		0301 Antigua Guatemala
		0302 Jocotenango
		0303 Pastores
		0304 Sumpango
		0305 Santo Domingo Xenacoj
		0306 Santiago Sacatepéquez
		0307 San Bartolomé Milpas Altas
		0308 San Lucas Sacatepéquez
		0309 Santa Lucía Milpas Altas
		0310 Magdalena Milpas Altas
		0311 Santa María de Jesús
		0312 Ciudad Vieja
		0313 San Miguel Dueñas
		0314 Alotenango
		0315 San Antonio Aguas Calientes
		0316 Santa Catarina Barahona
		0401 Chimaltenango
		0402 San José Poaquil
		0403 San Martín Jilotepeque
		0404 Comalapa
		0405 Santa Apolonia
		0406 Tecpán Guatemala
		0407 Patzún
		0408 Pochuta
		0409 Patzicía
		0410 Santa Cruz Balanyá
		0411 Acatenango
		0412 Yepocapa
		0413 San Andrés Itzapa

Field	Question	Answer
		0414 Parramos
		0415 Zaragoza
		0416 El Tejar
		0501 Escuintla
		0502 Santa Lucía Cotzumalguapa
		0503 La Democracia
		0504 Siquinalá
		0505 Masagua
		0506 Tiquisate
		0507 La Gomera
		0508 Guanagazapa
		0509 San José
		0510 Iztapa
		0511 Palín
		0512 San Vicente Pacaya
		0513 Nueva Concepción
		0601 Cuilapa
		0602 Barberena
		0603 Santa Rosa de Lima
		0604 Casillas
		0605 San Rafael las Flores
		0606 Oratorio
		0607 San Juan Tecuaco
		0608 Chiquimulilla
		0609 Taxisco
		0610 Santa María Ixhuatán
		0611 Guazacapán
		0612 Santa Cruz Naranjo
		0613 Pueblo Nuevo Viñas
		0614 Nueva Santa Rosa
		0701 Sololá
		0702 San José Chacayá
		0703 Santa María Visitación
		0704 Santa Lucía Utatlán
		0705 Nahualá
		0706 Santa Catarina Ixtahuacán
		0707 Santa Clara la Laguna
		0708 Concepción

Field	Question	Answer
		0709 San Andrés Semetabaj
		0710 Panajachel
		0711 Santa Catarina Palopó
		0712 San Antonio Palopó
		0713 San Lucas Tolimán
		0714 Santa Cruz la Laguna
		0715 San Pablo la Laguna
		0716 San Marcos la Laguna
		0717 San Juan la Laguna
		0718 San Pedro la Laguna
		0719 Santiago Atitlán
		0801 Totonicapán
		0802 San Cristóbal Totonicapán
		0803 San Francisco el Alto
		0804 San Andrés Xecul
		0805 Momostenango
		0806 Santa María Chiquimula
		0807 Santa Lucía la Reforma
		0808 San Bartolo
		0901 Quetzaltenango
		0902 Salcajá
		0903 Olinstepeque
		0904 San Carlos Sija
		0905 Sibilía
		0906 Cabricán
		0907 Cajolá
		0908 San Miguel Siguilá
		0909 Ostuncalco
		0910 San Mateo
		0911 Concepción Chiquirichapa
		0912 San Martín Sacatepéquez
		0913 Almolonga
		0914 Cantel
		0915 Huitán
		0916 Zunil
		0917 Colomba
		0918 San Francisco la Unión
		0919 El Palmar

Field	Question	Answer
		0920 Coatepeque
		0921 Génova
		0922 Flores Costa Cuca
		0923 La Esperanza
		0924 Palestina de los Altos
		1001 Mazatenango
		1002 Cuyotenango
		1003 San Francisco Zapotitlán
		1004 San Bernardino
		1005 San José el Idolo
		1006 Santo Domingo Suchitepéquez
		1007 San Lorenzo
		1008 Samayac
		1009 San Pablo Jocopilas
		1010 San Antonio Suchitepéquez
		1011 San Miguel Panán
		1012 San Gabriel
		1013 Chicacao
		1014 Patulul
		1015 Santa Bárbara
		1016 San Juan Bautista
		1017 Santo Tomás la Unión
		1018 Zunilito
		1019 Pueblo Nuevo
		1020 Río Bravo
		1021 San José La Máquina
		1101 Retalhuleu
		1102 San Sebastián
		1103 Santa Cruz Muluá
		1104 San Martín Zapotitlán
		1105 San Felipe
		1106 San Andrés Villa Seca
		1107 Champerico
		1108 Nuevo San Carlos
		1109 El Asintal
		1201 San Marcos
		1202 San Pedro Sacatepéquez
		1203 San Antonio Sacatepéquez

Field	Question	Answer
		I204 Comitancillo
		I205 San Miguel Ixtahuacán
		I206 Concepción Tutuapa
		I207 Tacaná
		I208 Sibinal
		I209 Tajumulco
		I210 Tejutla
		I211 San Rafael Pié de la Cuesta
		I212 Nuevo Progreso
		I213 El Tumbador
		I214 El Rodeo
		I215 Malacatán
		I216 Catarina
		I217 Ayutla
		I218 Ocós
		I219 San Pablo
		I220 El Quetzal
		I221 La Reforma
		I222 Pajapita
		I223 Ixchiguán
		I224 San José Ojetenán
		I225 San Cristóbal Cucho
		I226 Sipacapa
		I227 Esquipulas Palo Gordo
		I228 Río Blanco
		I229 San Lorenzo
		I230 La Blanca
		I301 Huehuetenango
		I302 Chiantla
		I303 Malacatancito
		I304 Cuilco
		I305 Nentón
		I306 San Pedro Necta
		I307 Jacaltenango
		I308 Soloma
		I309 Ixtahuacán
		I310 Santa Bárbara
		I311 La Libertad

Field	Question	Answer
		I312 La Democracia I313 San Miguel Acatán I314 San Rafael la Independencia I315 Todos Santos Cuchumatán I316 San Juan Atitán I317 Santa Eulalia I318 San Mateo Ixtatán I319 Colotenango I320 San Sebastián Huehuetenango I321 Tectitán I322 Concepción Huista I323 San Juan Ixcoy I324 San Antonio Huista I325 San Sebastián Coatán I326 Barillas I327 Aguacatán I328 San Rafael Petzal I329 San Gaspar Ixchil I330 Santiago Chimaltenango I331 Santa Ana Huista I332 Unión Cantinil I401 Santa Cruz del Quiché I402 Chiché I403 Chinique I404 Zacualpa I405 Chajul I406 Chichicastenango I407 Patzité I408 San Antonio Ilotenango I409 San Pedro Jocopilas I410 Cunén I411 San Juan Cotzal I412 Joyabaj I413 Nebaj I414 San Andrés Sajcabajá I415 Uspantán I416 Sacapulas I417 San Bartolomé Jocotenango

Field	Question	Answer
		1418 Canillá
		1419 Chicamán
		1420 Ixcán
		1421 Pachalum
		1501 Salamá
		1502 San Miguel Chicaj
		1503 Rabinal
		1504 Cubulco
		1505 Granados
		1506 El Chol
		1507 San Jerónimo
		1508 Purulhá
		1601 Cobán
		1602 Santa Cruz Verapaz
		1603 San Cristóbal Verapaz
		1604 Tactic
		1605 Tamahú
		1606 Tukurú
		1607 Panzós
		1608 Senahú
		1609 San Pedro Carchá
		1610 San Juan Chamelco
		1611 Lanquín
		1612 Cahabón
		1613 Chisec
		1614 Chahal
		1615 Fray Bartolomé de las Casas
		1616 Santa Catalina la Tinta
		1617 Raxruhá
		1701 Flores
		1702 San José
		1703 San Benito
		1704 San Andrés
		1705 La Libertad
		1706 San Francisco
		1707 Santa Ana
		1708 Dolores
		1709 San Luis

Field	Question	Answer
		1710 Sayaxché
		1711 Melchor de Mencos
		1712 Poptún
		1713 Las Cruces
		1714 El Chal
		1801 Puerto Barrios
		1802 Livingston
		1803 El Estor
		1804 Morales
		1805 Los Amates
		1901 Zacapa
		1902 Estanzuela
		1903 Río Hondo
		1904 Gualán
		1905 Teculután
		1906 Usulután
		1907 Cabañas
		1908 San Diego
		1909 La Unión
		1910 Huité
		1911 San Jorge
		2001 Chiquimula
		2002 San José La Arada
		2003 San Juan Ermita
		2004 Jocotán
		2005 Camotán
		2006 Olopa
		2007 Esquipulas
		2008 Concepción Las Minas
		2009 Quetzaltepeque
		2010 San Jacinto
		2011 Ipala
		2101 Jalapa
		2102 San Pedro Pinula
		2103 San Luis Jilotepeque
		2104 San Manuel Chaparrón
		2105 San Carlos Alzatate
		2106 Monjas

Field	Question	Answer
		2107 Mataquescuintla 2201 Jutiapa 2202 El Progreso 2203 Santa Catarina Mita 2204 Agua Blanca 2205 Asunción Mita 2206 Yupiltepeque 2207 Atescatempa 2208 Jerez 2209 El Adelanto 2210 Zapotitlán 2211 Comapa 2212 Jalpatagua 2213 Conguaco 2214 Moyuta 2215 Pasaco 2216 San José Acatempa 2217 Quesada
referral_yn (required)	IS THIS RESPONDENT A REFERRAL FROM ANOTHER RESPONDENT?	1 YES 2 NO
codebeingredeemed (required)	ENTER COUPON CODE FORM 00-00-00-00-00-00 Question relevant when: selected(\${referral_yn} , '1')	
mode	MODE OF INTERVIEW:	1 PHONE/ONLINE 2 IN-PERSON
disposition_ph	RECORD RESULT OF INTERVIEW ATTEMPT Question relevant when: \${mode} = 1	1 BEING SURVEYED 2 CALL BACK 3 SCREENED OUT 4 NO ANSWER 5 PHONE IS SWITCHED OFF 6 VOICEMAIL 7 NUMBER BUSY 8 NUMBER NOT WORKING 9 CORRECT RESPONDENT NOT REACHED 10 REFUSED 11 OTHER

Field	Question	Answer
		12 INTERRUPTION - INTERNET DROPPED 13 INTERRUPTION -CALL DROPPED
disposition_inperson	RECORD RESULT OF INTERVIEW ATTEMPT <i>Question relevant when: \${mode} = 2</i>	1 BEING SURVEYED 2 POSTPONED 3 REFUSED
CONSENT		
CONSENT <i>(required)</i>	<p>Hello my name is _____.</p> <p>Before beginning the survey, I would like to read you some information so that you understand what's involved with the study. This study is conducted by Biosfera. This survey is part of a study that seeks to better understand the labor experiences among people who work in the palm industry in Guatemala.</p> <p>Everything you say is confidential. None of your coworkers or employers will know what you tell me. Your name will not be used in any report. Data from this study may be shared with other researchers or made available in public databases for the purposes of advancing research on these topics. Prior to doing so, all personally identifying information is removed.</p> <p>Participation in this study is voluntary, and if you do not participate there will be no consequences. The risk of doing this survey is that some of our questions are personal and might bring up painful memories that make you feel uncomfortable. If you feel uncomfortable answering any of the questions, it is okay for you to skip those questions. If the survey becomes too tiring or upsetting, we can take a</p>	1 YES 2 NO

Field	Question	Answer
	<p>break, reschedule, or stop the interview.</p> <p>We know your time is valuable, for your participation in this study you will be provided with the cost of your transportation, a phone recharge of Q50, and one meal. Should you choose to participate in this study, your contributions will help to shine a light on the situation of labor conditions within the palm industry and will also help us to better understand the palm supply chain. Your answers will help inform future programming to help other workers.</p> <p>I will answer any questions that you have about the study before we begin. Do you have any questions about the study? If you have any questions in the future, or if you later change your mind and do not want us to include the information you provided in our study, you may contact Carlos Avendano, info@carlosavendano.org [IF YES, ANSWER BEFORE CONTINUING]</p> <p>Do you agree to participate in this survey?</p>	
STARTING_NOTE	<p>INTERVIEWER: DO NOT READ RESPONSE OPTIONS ALOUD UNLESS INDICATED. LISTEN TO THE RESPONSE AND SELECT THE MOST APPROPRIATE RESPONSE OPTION(S). DO NOT READ UPPERCASE TEXT ALOUD.</p> <p><i>Question relevant when: \${CONSENT} = 1</i></p>	

Field	Question	Answer
SECTION I: GENERAL INFORMATION		
<i>Group relevant when: \${CONSENT} = 1</i>		
SIQ01 (required)	SIQ01. Have you ever worked on a palm plantation in Guatemala?	1 1. YES 2 2. NO 77 77. DON'T KNOW 99 99. REFUSED
SIQ02 (required)	SIQ02. How old are you? [IF NEEDED, SAY: Your best guess is fine] Question relevant when: \${SIQ01} = 1	
SECTION I: GENERAL INFORMATION > SECTION IA: GENERAL INFORMATION		
<i>Group relevant when: \${CONSENT} = 1 and (\${SIQ02} > 17 or \${SIQ02} = -76) and (\${SIQ01} = 1)</i>		
SIQ03 (required)	SIQ03. INTERVIEWER: MARK RESPONDENT'S SEX. ASK IF UNSURE.	1 1. MALE 2 2. FEMALE 3 3. PREFER NOT TO SAY
SIQ04 (required)	SIQ04. Where were you born?	1 1. GUATEMALA 2 2. HONDURAS 3 3. EL SALVADOR 55 55. OTHER COUNTRY 77 77. DON'T KNOW 99 99. REFUSED
SIQ04_OTHER (required)	SIQ04_OTHER. RECORD OTHER COUNTRY OF BIRTH Question relevant when: selected(\${SIQ04} , '55')	
SIQ04A (required)	SIQ04A. In which department of Guatemala were you born? Question relevant when: \${SIQ04} = 1	1 1. Alta Verapaz 2 2. Baja Verapaz 3 3. Chimaltenango 4 4. Chiquimula 5 5. El Progreso 6 6. Escuintla 7 7. Guatemala 8 8. Huehuetenango 9 9. Izabal

Field	Question	Answer
		10 10. Jalapa 11 11. Jutiapa 12 12. Petén 13 13. Quetzaltenango 14 14. Quiché 15 15. Retalhuleu 16 16. Sacatepéquez 17 17. San Marcos 18 18. Santa Rosa 19 19. Sololá 20 20. Suchitepéquez 21 21. Totonicapán 22 22. Zacapa 777 777. DON'T KNOW 999 999. REFUSED
SIQ04B (required)	SIQ04B. Which do you consider yourself: Ladino, Maya, Xinca, Afrodescendent/Creole, Garifuna, or Foreigner? INTERVIEWR: SELECT ALL THAT APPLY Question relevant when: \${SIQ04} = 1	1 1. LADINO 2 2. MAYA 3 3. XINCA 4 4. AFRODESCENDENT/CREOLE 5 5. GARIFUNA 6 6. FOREIGNER 55 55. OTHER 77 77. DON'T KNOW 99 99. REFUSED
SIQ04B_OTHER (required)	SIQ04B_other. RECORD OTHER Question relevant when: selected(\${SIQ04B}, '55')	
SIQ04C (required)	SIQ04C. Which Mayan linguistic community do you belong to? Question relevant when: selected(\${SIQ04B}, '2')	1 1. KAQCHIKEL 2 2. Q'EQCHI' 3 3. K'ICHE' 4 4. MAM 5 5. POQOMCHI' 6 6. TZU'UTUJIL 7 7. Q'ANJOB'AL 8 8. CH'ORTI' 9 9. POQOMAN

Field	Question	Answer
		10 10. ACHI 11 11. AKATEKA 12 12. AWAKATEKA 13 13. CHALCHITEKA 14 14. CHUJ 15 15. ITZA' 16 16. IXIL 17 17. JAKALTEKA (POPTI) 18 18. MOPAN 19 19. SAKAPULTEKA 20 20. SIPAKAPENSE 21 21. TEKTITEKA 22 22. USPANTEKA 55 55. OTHER 77 77. DON'T KNOW 99 99. REFUSED
 SIQ04C_OTHER (required)	SIQ04C_OTHER. RECORD OTHER <i>Question relevant when: selected(</i> <i>`\${SIQ04C}`, '55')</i>	
 SIQ05 (required)	SIQ05. Have you ever attended school?	1 1. YES 2 2. NO 77 77. DON'T KNOW 99 99. REFUSED
 SIQ05A (required)	SIQ05A. What is the highest class you have completed? - <i>Question relevant when: `\${SIQ05} = 1</i>	1 1. PRESCHOOL/NURSERY SCHOOL 2 2. SOME PRIMARY 3 3. COMPLETED PRIMARY 4 4. SOME SECONDARY 5 5. COMPLETED SECONDARY OR HIGHER 77 77. DON'T KNOW 99 99. REFUSED
 GI_READ	READ: For the following questions, please think about your most recent job working in the palm industry. If you	

Field	Question	Answer
	had more than one job, think about your main job.	
SIQ06 (required)	<p>SIQ06.</p> <p>Approximately when did you start this work? <i>[INTERVIEWER: SELECT MONTH (IF KNOWN)]</i></p>	<p>1 1. JANUARY</p> <p>2 2. FEBRUARY</p> <p>3 3. MARCH</p> <p>4 4. APRIL</p> <p>5 5. MAY</p> <p>6 6. JUNE</p> <p>7 7. JULY</p> <p>8 8. AUGUST</p> <p>9 9. SEPTEMBER</p> <p>10 10. OCTOBER</p> <p>11 11. NOVEMBER</p> <p>12 12. DECEMBER</p> <p>77 77. DON'T KNOW</p>
SIQ06_YEAR (required)	<p>SIQ06_YEAR.</p> <p>YEAR <i>[INTERVIEWER: RECORD YEAR.]</i></p>	
INVALID_START_DATE_CHECK (required)	<p>The start of employment date that has been selected ([SIQ06] / [SIQ06_YEAR]) is greater than the current date (01 / 2025). Please return and fix the entry.</p> <p>Question relevant when: <i>#{INVALID_START_MONTH_FLAG} = 1</i></p>	
SIQ07 (required)	<p>SIQ07.</p> <p>Do you still have this job?</p>	<p>1 1. YES</p> <p>2 2. NO</p> <p>77 77. DON'T KNOW</p> <p>99 99. REFUSED</p>
<p>SECTION I: GENERAL INFORMATION > SECTION IA: GENERAL INFORMATION > SIC</p> <p>Group relevant when: <i>not(selected(#{SIQ07} , '77')) and not(selected(#{SIQ07} , '99'))</i></p>		
SIQ07A (required)	<p>SIQ07A.</p> <p>Approximately when did you stop working this job? <i>[INTERVIEWER: SELECT MONTH (IF KNOWN)]</i></p> <p>Question relevant when: <i>#{SIQ07} != 1</i></p>	<p>1 1. JANUARY</p> <p>2 2. FEBRUARY</p> <p>3 3. MARCH</p> <p>4 4. APRIL</p> <p>5 5. MAY</p> <p>6 6. JUNE</p>

Field	Question	Answer
		7 7. JULY 8 8. AUGUST 9 9. SEPTEMBER 10 10. OCTOBER 11 11. NOVEMBER 12 12. DECEMBER 77 77. DON'T KNOW
SIQ07A_YEAR (required)	SIQ07A_YEAR. YEAR <i>[INTERVIEWER: RECORD YEAR]</i> <i>Question relevant when: \${SIQ07} != 1</i>	
INVALID_END_DATE_CHECK (required)	The end of employment date that has been selected ([SIQ07A] / [SIQ07A_YEAR]) is greater than the current date (01 / 2025). Please return and fix the entry. <i>Question relevant when:</i> <i>\${INVALID_END_MONTH_FLAG} = 1</i>	
SECTION I: GENERAL INFORMATION > SECTION IA: GENERAL INFORMATION > SIC > SID		
SIQ08 (required)	SIQ08. Did you relocate to take this job, including temporarily?	1 1. YES 2 2. NO 77 77. DON'T KNOW 99 99. REFUSED
SIQ08A (required)	SIQ08A. Did you relocate from another part of Guatemala or a different country? <i>Question relevant when: \${SIQ08} = 1</i>	1 1. GUATEMALA 2 2. DIFFERENT COUNTRY 77 77. DON'T KNOW 99 99. REFUSED
SIQ08B (required)	SIQ08B. From which department in Guatemala did you relocate? <i>Question relevant when: \${SIQ08A} = 1</i>	1 Guatemala 2 El Progreso 3 Sacatepéquez 4 Chimaltenango 5 Escuintla 6 Santa Rosa 7 Sololá 8 Totonicapán 9 Quetzaltenango 10 Suchitepéquez

Field	Question	Answer
		11 Retalhuleu 12 San Marcos 13 Huehuetenango 14 Quiché 15 Baja Verapaz 16 Alta Verapaz 17 Petén 18 Izabal 19 Zacapa 20 Chiquimula 21 Jalapa 22 Jutiapa 777 777. DON'T KNOW 999 999. REFUSED
SIQ08C (required)	SIQ08C. From which country did you relocate? <i>Question relevant when: \${SIQ08A} = 2</i>	1 1. HONDURAS 2 2. EL SALVADOR 55 55. OTHER 77 77. DON'T KNOW 99 99. REFUSED
SIQ08C_OTHER (required)	SIQ08C_OTHER. RECORD OTHER COUNTRY <i>Question relevant when: \${SIQ08C} = 55</i>	
SIQ09 (required)	SIQ09. Do you work for a company or for yourself? -	1 1. EMPLOYER 2 2. SELF 77 77. DON'T KNOW 99 99. REFUSED
SIQ09A (required)	SIQ09A. Do you work on a plantation, in a mill, in a refinery, or somewhere else? INTERVIEWER: SELECT ALL THAT APPLY	1 1. PLANTATION 2 2. MILL 3 3. REFINERY 55 55. OTHER 77 77. DON'T KNOW 99 99. REFUSED
SIQ09A_OTHER (required)	SIQ09A_OTHER. RECORD OTHER	

Field	Question	Answer
	Question relevant when: selected(\${SIQ09A}, '55')	
SIQ10 (required)	SIQ10. About how many hectares is the plantation you work on? Question relevant when: selected(\${SIQ09A}, '1')	1 1. 0-50 (SMALL) 2 2. 51-500 (MEDIUM) 3 3. MORE THAN 500 (LARGE) 77 77. DON'T KNOW 99 99. REFUSED
SIQ10A (required)	SIQ10A. How far away is the mill that the palm fruit harvested here goes to? INTERVIEWER: SELECT ALL THAT APPLY Question relevant when: selected(\${SIQ09A}, '1')	1 1. ON THE PLANTATION 2 2. 10KM OR LESS AND NOT ON THE PLANTATION 3 3. OVER 10KM 77 77. DON'T KNOW 99 99. REFUSED
SIQ11 (required)	SIQ11. In which of these activities have you engaged in the most recent month you worked? READ ALOUD RESPONSE OPTIONS AND SELECT ALL THAT APPLY	1 1. Gardening-related work such as planting, weeding, and pruning 2 2. Applying fertilizers 3 3. Fumigation 4 4. Harvesting palm fruit 5 5. Transporting palm fruit or palm oil 6 6. Administrative or supervisory work 7 7. Working at a mill 8 8. Working at a refinery 77 77. DON'T KNOW 99 99. REFUSED
SIQ11_OTHER_WORK (required)	SIQ11_OTHER_WORK. Did you do any other other work related to the palm industry?	1 1. YES 2 2. NO 77 77. DON'T KNOW 99 99. REFUSED
SIQ11_OTHER_WORK_FOLLOW_UP (required)	SIQ11_OTHER_WORK_FOLLOW_UP. Question relevant when: \${SIQ11_OTHER_WORK} = 1	
SIQ11A (required)	SIQ11A. On which of these activities do (did) you spend the most time?	1 1. Gardening-related work such as planting, weeding, and pruning 2 2. Applying fertilizers 3 3. Applying pesticides

Field	Question	Answer
	<p>Question relevant when: $\\${numselected_SIQ11_tot} > 0$</p>	<p>4 4. Harvesting palm fruit 5 5. Transporting palm fruit or palm oil 6 6. Administrative or supervisory work 7 7. Working at a mill 8 8. Working at a refinery 55 55. OTHER WORK RELATED TO THE PALM INDUSTRY : ... 77 77. DON'T KNOW 99 99. REFUSED</p>
<p>SECTION 2: RECRUITMENT Group relevant when: ($\\${CONSENT} = 1$) and ($\\${SIQ02} > 17$ or $\\${SIQ02} = -76$) and ($\\${SIQ01} = 1$) and ($\\${SIQ07} != 77$) and ($\\${SIQ07} != 99$)</p>		
S2Q01 (required)	<p>S2Q01. Next we would like to ask you a few questions about how you started in your job. Did anyone help you get this job?</p>	<p>1 1. YES 2 2. NO 77 77. DON'T KNOW 99 99. REFUSED</p>
S2Q01A (required)	<p>S2Q01A. Who helped you get this job? INTERVIEWER: SELECT ALL THAT APPLY. ASK "Anyone else?" BEFORE MOVING ON. Question relevant when: $\\${S2Q01} = 1$</p>	<p>1 1. FAMILY MEMBER 2 2. FRIEND 3 3. RECRUITMENT AGENT 4 4. SOCIAL MEDIA 5 5. DEPARTMENT OF LABOR 6 6. COMMUNITY DEVELOPMENT COUNCIL 55 55. OTHER 77 77. DON'T KNOW 99 99. REFUSED</p>
S2Q01A_OTHER (required)	<p>S2Q01A_OTHER. Please specify Question relevant when: selected($\\${S2Q01A}$, '55')</p>	
S2Q02 (required)	<p>S2Q02. Did you feel compelled to take this job?</p>	<p>1 1. YES 2 2. NO 77 77. DON'T KNOW 99 99. REFUSED</p>

Field	Question	Answer
S2Q02A (required)	<p>S2Q02A.</p> <p>Why did you feel compelled to take this job? INTERVIEWER: SELECT ALL THAT APPLY. ASK "Any other reason?" AT LEAST TWICE BEFORE MOVING ON. Question relevant when: \${S2Q02} = 1</p>	<p>1. THREATS OF OR SUBJECTION TO PHYSICAL VIOLENCE 1 AGAINST RESPONDENT OR RESPONDENT'S FAMILY BY EMPLOYER/RECRUITER 2. RESTRICTION ON 2 RESPONDENT'S MOVEMENT BY EMPLOYER/RECRUITER 3. DEBT BONDAGE OR 3 MANIPULATION OF DEBT (DEBT TO EMPLOYER/RECRUITER) 5. WITHHOLDING OF VALUABLE 5 DOCUMENTS BY EMPLOYER/RECRUITER 7. THREAT OF LOSS OF 7 HOUSING/LAND 55 55. OTHER 66 66. WORK OPPORTUNITIES ARE 66 SCARCE/WOULD HAVE NO MONEY/ETC 77 77. DON'T KNOW 99 99. REFUSED</p>
S2Q02A_OTHER (required)	<p>S2Q02A_OTHER.</p> <p>RECORD OTHER Question relevant when: selected(\${S2Q02A} , '55')</p>	
S2Q03 (required)	<p>S2Q03.</p> <p>Do (did) you have a written contract for this work?</p>	<p>1 1. YES 2 2. NO 77 77. DON'T KNOW 99 99. REFUSED</p>
S2Q03A (required)	<p>S2Q03A.</p> <p>Did you have a verbal agreement for this work? Question relevant when: \${S2Q03} != 1</p>	<p>1 1. YES 2 2. NO 77 77. DON'T KNOW 99 99. REFUSED</p>
S2Q04 (required)	<p>S2Q04.</p> <p>Think about what your recruiter or employer told you before you started</p>	<p>1 1. YES 2 2. NO 77 77. DON'T KNOW</p>

Field	Question	Answer
	<p>the job. Now think about the job you're actually doing.</p> <p>Were you misled about the job?</p> <p>Question relevant when: $\{S1Q09\} = 1$</p>	<p>99 99. REFUSED</p>
<p>S2Q04A (required)</p>	<p>S2Q04A.</p> <p>What were you misled about? <i>[INTERVIEWER: LISTEN AND SELECT ALL THAT APPLY. ASK "Anything else?" TWICE BEFORE MOVING ON.]</i></p> <p>Question relevant when: $\{S2Q04\} = 1$</p>	<p>1. NATURE OF THE JOB 1 (FUNDAMENTAL DUTIES OF THE JOB, TYPE OF JOB) 2 2. WORK TASKS 3 3. HOURS 4 4. EARNINGS 5 5. LIVING CONDITIONS 6 6. HAZARDS 7 7. JOB LOCATION 8 8. LEGALITY OF WORK 9 9. EMPLOYER 55 55. OTHER 77 77. DON'T KNOW 99 99. REFUSED</p>
<p>S2Q04A_OTHER (required)</p>	<p>S2Q04A_OTHER.</p> <p>RECORD OTHER</p> <p>Question relevant when: selected($\{S2Q04A\}$, '55')</p>	
<p>S2Q04B (required)</p>	<p>S2Q04B.</p> <p>What would have happened if you had asked for the work or conditions you were promised? <i>[INTERVIEWER: LISTEN AND SELECT ALL THAT APPLY. ASK "Any other reason?" TWICE BEFORE MOVING ON.]</i></p> <p>Question relevant when: $\{S2Q04\} = 1$</p>	<p>1. THREATS OF OR SUBJECTION TO PHYSICAL VIOLENCE 1 AGAINST RESPONDENT OR RESPONDENT'S FAMILY BY EMPLOYER/RECRUITER 2 2. RESTRICTION ON RESPONDENT'S MOVEMENT 3 3. DEBT BONDAGE OR MANIPULATION OF DEBT (DEBT TO EMPLOYER/RECRUITER) 5 5. WITHHOLDING OF VALUABLE DOCUMENTS BY EMPLOYER/RECRUITER 7 7. THREAT OF LOSS OF HOUSING/LAND</p>

Field	Question	Answer
		9. DISMISSAL OR THREATS OF DISMISSAL 55 55. OTHER 66 66. NEEDED THE WORK/MONEY 77 77. DON'T KNOW 99 99. REFUSED
S2Q04B_OTHER (required)	S2Q04B_OTHER. RECORD OTHER <i>Question relevant when: selected(\${S2Q04B} , '55')</i>	
SECTION 3: LIVING CONDITIONS <i>Group relevant when: (\${CONSENT} = 1) and (\${SIQ02} > 17 or \${SIQ02} = -76) and (\${SIQ01} = 1) and (\${SIQ07} != 77) and (\${SIQ07} != 99)</i>		
S3Q01 (required)	S3Q01. Does (Did) your employer, recruiter, or agent provide your accommodation or housing? <i>Question relevant when: \${SIQ09} = 1</i>	1 1. YES 2 2. NO 77 77. DON'T KNOW 99 99. REFUSED
S3Q01A (required)	S3Q01A. Does your employer deduct the cost of housing from your earnings? <i>Question relevant when: \${S3Q01} = 1</i>	1 1. YES 2 2. NO 77 77. DON'T KNOW 99 99. REFUSED
S3Q01B (required)	S3Q01B. Could you have lived somewhere else and still work at your job? <i>Question relevant when: \${S3Q01} = 1</i>	1 1. YES 2 2. NO 77 77. DON'T KNOW 99 99. REFUSED
S3Q01C (required)	S3Q01C. Why not? [INTERVIEWER: LISTEN AND SELECT ALL THAT APPLY] <i>Question relevant when: \${S3Q01B} = 2</i>	1. EMPLOYER, MANAGER, OR RECRUITER WOULD NOT LET ME/ THEY REQUIRE THAT I LIVE HERE 2. I CAN'T AFFORD TO LIVE SOMEWHERE ELSE 3. NO ALTERNATIVE DUE TO REMOTENESS OF WORKSITE 55 55. OTHER 77 77. DON'T KNOW

Field	Question	Answer
		99 99. REFUSED
S3Q01C_OTHER (required)	S3Q01C_OTHER. RECORD OTHER <i>Question relevant when: selected(</i> \${S3Q01C}, '55')	
S3Q02 (required)	S3Q02. How would you describe the quality of your accommodations? Would you say good, ok, or bad? - <i>Question relevant when: selected(</i> \${S3Q01C}, '1')	1 1. GOOD 2 2. OK/FINE 3 3. BAD 77 77. DON'T KNOW 99 99. REFUSED
S3Q02A (required)	S3Q02A. Do (Did) you have access to clean water in or near your housing? <i>Question relevant when: selected(</i> \${S3Q01C}, '1')	1 1. YES 2 2. NO 77 77. DON'T KNOW 99 99. REFUSED
S3Q02B (required)	S3Q02B. Do you feel that your housing is harmful to your health? <i>Question relevant when: selected(</i> \${S3Q01C}, '1')	1 1. YES 2 2. NO 77 77. DON'T KNOW 99 99. REFUSED
S3Q02C (required)	S3Q02C. Do (Did) you feel safe in your housing? <i>Question relevant when: selected(</i> \${S3Q01C}, '1')	1 1. YES 2 2. NO 77 77. DON'T KNOW 99 99. REFUSED
S3Q02D (required)	S3Q02D. How many people sleep (slept) in the room you sleep (slept) in, including yourself? <i>Question relevant when: selected(</i> \${S3Q01C}, '1')	1 1. 1-4 PEOPLE 2 2. 5-8 PEOPLE 3 3. 9 OR MORE PEOPLE 77 77. DON'T KNOW 99 99. REFUSED
FOM_READ	READ: Now I will ask you about your freedom of movement at work and outside of work.	

Field	Question	Answer
S3Q03 (required)	S3Q03. During working hours, can (could) you (have left) leave your work place if needed?	1 1. YES 2 2. NO 77 77. DON'T KNOW 99 99. REFUSED
S3Q03A (required)	S3Q03A. Why can't (why couldn't) you leave your workplace during working hours? [INTERVIEWER: LISTEN AND SELECT ALL THAT APPLY] Question relevant when: \${S3Q03} = 2	1 1. SUBJECT TO FINES/DEDUCTIONS/DISMISSAL 2 2. SUBJECT TO VERBAL ABUSE 3 3. PHYSICALLY UNABLE TO LEAVE 4 4. REPUTATION/WORK PRODUCT WOULD SUFFER 55 55. OTHER 77 77. DON'T KNOW 99 99. REFUSED
S3Q03A_OTHER (required)	S3Q03A_OTHER. RECORD OTHER Question relevant when: selected(\${S3Q03A} , '55')	
S3Q03B (required)	S3Q03B. How are you prevented from leaving? [INTERVIEWER: LISTEN AND SELECT ALL THAT APPLY] Question relevant when: selected(\${S3Q03A} , '3')	1 1. WOULD BE STOPPED BY SUPERVISOR 2 2. GUARDS 3 3. LOCKED DOORS/GATES 4 4. ISOLATED WITHOUT TRANSPORT 5 5. SUBJECTED TO PHYSICAL VIOLENCE 55 55. OTHER 77 77. DON'T KNOW 99 99. REFUSED
S3Q03B_OTHER (required)	S3Q03B_OTHER. RECORD OTHER Question relevant when: selected(\${S3Q03B} , '55')	
S3Q04 (required)	S3Q04.	1 1. YES 2 2. NO 77 77. DON'T KNOW

Field	Question	Answer
	Can (could) you leave the area of your lodgings outside of work hours? <i>Question relevant when: \${S3Q01} = 1</i>	99 99. REFUSED
S3Q04A (required)	S3Q04A. Who prevents you from coming and going outside of work hours? [INTERVIEWER: LISTEN AND SELECT ALL THAT APPLY] <i>Question relevant when: \${S3Q04} = 2</i>	1. 1 EMPLOYER/MANAGER/WORKPLACE SECURITY 2 2. RECRUITER 3 3. OUTSOURCING AGENCY 4 4. FAMILY/SPOUSE 5 5. LEGAL RESTRICTION 5 55. OTHER 5 7 77. DON'T KNOW 7 9 99. REFUSED 9
S3Q04A_OTHER (required)	S3Q04A_OTHER. RECORD OTHER <i>Question relevant when: selected(\${S3Q04A}, '55')</i>	
S3Q05 (required)	S3Q05. Does your employer hold any of your important documents, such as your DPI? <i>Question relevant when: \${S1Q09} = 1</i>	1 1. YES 2 2. NO 77 77. DON'T KNOW 99 99. REFUSED
S3Q05A (required)	S3Q05A. Can you access your documents if needed? <i>Question relevant when: \${S3Q05} = 1</i>	1 1. YES 2 2. NO 77 77. DON'T KNOW 99 99. REFUSED
SECTION 4: DEBT AND PAYMENT		
<i>Group relevant when: (\${CONSENT} = 1) and (\${S1Q02} > 17 or \${S1Q02} = -76) and (\${S1Q01} = 1) and (\${S1Q07} != 77) and (\${S1Q07} != 99)</i>		
S4Q01 (required)	S4Q01. Sometimes workers are in debt to their employers or recruiters, for example after buying or using tools or	1 1. YES 2 2. NO 77 77. DON'T KNOW 99 99. REFUSED

Field	Question	Answer
	<p>receiving a pay advance. While working in your most recent job, were you ever in debt to your employer or recruiter?</p> <p><i>Question relevant when: \${S1Q09} = 1 or \${S2Q01} = 1</i></p>	
<p>S4Q01A (required)</p>	<p>S4Q01A.</p> <p>Thinking more about your debt to your employer or recruiter...</p> <p>Were you put into debt or further into debt through unagreed or excessive charges by your employer for food, housing, or something else?</p> <p><i>Question relevant when: \${S4Q01} = 1</i></p>	<p>1 1. YES</p> <p>2 2. NO</p> <p>77 77. DON'T KNOW</p> <p>99 99. REFUSED</p>
<p>S4Q01B (required)</p>	<p>S4Q01B.</p> <p>Were you put into debt or further into debt through fines or penalties by your employer?</p> <p><i>IF NEEDED: For example, fines for workplace violations or failure to reach production targets</i></p> <p><i>Question relevant when: \${S4Q01} = 1</i></p>	<p>1 1. YES</p> <p>2 2. NO</p> <p>77 77. DON'T KNOW</p> <p>99 99. REFUSED</p>
<p>S4Q01C (required)</p>	<p>S4Q01C.</p> <p>Were you put further into debt through unfair interest charges?</p> <p><i>Question relevant when: \${S4Q01} = 1</i></p>	<p>1 1. YES</p> <p>2 2. NO</p> <p>77 77. DON'T KNOW</p> <p>99 99. REFUSED</p>
<p>S4Q01D (required)</p>	<p>S4Q01D.</p> <p>If you were to leave your job before paying off your debt, what would happen?</p> <p><i>INTERVIEWER: SELECT ALL THAT APPLY. ASK "Anything else?" AT LEAST TWICE BEFORE MOVING ON.</i></p> <p><i>Question relevant when: \${S4Q01} = 1</i></p>	<p>1. THREATS OF OR SUBJECTION TO PHYSICAL VIOLENCE</p> <p>1 AGAINST RESPONDENT OR RESPONDENT'S FAMILY BY EMPLOYER/RECRUITER</p> <p>2 2. RESTRICTION ON RESPONDENT'S MOVEMENT</p> <p>5 5. LOSS OF WITHHELD DOCUMENTS</p> <p>7 7. LOSS OF HOUSING/LAND</p> <p>8 8. ARREST OR PROSECUTION</p>

Field	Question	Answer
		<p>10. DEDUCTION OF AMOUNT OWED FROM FINAL PAYMENT</p> <p>11. WITHHOLDING OF MATERIAL GOODS AS COLLATERAL</p> <p>55. OTHER</p> <p>66. NOTHING</p> <p>77. DON'T KNOW</p> <p>99. REFUSED</p>
S4Q01D_OTHER (required)	<p>S4Q01D_OTHER.</p> <p>RECORD OTHER</p> <p>Question relevant when: selected(\${S4Q01D} , '55')</p>	
S4Q02 (required)	<p>S4Q02.</p> <p>Now I would like to ask you about your earnings. Please only include the earnings from your basic wages, not any overtime pay or bonuses you may receive. Include only the amount you take home, after any deductions by your employer. About how much do you earn in quetzales for a typical day's work?</p> <p>INTERVIEWER: IF RESPONDENT IS PAID IN KIND OR IN ANOTHER CURRENCY, ASK RESPONDENT TO ESTIMATE VALUE IN QUETZALES</p>	
S4Q02A (required)	<p>S4Q02A.</p> <p>On a typical day, are your earnings less than Q.102.44?</p> <p>INTERVIEWER: IF NEEDED, Q.102.44 PER DAY IS EQUIVALENT TO Q.3,124.42 PER MONTH

IF RESPONDENT IS PAID IN KIND, ASK RESPONDENT TO ESTIMATE WHETHER VALUE IS LESS THAN Q.102.44 / US\$13.19.</p>	<p>1. YES</p> <p>2. NO</p> <p>77. DON'T KNOW</p> <p>99. REFUSED</p>
S4Q03 (required)	<p>S4Q03</p> <p>Who pays you?</p> <p>INTERVIEWER: SELECT ALL THAT APPLY</p>	<p>1. PLANTATION OWNER</p> <p>2. SUBCONTRACTOR</p> <p>3. RECRUITER</p> <p>4. MANPOWER AGENCY</p> <p>5. SUPERVISOR</p>

Field	Question	Answer
		55 55. OTHER 77 77. DON'T KNOW 99 99. REFUSED
S4Q03_OTHER (required)	S4Q03_OTHER. RECORD OTHER <i>Question relevant when: selected(</i> <i>`\${S4Q03}` , '55')</i>	
S4Q04 (required)	S4Q04. Are your typical earnings enough to meet your basic needs for food and shelter?	1 1. YES 2 2. NO 77 77. DON'T KNOW 99 99. REFUSED
S4Q05 (required)	S4Q05. Does your employer impose a production quota/target? <i>Question relevant when: `\${S1Q09}` = 1</i>	1 1. YES 2 2. NO 77 77. DON'T KNOW 99 99. REFUSED
S4Q05A (required)	S4Q05A. What is the quota/target? <i>Question relevant when: `\${S4Q05}` = 1</i>	
S4Q05A_UNIT (required)	S4Q05A_UNIT INDICATE THE UNIT OF MEASUREMENT <i>Question relevant when: `\${S4Q05}` = 1</i>	1 1. POUNDS 2 2. QUINTAL 3 3. CRATES 4 4. STICKS 5 5. BUNCHES 55 55. OTHER 77 77. DON'T KNOW 99 99. REFUSED
S4Q05A_UNIT_OTHER (required)	S4Q05A_UNIT_OTHER. RECORD OTHER <i>Question relevant when: selected(</i> <i>`\${S4Q05A_UNIT}` , '55')</i>	
S4Q05B (required)	S4Q05B. Do you consider the quota/target to be a reasonable amount for only one worker?	1 1. YES 2 2. NO 77 77. DON'T KNOW 99 99. REFUSED

Field	Question	Answer
	Question relevant when: $\{S4Q05\} = 1$	
S4Q05C (required)	<p>S4Q05C.</p> <p>What would happen if you failed to meet the quota/target? INTERVIEWER: SELECT ALL THAT APPLY. ASK "Anything else?" AT LEAST TWICE BEFORE MOVING ON.</p> <p>Question relevant when: $\{S4Q05\} = 1$</p>	<p>1. THREATS OF OR SUBJECTION TO PHYSICAL VIOLENCE</p> <p>1 AGAINST RESPONDENT OR RESPONDENT'S FAMILY BY EMPLOYER/RECRUITER</p> <p>2. RESTRICTION ON</p> <p>2 RESPONDENT'S MOVEMENT</p> <p>3. DEBT BONDAGE OR</p> <p>3 MANIPULATION OF DEBT (DEBT TO EMPLOYER/RECRUITER)</p> <p>4 4. LOSS OF WITHHELD WAGES</p> <p>5 5. LOSS OF WITHHELD DOCUMENTS</p> <p>7 7. LOSS OF HOUSING/LAND</p> <p>9 9. DISMISSAL OR THREATS OF DISMISSAL</p> <p>10 10. FINE OR DEDUCTION FROM WAGES</p> <p>55 55. OTHER</p> <p>66 66. NOTHING/EARN LESS MONEY/REPUTATION WOULD SUFFER</p> <p>77 77. DON'T KNOW</p> <p>99 99. REFUSED</p>
S4Q05C_OTHER (required)	<p>S4Q05C_OTHER.</p> <p>RECORD OTHER</p> <p>Question relevant when: selected($\{S4Q05C\}$, '55')</p>	
SECTION 5: WORKING CONDITIONS		
Group relevant when: ($\{CONSENT\} = 1$) and ($\{SIQ02\} > 17$ or $\{SIQ02\} = -76$) and ($\{SIQ01\} = 1$) and ($\{SIQ07\} \neq 77$) and ($\{SIQ07\} \neq 99$)		
S5Q01 (required)	<p>S5Q01.</p> <p>Do children under age 18 work at the place where you work?</p>	<p>1 1. YES</p> <p>2 2. NO</p> <p>77 77. DON'T KNOW</p> <p>99 99. REFUSED</p>
S5Q02 (required)	S5Q02	<p>1 1. YES</p> <p>2 2. NO</p>

Field	Question	Answer
	Does your work involve anything that risks your health or safety?	77 77. DON'T KNOW 99 99. REFUSED
S5Q02A (required)	S5Q02A. What are the risks to your health or safety? <i>INTERVIEWER: SELECT ALL THAT APPLY. ASK "Anything else?" AT LEAST TWICE BEFORE MOVING ON.</i> <i>Question relevant when: \${S5Q02} = 1</i>	1 1. EXCESSIVE NOISE 2 2. EXTREME HEAT 3 3. DANGEROUS CHEMICALS 4 4. DANGEROUS OR SHARP TOOLS OR HEAVY MACHINERY 5 5. CARRYING UNREASONABLY HEAVY LOADS 6 6. DUST OR STRONG FUMES 7 7. WILD ANIMALS 8 8. SEXUAL ASSAULT 55 55. OTHER 77 77. DON'T KNOW 99 99. REFUSED
S5Q2A_OTHER (required)	S5Q02A_OTHER. RECORD OTHER <i>Question relevant when: selected(\${S5Q02A} , '55')</i>	
S5Q03 (required)	S5Q03. Does your employer provide you with the personal protective equipment (PPE) needed to perform your job safely? <i>Question relevant when: \${S5Q02} = 1</i>	1 1. YES 2 2. NO 77 77. DON'T KNOW 99 99. REFUSED
S5Q04 (required)	S5Q04. I will read a list of protective gear. Please tell me which items you usually wear when working: <i>INTERVIEWER: LISTEN AND SELECT ALL THAT APPLY. INCLUDE ALL PPE USED WHETHER PROVIDED BY EMPLOYER OR WORKER.</i>	1 1. Protective goggles 2 2. Helmet 3 3. Ear-plugs 4 4. Respirator or dust-mask 5 5. Protective clothing such as coveralls 6 6. Gloves 7 7. Work boots 55 55. OTHER 77 77. DON'T KNOW 99 99. REFUSED

Field	Question	Answer
S5Q04_OTHER (required)	S5Q04_OTHER. RECORD OTHER <i>Question relevant when: selected(</i> <i>`\${S5Q04}` , '55')</i>	
S5Q05 (required)	S5Q05. Does your employer provide you with the training needed to perform your job safely? <i>Question relevant when: `\${S5Q02}` = 1</i>	1 1. YES 2 2. NO 77 77. DON'T KNOW 99 99. REFUSED
S5Q06 (required)	S5Q06. Does your employer endanger your life by failing to take proper safety precautions? <i>Question relevant when: `\${S5Q02}` = 1</i>	1 1. YES 2 2. NO 77 77. DON'T KNOW 99 99. REFUSED
S5Q07 (required)	S5Q07. What would happen if you refused to do these hazardous activities? <i>INTERVIEWER: SELECT ALL THAT APPLY. ASK "Any other reason?" AT LEAST TWICE BEFORE MOVING ON.</i> <i>Question relevant when: `\${S5Q06}` = 1</i>	1. THREATS OF OR SUBJECTION TO PHYSICAL VIOLENCE 1 AGAINST RESPONDENT OR RESPONDENT'S FAMILY BY EMPLOYER/RECRUITER 2. RESTRICTION ON 2 RESPONDENT'S MOVEMENT 3. DEBT BONDAGE OR 3 MANIPULATION OF DEBT (DEBT TO EMPLOYER/RECRUITER) 4 4. LOSS OF WITHHELD WAGES 5 5. LOSS OF WITHHELD DOCUMENTS 7 7. LOSS OF HOUSING/LAND 9 9. DISMISSAL OR THREATS OF DISMISSAL 10 10. FINE OR DEDUCTION FROM WAGES 55 55. OTHER 66 66. NEEDED THE WORK/MONEY 77 77. DON'T KNOW 99 99. REFUSED

Field	Question	Answer
S5Q07_OTHER (required)	S5Q07_OTHER. RECORD OTHER <i>Question relevant when: selected(</i> <i>`\${S5Q07}`, '55')</i>	
S5Q08 (required)	S5Q08. Have you ever gotten hurt or sick because of your work in this job?	1 1. YES 2 2. NO 77 77. DON'T KNOW 99 99. REFUSED
S5Q08A (required)	S5Q08A. What types of injury or sickness have you had? <i>INTERVIEWER: LISTEN AND SELECT ALL THAT APPLY</i> <i>Question relevant when: `\${S5Q08}` = 1</i>	1 1. HEAD INJURY 2 2. INJURY TO OR DEAFNESS IN EARS 3 3. EYE INJURY 4 4. INJURY TO SHOULDER 5 5. INJURY TO OR SWELLING IN HANDS 6 6. SMOKE, DUST, OR CHEMICAL DAMAGE TO LUNGS 7 7. INJURY TO ABDOMEN 8 8. BACK STRAIN/ PAIN IN BACK 9 9. INJURY TO KNEES OR LEGS 10 10. TWISTED ANKLE 11 11. INJURY TO FEET 12 12. HEAT STROKE 13 13. BURN FROM FIRE 14 14. CHEMICAL BURN 15 15. CUTS/WOUNDS 55 55. OTHER 77 77. DON'T KNOW 99 99. REFUSED
S5Q08A_OTHER (required)	S5Q08A_OTHER. RECORD OTHER <i>Question relevant when: selected(</i> <i>`\${S5Q08A}`, '55')</i>	
S5Q08B (required)	S5Q08B. How did you get hurt or sick?	1 1. FALLING PLANT MATERIALS 2 2. TOOL ACCIDENT 3 3. MACHINERY ACCIDENT

Field	Question	Answer
	<p>INTERVIEWER: LISTEN AND SELECT ALL THAT APPLY</p> <p>Question relevant when: $\\${S5Q08} = 1$</p>	<p>4 4. INHALATION OF DUST</p> <p>5 5. VIOLENCE BY COWORKER/EMPLOYER</p> <p>6 6. CARRYING HEAVY LOADS</p> <p>55 55. OTHER</p> <p>77 77. DON'T KNOW</p> <p>99 99. REFUSED</p>
<p>S5Q08B_OTHER (required)</p>	<p>S5Q08B_OTHER.</p> <p>RECORD OTHER</p> <p>Question relevant when: selected($\\${S5Q08B}$, '5')</p>	
<p>S5Q09 (required)</p>	<p>S5Q09.</p> <p>Does your employer require you to work when you are seriously sick or injured?</p> <p>Question relevant when: $\\${S5Q09} = 1$</p>	<p>1 1. YES</p> <p>2 2. NO</p> <p>77 77. DON'T KNOW</p> <p>99 99. REFUSED</p>
<p>S5Q09A (required)</p>	<p>S5Q09A.</p> <p>What would happen if you refused to work while sick or injured?</p> <p>INTERVIEWER: SELECT ALL THAT APPLY. ASK "Any other reason?" AT LEAST TWICE BEFORE MOVING ON.</p> <p>Question relevant when: $\\${S5Q09} = 1$</p>	<p>1. THREATS OF OR SUBJECTION TO PHYSICAL VIOLENCE AGAINST RESPONDENT OR RESPONDENT'S FAMILY BY EMPLOYER/RECRUITER</p> <p>2. RESTRICTION ON RESPONDENT'S MOVEMENT</p> <p>3. DEBT BONDAGE OR MANIPULATION OF DEBT (DEBT TO EMPLOYER/RECRUITER)</p> <p>4 4. LOSS OF WITHHELD WAGES</p> <p>5 5. LOSS OF WITHHELD DOCUMENTS</p> <p>7 7. LOSS OF HOUSING/LAND</p> <p>9 9. DISMISSAL OR THREATS OF DISMISSAL</p> <p>10 10. DISPROPORTIONATE FINE OR DEDUCTION FROM WAGES</p> <p>55 55. OTHER</p> <p>66 66. NOTHING</p> <p>77 77. DON'T KNOW</p>

Field	Question	Answer
		99 99. REFUSED
S5Q09A_OTHER (required)	S5Q09A_OTHER. RECORD OTHER <i>Question relevant when: selected(\${S5Q09A} , '55')</i>	
S5Q10 (required)	S5Q10. On average, how many hours do you work per day?	
S5Q10A (required)	S5Q10A. What would happen if you refused to work over 8 hours per day? <i>INTERVIEWER: SELECT ALL THAT APPLY. ASK "Anything else?" AT LEAST TWICE BEFORE MOVING ON.</i> <i>Question relevant when: \${S5Q10} > 8</i>	<p>1. THREATS OF OR SUBJECTION TO PHYSICAL VIOLENCE</p> <p>1 AGAINST RESPONDENT OR RESPONDENT'S FAMILY BY EMPLOYER/RECRUITER</p> <p>2 2. RESTRICTION ON RESPONDENT'S MOVEMENT</p> <p>3 3. DEBT BONDAGE OR MANIPULATION OF DEBT (DEBT TO EMPLOYER/RECRUITER)</p> <p>4 4. LOSS OF WITHHELD WAGES</p> <p>5 5. LOSS OF WITHHELD DOCUMENTS</p> <p>7 7. LOSS OF HOUSING/LAND</p> <p>9 9. DISMISSAL OR THREATS OF DISMISSAL</p> <p>10 10. FINE OR DEDUCTION FROM WAGES</p> <p>55 55. OTHER</p> <p>66 66. NOTHING/EARN LESS MONEY/REPUTATION WOULD SUFFER</p> <p>77 77. DON'T KNOW</p> <p>99 99. REFUSED</p>
S5Q10A_OTHER (required)	S5Q10A_OTHER. RECORD OTHER <i>Question relevant when: selected(\${S5Q10A} , '55')</i>	

Field	Question	Answer
S5Q11 (required)	<p>S5Q11.</p> <p>How many days do (did) you usually work each week?</p>	<p>1 1 DAY</p> <p>2 2 DAYS</p> <p>3 3 DAYS</p> <p>4 4 DAYS</p> <p>5 5 DAYS</p> <p>6 6 DAYS</p> <p>7 7 DAYS</p> <p>77 77. DON'T KNOW</p> <p>99 99. REFUSED</p>
S5Q12 (required)	<p>S5Q12.</p> <p>Are you required to work non-stop without breaks during the working day?</p>	<p>1 1. YES</p> <p>2 2. NO</p> <p>77 77. DON'T KNOW</p> <p>99 99. REFUSED</p>
S5Q13 (required)	<p>S5Q13.</p> <p>Can you raise concerns about your working conditions without fear of retaliation?</p>	<p>1 1. YES</p> <p>2 2. NO</p> <p>77 77. DON'T KNOW</p> <p>99 99. REFUSED</p>
S5Q15 (required)	<p>S5Q15.</p> <p>Does your employer or recruiter do anything to keep you from quitting your job?</p> <p><i>Question relevant when: \${S1Q09} = 1</i></p>	<p>1 1. YES</p> <p>2 2. NO</p> <p>77 77. DON'T KNOW</p> <p>99 99. REFUSED</p>
S5Q15A (required)	<p>S5Q15A.</p> <p>How does (did) your employer or recruiter keep you from quitting your job?</p> <p><i>INTERVIEWER: SELECT ALL THAT APPLY. ASK "Anything else?" AT LEAST TWICE BEFORE MOVING ON.</i></p> <p><i>Question relevant when: \${S5Q15} = 1</i></p>	<p>1. THREATS OF OR SUBJECTION TO PHYSICAL VIOLENCE</p> <p>1 AGAINST RESPONDENT OR RESPONDENT'S FAMILY BY EMPLOYER/RECRUITER</p> <p>2. RESTRICTION ON</p> <p>2 RESPONDENT'S MOVEMENT</p> <p>3. DEBT BONDAGE OR</p> <p>3 MANIPULATION OF DEBT (DEBT TO EMPLOYER/RECRUITER)</p> <p>4 4. WITHHOLDING OF WAGES</p> <p>5 5. WITHHOLDING OF VALUABLE DOCUMENTS</p> <p>7 7. THREAT OF LOSS OF HOUSING/LAND</p>

Field	Question	Answer
		55 55. OTHER 66 66. NO COERCION ("NEEDED JOB, COULDN'T QUIT") 77 77. DON'T KNOW 99 99. REFUSED
S5Q15A_OTHER (required)	S5Q15A_OTHER. RECORD OTHER <i>Question relevant when: selected(\${S5Q15A} , '55')</i>	
S5Q16	S5Q16. What is the name of the place where you work (worked) for the job we've been talking about? <i>[INTERVIEWER: RECONFIRM CONFIDENTIALITY IF NEEDED.]</i>	
S5Q17	S5Q17. Where is your workplace located? <i>INTERVIEWER: RECORD AS MUCH DETAIL AS POSSIBLE.</i>	
willingtonrefer (required)	We are interested in interviewing other palm plantation workers. We would like to ask you about people you may know. If you refer a person who completes an interview, we will provide you with a phone recharge of Q50 and that person will also receive a recharge. You can give us their contact information, or we can give you a coupon to share with them. Are you interested? <i>Question relevant when: \${complete} = 1</i>	1 YES 2 NO
numbertorefer (required)	How many people would you like to refer? You can refer up to 3. <i>Question relevant when: selected(\${willingtonrefer} , '1')</i>	0 0 1 1 2 2 3 3

Field	Question	Answer
numbertorefer_group		
pn1_name (required)	<p>Could you please tell me the first names of these people?</p> <p>INTERVIEWER: IF RESPONDENT HESITATES OR YOU SENSE A REFUSAL COMING SAY: I don't need their full name. Just some way to refer to them, such as their first name, initials, or nickname.</p> <p>INTERVIEWER, WRITE NAME OF FIRST REFERRAL.</p> <p>Question relevant when: $\\${numbertorefer} > 0$</p>	
pn2_name (required)	<p>WRITE NAME OF SECOND REFERRAL</p> <p>Question relevant when: $\\${numbertorefer} > 1$</p>	
pn3_name (required)	<p>WRITE NAME OF THIRD REFERRAL</p> <p>Question relevant when: $\\${numbertorefer} > 2$</p>	
pn1_oktocontact (required)	<p>Would you be willing to give us [pn1_name]'s contact information?</p> <p>Question relevant when: $\\${numbertorefer} > 0$</p>	<p>1 YES</p> <p>2 NO</p>
pn1_contactinfo (required)	<p>What is the phone number of [pn1_name]?</p> <p>Question relevant when: $\\${pn1_oktocontact} = 1$</p>	
pn1_useRname (required)	<p>Can we use your name when we contact [pn1_name]?</p> <p>Question relevant when: $\\${pn1_oktocontact} = 1$</p>	<p>1 YES</p> <p>2 NO</p>
pn1_knowsRas (required)	<p>What name does [pn1_name] know you by?</p> <p>Question relevant when: $\\${pn1_useRname} = 1$</p>	
pn1_lang (required)	<p>What language(s) does [pn1_name] speak?</p>	<p>1 SPANISH</p> <p>3 Q'EQCHI'</p>

Field	Question	Answer
	<p>Question relevant when: $\{pnI_oktocontact\} = 1$</p>	55 OTHER
pnI_papercoupon	<p>No problem. Here is a coupon you can give to [pnI_name].</p> <p>INTERVIEWER, GIVE RESPONDENT COUPON #I AFTER ADDING COUPON CODE AND EXPIRATION.</p> <p>Coupon #I for Worker Study More info call: 5308-5160 for Spanish; 5377-3797 for Q'eqchi' ID: -01-10-17-54-01 Expiration: 17 Jan 2025 Q50 PHONE RECHARGE IF ELIGIBLE *Compensation not guaranteed* Question relevant when: $\{pnI_oktocontact\} = 2$ and $\{mode\} = 2$</p>	
textcoupon_pnI (required)	<p>Can I text you a coupon you can share with [pnI_name]?</p> <p>Question relevant when: $\{pnI_oktocontact\} = 2$ and $\{mode\} = 1$</p>	<p>1 YES 2 NO</p>
Rphonenum (required)	<p>What phone number should I send it to?</p> <p>Question relevant when: $\{textcoupon_pnI\} = 1$</p>	
coupon_pnI	<p>INTERVIEWER SAY: I am sending you a phone number, ID number, and expiration date. Please share this information with [pnI_name]. When [pnI_name] calls us, he will need to give the ID number. Let [pnI_name] know he will receive Q50 for completing the interview if he is eligible.</p> <p>TEXT THE INFORMATION BELOW TO [Rphonenum].</p>	

Field	Question	Answer
	<p>Coupon for [pn1_name] Telephone: 5308-5160 ID number: -01-10-17-54-01 Expiration: 17 Jan 2025 Question relevant when: \${textcoupon_pn1} = 1</p>	
couponinfo_pn1	<p>We're very interested in speaking to [pn1_name]. Please consider given them our study phone number. Are you ready to write it down? If [pn1_name] is interested in participating, they can call us at 5308-5160. They will need to have the following ID number: -01-10-17-54-01 and call within one week. Question relevant when: \${textcoupon_pn1} = 2</p>	
pn2_oktocontact (required)	<p>Would you be willing to give us [pn2_name]'s contact information? Question relevant when: \${numbertorefer} > 1</p>	<p>1 YES 2 NO</p>
pn2_contactinfo (required)	<p>What is the phone number of [pn2_name]? Question relevant when: \${pn2_oktocontact} = 1</p>	
pn2_useRname (required)	<p>Can we use your name when we contact [pn2_name]? Question relevant when: \${pn2_oktocontact} = 1</p>	<p>1 YES 2 NO</p>
pn2_knowsRas (required)	<p>What name does [pn2_name] know you by? Question relevant when: \${pn2_useRname} = 1</p>	
pn2_lang (required)	<p>What language(s) does [pn2_name] speak? Question relevant when: \${pn2_oktocontact} = 1</p>	<p>1 SPANISH 3 Q'EQCHI' 55 OTHER</p>

Field	Question	Answer
pn2_papercoupon	<p>No problem. Here is a coupon you can give to [pn2_name].</p> <p>INTERVIEWER, GIVE RESPONDENT COUPON #2 AFTER ADDING COUPON CODE AND EXPIRATION.</p> <p>Coupon #2 for Worker Study More info call: 5308-5160 ID: -01-10-17-54-02 Expiration: 17 Jan 2025 Q50 PHONE RECHARGE IF ELIGIBLE Compensation not guaranteed Question relevant when: \${pn2_oktocontact} = 2 and \${mode} = 2</p>	
pn2_textcoupon (required)	<p>Can I text you a coupon you can share with [pn2_name]?</p> <p>Question relevant when: \${pn2_oktocontact} = 2 and \${mode} = 1</p>	<p>1 YES 2 NO</p>
coupon_pn2	<p>INTERVIEWER SAY: I am sending you a phone number, ID number, and expiration date. Please share this information with [pn2_name]. When [pn2_name] calls us, he will need to give the ID number. Let [pn2_name] know he will receive Q50 for completing the interview if he is eligible.</p> <p>TEXT THE INFORMATION BELOW TO [Rphonenumber].</p> <p>Coupon for [pn2_name] Telephone: 5308-5160 ID number: -01-10-17-54-02 Expiration: 17 Jan 2025 Question relevant when: \${pn2_textcoupon} = 1</p>	

Field	Question	Answer
couponinfo_pn2	<p>We're very interested in speaking to [pn2_name].</p> <p>Please consider given them our study phone number. Are you ready to write it down?</p> <p>If [pn2_name] is interested in participating, they can call us at 5308-5160.</p> <p>They will need to have the following ID number: -01-10-17-54-02 and call within one week.</p> <p>Question relevant when: $\\${pn2_textcoupon} = 2$</p>	
pn3_oktocontact <i>(required)</i>	<p>Would you be willing to give us [pn3_name]'s contact information?</p> <p>Question relevant when: $\\${numbertorefer} > 2$</p>	<p>1 YES</p> <p>2 NO</p>
pn3_contactinfo <i>(required)</i>	<p>What is the phone number of [pn3_name]?</p> <p>Question relevant when: $\\${pn3_oktocontact} = 1$</p>	
pn3_useRname <i>(required)</i>	<p>Can we use your name when we contact [pn3_name]?</p> <p>Question relevant when: $\\${pn3_oktocontact} = 1$</p>	<p>1 YES</p> <p>2 NO</p>
pn3_knowsRas <i>(required)</i>	<p>What name does [pn3_name] know you by?</p> <p>Question relevant when: $\\${pn3_useRname} = 1$</p>	
pn3_lang <i>(required)</i>	<p>What language(s) does [pn3_name] speak?</p> <p>Question relevant when: $\\${pn3_oktocontact} = 1$</p>	<p>1 SPANISH</p> <p>3 Q'EQCHI'</p> <p>55 OTHER</p>
pn3_papercoupon	<p>No problem. Here is a coupon you can give to [pn3_name].</p> <p>INTERVIEWER, GIVE RESPONDENT COUPON #3 AFTER ADDING COUPON CODE AND EXPIRATION.</p>	

Field	Question	Answer
	<p>Coupon #3 for Worker Study More info call: 5308-5160 ID: -01-10-17-54-03 Expiration: 17 Jan 2025 Q50 PHONE RECHARGE IF ELIGIBLE Compensation not guaranteed Question relevant when: $\\${pn3_oktocontact} = 2$ and $\\${mode} = 2$</p>	
pn3_textcoupon (required)	<p>Can I text you a coupon you can share with [pn3_name]? Question relevant when: $\\${pn3_oktocontact} = 2$ and $\\${mode} = 1$</p>	<p>1 YES 2 NO</p>
coupon_pn3	<p>INTERVIEWER SAY: I am sending you a phone number, ID number, and expiration date. Please share this information with [pn3_name]. When [pn3_name] calls us, he will need to give the ID number. Let [pn3_name] know he will receive Q50 for completing the interview if he is eligible.</p> <p>TEXT THE INFORMATION BELOW TO [Rphonenumber].</p> <p>Coupon for [pn3_name] Telephone: 5308-5160 ID number: -01-10-17-54-03 Expiration: 17 Jan 2025 Question relevant when: $\\${pn3_textcoupon} = 1$</p>	
couponinfo_pn3	<p>We're very interested in speaking to [pn3_name]. Please consider given them our study phone number. Are you ready to write it down? If [pn3_name] is interested in participating, they can call us at 5308-5160.</p>	

Field	Question	Answer
	<p>They will need to have the following ID number: -01-10-17-54-03 and call within one week.</p> <p><i>Question relevant when:</i> $\\${pn3_textcoupon} = 2$</p>	
share_ph (required)	<p>Do you want to share your phone number so that we can contact you to let you know if you are owed any credits for helping us find additional participants? If not, I can give you our study phone number and you can call us in 2 weeks.</p> <p><i>Question relevant when:</i> $\\${numbertorefer} > 0$</p>	<p>1 YES I WILL SHARE MY NUMBER</p> <p>2 NO I WILL NOT SHARE MY NUMBER</p>
Rphonenumber_2 (required)	<p>What is your phone number?</p> <p><i>Question relevant when: selected(</i> $\\${share_ph}, '1')$</p>	
respondentIDforcoupon_disp	<p>To find out if you are owed any credits for helping us find additional participants, you'll need to call us in 2 weeks and give us your unique respondent number. If you lose this number, we won't be able to check if you are owed anything. Are you ready to write it down?</p> <p>Study phone number: 5308-5160; Q'eqchi' tel. 5377-3797 ID: OGWHJXX</p> <p><i>Question relevant when:</i> $\\${numbertorefer} > 0$</p>	
resp_name	<p>Would you mind sharing your name to help keep track of the recommendations? I don't need your full name, just your first name, initials, or nickname.</p> <p>INTERVIEWER: LEAVE BLANK IF RESPONDENT DECLINES.</p> <p><i>Question relevant when:</i> $\\${numbertorefer} > 0$</p>	

Field	Question	Answer
noFL	<p>-NO-</p> <p>Question relevant when: $\{\{forcedlabor\}\} = 0$</p>	
yesFL	<p>-YES-</p> <p>Question relevant when: $\{\{forcedlabor\}\} = 1$</p>	
<p>CONSENT_2 (required)</p>	<p>Thank you very much for answering these questions. If you are willing, we'd like to ask you more about your experiences. This part of the interview will be more of a conversation, so we can learn more about your work and living conditions from your own perspective.</p> <ul style="list-style-type: none"> • As we discussed before, your participation in this study is voluntary. If you choose to talk with me, you can choose to not answer some questions or end the interview at any time. • The interview will take about 30 more minutes. • Do you have any questions? [IF YES, ANSWER BEFORE CONTINUING] • Do you agree to participate in this interview? <p>Question relevant when: $\{\{complete\}\} = 1$</p>	<p>1 YES</p> <p>2 NO</p>
<p>CONSENT_2_record (required)</p>	<p>I would like to ask your permission to record this interview.</p> <p>The audio recordings will not be shared with anyone. The recordings will be kept safely in a locked facility until they are transcribed word for word, then they will be destroyed. The transcribed notes will not contain any names or information that will identify</p>	<p>1 YES</p> <p>2 NO</p>

Field	Question	Answer
	<p>you.</p> <p>May I record the interview to facilitate my recollection? (If yes, switch on the recorder).</p> <p><i>Question relevant when: selected({CONSENT_2}, '1')</i></p>	
RESPONDENTID_DISPLAY	<p>UNIQUE ID: OGWHJXX</p> <p><i>Question relevant when: selected({CONSENT_2}, '1')</i></p>	
RECORDING_PROMPT	<p>START RECORDING</p> <p><i>Question relevant when: selected({CONSENT_2_record}, '1')</i></p>	

GUATEMALA WORKER INTERVIEW

Interviewer:	Date (DD/MM/YY)
Location of interview:	
Name:	Sex:
Profession (if applicable):	
Position (if applicable):	
Employer/Affiliated Institution/Organization (if applicable):	
Contact information (office address, phone number, email):	
Time interview started:	
Time interview ended:	

Interviewer Instructions

Foster a dynamic conducive to gathering good data. The interview should have the relaxed feel of a conversation. Set the tone by using a slow pace in your speech.

Ask one question at a time. Give the respondent ample time to reflect and fully respond before moving to the next. Try not to interrupt, and do not answer on their behalf.

If the respondent agrees to be recorded, give them your full attention. Make note of any follow-up questions you want to remember to ask, but otherwise focus on the respondent rather than your paper.

Probe for more depth, particularly when responses are brief. Use phrases such as, “Tell me more about that” and “Can you give me an example?” Aim to get specific instances, in considerable detail, whenever possible.

You do not have to ask each question verbatim, but at least broach all the topics covered that are relevant to the worker by the guide. If a respondent makes clear they have no knowledge of that topic, move on to the next. Adapt the flow and questions to make them relevant to the respondent.

For each item, ask the general question first, and then probe the sub-items that have not been addressed spontaneously.

Introduction

1. Could you please tell me about your work?
 - a. How long have you been doing it?
 - b. Please tell me about a typical workday.
2. Do you know where the palm goes after it leaves your workplace?
 - a. How is it sold?
 - b. How is it transported before/after sale?
 - c. Who buys it?
3. What products in your (village/town/city) contain palm oil?
 - a. Is there any way to know if it contains palm oil from your workplace?

4. Do you ever buy products containing palm oil?
 - a. Tell me more about what you purchase and how you use it.

Recruitment and Contracts

5. How did you first hear about your current job?
6. Can you please explain how you got this job?
 - a. Was a recruiter involved?
 - i. If so: was the recruiter your employer or someone else?
 - ii. If so: was there a recruitment fee?
 - I. If yes: How much and how did you pay it?
 - iii. Did you take on any debt during recruitment?
 - I. If so please explain what the debts are for, who they are to, and how much you owe.
7. Were you compelled to take this job for any reason?
 - a. If so, please explain: (POSSIBLE REASONS TO PROBE FOR: SLAVERY, DEBT BONDAGE, PHYSICAL FORCE)
8. Did you take this job because of any debts that you have?
 - a. Are these debts from before this job or after? Please explain?
 - b. (IF PREVIOUSLY MENTIONED RECRUITMENT DEBTS) Are these the same debts from recruitment you mentioned before?
9. Do you have to work to pay off any wage advances you received from the recruiter or your employer?
 - a. Please explain the amount you received and how much you need to repay
 - b. Did you reach an agreement with your employer or recruiter about how and when you will repay the advance?
10. Do you have a contract with current employer?
 - a. IF YES: Were you given a chance to read it? Did you understand it? Do you have a copy of it?
 - b. IF NO: Do you have a verbal agreement?
11. Does your day to day work match what was in your contract / your agreement? Does it match what you were originally promised (EXAMPLES: wage, location, type of work)?
 - a. Please explain.
 - b. Do you feel that you were tricked into taking a job that is worse than what you agreed to do when you were recruited / hired? If so please explain how it is worse.
 - i. Would you have taken this job if you had not been tricked? Please explain.
12. Does your employer honor your contract? Please explain.
 - a. In what ways do you feel that your contract has been violated? How often?
13. Does your employer hold any of your personal documents (passport, identity or immigration documents, etc.)?
 - a. IF YES Who keeps them and why? Can you access them if needed?

Working Conditions

14. How would you describe your overall working conditions?
 - a. If you had known about the conditions of your workplace would you still have taken this job?
15. Please describe your relationship with your employer
 - a. Have you ever experienced any harassment, abuse, or threats by your employer? Tell me more about that.

- b. Have you seen any other workers experience any harassment, abuse, or threats? Can you tell me about one example?
16. How do you feel about workload?
- a. What is your daily target?
 - b. Do you have enough time during your normal hours to do your work?
 - c. Does your employer do anything to make you work harder or faster? (PROBE FOR VIOLENCE, THREATS OR WAGE DEDUCTIONS)
 - d. What happens when workers want to stop working before they meet their target / workload? (PROBE FOR PENALTIES / THREATS)
17. Do you work overtime? If so, how often? For how many hours?
- a. Are you paid for your overtime work?
 - b. Could you turn down overtime if you wanted to? How would / has your employer responded if you turned down overtime?
18. Can you tell me how you are paid? (PROBE: cash, mobile transfer, bank transfer)
- a. Who pays you?
 - b. How much are you paid and how often?
 - i. Is this always the same or does it change? Are your payments ever late? If so please explain.
 - l. If your payments are late or less than agreed have you talked to your employer about it? Please explain what happened if you did.
 - c. Are you paid by piece-rate?
 - d. Do you think you are paid fairly for the work you do? Please explain.
19. What are the most hazardous (dangerous) parts of your job? How often do you do these things?
- a. Was it clear you would do these things before you started the job?
 - b. Have you ever refused any task because of danger? ((PROBE FOR THE SPECIFIC THREAT / ACTION TAKEN)
 - c. Are you given proper safety equipment to do these tasks? What equipment do you have? Is it good quality?
 - d. What effects have these tasks had on your health?
20. Have you ever been injured on the job? Please explain.
- a. What happens if you do not go to work because you are sick or injured? (PROBE FOR THREATS / EXPERIENCING: VIOLENCE, WAGE DEDUCTIONS/WITHHOLDING, JOB LOSS, DEPORTATION, ETC.)
21. Have you taken on any debts from your employer? (PROBE: recruitment fee, pay advance, fees for purchase or using tools or uniforms, employer paid off debt on respondent's behalf, purchases at company-owned store)
- a. If so please explain to whom, in exchange for what, and the amount of the debt.
 - b. How long have you had this debt? How are you repaying it?
 - c. What are the terms of your debt (interest, etc) and do you think they are fair? Please explain.
22. Can you tell me about any breaks you receive during your day such as for meals or to use the bathroom?
- a. Has your employer ever threatened you or your family or done something to you or your family to stop you from taking a break? How often?
23. If you had to leave work for the day for any reason, could you?
- a. Has your employer ever threatened you or your family or done something to you or your family to stop you from doing this?
 - i. (PROBE FOR THE SPECIFIC THREAT / ACTION TAKEN)

24. Do you know what the conditions are for ending your contract if you want to leave?
 - a. Have you seen anyone be punished for ending or wanting to end their contract?
 - b. Have you ever tried to end your contract?
 - i. If so, did your employer or recruiter say or do anything to try and stop you from leaving? Please explain what happened.
25. If you are unhappy about your wages, working conditions, hours, etc, is there anywhere you can report your complaints? Please explain.
 - a. How has your employer reacted to worker complaints in the past?

Living Conditions

26. Do you live in any form of employer provided housing? IF YES:
 - a. Did you choose to do so or was it required by your employer? Please explain.
 - b. Do you have to pay for the housing?
 - c. Can you describe it to me (or draw it)?
 - i. How many people do you share it with? Are they family or others?
 - ii. Do you have access to drinkable water?
 - iii. What kind of sanitation facilities does it have?
 - iv. Do you feel safe in your home? Why or why not?
 - d. If you had known about the housing conditions, would you still have taken this job? Please explain.
27. (IF LIVES IN EMPLOYER HOUSING) Are you able to leave your housing during non-working hours? Are there times when you cannot leave? Please explain.
28. (IF LIVES IN EMPLOYER HOUSING) If you were to leave your job how soon would you have to leave your housing?
29. (IF LIVES IN EMPLOYER HOUSING) Where do you buy food and clothing?
 - a. Do you ever buy these items with credit? Under what terms?

Conclusion

30. Is there anything else about your working or living conditions you'd like to add?

LABOR RIGHTS AND LABOR CONDITIONS KEY INFORMANT INTERVIEW—INTERVIEW PROTOCOL

Interviewer:	Date (DD/MM/YY)
Location of interview:	
KII code:	Sex:
Profession (if applicable):	
Position (if applicable):	
Employer/Affiliated Institution/Organization (if applicable):	
Contact information (office address, phone number, email):	
Time interview started:	
Time interview ended:	

Interviewer Instructions

Foster a dynamic conducive to gathering good data. The interview should have the relaxed feel of a conversation. Set the tone by using a slow pace in your speech.

Ask one question at a time. Give the respondent ample time to reflect and fully respond before moving to the next. Try not to interrupt, and don't answer on their behalf.

If the respondent agrees to be recorded, give them your full attention. Make note of any follow-up questions you want to remember to ask, but otherwise focus on the respondent rather than your paper.

Probe for more depth, particularly when responses are brief. Use phrases such as, "Tell me more about that" and "Can you give me an example?" Aim to get specific instances, in considerable detail, whenever possible.

You do not have to ask each question verbatim, but at least broach all the topics covered that are relevant to the key informant. If a respondent makes clear they have no knowledge of that topic, move on to the next. Adapt the flow and questions to make them relevant to the respondent.

For each item, ask the general question first, and then probe the sub-items that have not been addressed spontaneously.

Introduction Questions (KIIs)

- I. Could you please tell me your role and what you focus on?
 - a. Is there another experience you have in relation to the palm industry?

- b. Can you describe your organization's work directly related to workers' rights in the palm industry in Guatemala?
- 2. What is your overall impression of working conditions in the palm industry?
 - a. What are the main issue areas you are aware of?
 - b. What do you think of worker-employer relations in the industry?

Recruitment

- 3. How do individuals become employed in the palm industry and what recruitment methods are used by employers?
 - a. (PROBE AS RELEVANT): How common is employment through a third-party recruiter such as a subcontractor or through an employment agency? If there is no recruitment, how do plantations secure palm workers? Please explain.
 - b. Are you aware of any fees / the typical amount associated with the use of recruiters in the palm industry?
- 4. Are promises made to workers a part of the recruitment methods used? If so what kinds of promises?
 - a. In your opinion/experience are those promises being met?
- 5. Do workers in the palm industry typically have a written contract, a verbal contract or no contract?
 - a. If written, do workers usually understand the contents of the contract? (Probes: WRITTEN IN A LANGUAGE THE WORKER CAN UNDERSTAND; WORKER IS LITERATE OR ALLOWED TO HAVE SOMEONE READ IT; WORKER IS GIVEN SUFFICIENT TIME TO EXAMINE THE CONTRACT)
 - b. If a non-written contract, who receives payment for palm? How is payment distributed among workers? What ages are the workers who receive payment?
- 6. Are you aware of any reports of anyone being sold or taken by force to work in the palm industry?

Earnings, Hours, Benefits, and Debt

- 7. In your experience, what are the key issues that workers face in terms of their wages and benefits in the palm industry? (EXAMPLES INCLUDE: LOW WAGES, WITHHELD WAGES, WAGE DEDUCTIONS, ETC.)
 - a. How and how often are workers paid?
- 8. Are workers paid according to a piece rate or quota system?
 - a. If so: what are the typical targets and are those targets reasonable/achievable?
- 9. How many hours does an average worker typically work? Do they receive pay for all these hours?
 - a. How common is it for workers to work overtime or past their agreed hours?
 - b. What happens to workers if they refuse to work overtime?
- 10. How common is it for workers in the palm industry to be in debt to employers or recruiters?
 - a. What kinds of borrowing and pay-back arrangements have you seen?
 - b. How often are workers unable to leave their jobs because of debt to an employer or recruiter?
- 11. If workers work on a palm plantation, how many workers are required to harvest one hectare?

Working Conditions, Hazardous Work, and Coercion

- 12. I am interested in learning more about the working conditions in the palm industry. Could you give me an overview?

13. Are you aware of any exploitative conditions in the industry? [IF SO] What are the main risk factors for labor exploitation in the palm industry?
 - a. What factors make a worker in this sector more vulnerable to exploitation?
 - i. (PROBE FOR SPECIFICS ON DEMOGRAPHICS – AGE RANGE, SEX, MIGRATORY STATUS)
 - b. In what parts of the industry and its supply chain is labor exploitation most present / visible?
 - i. What are the risk factors at each stage (particularly harvest and processing)
 - ii. Are you aware of any specific companies that are particularly exploitative? Please explain. (PROBE FOR FURUKAWA AND CURRENT WORKING CONDITIONS IN THE COMPANY)
 - iii. (IF FURUKAWA IS MENTIONED), are there any of the working conditions in Furukawa also seen in other plantations or companies and/or the sector as whole?
 - iv. Are there any plantations or companies that are known to you personally, or by reputation, that do not exploit labor as others in the industry?
14. What are the most common hazards workers face in the palm industry?
 - a. In your understanding, are there sufficient health and safety standards in place in the palm industry? Please explain.
15. Have you heard about or witnessed coercion or threats from employers towards workers in the palm industry? How common is this?
 - a. Please explain the specific situations when this occurs and any types of workers more likely to experience it.
16. Do workers who leave or attempt to leave their job face any negative consequences from their employers? Have you heard of workers being unable to leave their jobs if they wanted? [IF YES] How common is this?

Surveillance and Living Conditions

17. What kind of involvement do employers have in workers' lives outside of work?
18. How do workers access goods and services to meet their basic needs?
 - a. Are workers reliant on employers for these items? Please explain.
 - i. Are workers provided with these items on credit? Under what conditions?
19. By your estimation what proportion of workers live in employer-provided housing?
 - a. Is this housing free or is there a fee? If a fee, how much?
 - b. Can those workers come and go freely outside of working areas – including into the nearest town or village?
 - c. Are workers able to live somewhere outside of employer-provided housing if they wanted? Please explain why or why not.
20. (SKIP IF NOT IN EMPLOYER PROVIDED HOUSING) Can you describe the living conditions of those in employer provided housing? (PROBE FOR: ACCESS TO WATER, ELECTRICITY, HEATING, SIZE, CONSTRUCTION MATERIALS, NUMBER OF FAMILIES/PERSONS TO A HOME, ETC.)
21. Have you heard of situations where employers monitor or limit the communications of their workers? Please explain.
22. Have you heard of employers or recruiters holding workers' identity documents? [IF YES] How common is this?
 - a. How are workers able to regain or access their documents?

Grievance Procedures and Industry/Government Initiatives

23. What level of understanding do workers have of their rights? Please explain and identify any areas where awareness is low.
24. What mechanisms are available to workers for submitting grievances?
 - a. Are workers likely or able to access those mechanisms? Why or why not?
 - b. How common is it for workers to experience retaliation for doing so? Please explain.
25. Besides your own organization, what other entities are actively working to improve labor conditions?
 - a. PROBE FOR GOVERNMENT EFFORTS, INDUSTRY EFFORTS, AND UNION EFFORTS
 - b. How effective have these efforts been and what key gaps (e.g. policy) remain for protecting workers' rights and improving their working conditions?
26. We would like to hear about efforts being made in the country to combat forced labor. What initiatives exist? What services are provided?
 - a. PROBE: government, private sector, civil society
 - b. What gaps are there between what is available and what's needed?

Child Labor

27. Are you aware of children under age 18 working in the palm industry?
 - a. If so, how common is this? In which steps and activities is it occurring? What are the drivers of child labor in the industry?

Conclusion

28. Who are the main stakeholders in the palm industry of Guatemala involved in the sale and processing of palm oil using forced labor?
29. What types of (downstream) goods are being produced from palm oil obtained through forced labor?
30. Could you suggest any organizations or individuals that are well-informed about the palm industry supply chain or forced labor in the industry that we could interview?
31. Is there anything else you'd like to add?

SUPPLY CHAIN KEY INFORMANT INTERVIEW—INTERVIEW PROTOCOL

Interviewer:	Date (DD/MM/YY)
Location of interview:	
KII code:	Sex:
Profession (if applicable):	
Position (if applicable):	
Employer/Affiliated Institution/Organization (if applicable):	
Contact information (office address, phone number, email):	
Time interview started:	
Time interview ended:	

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For each item, ask the general question first, and then probe the sub-items that have not been addressed spontaneously.

Introduction Questions (KIIs)

1. Could you please tell me your role and what you focus on?
 - a. Is there another experience you have in the palm industry?
2. Can you describe your organization's work directly in the palm industry?
 - a. PROBE FOR WHAT KIND OF ACTIVITIES IN THIS AREA DO YOU AND YOUR ORGANIZATION UNDERTAKE?

Supply Chain Theme General

3. Could you please tell me how the production of palm oil works in Guatemala?
 - a. What laws and regulations are central to operations in the palm industry?
4. How important is the palm industry to Guatemala? How important is it to the regions within Guatemala, such as the North, South and Northeast regions
 - a. Are most plantations large-scale or small-scale? What is the average size of palm plantations?
 - b. What has/have been the most significant change(s) to the industry in the last few years? Please explain.
5. Have there been any recent socio-political events that have impacted the supply chain? Please explain.
 - a. How have they impacted your company/plantation?
6. Who are the major stakeholders and influencers in the palm industry?

Production

7. Could you please describe the production process of palm oil from the beginning to the end? Where do you or your company/plantation become involved in that process?
 - a. How are these goods transported from one location to the next? How does your company transport/receive the good?
8. After harvesting and processing, what processing occurs in Guatemala?
 - a. What about specifically in your province/city? Where are the main processing areas (PROBE FOR GEOGRAPHY)?
 - b. What goods (including byproducts and downstream goods) are produced in-country? Of these, which are the most common (or produced) by your company/plantation?
 - c. Is palm oil from Guatemala consumed domestically or for export? Please explain.
9. Is there a list of production sites, warehouses, or processing facilities in Guatemala? How would we be able to access it?
 - a. Probe if participant is willing to share the information of who to contact to get access.
 - b. (IF PROCESSOR ASK) Do you have a list of production sites that are a part of your supply chain? Tell me more about how that list is updated/maintained.
 - c. (IF TRADER ASK) Do you have a list of production sites or processing facilities that you sell to? Tell me more about how that list is updated/maintained.

Tracing and Due Diligence

10. What types of products does palm oil from Guatemala end up in? (PROBE FOR BOTH INTERMEDIARY GOODS AND FINISHED/END GOODS)? (IF APPLICABLE: WHICH OF THOSE GOODS DOES YOUR COMPANY MAKE?)
11. How might one track palm oil originating at a particular farm through the domestic supply chain?
 - a. Could you walk us through how your company does this?
 - b. Is there a point in the supply chain where you anticipate tracking would no longer be possible? (PROBE FOR SPECIFICS ON WHAT STAKEHOLDER THE TRACEABILITY ENDS WITH, EX: INTERMEDIARY BUYER, EXPORTER, ETC.)
 - i. (SPECIFIC PROBE) When does the mixing of palm oil from different sites occur, how does mixing occur?
12. What oversight is being conducted by the government when it comes to labor standards within the palm industry and its supply chain. How does this impact your company?

- a. PROBE FOR SPECIFICS ON WHAT THE INITIATIVES ARE AND WHO IS PROMOTING THEM (E.G. GOVERNMENT, INTERNATIONAL CORPORATIONS, DOMESTIC COMPANIES))
 - b. What about any supply chain traceability initiatives specifically? Please explain the stakeholders involved, including your own company.
 - c. What are the different certifications available for companies in the supply chain and how common are they?
 - i. How are these certifications monitored/approved and is your company a part of any of them? If so, please explain how you got approved and how you are monitored for compliance.
13. What due diligence initiatives does your company participate in to monitor labor conditions on the (site type) you source from?
- a. (IF NOT ANSWERED IN PREVIOUS QUESTION) What supply chain or industry certifications does your company currently have? Can you please explain the process involved in obtaining the certification(s) and how you are monitored for compliance?
 - i. (IF NOT ANSWERED IN PREVIOUS QUESTION) Are you actively working to obtain any additional certifications in the near future? Please tell me more about that.

Sourcing Questions for Buyers (Middlemen, Traders, and Processors)

14. Where do you source your palm oil from?
- a. PROBE (geographical region, names of sites, etc.) PROBE SPECIFICALLY FOR SAMPLE AREA
 - b. Please explain your sourcing process (buying method, transportation process, etc.)
 - c. Do you keep the palm oil you buy from each source separate and at what point do you combine palm oil from multiple sources? Please explain.
15. How often do you source palm oil from these places within (SAMPLE AREA)?
- a. Are there times of the year when this changes? Please explain.
 - b. How do you determine how much you buy from a source?

(IF NOT COVERED PREVIOUSLY) Who are your primary buyers domestic and/or international of envelopes/ropes/ twines/fishing lines/nets?

- c. PROBE (regions, companies, countries, specific industry)

Post Export Questions

16. How would you describe the role of palm oil exports from Guatemala in the global trade of palm oil?
- a. What are some international markets?
 - i. Are there any recent changes (emerging/declining) in these markets? (PROBE FOR COUNTRIES AND/OR COMPANIES)
17. Who are the major players/stakeholders in (import country of focus) that import palm oil from Guatemala? Please explain.
- a. Who are the major exporters and importers involved in this? Can you describe in what product form the good is exported to Guatemala?
 - b. Are you aware of situations where the importing company in (import country of focus) is formally connected to the exporter in Guatemala? (PROBE FOR CONTRACTS, OWNERSHIP, PART OF SAME LARGER COMPANY, ETC.)
18. Does (import country of focus) produce palm oil domestically?
- a. How have changes in domestic production impacted/changed imports of palm oil?

- b. At what stage do palm oil imports become mixed with domestically produced palm oil?
19. Does the downstream use of palm oil imported from Guatemala differ from the downstream use of domestically produced palm oil?

Labor Questions

20. Are there any estimates of the total number of people employed in the industry? Please describe.
- a. What is the estimate for the percentage of workers who are working at small- versus large-scale plantations?
21. What is your overall impression of working conditions in the palm industry?
- a. What are the main issues you are aware of?
22. What can you tell us about labor standards in the palm industry, especially when it comes to plantations?
- a. What are the primary concerns across the industry when it comes to labor standards?
 - b. How are labor standards enforced at your workplace and who enforces them?
23. During which stages of the palm oil supply chain are risks for labor exploitation most prevalent?
- a. What are the risk factors at each stage?
24. How does the amount of capital available to support workers vary between large- and small-scale producers?
25. What are the barriers to further mechanization in the industry? How might mechanization affect the demand for labor in the future?

Conclusion

26. Could you suggest any organizations or individuals that are well-informed about the palm oil supply chain or working conditions in the industry that we could interview?
- a. (IF APPLICABLE BASED ON RESPONDENT TYPE: PROBE IF THE INDIVIDUAL HAS ANY ADDITIONAL REPORTS OR DATA THEY ARE ABLE TO SHARE SUCH AS ANY LISTS MENTIONED IN QUESTION 9)
27. Is there anything else you'd like to add?