



# Colombian and Ecuadorian Palm Oil Market and Value Chain Analysis





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# Executive Summary



This report examines the world market for palm oil, the Colombian and Ecuadorian supply chains through which palm oil is produced and sold, and the competitive positions of Colombian and Ecuadorian palm oil in domestic and world markets with the end purpose of understanding business incentives and potential obstacles for producing palm oil under acceptable conditions and free of child labor and forced labor, particularly for small and medium-size enterprises. The findings and conclusions presented in this Executive Summary are based on more detailed analyses presented and/or referenced in the main body of this report.

## Principal findings

1. Modest price premiums are the primary short term business incentives for producing palm oil under acceptable conditions of work, free of child labor and forced labor (social compliance), and meeting relevant standards on deforestation, greenhouse gas emissions, the destruction of natural habitats, and related issues (environmental compliance).
2. In the longer term, direct or indirect access to markets in the United States (U.S.) and other high-income countries will constitute the primary business incentive for certifiable social and environmental compliance, as non-compliant palm oil will be excluded from these markets.
3. Smallholders especially face obstacles in producing palm oil under acceptable conditions of work due to their low agricultural productivity, economic necessity, cultural norms which may permit the use of child labor, and difficulties in dealing with administrative requisites for required accident and other social benefits.
4. Social and environmental compliance with international sustainability standards is primarily communicated to buyers through third-party or in-house buyer certification systems.



5. Palm oil producers seeking to sell 100% certified sustainable palm oil (CSPO) must guarantee that all the palm fruit produced on their own plantations and on all their independent suppliers' plantations meet environmental and social certification criteria.
6. Due to an expected excess supply of 100% CSPO, much of which is produced in Indonesia and Malaysia, and a demand for sustainable palm oil which is limited primarily to the U.S. and Europe, 100% CSPO will soon become a baseline entry requirement to markets in the U.S., Europe, and other countries including Colombia and Ecuador, where buyers are subject to international sustainability criteria. At that point, no price premium will be available and palm oil which is not 100% CSPO will be limited to portions of domestic and nearby Latin American markets.
7. Palm oil sold to the European biofuels industry will also be subject to increasingly stringent standards and falling demand as Europe reduces its imports of palm oil for use in biofuels.
8. Medium and smallholder producers supplying palm oil companies may be denied a market for their palm fruit unless they meet social sustainability criteria. To do so, they must receive assistance to increase their agricultural productivity and implement social compliance systems.

## The world market for palm oil and other vegetable oils

Palm oil is the world's most widely consumed vegetable oil, accounting for 36% of the world total, and 85% of this is produced in Indonesia and Malaysia. The next largest producers include Colombia (2%), Thailand (4%), and Nigeria (1%). In the U.S., palm only accounts

for only 10% of vegetable oil consumption. World palm oil utilization in the food & cosmetics and biofuels sectors has increased dramatically during the first two decades of the twenty-first century based largely on lower-cost production as compared with other vegetable oils. Developing and middle-income countries —primarily in Asia— consume 84% of the palm oil produced in the world.

Ninety-nine percent of the U.S.' palm oil imports are of refined, dried, and bleached (RDB) palm oil, whereas 87% and 73%, respectively of Colombia's and Ecuador's palm exports are of Crude palm oil (CPO). Total palm oil imports from Colombia and Ecuador accounted for less than 1% of the U.S.' total imports of crude or refined palm oil.

In response to rapidly increasing demand, new oil palm plantations grew, especially in Indonesia which nearly tripled its output between 2000 and 2010 raising alarm bells about adverse impacts. Consumer and environmental advocates began to express serious concern over the deterioration of forests, peat bogs and wildlife habitats, labor issues in the palm oil value chain, and impacts on smallholder farmers, farm workers, and surrounding communities.

Growing concerns led to policies, programs, and initiatives to be implemented by governments, regional associations, NGOs, and coalitions of interested stakeholders to mitigate the harm caused to the environment and farm workers, small producers, and indigenous peoples.

Notable mitigation efforts include trade policies affecting palm oil, most notably, an announced phasing out of the use of palm oil in European biofuels between 2023 and 2030, sustainable palm oil certification by independent third-party certification bodies, and corporate policies for the purchase of sustainable palm oil by leading multinational commodity traders and food manufacturers.

Compliance with international standards is best communicated to buyers through recognized independent third-party certification systems such as the Roundtable on Sustainable Palm Oil (RSPO), or private buyer sustainability certification systems used by several large international commodity traders and food industry corporations. Such standards focus principally on labor and environmental standards. Labor practices include no child labor, no forced labor, and acceptable conditions of work. Environmental practices include deforestation, CO<sub>2</sub> emissions, and destruction of wildlife habitats.

Certification schemes alone may not guarantee full compliance with labor or environmental standards, without commitment by firms to monitor compliance within their own companies and down through their suppliers. Limitations in certification schemes include limited or periodic site visits by certification entities and a lack of resources or technologies for spot-checks.

Most certification schemes currently in use do little to provide clear pathways to compliance and fail to provide smallholders help in obtaining certification – an important contribution of “social compliance systems” which are currently being introduced in both countries. However, buyer or third-party certifications, despite their shortcomings, are the only practical ways for palm oil sector participants to communicate compliance with buyer expectations regarding environmental and social practices and, they hope, to derive competitive advantage by doing so.

Among the various third-party certification schemes in use in Colombia, Ecuador, and in other palm oil producing countries, RSPO certification enjoys the widest degree of



acceptance by buyers and other industry stakeholders, as confirmed in an independent evaluation of seven sustainable palm oil certification standards.

## The Colombian and Ecuadorian palm oil industries

Colombia and Ecuador producers vary in terms of productivity and costs. The oil palm industry structure in both countries includes a small number of integrated palm oil companies, most of which have their own oil palm plantations and palm oil extraction mills and some with refining and further processing capacity, and thousands of small and medium independent oil palm producers. It is estimated that up to 70% of the oil palm fruit processed by Colombia's 68 extractor mills is purchased from independent or associated small and medium producers, and a similar portion of palm fruit is supplied by independent producers to Ecuador's palm oil extraction mills.

Oil palm productivity varies widely in both countries. While the national yield average was 16.17 metric tons (MT) of fresh fruit bunches (FFB) per hectare (ha) in Colombia in 2018 and 11.0 MT FFB/ha in Ecuador in 2017, well-managed plantations can produce 30 mt FFB/ha or more.

According to studies by the Colombian National Federation of Oil Palm Growers (FEDEPALMA), the cost of labor accounted for 42% of the total economic cost per MT of FFB. The Colombian 2018 production cost analysis by FEDEPALMA indicated that producers with average yields 24 tons of FFB/ha or less were unable to recover their full economic production costs at prices for FFB based on USD 500/MT of CPO or less, and those with yields lower than 20 MT of FFB/ha were unable to recover their full economic costs at producer prices below USD 650/MT of CPO.

Labor costs in Ecuador are reported to account for 50% to 60% of the total production cost for mature oil plantations. According to data cited by Ecuador's General Assembly Commission on Food Sovereignty and Agricultural and Fisheries Development, total production costs average USD 125 per MT of FFB, which imply that cost cannot be covered at FFB prices based on CPO prices below USD 735. Ecuador's high cost per MT of FFB is heavily influenced by its very low average yield of FFB/ha.

## Labor practices in Colombia and Ecuador

**Colombia:** A survey of palm sector employment carried out in 2016 by Colombia's National Statistics Department (DANE) in partnership with FEDEPALMA showed that, on medium and large plantations, 53.6% and 57.6%, respectively, of plantation workers were employed under either indefinite or fixed term contracts. The presence of workers employed under either temporary contracts through temporary service agencies or other contracting forms (Associated Work Cooperatives, union contracts, etc.) in medium and large plantations, 11.7% and 28.0% respectively, is a cause for concern as such mechanisms may not provide full access to wage, benefits, and other protections as required by law.

In contrast, a full 69% of workers on smallholder plantations (under 50 hectares) were hired under either piecework or service contracts, or as informal day laborers, with another 13% counted as owners, partners, or family without fixed salaries. While piecework and service contracts are not illegal *per se*, they do require the contractor to ensure that minimum wages are paid and that legally mandated contributions to the various accident



and retirement programs be made. These contracting mechanisms do not provide coverage for holidays or vacation, nor contributions toward severance benefits. Informal day laborers are not afforded any wage protection or social benefit coverage and are do not operate under a legal form of contracting. Although reliable data are not available, it has been estimated that a large portion of those workers hired under piecework or service contracts, as well as unpaid family members, are not covered by any of the required social security programs.

**Ecuador:** Due to the high minimum wage and associated benefits under Ecuadorian labor legislation (equivalent to USD400 in 2020), together with its lack of responsiveness to the nature of labor requirements in medium and small oil palm plantations (89% of Ecuador’s oil plantations, covering 39.5% of the total area planted with oil palm, are of 50 hectares or less), non-compliant labor contacting mechanisms characterize an estimated 60% of Ecuador’s oil palm sector. Non-compliant practices may include outsourcing and informal hiring of day labor, and unacceptable conditions of work with below-minimum wages, lack of accident and health benefits, and non-compliant hours of work. The primary reasons for this non-compliance are often overly stringent hours-of-employment requirements of Ecuador’s labor legislation, such as obligatory five-day (Monday through Friday), forty-hour work weeks with overtime for work outside normal working hours or on weekends, which make compliance virtually impossible for most small and medium producers, and the low levels of oil palm productivity, which make compliance with Ecuador’s high nation-wide minimum wage laws too costly for average oil palm producers.

**In Colombia and Ecuador,** especially among small family-farmed oil palm plantations, children and adolescents are generally assumed to participate, to some extent, in farm-related activities. This is a common practice among farming families throughout the world. Relatively few studies or donor-funded programs have addressed the participation of minors in the palm oil industry in either Colombia or Ecuador.<sup>1</sup> This is now being addressed by the **Palma Futuro** project.<sup>2</sup> It is important, however, to distinguish between those activities permitted under law, which include non-hazardous work for adolescents that does not interfere with schooling; and those that are prohibited, which include any farm-related activities for children under 15, or hazardous work for adolescents.

While there is no hard evidence of forced labor in the oil palm sector, the risk of forced labor, including “fraudulent recruitment; induced indebtedness; unsafe and unhealthy working and

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**1** In Colombia, the U.S. Department of Labor has funded or supported projects that have contributed to study the working conditions, such as:  
i) In the palm oil sector, the project Worker rights centers for the greater protection of labor rights in Colombia implemented by Escuela Nacional Sindical.  
ii) Related to child labor and forced labor, the project MAP16: Measurement, awareness-raising and policy engagement to accelerate action against child labour and forced labour, implemented by ILO, although not specifically in the palm oil sector.  
iii) The creation of child labor risk maps for 23 departments and 1046 municipalities in Colombia using the Child Labor Risk Identification Model (MIRTI) by the “Iniciativa Regional para America Latina y el Caribe”.  
In addition, Solidaridad is currently implementing a project funded by the Netherlands Government, to improve working conditions and sustainability practices in small oil palm fruit suppliers in Colombia.

**2** Palma Futuro is a project funded by the U.S. Department of Labor (USDOL) and implemented by Partners of the Americas and its partners, Social Accountability International (SAI) and J.E. Austin Associates (JAA). Working closely with leading private sector partners in the palm oil sector, Palma Futuro aims to improve the implementation of social compliance systems that promote acceptable conditions of work and reduce child labor and forced labor in palm oil supply chains in Colombia and Ecuador. It will also disseminate best practices in social compliance systems in these and other palm oil-producing countries, particularly Brazil and Peru. Palma Futuro is guided by two expected outcomes: 1) Strengthened capacity of private sector partners in the Colombian and Ecuadorian palm oil sector to implement a robust and sustainable social compliance system, and 2) Increased understanding, at regional and global levels, of promising practices in social compliance systems in palm oil supply chains. Further information can be found at: <https://www.dol.gov/agencies/ilab/palma-futuro-preventing-and-reducing-child-labor-and-forced-labor-palm-oil-supply>.



living conditions; discrimination; substandard or unpaid wages; and forced overtime” has been noted by industry observers including the United States Department of Labor (USDOL).

The combination of low levels of agricultural productivity, especially among smallholder producers, and the high cost of full compliance with existing legislation regarding wages and benefits, frequently makes labor formalization financially challenging to most small and many medium and large oil palm producers.

## The competitive position of Colombian and Ecuadorian palm oil producers in domestic and international markets

Outside of their own protected markets and other nearby Latin American markets, Colombian and Ecuadorian palm oil producers are generally not competitive with other major producing countries due to higher production and transportation costs and a lack of product differentiation (especially in the case of Colombia which primarily exports CPO).<sup>3</sup> Even in their own domestic markets, palm oil competes with significant quantities of imported vegetable oils and, in the case of Colombia, with imported palm oil from Ecuador.

Colombian producers who export CPO receive a compensation payment through that country’s Price Stabilization Fund for Palm Kernel Oil, Palm Oil and Fractions (FEP) to equalize revenue from domestic and export sales. Without these compensation payments, Colombian CPO exports are non-competitive under most recent world price levels.

Due to low oil palm productivity levels, Ecuadorian CPO exports other than to Colombia and Venezuela, where they receive preferential treatment, are not competitive in international markets. Unlike Colombia, a greater portion of Ecuador’s palm oil exports are in the form of finished or semi-finished products where value-added and product differentiation have allowed these products to compete.

Most palm oil buyers in the food and cosmetics industries in Western Europe, many large American food and cosmetics companies, and many of the largest commodity trading companies which supply them have policies to buy only 100% sustainable palm oil. European buyers now require only Identity Preserved (IP) or Segregated Sustainable (SG) certified palm oil, or their equivalent under private buyer sustainable palm oil standards, while American buyers are sometimes willing to accept Mass Balance (MB) certification in the absence of available IP or SG certifications.<sup>4</sup>

The International Sustainability & Carbon Certification (ISCC) certification, with less rigorous standards on labor practices, is required for Colombian palm oil exports to European biofuels manufacturers. As current European Union (EU) policy is to phase out palm oil for use in biofuels between 2023 and 2030, European food and cosmetic industries are expected to require increased amounts of palm oil as other European vegetable oils are increasingly used to produce biofuels. Even if EU policy towards palm oil for biofuels changes, or if exceptions are made for South American palm oil, it may be reasonably expected that certification criteria for palm oil use in biofuels will be tightened to approximate RSPO requirements.

<sup>3</sup> United States’ buyers require refined, dried and bleached (RDB) palm oil or further processed palm oil products whereas 87% of Colombia’s and 73% of Ecuador’s palm oil exports were of crude palm oil (CPO) in 2018.

<sup>4</sup> RSPO Identity Preserved (IP) palm oil requires that 100% of the palm oil shipped be from a single RSPO-certified source. Segregated (SG) sustainable palm oil requires that 100% of the palm oil be from RSPO certified plantations but may be from multiple sources. Mass Balance (MB) certification indicates a mixture of certified and conventional (non-certified) palm oil in unspecified proportions.



**Sustainable palm oil certification has, to date, provided minimal benefits to Colombian and Ecuadorian palm oil producers.** Those few producers able to sell palm oil with RSPO IP or SG palm oil certification, or their equivalents under buyer sustainable palm oil standards, are able to enjoy short term premiums in markets in Europe, the U.S., or from buyers in their home countries subject to international sustainable palm oil requirements. Sellers of RSPO MB certified palm oil are able to enjoy limited short-term preferential access but little or no price premiums in domestic, other Latin American, and U.S. markets requiring CSPO but unable to access IP or SG palm oil.

Benefits to Colombian and Ecuadorian producers of CSPO will be short-lived given the imbalance between the over 14 million MT of CSPO offered by Indonesia and Malaysia, and the 5.8 million MT of palm oil —certified or not— consumed by food industries in the U.S. and Europe. Although most of the certified palm oil from Indonesia and Malaysia is currently offered as MB certified palm oil, short-term increases in the amounts of IP or SG palm oil from Indonesia and Malaysia, together with existing supplies from other countries, may soon equal or exceed the demand for IP or SG palm oil in the U.S. and European food industries as well as in other countries where CSPO is required. When this happens, IP or SG CSPO will become a baseline requirement for food industry buyers, for which premium prices will not be paid.

## Business incentives and potential obstacles for producing palm oil under acceptable conditions of work, free of child labor and forced labor

### Market-based incentives for the Colombian and Ecuadorian oil palm industries

In order to remain competitive in international markets, Colombian and Ecuadorian palm oil producers and their smallholder oil palm suppliers must comply with international environmental and social standards and obtain sustainable palm oil certification in order to communicate their compliance to buyers. They must also be competitive in terms of landed price to their customers, which except for nearby Latin American markets, requires significant improvements in oil palm productivity in order to lower their unit production costs.

Business incentives have so far been associated with certification system rather than comprehensive management programs for overall labor law compliance. The latter is the focus of the current *Palma Futuro* initiative. This report finds that compliance by independent smallholder oil palm producers with social standards on child labor, forced labor, and acceptable conditions of work remains the single greatest obstacle to sustainable palm oil certification in Colombia and Ecuador. Although various initiatives are underway in both Colombia and Ecuador to overcome these and other barriers to widespread sustainable palm oil certification, improved compliance with these social standards will be a baseline condition for continued access to international palm oil markets.

Significantly improved oil palm productivity for the thousands of smallholder independent oil palm producers is required to reduce unit costs and remain competitive in world markets, and to pay for any additional cost of social compliance systems such as those required by the RSPO for sustainable palm oil certification. Depending on the individual producer-buyer



relationships, the additional costs of social compliance systems might be borne by either the independent producer or the buyer of the oil palm fruit.

With improved productivity and social compliance systems in place, workers will benefit through improved earnings and related worker benefits, and oil palm producers—including smallholder producers—will benefit due to lower unit costs and sustainable palm oil certification allowing access and competitiveness in world palm oil markets.

### **Obstacles to improved social compliance systems throughout the palm oil sector**

For small farmers, obstacles to palm oil production under acceptable conditions of work, free of child labor and forced labor include low financial returns due primarily to their low levels of agricultural productivity; economic necessity and cultural practices on small subsistence level family farms, which may encourage the use of child labor or illegal forms of adolescent labor; and difficulties in compliance with legal requirements for enrollment in accident and other required social benefits, especially for smallholder producers with minimal levels of literacy, and who provide most of the labor required on their own small plantations.

For larger producers, economic hardship, frequently associated with the presence of bud rot disease in their plantations, together with recent low prices for palm oil in world markets, have forced several large plantations in both Colombia and Ecuador into bankruptcy. Under conditions of extreme financial duress many may not believe they can afford increased labor costs associated with improved social compliance systems.

### **Strategies to overcome obstacles to improving social compliance systems should include the following:**

#### **Agricultural extension and financing:**

Given the wide-ranging disparities between national average productivities and those obtained on plantations employing good agricultural practices, massive efforts involving agricultural extension and access to credit are required to help smallholder producers acquire and apply technical inputs and agronomic practices necessary to dramatically improve their productivity in terms of FFB per hectare.

#### **Review of labor legislation and procedures to meet the needs of the rural sector:**

Labor legislation regarding minimum wages, required social benefits, working hours, and forms of labor contracting should be reviewed with input from producer associations and workers organizations in order to make any required adjustments for differences between urban industrial labor requirements and those in the rural sector while preserving basic standards on labor rights, living wages, and minimum acceptable conditions of work.

#### **Outreach activities to improve social compliance:**

For large palm oil companies, improved compliance with labor standards may include objective discussions of the risks and benefits of improved labor-management relations, especially with organized labor. The experience of companies which have successfully managed their relationship with organized labor on their own plantations, including both local affiliates of national agricultural labor unions and company-based worker associations, suggests that social compliance systems can include harmonious and productive labor-management



relationships under which workers' rights to organize and bargain collectively are respected.

For smallholder producers, social compliance outreach activities must help smallholder producers to understand the law regarding labor contracting and payment of legal wages and benefits, to select the most appropriate labor contracting form based on their individual needs, and to comply with additional requirements regarding accident insurance and other labor-related benefits.

The presence of activities to promote the adoption of social compliance systems as part of the *Palma Futuro* project sponsored by the USDOL may assist in providing valuable support in skill building in terms of social compliance to larger palm oil companies in Colombia and Ecuador so that they, in turn, can meet the needs of smallholder suppliers in their radii of influence.

### **Improved inspections and enforcement of national labor legislation:**

Labor enforcement can be challenging, costly, and uneven. Thus, enforcement should not be the only strategy used to achieve improved labor practices. Inspections may be sporadic and occasional, limited by the budgets of those responsible for enforcement, and the integrity and incorruptibility of the system. Company or farm management may change over time, relaxing compliance with labor and environmental practices. Cost pressures may cause owners and managers to cut corners. Therefore, a functional system of market and non-market incentives is required for a good-faith and serious adoption of labor and environment standards both for individual companies and their suppliers. This requires a sustainable system of incentives, driven by both markets and public policy, to ensure that companies seek to adopt a robust set of internal management practices and policies, and that these are applied in their procurement systems down the supply chain. One emerging model for this is strategic compliance, which engages a wider range of stakeholders in proactive and targeted manner. Strategic compliance seeks to address the underlying sources of non-compliance to create sustainable solutions utilizing a mix of deterrents, incentives, and awareness-raising to empower stakeholders beyond enforcement agencies to ensure compliance.<sup>15</sup> The current USDOL initiative implemented by Partners of the Americas, is intended to advance that agenda. Certification systems may be necessary to create value in the eyes of the consumer or buyer. Non-governmental social compliance and certification systems can be effective in fostering sustainable outcomes. However, such systems may not be sufficient, and therefore effective enforcement of labor legislation is needed, combined with appropriate enforcement that will add credibility sanctions for non-compliance.

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<sup>5</sup> The ILO has supported the implementation of strategic compliance approaches in the Colombian palm oil sector. More information can be found here: [https://www.ilo.org/lima/sala-de-prensa/WCMS\\_819502/lang-es/index.htm](https://www.ilo.org/lima/sala-de-prensa/WCMS_819502/lang-es/index.htm)





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# I. Introduction



Palm oil is the world's most widely-used vegetable oil, and together with palm kernel oil, is used in approximately 50% of all products on supermarket shelves, including food and non-food items.<sup>i</sup> Crude palm oil (CPO) and crude palm kernel oil (CPKO) are extracted from the fibrous mesocarp and the palm kernel, respectively, of the palm fruit produced primarily by the *Elaeis guineensis*, a palm native to West and Southwest Africa and now produced in many countries, generally located between 10° north and south of the equator.<sup>ii</sup> Indonesia and Malaysia are the two largest producers and account for 84% of world production, followed by Thailand, Colombia, and Nigeria.

Although palm oil is used in the United States (U.S.) and Western Europe primarily for food manufacturing, and to a lesser extent in restaurants and the food service industry for food preparation (mainly deep frying), it is widely sold in middle and low-income countries throughout the world as a consumer good for home use. In both Colombia and Ecuador, the palm oil industry was promoted by those countries' governments to replace imports of other, higher costing vegetable oils, and is sold—generally mixed with other vegetable oils to avoid clouding or solidification—to consumers through normal food retail distribution channels.

The popularity of palm oil for cooking and food manufacture is based on both performance and economic reasons. Due to its relatively high level of saturated fats (approximately 50%), palm oil is semi-solid at room temperatures and resistant to oxidation at prolonged elevated temperatures. These qualities make it more desirable than other non-hydrogenated vegetable oils as an ingredient in baked goods, shortenings, and margarines, as well as for fried products such as potato chips, french-fries, doughnuts, or fried fast foods. Palm oil contains no trans fatty acids and is one of the richest sources of tocotrienols (as well as carotenoids, which are generally lost as CPO is refined).

In the U.S., and to a lesser extent in Western Europe, palm oil is either not available at all as a consumer product, or it is included as an unspecified ingredient in generic vegetable oil (often along with corn and soybean oils) where it competes with higher costing olive, coconut,

canola, or sunflower oil, among others. Unlike in most middle- and lower-income countries, it is seldom mentioned as a recommended cooking oil or sold directly to consumers. Where it is mentioned at all, it is praised for its performance at high temperatures but criticized for its presumed health risks (along with coconut oil which has a higher saturated fat content) as a recommended vegetable oil for use in cooking and other food uses.

Palm oil is also used to produce biodiesel, a biofuel in increasing demand as a substitute for fossil fuels in efforts to reduce their contributions to climate change. Palm kernel oil, with a higher saturated fats content of approximately 80% and similar to that of coconut oil), is used for various specialized food industry applications such as coatings and fillings, as well as in personal care and cosmetics industries.

Because oil palm plantations produce from 6 to 8 times as much vegetable oil per unit of land as soybeans, sunflower, or rapeseed,<sup>6</sup> the total production cost and world price of palm oil are consistently and significantly lower than those of competing vegetable oils.

Due to the rapid expansion of palm oil production, especially in Indonesia and Malaysia, consumer groups, governments and international organizations have become increasingly concerned with both the environmental damage caused by deforestation, the destruction of peat bogs, the loss of wildlife habitats, and the exploitation of farm workers, smallholder producers and indigenous communities due to unfair or illegal labor practices including child labor and forced labor, and a lack of respect for smallholder and indigenous community rights.

This concern has led to the rise of various sustainable palm oil certification systems intended to provide market incentives for the production of palm oil meeting sustainable economic, environmental, and social criteria. It has also led to increased pressure from governmental and international organizations to implement socially compliant management systems throughout the palm oil value chain to implement acceptable conditions of work and eliminate the risks of child labor and forced labor.

This study examines the world market for palm oil, the Colombian and Ecuadorian supply chains through which palm oil is produced and sold, and the competitive positions of Colombian and Ecuadorian palm oil in domestic and world markets with the end purpose of understanding business incentives and potential obstacles for producing palm oil under acceptable conditions of work, free of child labor and forced labor, particularly for small and medium size enterprises.

The study begins with an analysis of the global market for palm oil, including sections on the competitive position of palm oil in the global market for vegetable oils, consumer issues affecting palm oil demand, and strategies to mitigate the adverse environmental and social impacts of palm oil production, including sustainable palm oil certification systems.

It then examines the Colombian and Ecuadorian palm oil industries, with attention to each country's policy environment including labor legislation, the value chain participants, product flows, production costs, prices and financial returns to oil palm producers, sustainable palm oil certification, and production and market expansion plans and opportunities.

An analysis of each country's competitive position in domestic and international markets includes both an analysis of their current competitive positions and the potential competitive advantage of palm oil produced certifiably free from exploited labor.



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<sup>6</sup> One ton of palm oil may be produced, on average, on 0.26 hectares; one ton of soybean oil, sunflower oil, or rapeseed oil requires 2.2 ha, 2.0 ha, and 1.52 ha, respectively. (About Palm Oil. Malaysia Palm Oil Council. <http://mpoc.org.my/about-palm-oil/>. Accessed July 11, 2019.)

This analysis concludes with a discussion of the business case for improving responsible labor practices and the challenges and opportunities in doing so.

A final summary and conclusions section restates the conditions under which small and medium oil palm producers may benefit from incentives for producing palm oil under acceptable conditions of work, free of child labor and forced labor and highlights the future need for full compliance by all participants in the palm oil supply chain with environmental and social standards as a minimum requirement for entry into markets in the U.S. and Europe. The study concludes with a discussion of the actions required to assist small and medium oil palm producers to meet the standards of acceptable conditions of work, free of child labor and forced labor.





# II. The global market for palm oil and other vegetable oils

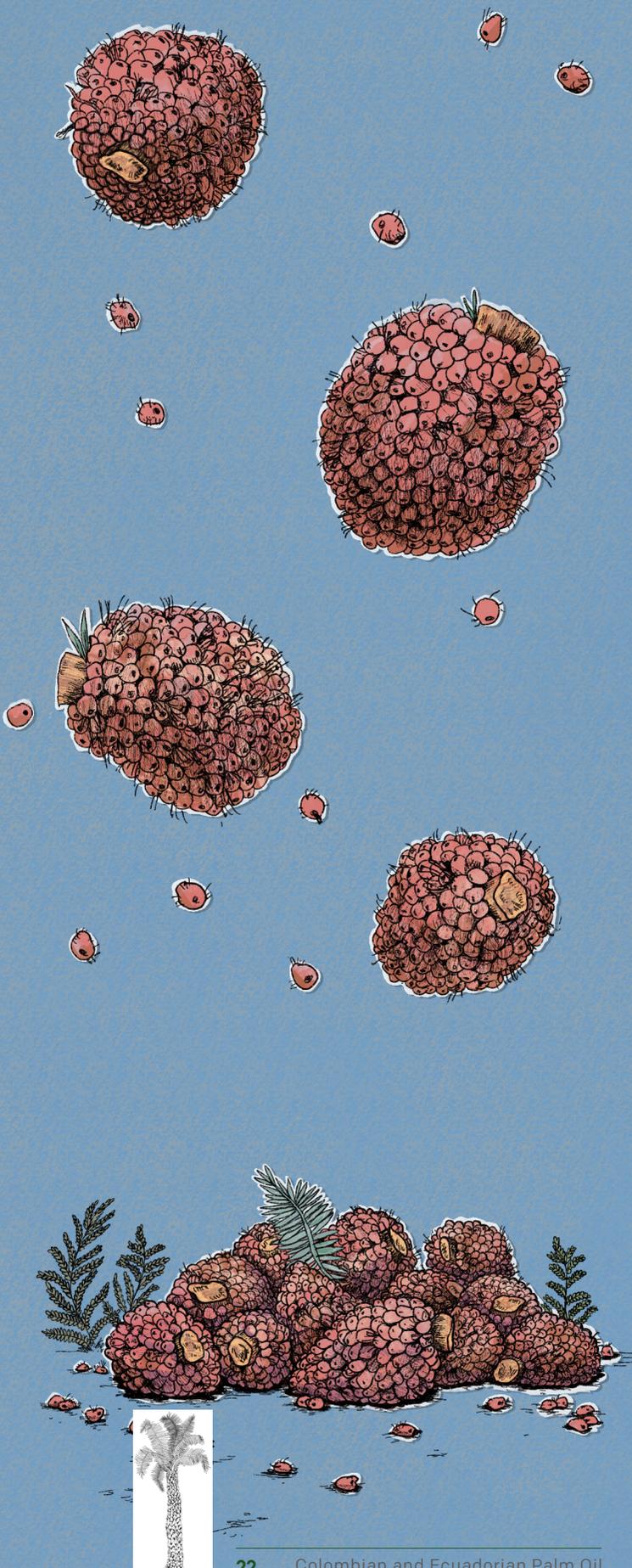


## A. Global vegetable oil supply and demand

### 1. Vegetable oil consumption

Between 1970 and 2019, global per capita consumption of vegetable oils increased by a factor of nearly six, as population growth and rising incomes, especially in developing countries, led to expanding food processing industries, and as increased production of lower-cost vegetable oils displaced animal oils and fats due both to cost and perceived health benefits. (**Exhibit 1** presents statistics on the rise of vegetable oil production and consumption during the past 50 years.) Four vegetable oils —Palm, soybean, rapeseed (canola)<sup>7</sup> and sunflower seed— accounted for 87% of all vegetable oil consumption in market year 2018/19.<sup>iv</sup> Palm oil consumption, as a percentage of total vegetable oil consumption, rose globally, due to both its relatively lower cost (see **Exhibit 2**), and to the increasing use of palm oil in biodiesel, beginning in 1980 and rising to 30% of total palm oil consumption by 2018/19 (please see **Exhibit 3**). However, health concerns related to the relatively higher level of saturated fats in

<sup>7</sup> Canola oil is derived from the rapeseed plant that has been bred to reduce erucic acid and glucosinolate – elements that present potential health risks to humans and reduce the palatability and nutritional value of meal as a livestock feed. “Canadian oil-low acid rapeseed is commonly known as canola, and the term in many cases is used interchangeably with Edible rapeseed.” (Morgan, Nancy. “World Vegetable Oil Consumption Expands and Diversifies.” Food Review, May – August 1993.)



palm oil severely curtailed its consumption in the U.S. (**Exhibit 4** presents the share of each vegetable oil in the world and U.S. vegetable oil consumption in 2019.)

## 2. Vegetable oil production

World vegetable oil production increased at a more rapid pace beginning in the late 1990s, due again primarily to the increased use of palm oil to produce biodiesel. As illustrated in **Exhibit 5**, the four leading vegetable oils are produced in many countries, with 84% of palm oil from Indonesia and Malaysia; 77% of soybean oil from China, the U.S., Brazil and Argentina; 73% of rapeseed oil from the European Union (EU), China and Canada; and 77% of sunflower oil from Ukraine, Russia and the European Union.<sup>v</sup>

## 3. Vegetable oil imports and exports

International trading patterns for the leading four vegetable oils are presented in **Exhibits 6a and 6b**. While different countries lead in exports for each of the top four vegetable oils (Indonesia and Malaysia for palm oil; Argentina and Brazil for soybean oil, Canada and Germany for rapeseed oil, and Ukraine and Russia for sunflower seed oil), India is the world's largest vegetable oil importer, leading in imports for three of the top four vegetable oils (palm, soybean, and sunflower seed). China is the next largest overall importer of vegetable oils. Specific trading relationships are shown in **Exhibit 6b**, where it may be noted that the Netherlands serves as the world's principal transshipment point for palm, rapeseed, and sunflower seed oils imported from producer countries and distributed throughout Europe and beyond.

- Palm oil, exported from Indonesia and Malaysia, is sold primarily to India, China, and Pakistan, with lesser amounts sold throughout Europe and the U.S. Honduras and Colombia, the next two largest exporters, primarily serve European markets using the Netherlands as a transshipment point.

- India is by far the largest importer of soybean oil, followed at a distance by other Asian, Middle Eastern, and Latin American countries. Argentine soybean exports account for a full 63% of the world's total soybean oil exports.
- With the exception of Canadian rapeseed (canola) oil, which is sold primarily to the U.S., most other rapeseed oil is produced and consumed in Europe.
- Sunflower seed oil from the Ukraine, Russia, and Bulgaria is imported, frequently via Turkey or the Netherlands, by China, Iraq, and various European countries.

#### 4 . Vegetable oil balance sheets for major producing countries

Several countries which are among the top producers of vegetable oils are not major exporters due to their own levels of domestic consumption, while others, despite their status among the top five producers of a given vegetable oil, are unable to fulfill their internal demand and are net importers. As illustrated in **Exhibit 7:**

- Both Colombia and Thailand consume more than half of the palm oil they produce, while Nigeria is forced to import nearly a third more palm oil than it produces, leaving only Indonesia and Malaysia as major producers and exporters.
- Four of the five top soybean oil producers consume 80% or more of their production (China is actually a net importer), leaving only Argentina as the top producer and exporter.
- Four of the top five rapeseed oil producers are also either net importers or, in the case of the EU, produce just enough to meet their need, leaving only Canada as a net exporter (with virtually all its sales to the U.S.).
- Among the top sunflower seed oil producers, both the EU and Turkey consume more than they produce, with the remaining three top producers showing net exports above 50% of their production.

#### 5. Price performance of palm oil and other major vegetable oils

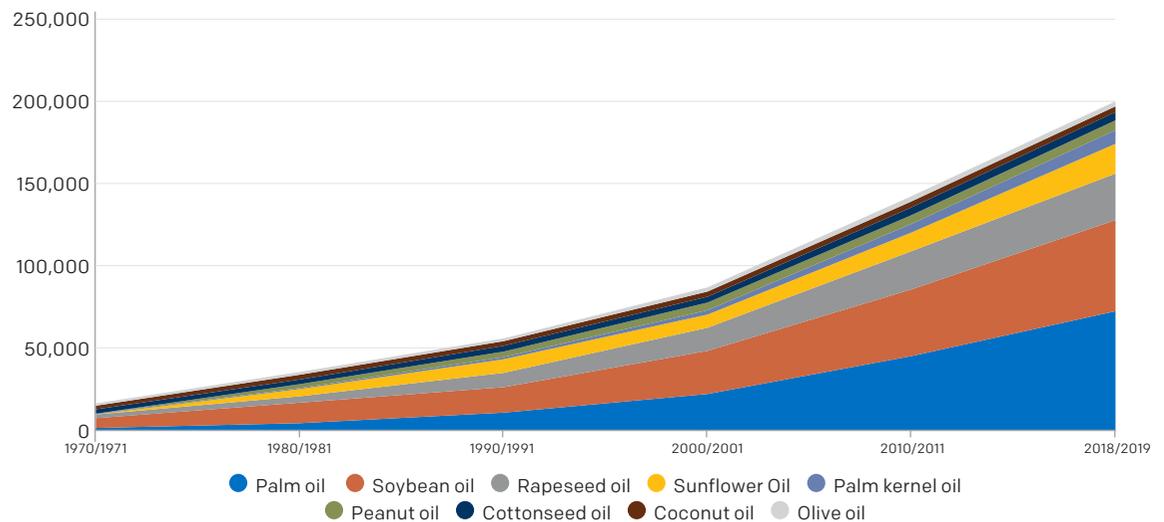
CPO prices received by producers around the world are generally based on either the daily settlement prices for Malaysian CPO published in Malaysian ringgits by the Bursa Malaysia Derivative (BMD), or the CIF Rotterdam prices (in USD) for Malaysian palm oil (the difference between the two being subject to currency fluctuations, transportation costs, duties, and daily supply/demand fluctuations in the two markets). As shown in **Exhibit 2**, prices for CPO tend to move in tandem with those of the three other principal vegetable oils —soybean oil, rapeseed oil, and sunflower seed oil— which in turn are influenced by the prices of other basic agricultural commodities, petroleum, and general economic conditions. In 2006-08, when the price of corn rose from below USD 2.00 to over USD 7.50 per bushel and the price of soybeans from USD 6.00 to USD 16.00 per bushel, CPO also rose from approximately USD 500 to over USD 2,000 per metric ton (MT), and again, as corn and soybean prices rose between 2010 and 2012 to nearly USD 8.50 and USD 18.00 per bushel, respectively, palm oil also experienced a 100% plus price increase. Corn and soybean prices, which are the primary drivers of vegetable oils, are themselves influenced by changing supply and demand conditions around the world, including importantly, weather-related phenomena. In general, prices for palm oil fall due to yield increases or oversupplies of other vegetable oils, as at least until recently, palm oil, given its relatively high saturated fat content, was perceived by the international market as an inferior good in comparison to other vegetable oils. Soybean oil



prices, which are the single-most important indicator for CPO prices, are also influenced by the price of petroleum and the demand for biodiesel – a demand which itself is influenced by both the price of petroleum and by government mandates for the use of biofuels for environmental reasons. As illustrated in **Exhibit 2**, while vegetable oil prices rose and then fell in response to the rise and fall of petroleum prices between 2006 and 2008, vegetable oil prices fell from their 2010 highs through the end of 2019 while petroleum prices remained high until mid-2014, and rose again in 2018.

**Exhibit 2** also demonstrates the more independent behavior of prices for palm kernel oil, which is derived from the palm kernel inside each palm fruit, and generally yields volumes equal to between 7% and 8% of the CPO from the same palm fruit. Palm kernel oil, which has a saturated fat content of 80% (as opposed to 50% for CPO) is used primarily for soaps, cosmetics, and detergents, as well as for chocolates and frostings and for commercial cooking and frying as it is semi-solid at room temperature and remains stable at high cooking temperatures. While the supply of palm kernel oil is directly related to the supply of CPO, demand is influenced by factors unique to its usage and which makes it less subject to competition from other vegetable oils.

**Exhibit 1: World vegetable oil consumption 1970 – 2019 ('000 MT)**



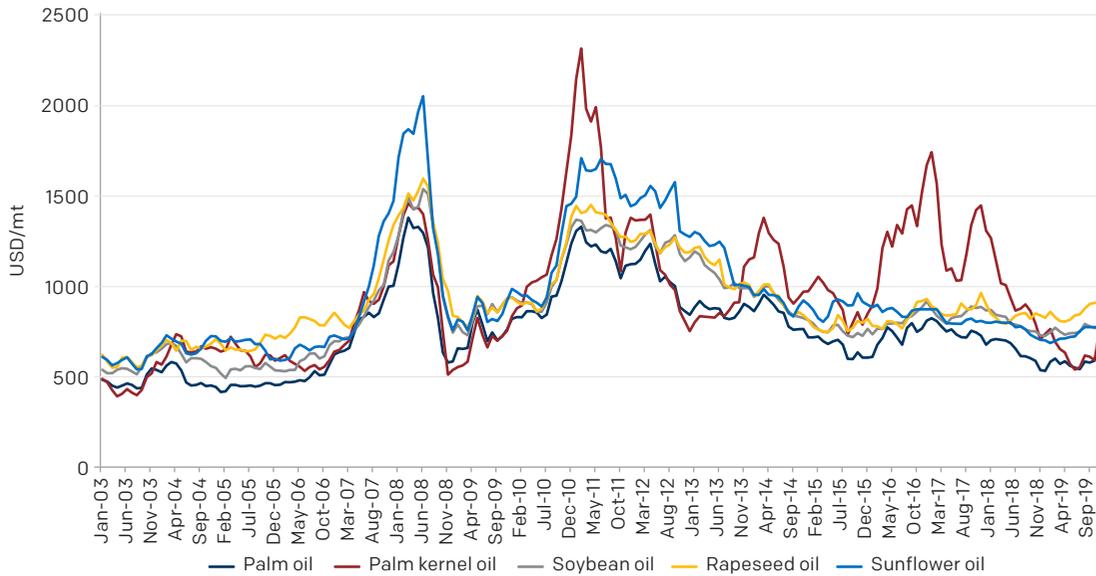
Year	Palm oil	Soybean oil	Rapeseed oil	Sunflower oil	Palm kernel oil	Peanut oil	Cottonseed oil	Coconut oil	Olive oil	Total
1970 - 1971	1,799	5,958	2,221	124	425	0	2,635	2,186	1,405	16,753
1980 - 1981	4,763	12,417	3,861	4,419	592	2,399	2,782	2,916	1,647	35,796
1990 - 1991	11,155	15,441	8,709	8,256	1,346	3,306	3,463	2,840	1,716	56,232
2000 - 2001	22,511	26,143	14,022	7,968	2,653	4,701	3,470	3,209	2,498	87,175
2010 - 2011	45,512	40,477	23,204	11,318	5,257	5,235	4,800	3,568	3,203	142,574
2018 - 2019	72,692	55,334	28,206	18,069	8,286	5,940	5,059	3,467	3,070	200,123

**Description:** Exhibit 1 shows the consumption of vegetable oil worldwide. The graph goes from levels of 16.7 million MT consumed worldwide in 1970/1971, to a total of 200 million MT in 2018/2019. Palm oil accounts for the largest amount of vegetable oil consumed globally. Its consumption levels went from 1.7 million MT between 1970/1971 to 72.7 million MT between 2018/2019.

**Source:** USDA/ERS Production, Supply and Distribution, <https://apps.fas.usda.gov/psdonline/app/index.html#/app/home>

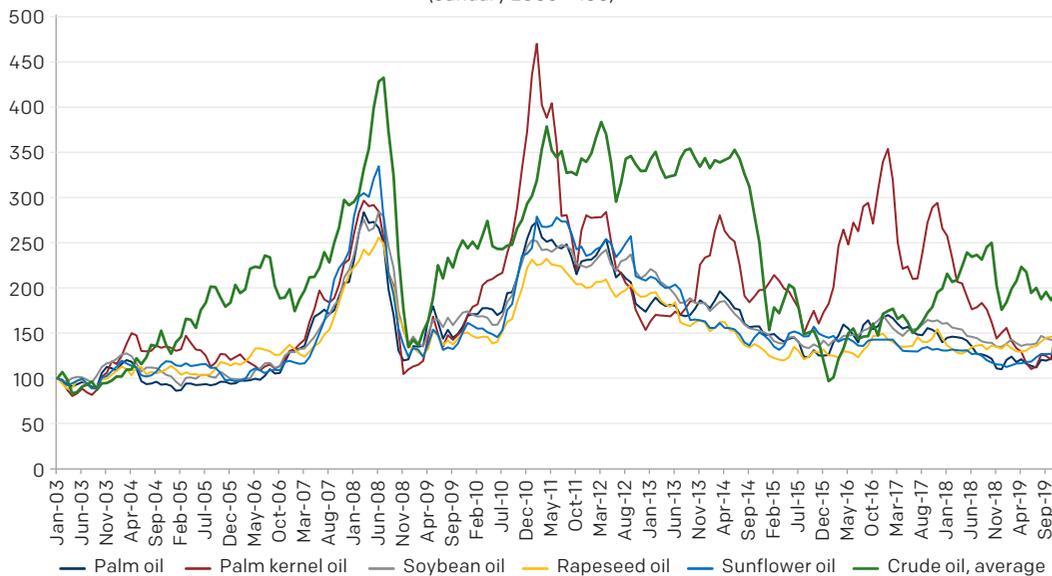


## Exhibit 2: International Prices of Vegetable Oils



**Description:** Panel 1 of exhibit 2 presents a line graph showing peaks in vegetable oil prices for 2008, the year in which palm oil reached a price of USD 1,377.22 per MT. For the year 2019, the prices of vegetable oils were falling with a price of USD 582 per MT of palm oil, although the year closed with a price of USD 769.93 per MT.

Index of international prices of vegetable oil and crude petroleum  
(January 2003 = 100)

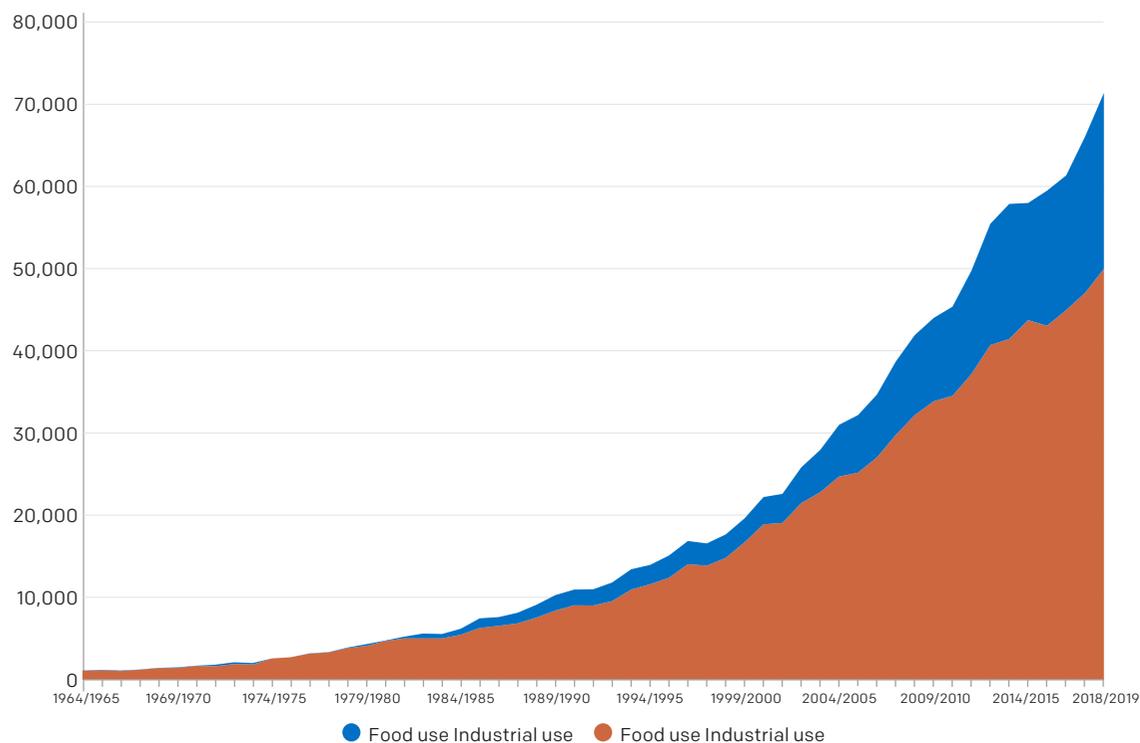


**Description:** Panel 2 of exhibit 2 presents a line graph identical to the one presented in panel 1 but including a line with the average price of a barrel of crude oil. The latter presents a price peak in 2008, with a maximum price of USD 431.95 per barrel. The price of crude oil also showed high levels between 2011 and 2015 with an average price of USD 332.79 per barrel. By the end of 2019, the price was USD 206 per barrel.

**Source:** World Bank



**Exhibit 3: World Palm Oil Use 1965/66 – 2018/2019 ('000 MT)**



	1999-2000	2004-2005	2009-2010	2014-2015	2018-2019
	('000 MT and % of total use)				
Food use	16,589 85%	24,519 80%	33,575 77%	43,386 75%	49,546 70%
Industrial use*	2,895 15%	6,238 20%	10,064 23%	14,127 25%	21,243 30%
Total use	19,484	30,757	43,639	57,513	70,789

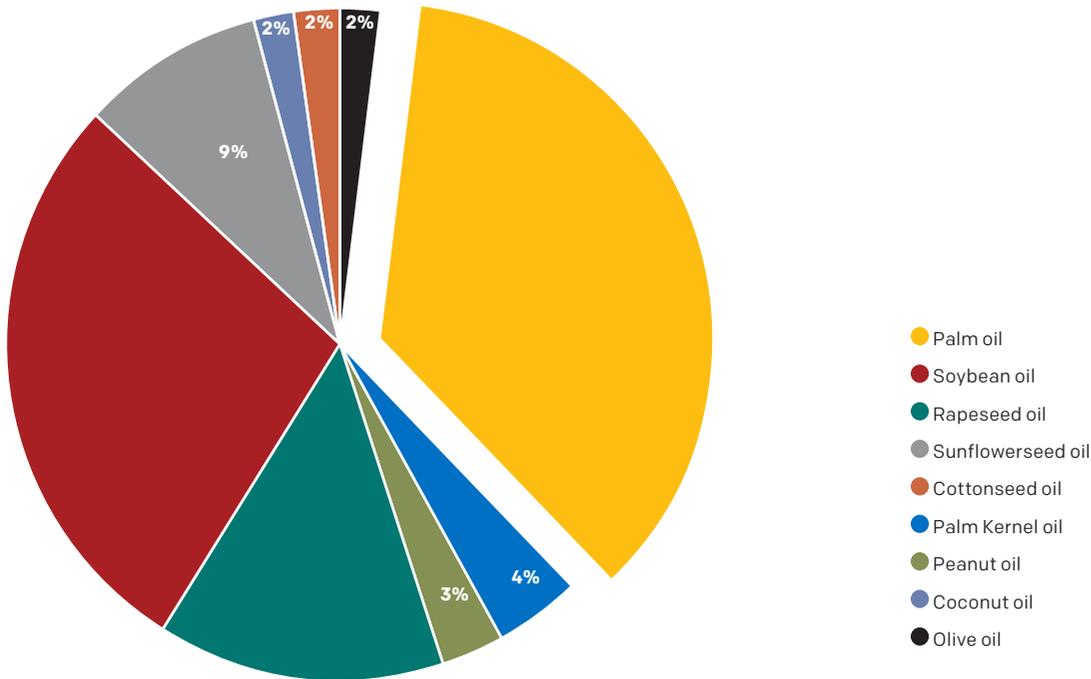
\* Primarily biodiesel

**Description:** Exhibit 3 is a table showing the distribution of palm oil use between “industrial use” and “food use”. In the 1999/2000 period, of the 19.5 million MT used, 85% (16.6 million) were used for food and 15% (2.9 million) were used for industry. In the 2004/2005 period, of the 30.8 million MT used, 80% (24.5 million) were used for food and 20% (6.2 million) were used for industry. In the 2009/2010 period, of the 43.6 million MT used, 77% (33.6 million) were used for food and 23% (10.1 million) were used for industry. In the 2014/2015 period, of the 57.5 million MT used, 75% (43.4 million) were used for food and 25% (14.1 million) were used for industry. Finally, for the 2018/2019 period, of the 70.8 million MT used, 70% (49.5 million) were used for food and 30% (21.2 million) were for industrial use.

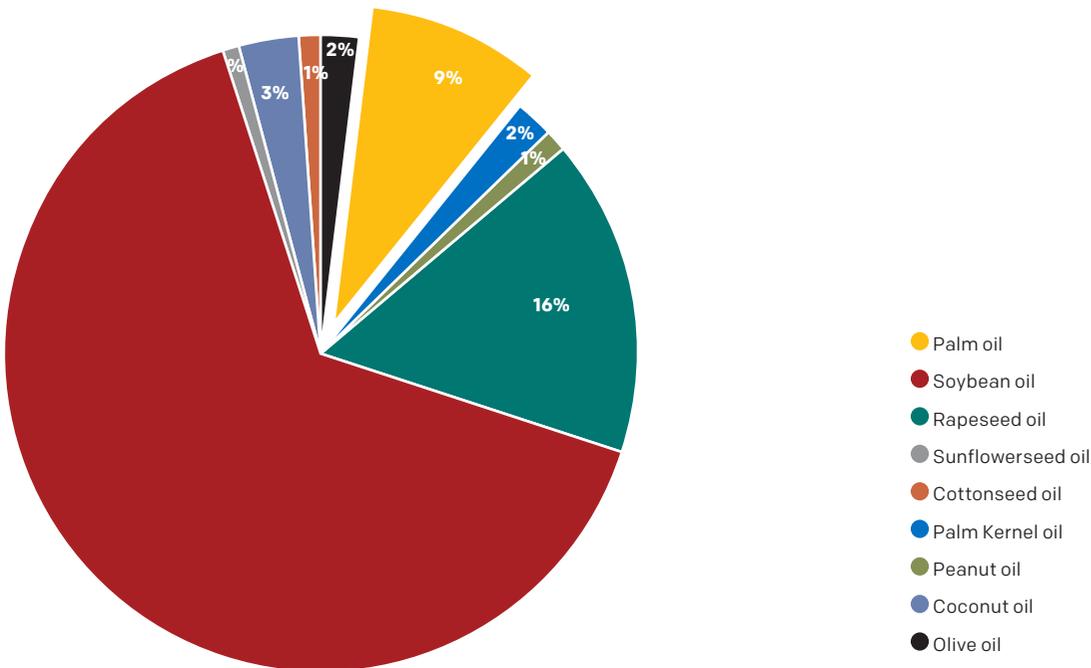
**Source:** USDA/ERS Production, Supply and Distribution, <https://apps.fas.usda.gov/psdonline/app/index.html#/app/home>



Exhibit 4: World and U.S. Vegetable Oil Consumption 2019



**Description:** Panel 1 of exhibit 4 shows the distribution of the total consumption of vegetable oil in 2019 according to the different types of oil. In total, 205.9 million MT were consumed in the world, of which 36% were palm oil, 28% soybean oil, 14% rapeseed oil, 9% sunflower seed oil, 4% palm kernel oil, 3% peanut oil, followed by olive oil, cottonseed oil and coconut oil each with a 2% share.



**Description:** Panel 2 of exhibit 4 shows the distribution of vegetable oil consumption in the United States in 2019 according to the different types of oil. In total, 16.5 million MT were consumed, of which 65% were soybean oil, 16% rapeseed oil, 9% palm oil, 3% coconut oil, 2% palm kernel oil, 2% olive oil, followed by peanut oil and cottonseed oil each with a 1% share.

**Source:** United State Department of Agriculture, Foreign Agriculture Service: Production, Supply and Distribution (<https://apps.fas.usda.gov/psdonline/app/index.html#/app/home>), accessed February 6, 2020.



### Exhibit 5: Top five producing countries for top four vegetable oils (2018/19)

('000 MT)

	Palm oil	Soybean oil	Rapeseed oil	Sunflower oil
Argentina		7,910		1,465
Brazil		8,160		
Canada			4,065	
China		15,232	6,425	
Colombia	1,625			
European Union		3,069	9,698	3,718
India			2,584	
Indonesia	41,500			
Japan			1,040	
Malaysia	20,800			
Nigeria	1,015			
Russia				4,853
Thailand	2,900			
Turkey				1,022
Ukraine				6,364
United States		10,975		
<b>WORLD TOTAL</b>	<b>73,898</b>	<b>55,848</b>	<b>27,522</b>	<b>19,461</b>

**Description:** Exhibit 5 describes the top 5 producers of palm oil, soybean oil, rapeseed oil and sunflower oil. The top 5 palm oil producers between 2018/2019 were Indonesia with 41.5 billion MT; followed by Malaysia with 20.8 billion; Thailand with 2.9 billion MT; Colombia with 1.625 billion; and Nigeria with 1.015 billion MT.

**Note:** Production figures are included for top five producers and the world total for each commodity. Other countries listed may also produce lesser amounts of each vegetable oil.

**Source:** United State Department of Agriculture, Foreign Agriculture Service: Production, Supply and Distribution (<https://apps.fas.usda.gov/psdonline/app/index.html#/app/home>)

### Exhibit 6a: Top ten exporting and importing countries for top four vegetable oils (2016)

Palm oil				Soybean oil			
Country	Exports	Country	Imports	Country	Exports	Country	Imports
Indonesia	\$14,365,422	India	\$5,641,652	Argentina	\$4,105,836	India	\$3,013,221
Malaysia	\$9,064,286	China	\$2,865,460	Brazil	\$898,304	Bangladesh	\$641,961
Netherlands	\$1,078,452	Pakistan	\$1,701,168	USA	\$824,759	Algeria	\$525,137
Germany	\$369,936	Netherlands	\$1,550,126	Paraguay	\$466,160	China	\$452,077
Guatemala	\$346,764	Nigeria	\$1,441,250	Netherlands	\$418,177	Morocco	\$354,220
Papua New Guinea	\$344,902	Italy	\$1,043,155	Russia	\$345,281	Peru	\$299,794
Honduras	\$270,150	Spain	\$1,042,671	Bolivia	\$281,781	Colombia	\$289,204
Colombia	\$245,547	Germany	\$1,024,061	Germany	\$259,525	Mexico	\$225,645
Ecuador	\$228,151	Bangladesh	\$945,836	Spain	\$257,451	Venezuela	\$201,571
Niger	\$129,758	USA	\$891,909	Malaysia	\$152,280	Egypt	\$197,325

Rapeseed oil				Sunflower oil			
Country	Exports	Country	Imports	Country	Exports	Country	Imports
Canada	\$2,365,322	USA	\$1,633,243	Ukraine	\$3,090,699	India	\$1,290,113
Germany	\$970,259	Netherlands	\$568,526	Russia	\$1,440,137	Turkey	\$1,015,540
Czechia	\$459,087	China	\$523,903	Turkey	\$636,101	China	\$825,221
Poland	\$395,820	Norway	\$363,471	Netherlands	\$518,088	Spain	\$453,207
Belgium	\$295,731	India	\$336,970	Argentina	\$483,848	Iraq	\$441,187
France	\$247,324	Germany	\$275,489	France	\$452,412	Italy	\$390,551
Netherlands	\$207,105	Belgium	\$268,267	Hungary	\$426,926	Belgium	\$375,713
Russia	\$168,667	Czechia	\$247,023	Spain	\$218,927	Germany	\$365,426
Australia	\$126,035	Sweden	\$210,130	Bulgaria	\$215,976	Netherlands	\$362,259
UK	\$116,921	France	\$135,848	Germany	\$166,555	France	\$291,869

All values in USD thousands. China = Mainland China. Data may include transshipments

**Description:** Exhibit 6a is composed of four tables in which the ranking of exporters and importers of palm, soybean, rapeseed, and sunflower oils is described. Detailing the information for palm oil, the top 10 exporters are Indonesia with exports worth USD 14,365 million; Malaysia with USD 9,064 million; the Netherlands with USD 1,078 million; Germany with USD 369.9 million; Guatemala with USD 346.8 million; Papua New Guinea with USD 344.9 million; Honduras with USD 270.15 million; Colombia with USD 245.55 million; Ecuador with USD 228.15 million and Nigeria with USD 129.8 million.

For its part, the 10 largest importers of palm oil are India with imports worth USD 5,642 million; China with USD 2,865.5 million; Pakistan with USD 1,701 million; the Netherlands with USD 1.55 billion; Nigeria with USD 1,441 million; Italy with USD 1,043 million; Spain with USD 1,043 million; Germany with USD 1,024 million; Bangladesh with USD 946 million and the United States with USD 892 million.

**Source:** FAO



Exhibit 6b: Vegetable oil trading matrices for top exporters/importers in 2016 (USD '000)

Palm oil		Importers									
		India	China	Pakistan	Netherlands	Nigeria	Italy	Spain	Germany	Bangladesh	USA
Exporters	Indonesia	3,438,611	1,641,622	1,289,448	566,493	34,503	552,274	689,078	133,525	575,418	458,316
	Malaysia	1,710,824	796,333	531,060	554,372	122,600	279,607	122,794	18,502	268,210	225,306
	Germany		3		71,149	21	5,454	11,958			
	Netherlands	1	5				41,043	46,286	256,073		871
	Honduras	0			152,865			1,791	39,610		2,816
	Colombia				119,278			16,438	15,872		4,939
	Ecuador				6,872		61	15,588			4,335
	Niger	2,851	745						640		
Soybean oil		Importers									
		India	Bangladesh	Algeria	China	Morocco	Peru	Colombia	Mexico	Venezuela	Egypt
Exporters	Argentina	1,958,793	388,782	123,771	488	29,578	221,426	11,786		113,846	409,974
	Brazil	377,719	52,515	88,778	172,974		11,492	2,191		7,196	3,724
	USA	208	542	9,859	103,713	13,329	31,790	61,889	225,798	40,944	12,774
	Paraguay	181,638	131,131	8,395						6,229	16,332
	Netherlands	1		16,162	122	60,838			59		13,808
	Russia			129,670	52,741	4,220				11,025	8,837
	Germany	223	3	15,863	23	109,233			46		13,693
	Spain	0		69,727	58	81,762	0	0	0		26,528
	Malaysia	340		442	6,536						
Rapeseed oil		Importers									
		USA	Netherlands	China	Norway	India	Germany	Belgium	Czechia	Sweden	France
Exporters	Canada	1,632,960		436,048		24,682	3,972	5			
	Germany	503	445,447	176	65,918	27		74,520	8,037	13,855	53,226
	Czechia		2,863			5	34,760				0
	Poland	222	19,765	31	512		36,827	12	243,050	3,546	2
	Belgium	106	80,631	20	9,785	2,761	22,732		61	78,966	49,784
	France	1,215	51,453	12,474	15,801		42,304	53,400	28	8	
	Netherlands	5,442		13,991	7,336	10,074	25,053	105,017	122	1,683	3,037
	Russia	0	2,422	10,330	104,484		1				
	Australia			17							
UK	1,092	30,397	1,565	33,375	20	24,168	2,746	7	278	3,649	
Sunflowerseed oil		Importers									
		India	Turkey	China	Spain	Iraq	Italy	Belgium	Germany	Netherlands	France
Exporters	Russia		431,031	107,052	10,803	497		18	427		38
	Turkey			2,984		370,876		329	569	2,536	95
	Netherlands		34	36	9,608	20	4,475	212,767	154,218		13,801
	Argentina	46,786		85,083						2,748	19,926
	France	3	1	167	62,515		13,971	109,842	15,649	56,536	
	Hungary			246		123	23,908	7,696	94,657	116,709	5,308
	Spain	99		4,019	7,423		2,263	4,629	8,487	4,054	39,022
	Bulgaria	92	9,659	397	7,282	478	17,891	0	293	4,360	7,721
Germany	92	60	932	625	29	7,037	15,960		60,062	14,798	

Exporters listed in descending order by ranking in terms of total exports  
 Importers listed from left to right by ranking in terms of total imports  
 Data may include transshipments

**Description:** Exhibit 6b shows the origin of the imports of the 10 main importers of vegetable oil or, equivalently, the destination of the exports of the main exporters. Regarding Colombia, palm oil exports are directed mainly to the Netherlands with USD 119 million in exports; Spain with USD 16 million; Germany with USD 15.9 million; and the United States with USD 4.9 million.

**Source:** FAO



**Exhibit 7: Vegetable oil balance sheets for major producing countries (2018/19)**

Country	Beginning Stocks	Production	Imports	Total Supply	Exports	Domestic Consumption	Ending Stocks	Domestic consumption/ Production
<b>( '000 metric tons)</b>								
<b>Palm oil</b>								
Colombia	219	1,625	246	2,090	677	1,085	328	67%
Indonesia	3,004	41,500	0	44,504	29,200	12,625	2,679	30%
Malaysia	2,529	20,800	1,082	24,411	18,364	3,504	2,543	17%
Nigeria	97	1,015	330	1,442	18	1,340	84	132%
Thailand	368	2,900	2	3,270	275	2,565	430	88%
<b>Soybean oil</b>								
Argentina	274	7,910	0	8,184	5,261	2,684	239	34%
Brazil	385	8,160	50	8,595	1,079	7,191	325	88%
China	568	15,232	783	16,583	197	15,885	501	104%
European Union	159	3,069	416	3,644	787	2,455	402	80%
United States	905	10,975	180	12,060	881	10,374	805	95%
<b>Rapeseed oil</b>								
Canada	487	4,065	16	4,568	3,200	980	388	24%
China	1,741	6,425	1,507	9,673	15	8,387	1,271	131%
European Union	258	9,698	246	10,202	210	9,700	292	100%
India	168	2,584	125	2,877	4	2,730	143	106%
Japan	28	1,040	20	1,088	1	1,060	27	102%
<b>Sunflowerseed oil</b>								
Argentina	53	1,465	0	1,518	825	649	44	44%
European Union	339	3,718	1,966	6,023	485	4,963	575	133%
Russia	109	4,853	10	4,972	2,651	2,225	96	46%
Turkey	58	1,022	533	1,613	436	1,155	22	113%
Ukraine	118	6,364	0	6,482	6,063	280	139	4%

**Description:** Exhibit 7 shows the accounting flows of the production of the different vegetable oils in the producing countries. For the specific case of palm oil in Colombia, for the 2018/2019 period, it began with a production stock of 219,000 MT. During the same period, production reached 1,625,000 MT and imports were 246,000 MT. Adding the initial stock plus production and imports, a total supply of 2,090,000 MT of palm oil was reached in the country.

**Source:** FAO

## B. Consumer issues affecting palm oil demand

### 1. Health concerns

Concern over the dietary implications of palm oil dates back to the early 1950s when nutritionists began to hypothesize a relationship between the consumption of fats —mainly animal fats— and heart disease. Later studies focused more specifically on the relationship between saturated fats, serum cholesterol, and heart disease. As the popularity of low-fat diets grew during the 1950s and 1960s, and as hydrogenation gave polyunsaturated oils frying and baking qualities similar to those of animal fats, polyunsaturated vegetable oils, including canola, safflower, sunflower, peanut, corn, cottonseed, and soybean oil, largely replaced traditional animal fats in the American diet.<sup>vi</sup>

Palm oil, due to its relatively high (50%) saturated fat content, is semi-solid at room temperatures and performs similarly to animal fats and partially hydrogenated vegetable oils (PHOs), in cooking and baking applications where “hard fats” are needed for structure, texture, and longevity. But in the U.S., as the consumption of fats and oils moved away from



animal fats and towards vegetable oils, palm oil and coconut oil were specifically singled out as detrimental to health due to their higher levels of saturated fats. Based on the findings of numerous studies which purported to support the saturated fat —cholesterol— heart disease hypothesis, the campaign against “tropical oils,” which included both palm oil and coconut oil, was strongly supported by the American Soybean Association due to the threat which lower-cost palm oil might present to partially hydrogenated soybean oil, which eventually grew to dominate the U.S. market for fats and oils.<sup>vii</sup>

Beginning in the 1990s, however, studies began to identify and confirm a relationship between trans-fats in PHOs and heart disease. In 2003, the U.S.’ Food and Drug Administration (FDA) published a rule stating that beginning on January 1, 2006, food manufacturers would have to indicate the presence of trans fats on food labels. At the time of the ruling, “there were partially hydrogenated oils in some 42,720 packaged food products, including 100 percent of crackers, 95 percent of cookies, 85 percent of breadings and croutons, 75 percent of baking mixes, 70 percent of chip-type snacks, 65 percent of margarines, and 65 percent of pie shells, frosting, and chocolate chips.”<sup>viii</sup> Palm oil offered a convenient alternative to the use of PHOs, and was quickly adopted by food manufacturers in Europe. But in the U.S., “palm oil was like arsenic”<sup>ix</sup> due to the campaigns against “tropical oils” and their high levels of saturated fats that began in the 1980s. In response, the U.S. vegetable oils industry began to develop alternative processes to “harden” polyunsaturated vegetable oils to give them cooking qualities similar to those of PHOs, palm oil or animal fats. By 2018, when the FDA imposed a ban on trans fats throughout the U.S. food system, a number of different alternatives to PHOs were in use in the U.S. food industry including non-hydrogenated polyunsaturated oils for frying, mixing fully hydrogenated oils (which contained no trans fats) with non-hydrogenated polyunsaturated oils, genetic alteration of soybeans to increase their oleic acid content, increased use of sunflower oil bred to be high in oleic fatty acids,<sup>x</sup> and a growing use of palm oil, whose imports rose from less than 200 MT in 2000 to 1.6 million MT in 2019/2020<sup>xi</sup> (although palm oil still only accounted for 10% of the U.S.’ total vegetable oil consumption in 2019/2020. Please see **Exhibit 4**).

As evidence regarding the dangers of PHOs finally led to its removal from U.S. shelves, new research reviewed earlier findings regarding the health risks of palm oil. As reported in Cestaro and Porta:

*This review shows that the massive attack against the use of palm oils in food production is largely unjustified. In fact, within the limits of a balanced diet and according to the forthcoming EU regulation, the consumption of palm oil should not expose people to more health risk than the other fats usually employed in the food industries. Moreover, palm oil is not only rich in SFAs, but also in carotenoids and tocotrienols that can counteract the potential negative effects of other components and provide several additional health benefits. Further studies are needed to better clarify the contribution of palm oils to human health.*<sup>xii</sup>

Other reviews have been more nuanced in finding evidence of both benefits and risks:

A review and meta-analysis of dietary intervention trials to assess the effect of substituting palm oil for other primary dietary fats on blood lipid-related markers of coronary heart disease (CHD) and cardiovascular disease (CVD) published in the American Journal of



Clinical Nutrition led to the following conclusion: “Both favorable and unfavorable changes in CHD/CVD risk markers occurred when Palm Oil (PO) was substituted for the primary dietary fats, whereas only favorable changes occurred when PO was substituted for *trans* fatty acids. Additional studies are needed to provide guidance for policymaking.”<sup>xiii</sup>

“The palm oil industry and noncommunicable diseases” published by the World Health Organization concluded that “Reports of the health impacts of palm oil consumption in foods are mixed. Some studies link consumption of palm oil to increased ischemic heart disease mortality, raised low-density lipoprotein cholesterol, increased risk of cardiovascular disease, and other adverse effects. Other studies show no negative effects or even favorable health outcomes from palm oil consumption.”<sup>xiv</sup>

Numerous additional articles in the popular press essentially repeat these findings and reflect a continuing skepticism regarding palm oil consumption despite evidence that moderate levels of consumption are, on the whole beneficial for most consumers. This skepticism can be found in both U.S. and non-U.S. consumer markets.<sup>8</sup>

Many of these same reviews, after failing to find strong arguments either in favor or against palm oil for health reasons, pivot to a discussion of the environmental impact—and less frequently, to the impact on farm workers, small producers, and indigenous peoples—of the expanding production of palm oil, especially in Southeast Asia.

## 2. Environmental and social concerns

Beginning in the late 1990s and early 2000s, as new oil palm plantations were established to meet the growing demand for palm oil (Indonesia nearly tripled its output between 2000 and 2010; (please see **Exhibit 8** to observe the rapid increase in palm oil production, especially in Indonesia and Malaysia beginning in the year 2000.), consumer and environmental advocates also began to express concern over their impact on forests, peat bogs, and wildlife habitats, and on the smallholder oil palm producers, farm workers, and their surrounding communities.

A sample of expressions of concern by some of the world’s most prominent news, labor advocacy, and conservation organizations is reproduced in the following paragraphs (all of which are excerpted from longer articles):

World Wildlife Fund (WWF), January 17, 2020:

*Palm oil has been and continues to be a major driver of deforestation of some of the world’s most biodiverse forests, destroying the habitat of already endangered species like the Orangutan, pygmy elephant and Sumatran rhino. This forest loss coupled with conversion of carbon rich peat soils are throwing out millions of tons of greenhouse gases into the atmosphere and contributing to climate change. There also remains some exploitation of workers and child labor. These are serious issues that the whole palm oil sector needs to step up to address because it doesn’t have to be this way.*<sup>xv</sup>

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**8** An example of this skepticism outside of the U.S. can be seen in a February 2021 article in *The Globe and Mail*, Canada’s most widely distributed newspaper, which associates palm oil with health issues as well as environmental issues. However, labor practices in palm oil production are not identified as a consideration. (Van Rosendaal, Julie. “Is your butter not as soft as it used to be? The pandemic and our urge to bake is partly to blame – along with palm oil.” *The Globe and Mail*, February 20, 2021. <https://www.theglobeandmail.com/life/food-and-wine/article-is-your-butter-not-as-soft-as-it-used-to-be-the-pandemic-and-our-urge/?ref=premium>)



#### Conservation International:

*The exponential growth of palm oil poses unprecedented threats to forests, wildlife and people in the areas where it is grown and harvested. Across southeast Asia, and increasingly in Africa and Latin America, tropical forests are being converted to oil palm plantations. And peatlands—wetlands with carbon-rich soils—are being drained for cultivation. This results in the significant emission of greenhouse gases that contribute to climate change, as well as threatening the last remaining habitats for endangered species like the orangutan and Sumatran tiger. And the basic rights of people and communities are increasingly at risk due to land disputes between palm producers and indigenous communities.<sup>xvi</sup>*

#### Amnesty International:

*Amnesty International found serious human rights abuses on the [Indonesian] plantations of Wilmar [the world's largest world's largest processor and merchandiser of palm oil] and its suppliers. These included forced labour and child labour, gender discrimination, as well as exploitative and dangerous working practices that put the health of workers at risk. The abuses identified were not isolated incidents but due to systemic business practices by Wilmar's subsidiaries and suppliers, in particular the low level of wages, the use of targets and 'piece rates' (where workers are paid based on tasks completed rather than hours worked), and the use of a complex system of financial and other penalties. Workers, especially women, are employed under casual work arrangements, which make them vulnerable to abuses.<sup>xvii</sup>*

#### Rainforest Action Network:

*Increasingly, the exploitation of workers has been at the center of controversies in the palm oil industry. In 2015, forced labor and human trafficking on the plantations of one of Malaysia's biggest palm oil companies, Felda Global Ventures, made front page news in the Wall Street Journal, showing that global brands are buying Conflict Palm Oil produced by forced labor. Shortly after in June 2016, Indonesia's largest conglomerate, Indofood, was exposed for systemic violations of workers' rights, including: maintaining a heavy reliance on invisible kernel workers—unofficial workers who help harvesters meet unrealistically high quotas, but have no direct employment relationship with the company—and casual workers; paying unethically low wages that often did not meet minimum wage; setting unattainable quotas, which resulted in children working on the plantation; putting workers' health and safety at risk; and undermining Freedom of Association.<sup>xviii</sup>*

#### Accenture for Humanity United:

*The production and trade of palm oil is rapidly expanding, given the significant demand for vegetable oils in both developed and developing countries. Large corporate producers in Malaysia and Indonesia are continuing to expand their land holdings and their workforces. The palm oil industry is now one of the most significant employers in Malaysia and Indonesia, employing as many as 3.5 million workers. Many of these workers are victims of serious labor*

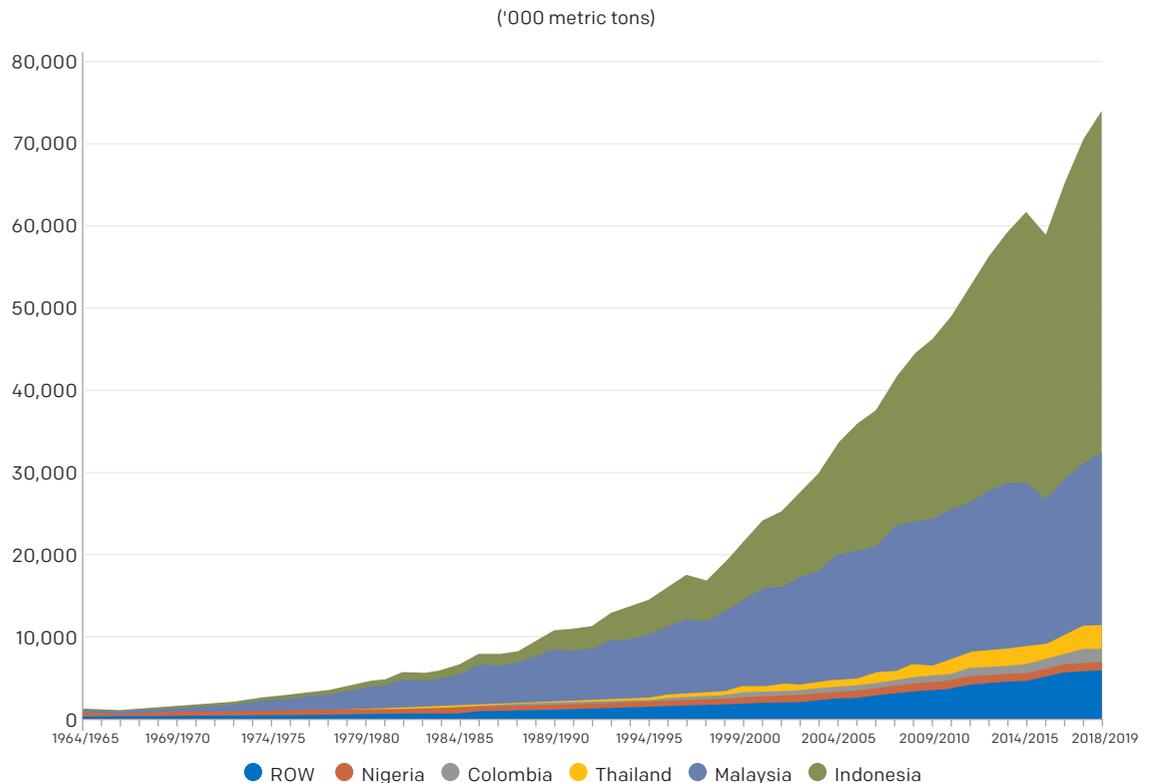


exploitation: Workers are trafficked into bonded labor; forced to work and live under extreme conditions, with limited legal recourse; suffer from abuse or the threat of abuse; or are victims of child labor. These exploitations constitute modern forms of slavery.<sup>xix</sup>

The New York Times, Nov 20, 2018

The tropical rain forests of Indonesia, and in particular the peatland regions of Borneo, have large amounts of carbon trapped within their trees and soil. Slashing and burning the existing forests to make way for oil-palm cultivation had a perverse effect: It released more carbon. A lot more carbon. NASA researchers say the accelerated destruction of Borneo's forests contributed to the largest single-year global increase in carbon emissions in two millennia, an explosion that transformed Indonesia into the world's fourth-largest source of such emissions. Instead of creating a clever technocratic fix to reduce America's carbon footprint, lawmakers had lit the fuse on a powerful carbon bomb that, as the forests were cleared and burned, produced more carbon than the entire continent of Europe. The unprecedented palm-oil boom, meanwhile, has enriched and emboldened many of the region's largest corporations, which have begun using their newfound power and wealth to suppress critics, abuse workers and acquire more land to produce oil.<sup>xx</sup>

**Exhibit 8: World Palm Oil Production 1964/65 – 2018/19**



**Description:** Exhibit 8 shows the increase in palm oil production worldwide. The graph goes from levels of 1.2 million MT produced worldwide in 1964/1965, to a total of 74.1 million MT in 2018/2019. 56% of current production occurs in Indonesia, 28.3% in Malaysia, 3.9% in Thailand, 2.2% in Colombia, 1.4% in Nigeria and 8.2% in other countries.

**Source:** United State Department of Agriculture, Foreign Agriculture Service: Production, Supply and Distribution (<https://apps.fas.usda.gov/psdonline/app/index.html#/app/home>)



## C. Strategies to mitigate the adverse environmental and social impacts of palm oil production

This growing alarm about the environmental and social impact of rapidly increasing amounts of palm oil production has led governments; regional associations; coalitions of public, private, and non-profit sector stakeholders in the palm oil value chain; and corporations in the food and cosmetics industries along with their value chain suppliers to develop and implement policies and programs to mitigate the harm caused to the environment and farm workers, small producers, and indigenous peoples.

### 1. Trade policies affecting palm oil

#### The European Union

Beginning in 2009, the EU embarked on a phased conversion of its energy sources away from fossil fuels and towards renewable forms of energy.<sup>xxi</sup> In 2018, Directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources introduced a new approach to address emissions from indirect land-use change (“ILUC”) associated to the production of biofuels, bioliquids, and biomass fuels:

*ILUC emissions can occur when pasture or agricultural land previously destined for food and feed markets is diverted to the production of fuels from biomass. The food and feed demand will still need to be satisfied either through intensification of current production or by bringing non-agricultural land into production elsewhere. In the latter case, ILUC (conversion of non-agricultural land into agricultural land to produce food or feed) can lead to the release of GHG emissions, especially when it affects land with high carbon stock such as forests, wetlands and peat land. These GHG emissions can be significant and could negate some or all of the GHG emission savings of individual biofuels.*

*In order to address this issue, the Directive sets national limits, which will gradually decrease to zero by 2030, for high ILUC-risk biofuels, bioliquids and biomass fuels produced from food or feed crops for which a significant expansion of the production area into land with high carbon stock is observed. These limits will affect the amount of these fuels that can be counted when calculating the overall national share of renewables and the share of renewables in transport.”<sup>xxii</sup>*

The 2018 Directive also set a Europe-wide target of 32% renewable energy to be met by 2030.<sup>xxiii</sup> Article 26 of the 2008 Directive established “specific rules for biofuels, bioliquids, and biomass fuels produced from food and feed crops:”

*The share of high indirect land use change-risk biofuels, bioliquids or biomass fuels produced from food and feed crops for which a significant expansion of the production area into land with high-carbon stock is observed shall not exceed the level of consumption of such fuels in that Member State in 2019, unless they are certified to be low indirect land-use change-risk biofuels, bioliquids or biomass fuels pursuant to this paragraph. ... From 31 December 2023 until 31 December 2030 at the latest, that limit shall gradually decrease to 0%.<sup>xxiv</sup>*



The criteria for the “determination of high indirect land-use change-risk feedstock for which a significant expansion of the production area into land with high carbon stock is observed and the certification of low indirect land use change-risk biofuels, bioliquids and biomass fuels” was established in a Delegated Regulation published on March 3, 2019.<sup>xxv</sup>

The publication of the Delegated Regulation defined high ILUC-risk feedstock to include oil palm plantations worldwide but left open the possibility of classifying as low ILUC-risk some oil palm plantations including smallholder plantations of under two hectares, and other new or existing plantations meeting special criteria.<sup>xxvi</sup> Based on the EU’s 2018 Directive and 2019 Delegated Regulation, each EU member state could use palm oil to produce biofuels meeting the EU’s Reduced Energy Directive between 2019 and 2023 in amounts not exceeding the amounts used in 2019, and beginning in 2023 would need to reduce its use of palm oil in biofuels to zero by 2030.

While the European Commission’s rulings in late 2018 and early 2019 were well received, especially by the numerous environmental activist organizations in Europe, as concrete measures taken by the EU Commission to reduce deforestation and limit the emission of greenhouse gases, they were strongly opposed by palm oil producing countries, led by Malaysia and Indonesia, the two largest exporters of palm oil. Other industry participants interviewed by the authors under conditions of confidentiality, observed that as Europeans realize that they will need to farm up to eight times as much land, with a commensurate increase in fertilizers, agricultural chemicals, and water to produce a similar amount of biodiesel using soybean, sunflower, or rapeseed oil, they may revise their policy on palm oil.

### **The United States**

The Bureau of International Labor affairs (ILAB) of the U.S. Department of Labor (USDOL) maintains a “List of Goods Produced by Child Labor or Forced Labor” which is updated every two years. “ILAB maintains the List primarily to raise public awareness about forced labor and child labor around the world and to promote efforts to combat them; it is not intended to be punitive, but rather to serve as a catalyst for more strategic and focused coordination and collaboration among those working to address these problems.”<sup>xxvii</sup>

As reported in the 2020 List of Goods Produced by Child Labor or Forced Labor, palm oil was produced in Sierra Leone using child labor, and in Indonesia and Malaysia using both child labor and forced labor. No other country was identified as using either child labor or forced labor in the production of palm oil.<sup>xxviii</sup>

*The TVPRA [Trafficking Victims Protection Act] directs ILAB “to work with persons who are involved in the production of goods on the list ... to create a standard set of practices that will reduce the likelihood that such persons will produce goods using [child labor or forced labor],” and “to consult with other departments and agencies of the United States Government to reduce forced and child labor internationally and ensure that products made by forced labor and child labor in violation of international standards are not imported into the United States.”<sup>xxix</sup>*

While the USDOL does not hold enforcement authority regarding the prohibition of the importation of goods produced wholly or in part by forced labor, including forced or indentured child labor, the U.S. Department of Labor does share its research with interagency



partners including Customs and Border Protection (CBP) which is part of the Department of Homeland Security.<sup>9</sup> CBP has the authority to prohibit imports of goods produced with forced labor and USDOL research serves as a resource for CBP. In late 2020, CBP issued, for the first time, a “Withhold Release Order” against the importation of palm oil from two Malaysian suppliers based on the findings of a year-long investigation.<sup>xxx</sup>

## 2. Sustainable palm oil certification

Consumer groups, often with the active participation of producers and other value chain participants, have established criteria for the certification of palm oil, as well as other commodities, meeting environmental and social standards. Of the various certification schemes described below, only one –the Roundtable on Sustainable Palm Oil (RSPO)– focuses specifically on palm oil and its derivatives. The others provide standards on the production of palm oil as well as other commodities.

Environmental standards on palm oil production primarily involve CO<sub>2</sub> emissions, bans on deforestation, and the destruction of peat bogs and wildlife habitats of endangered species, while social standards mainly address compliance with national laws and international norms regarding acceptable conditions of work (forms of contracting, payment of legal minimum wages and benefits, and working hours), the prohibition of child labor and forced labor, and respect for community and indigenous peoples’ rights.

The purpose of the various third-party certification schemes is to encourage buyers of palm oil to condition their purchases on palm oil producers’ compliance with certification standards and by doing so, encourage the more widespread adoption of sustainable palm oil production practices.

### Roundtable on Sustainable Palm Oil

In response to growing concerns about the environmental impact of palm oil production, in 2004 industry stakeholders created the RSPO, dedicated to the production and consumption of palm oil that was environmentally, socially, and economically sustainable. By 2019, RSPO included over 4,000 members from 92 countries and all segments of the value chain as well as financial institutions and social and environmental NGOs. RSPO’s activities span the entire producer-to-consumer chain with standards for the certification of sustainable palm oil production and value chain certification to ensure traceability of origin, and the promotion of demand for sustainable palm oil in consumer countries. These standards, the “Principals and Criteria” (P&Cs), were first developed in 2005, with input from all segments of the RSPO membership and primarily addressed issues related to deforestation, the destruction of peat bogs, and the preservation of wildlife habitats – issues predominantly related to the expansion of oil plantations in Southeast Asia. The P&Cs are reviewed and updated every five years, incorporating more stringent standards on environmental and social and economic issues with every update.

The 2018 revision of the P&Cs was organized around three impact areas (Prosperity, People, and Planet), and included seven Principles and 41 Criteria, each with between two

<sup>9</sup> No statute prohibits the importation of goods made with child labor, although goods made with “forced child labor” are covered by Section 307 of the Tariff Act of 1930 (19 U.S.C. §1307), which prohibits importing any product that was mined, produced, or manufactured wholly or in part by forced labor, including forced or indentured child labor. U.S. Customs and Border Protection (CBP) enforces the prohibition. Immigration and Customs Enforcement can pursue criminal investigations of Section 307 violations.



and eleven indicators. It pays much attention to the impact goal of “People: Sustainable Livelihoods and Poverty Reduction,” with criteria focusing on the prohibition of discrimination of any kind, equal pay and conditions for staff and workers and contract workers, respect for the rights of all personnel to form and join trade unions and bargain collectively, the prohibition of child labor, forced labor, and harassment, the protection of reproductive rights, and the protection of a healthy and safe working environment. **Appendix A** presents the criteria and indicators for Principle 6: Respect Workers’ Rights and Conditions.<sup>10</sup>

Producer certification is available to all oil palm producers, from smallholders to large integrated palm oil companies with their own plantations and contracts with independent suppliers. Certification is carried out by independent agencies licensed by RSPO, which audit documentation and make site visits to verify compliance with the P&Cs.

RSPO value chain certification is available to participants in the sector chain, other than producers, including exporters, traders, refiners, and end-product manufacturers. It allows them to certify that their products either use only 100% certified sustainable palm oil (CSPO) (“Identity Preserved” or IP, if the certified palm oil came from a single plantation, or “Segregated” or SG if it comes from two or more plantations), or that at least that some of the palm oil in their products comes from RSPO-certified plantations (“Mass Balance” or MB certification). CSPO producers unable to sell their products through certified supply chains are also able to sell “credits” through RSPO’s “Book and Claim” mechanism whereby end-product manufacturers (or others) can buy certified palm oil credits through an electronic credit auction system managed by RSPO.

By 2019, approximately 19% or 15.4 million MT of the world’s total production of palm oil had been certified as complying with RSPO’s 2018 P&Cs, 93% of which was produced in Indonesia or Malaysia.<sup>xxxI</sup> RSPO-certified palm oil was increasingly in demand by many of Western Europe’s and the U.S.’ largest food and cosmetic manufacturers and distributors, who were also willing to pay a premium averaging USD 30 per MT for IP or SG certification.<sup>11</sup> But major consuming countries such as India, China, Malaysia and Indonesia, as well as other low and middle income countries and other buyers in the U.S. and Western Europe have yet to indicate a willingness to pay a premium for CSPO, resulting in a disincentive for more producers to undertake the arduous and costly certification process.<sup>xxxII</sup>

### **International Sustainability & Carbon Certification (ISCC)**

The ISCC is an “independent multi-stakeholder organization that provides a globally applicable certification system for the sustainability of raw materials and products, traceability through the supply chain and the determination of greenhouse gas emissions and savings. ISCC is a multi-feedstock system and covers agricultural, forestry, and alternative raw materials. The ISCC certification system ensures the sustainability of raw materials and products for various markets, including bioenergy (liquid and gaseous biofuels and bioliquids), food, feed, and chemical/technical markets.”<sup>xxxIII</sup> Various certification systems are available depending on the market to be served. The ISCC EU certification for biofuels in the European Union is recognized by the European Commission to demonstrate

<sup>10</sup> The complete RSPO Principles and Criteria for the Production of Sustainable Palm Oil 2018 is available at <https://rspo.org/principles-and-criteria-review>.

<sup>11</sup> Although only 19% of the world’s palm oil was RSPO certified, 74% of palm oil imported into Europe for food use was certified, with a goal of 100% by 2020. (European Sustainable Palm Oil. “Choosing Sustainable Palm Oil.” The ESPO secretariat, MVO – The Netherlands Oils and Fats Industry, Zoetemeer, the Netherlands. January 2019).



compliance with RED (Renewable Energy Directive) and FQD (Fuel Quality Directive) and is applicable to all types of agricultural and forestry raw materials, waste and residues, biogas, and algae.<sup>xxxiv</sup> ISCC EU certification is required by European purchasers of CPO for use in the production of biodiesel. The ISCC EU certification system covers three categories of criteria:

- Sustainability requirements for biomass production and cultivation and for alternative raw materials.
- Requirements for traceability and chain of custody.
- Requirements for greenhouse gas emission savings and the calculation methodology.

The sustainability requirements include the following 6 principles:<sup>12</sup>

- Principle 1: Protection of land with high biodiversity value or high carbon stock.
- Principle 2: Environmentally responsible production to protect soil, water, and air.
- Principle 3: Safe working conditions.
- Principle 4: Compliance with human, labor and land rights, and responsible community relations.
- Principle 5: Compliance with applicable laws and relevant international treaties.
- Principle 6: Good management practices and commitment to continuous improvement.

It is noted that ISCC System Basics state that “For countries that have ratified the respective ILO conventions, it may be assumed that the social requirements (Principle 4) are fulfilled.”<sup>xxxv</sup> It is further noted that ISCC EU certification in the area of sustainability requires full compliance with criteria labeled as “major must” and a minimum of 60% compliance with criteria labeled as “minor must.” Of the criteria included under Principle 4, eight are labeled as “major must” and fifteen as “minor must.”<sup>xxxvi</sup>

Although ISCC certification does not imply payment of premium prices to producers or extractors, it has become a requirement to sell CPO in various markets including the biodiesel market in Europe.

### **Rainforest Alliance**

The Rainforest Alliance farm certification is based on the Rainforest Alliance Sustainable Agriculture standard for farms and producer groups involved in crop and cattle production, and is rooted in the following sustainability principles:

- Biodiversity conservation.
- Natural resource conservation.
- Improved livelihoods and human well-being.
- Sustainable cattle production.

The Rainforest website describes improved livelihoods and human well-being in the following terms:

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<sup>12</sup> The complete ISCC Sustainability Requirements are available at [https://www.iscc-system.org/wp-content/uploads/2017/02/ISCC\\_202\\_Sustainability\\_Requirements\\_3.0.pdf](https://www.iscc-system.org/wp-content/uploads/2017/02/ISCC_202_Sustainability_Requirements_3.0.pdf)



Certified farms are good neighbors and good employers. They do not use forced labor or engage in labor discrimination, and they protect the health and well-being of all their workers. Minors below the age of 15 years cannot be hired by a certified farm. Workers are paid at least the legal minimum wage and overtime rates of the country where the farm is located, and they have access to safe drinking water, healthcare, and education. Community rights, including the rights of indigenous peoples, are fully respected.<sup>xxxvii</sup>

In addition to individual farm certification, Rainforest Alliance offers a “Chain of Custody” system that “tracks a product from a certified farm through the various stages of trading, manufacturing and warehousing to assure the end consumer that the claim being made on the product accurately reflects the certified content or sourcing of that product.”<sup>xxxviii</sup>

### **Palm Oil Innovations Group**

The Palm Oil Innovation Group (POIG) is a multi-stakeholder of NGOs and palm oil growers that has adopted the Fair Labor Principles as part of its industry-leading labor standards which build on and go beyond existing RSPO standards. “POIG verified oil” conforms to both RSPO and POIG criteria, as POIG grower members are required to become 100% RSPO certified after joining. The POIG Charter sets out four objectives:

- To promote and support innovation and improvements in oil palm plantation and extraction mill management and throughout the supply chain on a range of environmental, social, supply chain and governance issues, and seek to have the innovations rolled out across the palm oil industry and reflected in the RSPO standard.
- To create added value for innovative and progressive producers and supply chain partners through increased market recognition and demand for palm oil products from innovative and improved practices.
- To act as a forum for open discussion and sharing of experience with innovations and improvements in: oil palm plantation practices, extraction mill management practices, responsible procurement, and product traceability and verification throughout the supply chain.
- To act as a forum to collectively engage with governments towards achieving recognition and support for innovations, and have them included in regulations and law.

To measure compliance with the Charter, POIG developed a set of Verification Indicators. These include many categories of indicators in line with RSPO, as well as unique ones such as “Food Security.”<sup>xxxix</sup> Several of POIG’s new indicators and revised standards were adopted by RSPO in 2018 when RSPO updated its standards.<sup>xl</sup>

### **OHSAS 18001 / ISO 45001 / ISO 14001 / ISO 26000**

OHSAS 18001, the Occupational Health and Safety Management Systems certification, was a British Standard for occupational health and safety management systems. Compliance with it enabled organizations to demonstrate that they had a system in place for occupational health and safety. It was cancelled in favor of ISO 45001, a global standard for occupational health and safety management systems.

ISO 14001:2015 specifies the requirements for an environmental management system that an organization can use to enhance its environmental performance. ISO 14001:2015 is



intended for use by an organization seeking to manage its environmental responsibilities in a systematic manner that contributes to the environmental pillar of sustainability.

ISO 14001:2015 helps an organization achieve the intended outcomes of its environmental management system, which provide value for the environment, the organization itself and interested parties. Consistent with the organization's environmental policy, the intended outcomes of an environmental management system include:

- Enhancement of environmental performance.
- Fulfilment of compliance obligations. Achievement of environmental objectives.

ISO 14001:2015 is applicable to any organization, regardless of size, type, and nature, and applies to the environmental aspects of its activities, products, and services that the organization determines it can either control or influence considering a life cycle perspective. ISO 14001:2015 does not state specific environmental performance criteria.<sup>XLII</sup>

ISO 26000:2010 Guidance on social responsibility, provides guidance to all types of organizations, regardless of their size or location, on:

- Concepts, terms, and definitions related to social responsibility.
- Background, trends, and characteristics of social responsibility.
- Principles and practices relating to social responsibility.
- Core subjects and issues of social responsibility.
- Integrating, implementing, and promoting socially responsible behavior throughout the organization and, through its policies and practices, within its sphere of influence.
- Identifying and engaging with stakeholders.
- Communicating commitments, performance, and other information related to social responsibility.

ISO 26000:2010 is intended to assist organizations in contributing to sustainable development, and to encourage them to go beyond legal compliance, recognizing that compliance with the law is a fundamental duty of any organization and an essential part of their social responsibility. It is intended to promote common understanding in the field of social responsibility, and to complement other instruments and initiatives for social responsibility, not to replace them.<sup>XLIII</sup>

Neither OHSAS 18001 nor ISO 45001, ISO 14001, nor ISO 26000 are specifically focused on the palm oil industry. None involve supply chain certification or provide certification of sustainable palm oil, as opposed to certification that a processing plant meets health, safety, and/or environmental criteria.

### 3. Corporate policies for the purchase of sustainable palm oil

Global companies in the food and cosmetics industries are among those most directly affected by consumer concerns regarding the social and environmental impacts of palm oil production and have responded through participation in certification organizations such as the RSPO and through the implementation of corporate policies designed to guarantee the sourcing of socially and environmentally sustainable palm oil. Beyond consumer concerns, companies are responsible for following norms such as the Organization for Economic Co-



operation and Development (OECD) Due Diligence guidelines regarding human rights and labor practices.<sup>13</sup> Several global commodity trading companies have followed suit with their own sourcing standards intended to guarantee the delivery of sustainable palm oil to their food and cosmetic industry customers. Many of these consumer goods companies have also announced their intention to source only 100% sustainable palm oil,<sup>14</sup> and have complied with RSPO or other certification bodies' requirements in order to place those agencies' logos on their packaging.

In addition to requiring compliance with formal third-party certification schemes, some large international buyers apply their own certification standards and inspections for trusted providers who may not have obtained formal certification from one or another of the certification agencies, due to bureaucratic delays in the formal certification processes, but who meet the buyer's social and environmental responsibility guidelines. **Appendix B** presents excerpts from corporate policies for sourcing palm oil by Dunkin Brands, Cargill and Nestlé. In the case of several corporate sustainable palm oil programs, certification timelines and milestones are established, which have been designed to encourage progress towards guarantees of fully sustainable palm oil, while maintaining current production.

Despite such efforts, consumer goods companies, their suppliers, and even their bankers have recently become the highly visible targets of consumer outrage for labor abuses in the palm oil industry, as evidenced in a recent series of reports published by the Associated Press (AP) following a year-long investigation into labor abuses in the Malaysian and Indonesian palm oil industries.<sup>15</sup> These reports contributed to the action taken by the U.S. Customs and Border Patrol (CPB) to prohibit the importation of Malaysian palm oil by two companies accused of child labor and forced labor. Such public shaming of companies using palm oil produced under abusive conditions may lead to increased pressure by consumer goods companies and their suppliers to further strengthen their policies and procedures to only source 100% sustainable palm oil.

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- 13** These OECD guidelines are non-binding recommendations addressed to multinational enterprises by governments on responsible business conduct which encourage positive economic, environmental, and social contributions from businesses while address potential adverse impacts, including risks within supply chains. <http://mneguidelines.oecd.org/guidelines/>
- 14** As reported by RSPO, twelve leading brands in the food and cosmetics industries —Carrefour, Unilever, Walmart, Nestlé, Kellogg's, P&G, Starbucks, Mondelez International, Hershey's, L'Oréal, Mars and Ferrero— are "some of the global companies who have committed to 100% RSPO-certified sustainable palm oil" ("Transforming markets to make sustainable palm oil the norm" RSPO, February 2019.)
- 15** Palm oil labor abuses linked to world's top brands (AP, September 23, 2020 <https://apnews.com/article/virus-outbreak-only-on-ap-indonesia-financial-markets-malaysia-7b634596270cc6aa7578a062a30423bb>); Rape, abuses in palm oil fields linked to top beauty brands (AP, November 17, 2020 <https://apnews.com/article/palm-oil-abuse-investigation-cosmetics-2a209d60c42bf0e8fcc6f8ea6daa11c7>); Child labor in palm oil industry tied to Girl Scout cookies (AP, December 29, 2020 <https://apnews.com/article/palm-oil-forests-indonesia-scouts-83b01f2789e9489569960da63b2741c4>).



# III. The Colombian and Ecuadorian Palm Oil Industries



## A. The Colombian palm oil industry

Colombia's total production of CPO was 1.6 million tons in 2018, more than tripling its output since 2000. Its exports of CPO have also grown rapidly since 2010, increasing from 135,000 tons to 841,000. Over half of its 2018 exports were to the EU, with the remainder going to Mexico, Brazil, and other countries including the U.S., which only imported 9,475 tons in 2018.<sup>XLIII</sup>

Palm oil production began in Colombia in the mid-1950s at the initiative of the country's government as part of its import substitution policy, in collaboration with a small group of agribusiness investors who each planted a 500-hectare oil palm plantation. From these modest beginnings to 2019, the industry expanded to include over 530,000 hectares of oil palm plantations and over 5,100 oil palm producers and 68 extractor mills.<sup>XLIV</sup> Industry sources estimated that 30% of all palm fruit processed by these extractor mills came from their own plantations; the other 70% was purchased from independent oil palm growers, many of them smallholders.

### 1. Colombian policy environment

#### **Economic development policies**

Palm oil production began in Colombia in the mid-1950s at the initiative of the country's government as part of its import substitution policy, in collaboration with a small group of agribusiness investors who each planted a 500-hectare oil palm plantation.

The *Federación Nacional de Cultivadores de Palma de Aceite* (National Federation of Oil Palm Growers – FEDEPALMA)<sup>16</sup> was founded in 1962 to channel communications between

<sup>16</sup> See fuller discussion of FEDEPALMA below under "Producer Associations."



palm oil producers and the Government of Colombia in the context of Colombia's import substitution framework and its support for the establishment of a domestic palm oil industry. Representing only a small number of agribusiness entrepreneurs who had each invested in relatively large oil palm plantations and extractor mills, the Federation's board worked with its government counterparts to ensure the necessary tariff protections, import quotas, and other forms of support necessary to allow this "infant industry" to grow and develop the economies of scale necessary to eventually compete with imported vegetable oils.

During the following nearly thirty years, Colombia's palm oil sector grew to meet the country's needs as imported competing oils were subjected to both tariffs and quotas in order to guarantee a market. Since palm oil producers were not subject to external competition, little effort was made to control costs or improve productivity and palm oil producers focused primarily on expanding their production with the continuing support of the government. Between 1964 –the first year any palm oil production was reported– and 1989, palm oil production rose to over 200 thousand tons, all of which was consumed domestically. Production continued to be concentrated on large oil palm plantations established and managed by agribusiness entrepreneurs. Due to the financial returns to palm oil production during this period, these years were often referred to as the "golden years" within the industry.

Beginning in the late 1980s, two factors radically changed the panorama for Colombia's palm oil producers and nearly led to the industry's demise.

First, due to macroeconomic factors, namely major inflation and currency appreciation related to the "coffee bonanza" in Colombia<sup>17</sup> and the influx of dollars from the sale of illegal drugs, as well as to the international popularity of deregulation, free markets and open economies, Colombia began to dismantle elements of its import substitution model of economic development. This included many of the policies which had protected the domestic palm oil industry from outside competition. These changes created tensions between the palm oil producers and their industrial

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<sup>17</sup> The "coffee bonanza" was a period in the mid-1970s during which world coffee prices rose rapidly. This was initially driven by a frost in Brazil, the world's largest coffee producer, which substantially reduced globally supply. This led to an approximately three-fold increase in the price of Colombian coffee within a matter of years.

buyers who lobbied the government for greater access to imported vegetable oils and lower domestic content requirements for their finished products.

At the same time, domestic palm oil production began to exceed the requirements of the domestic palm oil users. But because the domestic prices had been protected for nearly thirty years, they were nearly twice the FOB world price, making the export of Colombian palm oil very unattractive. And given that in the past there had never been a need to store palm oil for future sale, palm oil extractor mills did not possess storage facilities and were accustomed to shipping their product as soon as it was ready.

This “perfect storm” led to a situation in which palm oil producers fiercely competed with each other for domestic markets as prices fell by nearly 50%, while others were forced to suspend production, leaving unharvested fruit on the trees. What had once been an industry characterized by harmonious relations between producers, all working together to meet the country’s need for palm oil, had become a “dog-eat-dog” world of competing producers.

As it seemed the industry might not survive, FEDEPALMA’s leadership intended to develop a long-term framework to allow the industry to move out of its protected industry status and survive and prosper in an open economy. Drawing on the experience of Colombia’s sugar cane sector, beginning in 1989 and extending for most of the 1990s, FEDEPALMA spearheaded the creation of an industry architecture necessary to ensure its long-term growth and prosperity. These included measures taken within the oil palm producers’ association, and measures taken by the Government of Colombia in support of the oil palm sector. Among the later were:

*Creation of the Oil Palm Development Fund (Fondo de Fomento Palmero or FFP).* The FFP was organized as a parastatal fund, created by an act of the Colombian Congress, which requires that all palm oil producers contribute a fixed amount per MT of palm oil produced into a fund which is managed by an elected board to finance R&D and other activities supporting the palm oil sector. Since not all of Colombia’s oil palm producers are members of FEDEPALMA, FFP governance was deliberately designed to be separate from FEDEPALMA. The FFP provides financing for most of CENIPALMA’s<sup>18</sup> activities but also for many other programs designed or managed by FEDEPALMA, promoting the palm oil industry.

*Creation of the Price Stabilization Fund (Fondo de Estabilización de Precios para el Palmiste, el Aceite de Palma y sus Fracciones or FEP).* Throughout the 1990s, the continuing problem of the difference between domestic and world prices, and the presence of surplus production continued to weigh on the industry. As palm oil production continued to increase over domestic needs, the need to finance the export of excess palm oil continued to grow. A solution to this problem was found via the creation of another parastatal fund, described in the following section.

### **The Price Stabilization Fund for Palm Kernel Oil, Palm Oil and Fractions (FEP) and fresh fruit bunches (FFB) price formation**

Prices paid in Colombia for palm fruit, palm oil, and its derivatives, are all based on the international market which is dominated by Indonesia, and Malaysia where 85% of all palm oil is produced. (Colombia, as the fourth largest producer, only contributes approximately 2% to world production.) Given the often extreme fluctuations in the world price of palm oil

<sup>18</sup> Corporación Centro de Investigación en Palma de Aceite (Oil Palm Research Center Corporation – CENIPALMA), discussed below under producer associations.



(see **Exhibit 9** for world palm oil prices over the years 2003 – 2019), in 1996, the Government of Colombia established the FEP to stabilize prices to producers with the stated purposes of “procuring a remunerative income for producers, regulating national production, and increasing exports.”<sup>XLV</sup>

The FEP is governed by a committee chaired by the Minister of Agriculture and includes representatives from the Ministry of Commerce, Industry and Tourism and producers from each of the four palm-growing sectors. It is managed on a day-to-day basis by FEDEPALMA.

The FEP is designed to establish an average price for sales of CPO by extractors such that the price received by the extractor and, ultimately, by the oil palm producer, will be the same whether the CPO is exported or sold to domestic users.

**Exhibit 9: World Palm Oil Prices 2003 - 2019**



**Description:** Exhibit 9 presents a graph of lines in which peaks in the prices of vegetable oils are observed for the year 2008, the year in which palm oil reached a price of USD 1,377.22 per MT. For the year 2019, the prices of vegetable oils were falling with a price of USD 582 dollars per MT of palm oil. However, at the end of the year there was a rebound reaching USD 769.93

**Source:** Price of Palm Oil (Malaysia) RDB (Refined, Dried and Bleached), CIF Rotterdam. World Bank Commodity Price Data (The Pink Sheet). The World Bank. <http://pubdocs.worldbank.org/en/169031559692506553/CMO-Pink-Sheet-June-2019.pdf>.

Operationally, each month the FEP establishes three indicator prices based on international market conditions during the preceding 30 days:

1. A “local” indicator price which is based on the lowest of either
  - a. The price of CPO in Malaysia –a primary exporter of palm oil to world markets– PLUS the cost of transporting it from Malaysia to Colombian ports, PLUS the Andean Common Market palm oil import tariff (which varies from 1.2% to 20% to compensate price variations in the international market), or
  - b. An average price of CPO substitutes plus transportation and import tariffs.
2. An “export indicator price” which is based on the price of CPO in Rotterdam –used to price Colombian CPO exports to world markets– MINUS the cost of transporting CPO from Colombia to Rotterdam, MINUS Colombian port costs.



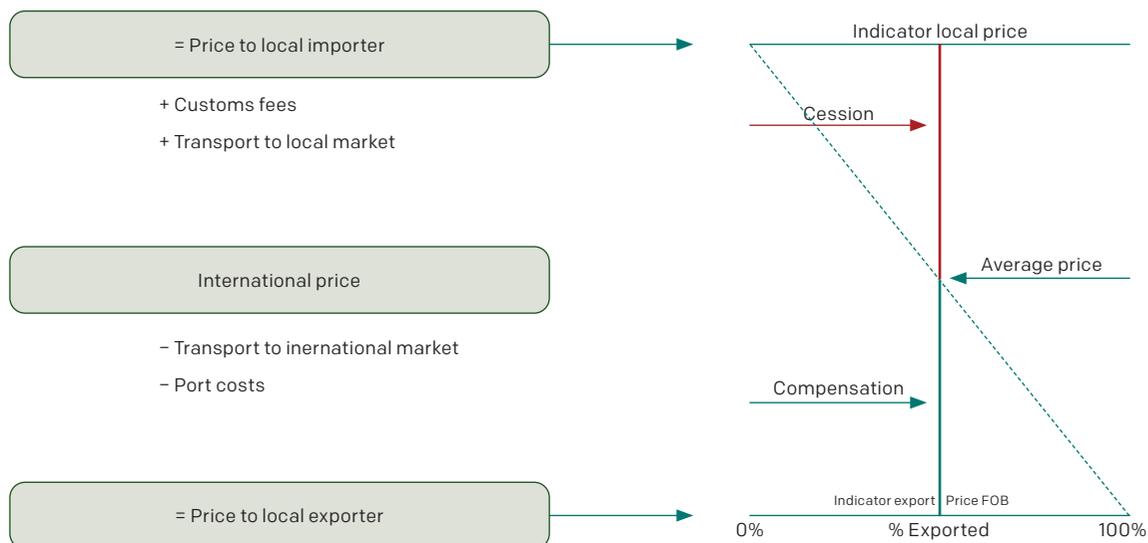
- An “average indicator price” which is the average of the local and export prices, weighted by the percentage of CPO sold domestic consumption or export.

In order to allow extractors –and ultimately, producers– to receive the same price for their CPO sales regardless of destination, the FEP collects sales information from the extractors on a monthly basis and charges extractors a “*cesión*” or payment to the FEP of an amount equal to the difference between the local and average indicator price times the number of tons sold to domestic buyers. It then pays a “*compensación*” or compensation payment to exporters equal to the difference between the average indicator price and the export indicator price times the number of tons exported. Because the average indicator price is a weighted average, the amount of the “*cesión*” is equal to the amount of the “*compensación*” each month.

When the FEP mechanism was originally established, the percent of Colombian CPO exported was relatively small, and the amount of the “*cesión*” per MT was therefore relatively small. However, as the percent of exports has grown, the average indicator price has consequently been driven downwards, with a greater “*cesión*” per MT charged against domestic sales by extractors, resulting in a lower net price received by extractors, and ultimately, producers.

**Exhibit 10** presents a schematic of the operation of the FEP; **Exhibit 11** presents the three FEP indicator prices for January 2017 through December 2019.

#### Exhibit 10: Price Stabilization Fund (FEP) operations

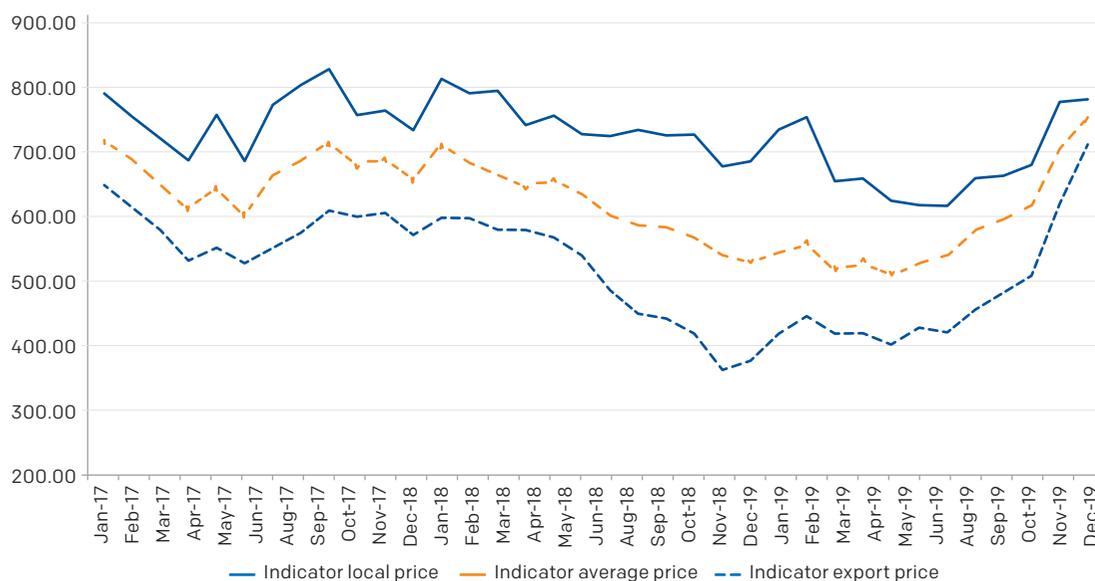


**Description:** Exhibit 10 shows the operation of the FEP designed to establish an average sale price of crude palm oil (CPO) from extractors, in such a way that the price received by the extractor and, ultimately, by the producer of palm oil, is the same whether the CPO is exported or sold to domestic users. To allow extractors - and ultimately producers - to receive the same price for their CPO sales regardless of destination, the FEP collects monthly sales information from extractors - and charges extractors an “assignment” or payment to the FEP for an amount equal to the difference between the local indicative price and the average multiplied by the number of tons sold to national buyers. It then pays exporters a “compensation” equal to the difference between the average indicative price and the export indicative price multiplied by the number of tons exported. Because the Average Indicative Price is a weighted average, the “assignment” amount is equal to the “compensation” amount each month.

**Source:** Based on Cendales Vargas, Jairo, “El Fondo de Estabilización de Precios y la formación de precios del aceite de palma en Colombia.” August 30, 2018



**Exhibit 11: Price Stabilization Fund Indicator Prices January 2017 – December 2019**



**Description:** Exhibit 11 shows the trend of the indicative prices of the Price Stabilization Fund in Colombia with a line graph that illustrates the local price indicator, the export price indicator and the indicator that averages the previous two. For the 2018-2019 period, the indicative prices decreased from more than USD 700 per MT to just over USD 500 per MT. As of May 2019, the price trend changed positively and by December 2019 (last cut of the graph) they averaged USD 755 per MT.

**Source:** Derived by authors from Price Stabilization Fund working documents

In essence, by adding the compensation payments to prices received from buyers, the FEP mechanism allows palm oil to be exported at prices which are higher than would otherwise be the case, with the export compensation paid for by local buyers and consumers.

In practice, of course, extractors sell both domestically and internationally at prices negotiated with their buyers which may or may not be equal to the indicator prices calculated by the FEP. This may result in average prices received by extractors, after the *cesión* or compensation payments, which are slightly higher or lower than the FEP-calculated average price.

However, as Colombia increases the percentage of its total production which is exported, the weighted average indicator price will move further away from the domestic indicator price and closer to the lower export indicator price, compounding the impact of lower palm oil prices in world markets.

*Fresh fruit price formation:* Most purchases of fresh fruit bunches (FFB) by extractors are based on the FEP-calculated average price as explained in the previous section. The percentage of the CPO average price varies somewhat based on delivery arrangements and other contract details between the producer and the extractor and are further adjusted for the value of the palm kernels or palm kernel oil and meal but are generally based on the CPO extraction rate (usually between 20% and 22%) and extraction mill costs. Seventeen percent of the FEP average indicator price is frequently quoted as the basis for prices paid for FFB by Colombia's extractor mills.

### Land tenure and resettlement policies

In the late 1990s, Colombia faced disruptions due to the presence of armed guerrilla and, later, paramilitary groups. Palm oil producers were especially affected by the security



breakdown in rural areas where they and their employees were subject to attack, kidnapping, and assassination. This lack of security led some plantation owners to lose interest in directly managing their plantations or continuing to invest in increasing them.

At the same time, the government of Colombia sought to promote the resettlement of rural families displaced by armed conflicts and to create employment opportunities in the rural sector to stop the production of illegal drugs. FEDEPALMA worked with the government and with international organizations to create what came to be called *Alianzas Productivas Estratégicas* (Strategic Productive Alliances) under which palm oil companies sponsored the creation of *núcleos palmeros* (palm nuclei) or tracts of land surrounding or near established oil palm plantations where small plots of 10 to 20 hectares on average were sold to smallholder families to grow oil palms and deliver their FFB to the sponsoring palm oil company. Financing was provided through government sources or international development projects, while technical assistance and supervision, and a market for the FFB were provided by the sponsoring palm oil company. In this way, palm oil companies, and the sector as a whole, were able to continue to increase their output and achieve economies of scale while the areas surrounding existing oil palm plantation enjoyed the social stability of thousands of rural families settled on their own land and earning the greater income that oil palm cultivation could provide.<sup>XLVI</sup>

While many small producers brought into oil palm production through these schemes have prospered with above-average earnings, others with less experience in the oil palm sector – or in agricultural production in general – have failed to meet expectations in terms of yield and earnings. In some cases, their sponsoring palm oil companies appear to have also lost interest in continuing to provide technical assistance and support, or even in receiving their palm fruit due to reduced quantities, the quality of the fruit and the costs of transporting the fruit to the extractor mill.<sup>XLVII</sup>

## Labor policies

*Labor contracting practices pre-2010:* The rapid expansion of Colombia's area planted with oil palm between 1990 and 2010 was accompanied by the deployment of numerous informal and formal or quasi-formal labor practices on both small and large oil palm plantations. As increasing numbers of small farmers were brought into oil palm production (many under the Strategic Productive Alliances program referenced above and during periods of social instability in oil palm producing areas), little or no attempt was made to formalize labor agreements beyond providing sources of employment to landless rural workers in need of stable sources of income. For the many small producers with ten or fewer hectares, there was little need for permanent farm labor beyond that available within the family unit.

On larger oil plantations, including both integrated and independent palm oil producers, given the state of social turmoil in newly developing oil palm regions, a priority for those investing in new or expanding oil palm plantations was the avoidance of confrontations with labor organizations. To do so, many of the larger oil palm plantations made use of "Associated Work Cooperatives" (*Cooperativas de Trabajo Asociado*), or CTAs as an alternative to direct employment relationships with their workers.<sup>19</sup> As reported by USDOL, "Prior to the adoption of

<sup>19</sup> CTAs are groups of five to twenty self-managed, autonomous, and self-governing associated workers that contract with business or the public sector to perform specific functions or tasks. (USDOL, ILAB. Labor Rights Report 2008 – Colombia <https://www.dol.gov/agencies/ilab/country/ilab-colombia>.) The use of CTAs was not confined only to oil palm plantations; they were also commonly used in the sugar and cut flowers sectors among others.



Law 1429 of 2010, Colombian employers seeking to avoid direct labor contracts with workers frequently acquired workers through CTAs—often firing direct employees and re-contracting the same workers through CTAs—which falsely characterize workers as cooperative ‘owners,’ thereby excluding them from the many Labor Code protections covering ‘workers.’<sup>20</sup>

In 2004, Colombian government inspectors found irregularities or abuses in connection with 75 percent of the CTAs.<sup>21</sup> Beginning in 2006, the Government of Colombia took measures, via Decree 4588 of 2006 and Law 1233 of 2008, to prohibit their use as vehicles for subcontracting or as temporary service agencies, and to extend guarantees governing minimum wage and social benefits to CTA members. Nevertheless, and due partly to lax enforcement by the then Ministry of Social Provision, their usage continued to expand. As reported in the USDOL, ILAB’ Labor Rights Report of 2011:<sup>20</sup>

*“CTAs became a vehicle widely used by employers to end direct employment relationships with their workforces, while retaining the same or other workers through CTAs and continuing to act as their de facto employers, for example by engaging in prohibited practices to control the workers’ schedules, assign duties, determine terms and conditions of employment and make personnel decisions. As members of cooperatives, the workers are vulnerable to exploitation because CTA members are considered cooperative “owners,” rather than workers, and are thus excluded from many Labor Code protections. This status also denies workers the right to form unions and bargain with their de facto employers. The ILO has consistently asked the Government of Colombia to reform laws and improve enforcement in order to end misuse of CTAs to impede workers’ rights to associate and bargain collectively.”<sup>21</sup>*

In 2010, the Colombian Government enacted Law 1429, article 63 which prohibited the use of CTAs to perform “permanent mission activities,” or core functions, and prohibited the use of other contracting mechanisms when those methods affect constitutional rights and statutory labor rights. Article 63 also established, for the first time, significant fines for both employers and CTAs for violations (previous legislation had only included sanctions for the CTAs themselves but not for companies employing CTAs as an alternative to direct employment).<sup>21</sup>

Findings of misuse of CTAs also led to the inclusion of the palm oil sector, along with the sugar, mining, port, and flower sectors, for improved labor law enforcement under the Colombian Action Plan Related to Labor Rights (Labor Action Plan or LAP) negotiated between Colombia and the U.S. This was a precursor to the signing of the U.S. – Colombia free trade agreement in 2012, announced by the presidents of both countries on April 7, 2011. Under the LAP, the Government of Colombia agreed to undertake measures to strengthen and improve compliance with existing labor laws regarding labor contracting and workers’ rights to organize, violations of which Colombia’s two leading labor union federations had frequently complained about.<sup>21</sup> Among other areas of focus, the LAP specifically included commitments related to the establishment of a separate Colombian Ministry of Labor in

<sup>20</sup> The U.S. Department of Labor published overviews of labor rights in Colombia in response to the requirement of the United States’ Trade Act of 2002 that the President provide a “meaningful labor rights report” concerning each country with which a free trade agreement is under consideration. These reports have been discontinued for Colombia following the passage of the United States-Colombia Trade Promotion Agreement.

<sup>21</sup> This issue was raised by the International Labor Organization (ILO) in its 2011 Report of the Committee of Experts on the Application of Conventions and Recommendations (CEACR). ([https://www.ilo.org/wcmsp5/groups/public/---ed\\_norm/---relconf/documents/meetingdocument/wcms\\_151556.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---relconf/documents/meetingdocument/wcms_151556.pdf), pg. 516-520)



place of the then current Ministry of Social Provision, a substantial increase in the number of labor inspectors to exclusively address cases involving cooperatives, and publication of regulations for the implementation of article 63 of Law 1429 including a provision allowing companies found to have denied worker rights through the abuse of laws governing subcontracting figures to avoid fines by agreeing to create and maintain direct employment relationships with the affected workers. The LAP also committed Colombia to seek the support of the International Labor Organization (ILO) for help in the implementation of the measures outlines in the action plan.<sup>LI</sup>

Between 2011 and 2014, due to its aggressive actions in prosecution of violations of Law 1429, Colombia's Ministry of Labor reported a dramatic reduction in the number of CTAs (in all sectors – not only palm oil).<sup>LII</sup> Many companies employing CTAs for outsourcing purposes agreed to “formalization agreements” under which workers formerly employed under CTAs would be hired as direct employees (frequently under threat of significant fines). Others were reported to have transformed their CTAs to Union Contracts or Simplified Stock Companies which were thought by some to offer improved protection against prosecution under Law 1429. As reported by the USDOL in 2017, “The use of CTAs has decreased significantly since the adoption and enforcement of Law 1429 of 2010 and its regulatory Decree 2025 of 2011. Instead, some employers appear to have turned to other subcontracting arrangements, such as union contracts (*contratos sindicales*) and simplified stock companies (SAS or *sociedades por acciones simplificadas*), both of which may similarly undermine workers' right to form unions and bargain collectively.”<sup>LIV</sup>

### **Current labor practices in the Colombian palm oil industry:**

#### *A. Contract formalization*

While some meaningful progress has been made, including among some of the larger oil palm producers, evidence suggests that full labor formalization including all required benefits and protections for workers in the palm oil industry is incomplete. The practice of hiring workers informally or on short-term contracts is a risk factor for forced labor and other abuses in the sector, while robust forms of direct employment between workers and employers provide protections against this.

Estimates of the level of formality in the palm oil sector varied greatly depending on the source and how formality was defined. For purposes of labor statistics, the ILO has included in its description of informality that, “Employees are considered to have informal jobs if their employment relationship is, in law or in practice, not subject to national labour legislation, income taxation, social protection or entitlement to certain employment benefits.” The ILO further notes that on an operational basis, countries may use criteria including lack of coverage by social security system, lack of entitlement to paid annual or sick leave, and lack of written employment contract.<sup>LV</sup> The absence of a consensus around how formality and related concepts are defined leads to the divergence in estimates, even when evaluating the same dataset.

The term “direct workers” most often refers to workers who have been employed *directly* by producers themselves as opposed to being outsourced through third-party contractors (e.g., through CTAs and other mechanism) where abuses have historically been widespread. Workers in the latter category are typically referred to as “indirect” workers.

In 2016, Colombia's National Statistics Department (DANE) and FEDEPALMA implemented the First Survey on Direct Employment in the Colombian Oil Palm Sector. In analyzing the survey's findings, FEDEPALMA defined “formal employment” as employment relationships



including “indefinite-term contracts, fixed-term contracts, service agreements, subcontracting, apprentices and interns, contributing family workers with a fixed remuneration, temporary agency contracts, and other schemes [SAS, CTAs, and union contracts].”<sup>LVI, 22</sup> Based on this definition, FEDEPALMA reported that by 2016, 82.4% of workers directly employed in the palm oil sector were employed through formal contracting relationships.<sup>LVII</sup> It also estimated that 67,672 workers were employed in the sector directly (i.e., working in the production palm oil at plantations, farms, and mills rather than indirectly in supporting industries), representing 0.3% of national employment.<sup>23</sup> <sup>LVIII</sup> (**Exhibit 12** presents the full breakdown of employment relationships by category as reported in the DANE/FEDEPALMA employment survey.) In reviewing the findings of this survey, other observers have argued that FEDEPALMA has overstated the level of formality in the palm oil sector by using a very broad definition of “formal employment” and including categories such as CTAs in this figure, as well as failing to properly account for seasonality in its survey methodology.<sup>LIX</sup> Mondiaal FNV, part of the Dutch national trade union confederation, noted that by restricting the definition of formal employment so as to include only workers hired through indefinite-term contracts, fixed-term contracts, apprenticeships and internships, and temporary service companies the estimated level of formality drops to 50.8%.<sup>24</sup> <sup>25</sup> Mondiaal FNV argues that under the most rigorous definition of formality in which only workers with indefinite-term contracts are counted, only 20.7% of workers considered in the survey would be defined as formal and all other workers would be non-standard or informal.<sup>LX</sup> Other sources have also estimated rates of direct employment in the sector, understanding this as personnel directly hired by the palm oil company rather than being outsourced or subcontracted. A report from the Escuela Nacional Sindical (ENS) estimated that only 40% of employment in the palm oil sector was direct and 60% was indirect.<sup>26</sup> <sup>LXI</sup> Another observer noted that in comparison to the number of workers estimated in the sector by the DANE/FEDEPALMA survey, data from the Federation of Colombian Insurers (Fasecolda) shows only 8,559 workers as being affiliated to an Occupational Risk Administrator (ARL), indicating low levels of formality.<sup>LXII</sup>

These ranges of estimates, many based on the same dataset, indicated the complex discussions around the concept of formality and it was difficult to arrive at a single definitive figure. Beyond the challenge of determining which employment relationships within the DANE/FEDEPALMA survey should be categorized as “formal” or “informal,” questions remain about the specifics within categories.

Also unclear is the degree to which workers hired through temporary service agencies or other contracting forms (e.g., SAS) received legally mandated benefits,<sup>27</sup> and the extent to

**22** Simplified Stock Companies (Sociedades de Acciones Simplificadas) or SASs were not disaggregated in the DANE/FEDEPALMA survey. Their use, as an alternative to both the Associated Work Cooperatives (CTAs) and Union Contracts appeared to have increased in recent years, and it remained unclear how many workers employed through SASs or CTAs were included in the DANE/FEDEPALMA survey, though the estimate for all workers employed through ‘Other schemes’ stood at 3.8% in the survey.

**23** It is important to note the distinction between how FEDEPALMA and DANE use the word “direct” here in contrast to the usage described in the preceding paragraph and in labor discussions more generally. Usage here refers to involvement in production, whereas usage elsewhere refers to labor relationships.

**24** In its report, Mondiaal FNV erroneously presents this estimate as 62.5% based on an error in calculation.

**25** The Mondiaal FNV analysis notes that the “definition of formality is a very narrow one and basically comes down to the worker being in possession of a contract, of any kind. They do not take into account the nature of the contracts neither the presence of other decent work indicators such as access to social security, compensation for work related diseases or accidents, etc.”

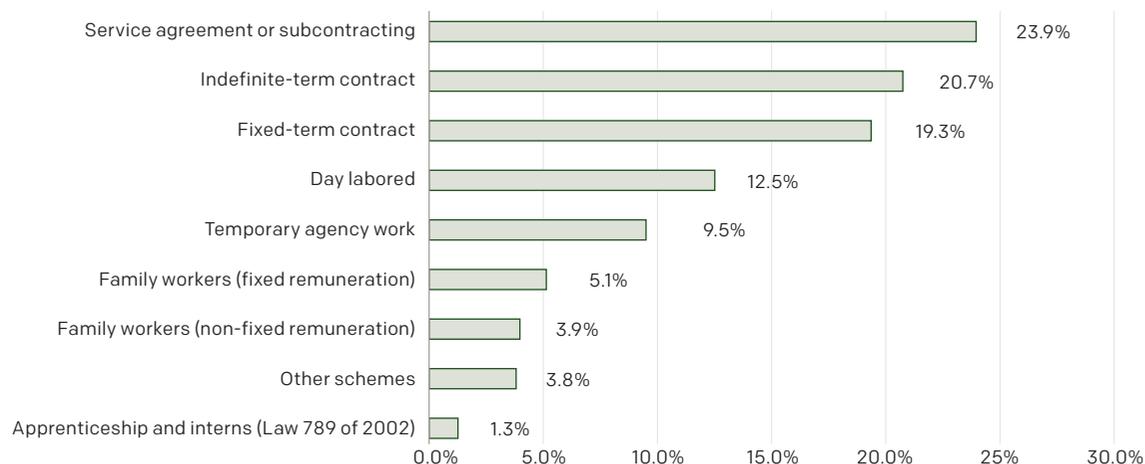
**26** The ENS analysis clarifies that in Colombia indirect work is understood as employment which is carried out through Temporary Service Companies (ESTs), Associated Work Cooperatives (CTAs) or Associative Work Companies (EATs), that is, the work that is executed through forms of labor intermediation.

**27** Workers hired through temporary service agencies are assumed to be legally contracted by the temporary service agency, which is responsible for payment of wages and benefits.



which plantation workers employed through temporary service agencies or other contracting forms enjoyed freedom of association or collective bargaining to which they were entitled under Colombian law and international conventions which Colombia had ratified.

**Exhibit 12: Survey of Direct Employment in the Oil Palm Sector – Employment Relationships**



**Description:** Exhibit 12 shows the distribution of labor relations in the palm sector. 24% of workers are hired by service or subcontracting agreement; 21% have an indefinite term contract; 19% are bound by a fixed-term contract; 13% is linked as a day laborer; 10% for temporary agency work; 5% are family workers with fixed remuneration; 4% are family workers with variable remuneration; 4% work under other schemes; and 1% is linked in the internship or internship modality according to Law 789 of 2002.

**Source:** DANE/FEDEPALMA

The DANE/FEDEPALMA survey also revealed that 69% of workers on smallholder plantations (under 50 hectares) were hired under either piecework or service contracts, or as informal day laborers, with another 13% counted as owners, partners, or family without fixed salaries (**Exhibit 13** presents the full breakdown of contracting forms by size of oil palm plantation as reported in the DANE/FEDEPALMA employment survey).<sup>28</sup>

While piecework and service contracts are not illegal *per se*, they do require the contractor to ensure that minimum wages are paid and that legally mandated contributions to the various worker health, safety, and retirement programs be made.<sup>29</sup> These contracting mechanisms do not provide coverage for holidays or vacation, nor contributions toward severance benefits, they can often lead to exploitation, and are one of the most common causes of excessive overtime making them a possible risk indicator for forced labor and child labor (i.e., if quotas are set too high, workers may be forced to work overtime or recruit children to help them). Although reliable data are not available, it has been estimated that a large portion of those workers hired under piecework or service contracts, as well as unpaid family members, are not covered by any of the required social security programs. Informal

**28** Although the DANE/FEDEPALMA survey provides generally useful information regarding the relative importance of the various contracting mechanisms, the precision of the survey's estimates may be questioned due to sample sizes, which led to coefficients of variation (CV) for many of the individual estimates which far exceed those generally accepted for reliable estimates. Detailed survey results, including coefficients of variation and confidence intervals may be found on the DANE/FEDEPALMA survey website (<https://www.dane.gov.co/index.php/estadisticas-por-tema/agropecuario/encuesta-empleo-directo-sector-palmero>)

**29** Some agricultural laborers working less than full-time were covered by Colombia's subsidized medical insurance and neither they nor their employers were required to contribute towards its cost. Full-time employees were covered by the contributive medical insurance program, paid for by employer and employee contributions.



day laborers were not afforded any wage protection or social benefit coverage, seldom had written contracts, and these engagements were not a legal form of contracting.<sup>30</sup>

**Exhibit 13: Survey of Direct Employment in the Oil Palm Sector DANE/FEDEPALMA 2016 – Plantation Workers**

Survey of Direct Employment in the Oil Palm Sector - Plantation Workers								
Type of contract	Small 1 - 49.9 ha		Medium 50 - 499.9 ha		Large > 500 ha		Total	
	#	%	#	%	#	%	#	%
Owners, partners and family without fixed salaries (IFORMAL)	3,186	13.6%	259	2.2%	19	0.1%	3,464	5.8%
Owners, partners and family with fixed salaries	2,058	8.8%	359	3.0%	216	0.9%	2,633	4.4%
Indefinite term contracts	1,223	5.2%	2,973	25.0%	7,252	29.2%	11,448	19.0%
Fixed term contracts	479	2.0%	3,400	28.6%	7,068	28.4%	10,947	18.2%
Temporary contracts through temporary service agencies	208	0.9%	528	4.4%	5,351	21.5%	6,087	10.1%
Piece work or service contracts	9,246	39.4%	2,826	23.8%	2,735	11.0%	14,807	24.6%
Day laborers (INFORMAL)	6,958	29.7%	466	3.9%	109	0.4%	7,533	12.5%
Other contracting forms (Associated Work Cooperatives, union contracts, etc.)	95	0.4%	862	7.3%	1,622	6.5%	2,579	4.3%
Apprentices and interns	0	0.0%	199	1.7%	487	2.0%	686	1.1%
<b>TOTAL</b>	<b>23,453</b>	<b>100.0%</b>	<b>11,872</b>	<b>100.0%</b>	<b>24,859</b>	<b>100.0%</b>	<b>60,184</b>	<b>100.0%</b>

**Description:** Exhibit 13 shows the disaggregation of employment in the palm oil sector by type of contract. In the aggregate, of the 60,184 jobs reported in the sector: 5.8% are owners, partners and family members (without fixed remuneration); 4.4% are owners, partners and relatives (with fixed remuneration); 19% report an indefinite-term contract; 18.2% report a fixed-term contract; 10.1% temporary contracted through temporary service agencies; 24.6% are for work or provision of services; 12.5% are day laborers; 4.3% are linked by other figures (associated work cooperatives - CTA, union contract, etc.) and 1.1% are apprentices and interns.

**Source:** Derived by authors from DANE, Encuesta de Empleo Directo Sector Palmero, Personal total ocupado por tipó de contratación laboral, 2016.

Furthermore, complaints have been lodged with both the Colombian Ministry of Labor and the U.S. ILAB by labor union confederations and the National School for Unions (*Escuela Nacional Sindical*) regarding abusive subcontracting and alleging illegal subcontracting and suppression of workers' freedom of association in Colombia.<sup>31</sup> These complaints also express a "concern that formalization agreements are not adequately monitored from the outset to ensure that all workers affected by illegal subcontracting are included initially in the agreements, and subsequently to ensure that those covered workers remain employed for a period of five years, as legally required for a full waiver of any fine imposed."<sup>LXIII</sup>

Colombia's estimated 4,300 small producers, who collectively farm an area estimated to be approximately equal in size to that of the large producers, have not matched the progress achieved by medium and large producers, and as indicated above, employ over 80% of their plantation workers (including owners and family members) under either informal contracts or piece work or service contracts which may not provide access to full wage and associated labor benefits.

**30** A report published by Colombia's central bank found that 53.5% of all workers in rural areas were self-employed whereas only 21% were employed by either governmental or private entities, and that only 15% of workers in rural areas contributed to retirement programs – a measure of labor formalization. (Otero-Cortés, Andrea. El mercado laboral rural en Colombia, 2010-2019. Banco de la República. Bogotá, Colombia. 2019.)

**31** It is noted that these observations, as reported by the U.S. Department of Labor's Office of Trade and Labor Affairs are not exclusively made with regard to the palm oil industry but may also be related with labor issues in the sugar, mines, ports and flower sectors as well. These five sectors were included in the Labor Action Plan (LAP) in the lead up to the United States-Colombia Trade Promotion agreement.



Although small producers may be “under the radar” in terms of attention paid by either government labor inspectors or national (and international) labor union organizations, the producers in greatest need of labor formalization (including access to full wage and related labor benefits and protections) are the small producers with less than 50 –and frequently less than 10– hectares.

### *B. Child labor*

A second area of concern –especially for the international market– is the use of child labor in palm oil production. Widespread use of child labor in various Southeast Asian countries has been reported and has led to increasing demands by both the private sector and governments of importing countries to take notice and demand that it be ended. In the U.S., the ILAB of the USDOL maintains a “List of Goods Produced by Child Labor or Forced Labor” which is updated every two years. “ILAB maintains the List primarily to raise public awareness about forced labor and child labor around the world and to promote efforts to combat them; it is not intended to be punitive, but rather to serve as a catalyst for more strategic and focused coordination and collaboration among those working to address these problems.”<sup>LXIV</sup>

As reported in the 2020 List of Goods Produced by Child Labor or Forced Labor, palm oil is produced in Sierra Leone using child labor, and in Indonesia and Malaysia using both child labor and forced labor. No other country was identified as using either child labor or forced labor in the production of palm oil.<sup>LXV</sup> The RSPO has taken an especially firm position regarding child labor, reflecting the demands of its downstream processors, food manufacturers and retailers, as well as the numerous nongovernmental organizations which were members. The 2018 P&Cs included Criteria 6.4, establishing that “Children are not employed or exploited.”<sup>LXVI</sup>

In Colombia, especially among small family-farmed oil palm plantations, children and adolescents are generally assumed to participate to some extent in farm-related activities, which is a common practice among farming families throughout the world. It is important, however, to distinguish between those activities permitted under Colombian law, which include non-hazardous work for adolescents that do not interfere with schooling; and those prohibited, which include any farm-related activities for children under 15 years of age, or hazardous work for adolescents as defined by Resolution 1796 (2018), which establishes the main legal framework to evaluate whether something can be labelled as child labor or not based on the risks that a specific activity supposes.

As reported by DANE, 2.5% of children between 5 and 14, and 15.2% of adolescents between 15 and 17 were employed, at least on a part-time basis during the fourth quarter of 2019. Of all children and adolescents employed, 41.6% were employed in the primary sector (agriculture, livestock, hunting, forestry, and fishing), although no breakdown by sub-sector such as palm oil was available.<sup>LXVII</sup>

In Colombia’s oil palm sector, while there is no firm evidence of child or adolescent labor nor had any oil palm plantations been sanctioned for the use of child labor, industry observers are aware of the risk of child labor, especially on small, family-farmed plantations.<sup>32</sup>

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**32** The USDOL, ILAB, observed in its Funding Opportunity Announcement for Reducing Child Labor and Forced Labor in Palm Oil Supply Chains, that “Available information suggests that South America’s palm oil sectors are at risk for unacceptable conditions of work, child labor, and forced labor. There have been reports of underage and hazardous child labor; fraudulent recruitment; induced indebtedness; unsafe and unhealthy working and living conditions; discrimination; substandard or unpaid wages; and forced overtime.” (USDOL/ILAB Funding Opportunity FOA-ILAB-18-09.)



Given the difficulty of policing the estimated 4,300 smallholder oil palm plantations, the establishment of social compliance systems that respect international labor standards as a fundamental operating principle by palm oil value chain participants beginning with the extractor mills and reaching back to independent providers in their supply base are generally thought by labor observers to be an effective approach to reducing the use of child labor in the palm oil sector. However, addressing the root cause of child labor requires the involvement of stakeholders beyond the farms/palm companies. In some communities, there is little or no access to schools/scholarships, which automatically increases risk of child labor.

### *C. Forced labor*

Forced labor is another topic of concern to the international community based on conditions in other parts of the world. The ILO defines forced labor as “work or service exacted from a person under threat or penalty, which includes penal sanctions and the loss of rights and privileges, where the person has not offered him/herself voluntarily.”<sup>LXVIII</sup> RSPO defines (and prohibits for purposes of sustainable palm oil certification) forced labor in the context of the palm oil industry to include the following practices: (a) retention of identity documents or passports, (b) payment of recruitment fees, (c) contract substitution, (d) involuntary overtime, (e) lack of freedom of workers to resign, (f) penalty for termination of employment, (g) debt bondage, and (h) withholding of wages.<sup>LXIX</sup> (Please refer to Appendix A for the Criteria and Indicators for RSPO Principal 6: Workers’ Rights and Conditions.)

While there are no published reports documenting the existence of forced labor in the Colombian oil palm sector, the risk of forced labor, including “fraudulent recruitment; induced indebtedness; unsafe and unhealthy working and living conditions; discrimination; substandard or unpaid wages; and forced overtime”<sup>LXX</sup> has been noted by industry observers including the USDOL. The practice of hiring workers informally or on short-term contracts, as discussed above, is another risk factor for forced labor in the sector. One area of immediate concern may be the presence of forced labor involving undocumented Venezuelan immigrants working without the protection of Colombian labor legislation in order to earn a bare minimum for themselves and their families to survive. As in the case of child labor, social compliance systems established initially at the extractor level would help to prevent/reduce/eliminate instances of forced labor in the sector.

### *Environmental policies:*

Colombia’s Ministry of the Environment and Sustainable Development oversees the design and implementation of the nation’s policies regarding forest management, biodiversity, marine and costal affairs and aquatic resources, water resource management, environmental affairs, climate change, and environmental risk management.<sup>LXXI</sup> Policies applicable to the palm oil sector included regulations governing water sourcing, use, and disposal; forest, plants, and wildlife management; soil conservation and usage; and common and dangerous waste management.<sup>LXXII</sup> Compliance with all environmental regulations is required for most international palm oil certification schemes such as RSPO and the Rainforest Alliance, as well as in FEDEPALMA’s own sustainability index designed to monitor performance using a variety of economic, environmental, and social indicators (see below). As in the case of labor legislation, full compliance with environmental legislation is more likely to be observed



in Colombia's large integrated palm oil companies than in the over 4,000 smallholder plantations of under 50 hectares each.

The administration of and compliance with environmental policies and programs is managed by "Autonomous Regional Corporations" (*Corporaciones Autónomas Regionales* or CAR) created in geographically similar ecosystems throughout Colombia.<sup>LXXIII</sup>

Of particular concern to the country's palm oil sector are policies related to deforestation. Deforestation remains an issue of great importance in Colombia, where 1.1 million hectares were lost between 2011 and 2017, due mainly to their conversion to pastures for extensive cattle grazing. Evidence cited by Colombia's Institute of Hydrological, Meteorological and Environmental studies (IDEAM) –a division of the Ministry of the Environment and Sustainable development– concluded that only 0.4% of the total area deforested between 2011 and 2017 in Colombia had been replanted with oil palm and that "in Colombia, the oil palm agroindustry has not been a significant direct driving force for deforestation during the period of analysis (2011-2017).<sup>LXXIV</sup> A separate study showed that "91% of oil plantations evaluated between 2000 and 2014 were cultivated in areas that were previously used as pastures for extensive farming or bi-annual crops."<sup>LXXV</sup> In 2017, in recognition of the importance of avoiding any future deforestation related with the expansion of areas planted with oil palm, FEDEPALMA signed on behalf of Colombia's palm oil sector the "Zero Deforestation Agreement for the Palm Oil Value Chain" together with Colombia's Ministries of the Environment and Sustainable Development, Agriculture and Rural Development, and Industry, Commerce and Tourism, numerous private sector palm oil value chain participants, and with environmental NGOs including the World Wildlife Foundation (WWF) and the Nature Foundation.<sup>LXXVI</sup>

## 2. Value chain participants

### Oil palm producers

**Land area:** By 2019, oil palm had been planted in 559,582 hectares,<sup>33</sup> of which 486,006 were in production with the remaining in development (oil palm trees only begin to reach commercial levels of productivity after the first five years, and reach maximum productivity during years 11-22, after which productivity declines or they are replaced). The total area planted with oil palm in the 1960s totaled only approximately 18,000 hectares but expanded rapidly between 1980 and 2010, with continued expansion albeit at a slower pace in recent years. By 2019, the total area planted with oil palm accounted for only approximately 2.2% of Colombia's total land area classified as suitable for oil palm (23.7 million hectares), and only approximately 10% of the land "highly suitable" for oil palm production (5.2 million hectares).<sup>LXXVII</sup>

Oil palm is planted primarily in twenty-one of Colombia's thirty-three departments, classified into four distinct zones, with significantly different amounts of total area planted with oil palm (see **Exhibit 14**).

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**33** Unless otherwise noted, all statistical references are to the 2020 FEDEPALMA Statistical Yearbook or other FEDEPALMA publications.



**Exhibit 14: Area planted with oil palm by production zone (2019)**

Zone	Departments	Hectares planted
East	Arauca, Casanare, Cundinamarca, Meta, Vichada	229,695
North	Antioquia, Atlántico, Bolívar, Cesar, Chocó, Córdoba, La Guajira, Magdalena, Sucre	131,936
Central	Antioquia, Bolívar, Caldas, Cesar, Cundinamarca, Norte de Santander, Santander, Tolima	175,708
Southwest	Caquetá, Cauca, Nariño	22,243
<b>TOTAL</b>		<b>559,582</b>

**Description:** Exhibit 14 shows the number of hectares planted with oil palm by production zone in Colombia. In the Eastern Zone there is a total of 229,695 planted hectares, in the North Zone a total of 131,963 planted hectares, in the Central Zone 175,708 planted hectares and in the Southwest Zone 22,243 planted hectares. In total, the areas registered by Fedepalma have 559,582 planted hectares.

**Source:** FEDEPALMA. Anuario Estadístico 2020

The total area under cultivation, including both areas in full production and areas under development grew significantly between 2015 and 2019, as demonstrated in **Exhibit 15**. **Exhibit 15** also reveals that significant investments made in new developments in earlier years have led to rapid growth in the area in production, with an overall increase in area under production of 29% by 2019 over 2015.

**Land distribution:** Oil palm landholdings varied in size from less than 5 hectares to palm oil companies with over 10,000 hectares under cultivation. While 83% or nearly 4,300 of the estimated 5,100 oil palm producers were classified as “small producers” with between one and 50 hectares, 13.7% or 675 as “medium” with between 50 and 500 hectares and only 3% or less than 160 classified as “large” producers with over 500 hectares in oil palm,<sup>LXXVIII</sup> evidence suggests that the total land area planted with oil palm by large holders is approximately equal to that of the small producers (approximately 200,000 hectares each), with another 100,000 hectares under production by “medium” producers.<sup>34</sup> Many of the largest oil palm plantations were owned by integrated palm oil companies with their own extraction plants which were supplied by both their own production and that of other small, medium, and large independent producers.

**Palm oil productivity and production:** Oil palm productivity, measured both in terms of tons of FFB per hectare and tons of CPO per hectare –the latter combining both tons of FFB per hectare and the extraction of CPO per MT of FFB– varies dramatically due to a number of factors including the average age of the plantation, the use of fertilizer and irrigation, the production zone, the oil palm variety planted (traditional and hybrid), and rainfall. Overall, the Colombian palm oil sector averaged 14.42 FFB/ha in 2019. Colombia’s 2019 average yield of CPO was 3.15 MT/ha. At 3.15 MT of CPO/ha, Colombia’s oil palm productivity was below higher yields in previous years (2017: 3.77 MT/ha and 2018: 3.51 MT/ha) and significantly below the average yields of the world’s top two palm oil producers –Malaysia and Indonesia– at 3.8 MT/ha.



<sup>34</sup> Calculations by authors based on distribution of plantation workers among small, medium, and large plantations, as reported in “Encuesta de Empleo Directo Sector Palmero,” DANE, 2016.

**Exhibit 15: Total area planted, area in production, and area under development by zone, 2014 - 2019**

		2015	2016	2017	2018	2019	% change 2018/14
East	Production	147,700	160,125	170,466	182,517	194,265	32%
	Development	52,839	47,743	41,769	38,148	35,430	-33%
	Total	200,539	209,859	212,235	220,663	229,695	15%
North	Production	95,879	97,699	103,200	114,580	119,738	25%
	Development	27,202	27,249	22,900	14,294	12,198	-55%
	Total	123,081	124,948	126,100	128,874	131,936	7%
Central	Production	119,107	125,369	140,525	150,290	154,018	29%
	Development	39,134	36,254	24,887	19,586	21,690	-45%
	Total	158,240	161,623	165,412	169,876	175,708	11%
Southwest	Production	14,976	16,354	17,192	17,279	17,984	20%
	Development	3,008	2,592	2,921	3,996	4,259	42%
	Total	17,984	18,946	20,113	21,275	22,243	24%
TOTAL	Production	377,662	399,548	431,384	484,666	486,006	29%
	Development	122,183	115,828	92,477	76,021	73,577	-40%
	Total	499,844	515,376	523,880	540,687	559,582	12%

**Description:** Exhibit 15 shows the evolution of the oil palm cultivated area in the East, North, Center, and Southwest Zones, as well as the breakdown between production area and developing area. Regarding the variation 2018 vs 2019, it is highlighted that in all areas the area in production grows. In detail, the production area grew 32% in the East Zone, 25% in the North Zone, 29% in the Central Zone and 20% in the Southwest Zone. On average, the production area grew by 29% between 2018 and 2019 in Colombia. For its part, the developing area falls in the East (-33%), North (-55%) and Center (-45%) Zones, only registering growth in the Southwest (42%). On average, the developing area falls by 40%.

Adding the areas in production and in development, there is a growth in the national total of 12% of the total cultivated area. Growth is widespread in the East (15%), North (7%), Center (11%) and Southwest Zones (24%).

**Source:** FEDEPALMA. Anuario Estadístico 2020, table 9.

But these national averages hide significant variations between oil palm production zones, due primarily to a combination of agronomic conditions and average ages of plantations. In 2019, the FFB/ha yields varied from a low of 12.30 in the Southwestern zone to a high of 14.59 in the Eastern zone, nearly 19% higher than the yield in the Southwest. In the case of the Southwestern zone, several years ago bud rot disease had a far greater impact there than elsewhere in Colombia, and producers were forced to replant their plantations with a disease-resistant hybrid which, while promising higher yields in future years, had yet to reach maturity.

**Exhibit 16** demonstrates the extreme variation in agricultural productivity for palm fruit, CPO, and palm kernel across both time and production zones.

**Exhibit 16: Annual yields of production by zones (in Tons/Hectare)**

Product	Zone	2015	2016	2017	2018	2019
FFB of oil palm	Central	14.03	12.26	16.04	15.43	14.35
	North	18.29	15.00	17.92	17.12	14.56
	East	16.18	14.29	19.11	16.69	14.59
	Southwest	8.17	8.14	9.88	10.87	12.30
	Weighted. Avg.	15.72	13.57	17.48	16.17	14.42
CPO	Central	2.97	2.53	3.39	3.33	3.08
	North	3.86	3.12	3.81	3.68	3.05
	East	3.57	3.12	4.25	3.68	3.29
	Southwest	1.56	1.51	1.96	2.21	2.73
	Weighted. Avg.	3.38	2.87	3.77	3.51	3.15

(...)



(...)

Product	Zone	2015	2016	2017	2018	2019
Palm kernel	Central	0.68	0.58	0.76	0.72	0.69
	North	0.93	0.77	0.91	0.90	0.77
	East	0.67	0.56	0.74	0.83	0.54
	Southwest	0.07	0.09	0.13	0.13	0.04
	Weighted. Avg.	0.72	0.60	0.76	0.71	0.63

**Description:** Exhibit 16 shows the variation in the agricultural productivity of palm fruit, crude palm oil and palm kernel, between 2015 and 2019. Regarding the production of FFB, the most productive area in 2019 was the Eastern Zone (14.59 MT/ha), while the least productive was the Southwest (12.30 MT/ha). The same pattern is observed in CPO production, while palm kernel production finds its highest productivity in the northern zone (0.77 MT/ha) and its lowest level in the southwestern zone (0.04 MT/ha)

**Source:** FEDEPALMA. Anuario Estadístico 2020, table 16<sup>3</sup>.

Since the oil palm tree only reaches full maturity beginning in year 11, yields also vary significantly due to the average age of the plantation. **Exhibit 17** shows the effect of both the weather and plantation age in a plantation in the Central zone:

**Exhibit 17: FFB yields by year an age (MT/ha)**

	< 5 years	6 to 10 years	11 to 22 years
2016	5.14	21.50	23.20
2017	11.23	27.84	31.01
2018	10.18	22.57	26.22

**Description:** Exhibit 17 shows the effect of both the climate and the age of the crop, on crops in the central zone. Palms less than 5 years old produced 5.14, 11.23 and 10.18 MT/hectare of FFB for the years 2016, 2017 and 2018, respectively. Palms between 6 and 10 years old produced 21.50, 27.84 and 22.57 MT/hectare of FFB for the years 2016, 2017 and 2018 respectively; and palms between 11 and 22 years old produced 23.20, 31.01 and 26.22 MT/hectare of FFB for the years 2016, 2017 and 2018, respectively.

**Source:** Palmas del Cesar. El fruto de la Excelencia. Palmas del Cesar PowerPoint, 2019.

Oil palm productivity is the single most important variable in determining the profitability of palm oil production. As will be discussed below, oil palm plantations with below average productivity will generally experience higher than average production costs per MT of FFB, often leading them to reduce expenditures for inputs such as labor and fertilizer, which may in turn reinforce their lower than average productivity.

Colombia's total production of FFB, CPO, palm kernels, palm kernel oil and palm kernel meal over the past four years is presented in **Exhibit 18**:

**Exhibit 18: Production of the oil palm agroindustry (in thousands of metric tons)**

	2015	2016	2017	2018	2019	% change 2019/15
FFB of oil palm	5,938	5,423	7,531	7,514	7,008	18%
CPO	1,275	1,146	1,627	1,632	1,529	20%
Palm kernel*	270	238	326	329	306	13%
Crude palm kernel oil	105	94	127	128	122	16%
Palm kernel meal	151	132	191	190	175	%

\*An intermediate product later converted into CPKO and palm kernel meal.

**Description:** Exhibit 18 shows the total production of FFB, crude palm oil, palm kernel oil and palm kernel flour in Colombia during the last four years. In the case of the FFB, production increased by 18% between 2019 and 2015. For its part, the CPO registered an increase of 20% in the same period.

**Source:** FEDEPALMA. Anuario Estadístico 2020 table 14.

As demonstrated in the table above, not only did the oil palm industry grow in terms of FFB but also in terms of increased CPO extraction, evidence of both the increased area under production and improvements in both FFB/ha and the quality of the palm fruit harvested.



## Producer organizations

**FEDEPALMA:** Established in 1962, FEDEPALMA is the national oil palm producers' industry organization bringing together the majority of Colombia's individual small, medium, and large oil palm producers; producer organizations and cooperatives; palm oil extractors; integrated palm oil companies; and exporters in order to advance their mutual interests, improving the industry's competitiveness and sustainability, and promoting quality of life in their surrounding communities. FEDEPALMA provides services to its membership by representing it in national and international fora, agricultural extension, publications and information services, fairs and events, general marketing, and promotion of palm oil in domestic and international markets, and the administration of the Price Stabilization Fund for Palm Kernel Oil, Palm Oil and Fractions (FEP) described later in this study.<sup>LXXXIX</sup>

**CENIPALMA:** Established by the National Congress of Oil Palm producers in 1990, CENIPALMA undertakes oil palm research in its five regional experiment stations and laboratories, with financing provided primarily through the FFP. Although CENIPALMA is a separate entity from FEDEPALMA, with its own board of directors, it maintains a close relationship, and shares headquarters offices with FEDEPALMA, and includes FEDEPALMA's president on its board.

Both FEDEPALMA and CENIPALMA are ultimately governed by the National Congress of Oil Palm Producers, through various intermediate oil palm producer organizations in each producing region.

## Producer – processor relationships:<sup>LXXX</sup>

Oil palm producers in Colombia maintain relationships with extractor mills under a variety of contractual mechanisms ranging from plantations owned and operated by integrated palm oil companies to arms-length spot purchase-sales relationships.

*Integrated palm oil companies:* Most (but not all) extractor mills also own oil palm plantations. Industry sources report that approximately 30% the palm fruit processed by Colombia's 68 extractors is supplied from oil palm plantations owned by the extractors, although this percentage varies widely from near zero to nearly total reliance on company-owned plantations. Where processing capacity exceeds company-owned production of FFB (as is normally the case), additional fruit is purchased from associated or independent producers as described below.

*Shareholders of extraction mills:* In many cases, extractor mills have been established by groups of large oil palm producers, who then deliver their fruit to the mill for processing and sales.

*Long-term supply contracts with independent producers:* Relationships between extractor mills and independent producers may take on many forms depending on producer size and prior experience in oil palm production, expansion policies of the extractor mill, the availability of government support and financing, the availability of technical support from the extraction mill, distance from the extraction mill, and pressures from different extractors competing for scarce supplies.

*Small producer organizations:* Those producer groups established under the productive alliances program (discussed below) which have continued to function, as well as other farmer cooperatives or associations involving small oil palm producers, generally provide for



the collective delivery of FFB to the extraction mills and distribution of the payments received to the participating small producers, and may also provide additional services such as the collective purchase of fertilizers. Contractual terms between small farmer cooperatives or associations and extractor mills tend to be of short duration –generally a single year– and may or may not include additional services such as transportation of the FFB to the extractors and/or technical assistance and support.

*Collaborative agreements with other small and medium producers:* Where small, medium or large agricultural producers were already farming their own lands near extractor mills, long-term collaborative agreements (some for as many as 20 to 25 years) which may or may not have included financial support through the productive alliance program but which include significant resource commitments on the part of the extraction mill in the form of technical assistance and support, supply of planting materials, phytosanitary control, etc., have resulted in sustainable production and financial returns to the participating small producers. In exchange for the technical assistance and support they receive, the participating small farmers agree to deliver their FFB production exclusively to the extractor mill at a price per MT of FFB as a set percentage (generally around 17%)<sup>35</sup> of the monthly price established by the FEP for CPO. The FEP and pricing policy in Colombia will be discussed in more detail later. Depending on the particular arrangements between the independent producers and the extractor, the cost of transporting FFB from plantation to mill, financing for the purchase of fertilizers and/or capital expenditures, and the cost of planting materials may be provided with appropriate adjustments in either the percentage of the FEP price paid for FFB or deductions in payments made for the purchase of the FFB.

In some of the most successful instances of long-term collaborative agreements, the sponsoring extraction mills, in addition to providing technical assistance and support in exchange for guaranteed supplies of FFB, have created foundations and provided significant support to their surrounding communities in the form of affordable housing, health, education, and recreation facilities, and have promoted a sense of shared responsibility for the future of the industry and the surrounding communities which depend on it.

*Short-term contracts and spot purchases:* While it is generally in the interest of both the oil palm producer and the palm oil extractor mill to arrange long-term contracts which provide each party with the assurance of stable supplies and markets, some producers prefer to contract on a season-to-season basis depending on purchase offers from competing extractor mills. This may occur especially where mills are willing to pay premium prices in order to use their excess milling capacity and where producers –generally larger independent producers– are less reliant on the technical assistance and support available from an extractor mill under a long-term contract. Under these conditions, larger producers may enter into one-year contracts<sup>36</sup> after negotiating prices, transportation, and other terms individually with the extractor.

Finally, in addition to the above forms of contracting, small independent producers (or even small producers who elect not to honor their commitments to deliver to a given extractor mill) may “play the market” and deliver FFB on a spot sales basis to an extractor offering the best deal, or to a trader (called *mochilero*) who receives the fruit at the small

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**35** The figure 17% is based on a typical extraction rate of 22% of CPO per FFB, plus the cost of operating the extraction mill and general and administrative costs.

**36** As the palm fruit is harvested year-round, with peak harvest which vary by production zone, short-term contracts typically cover a full year rather than a specific harvest as might be the case for other crops.



producer's farm, pays in cash, and delivers to a mill in need of extra supplies of FFB. Understandably, the prices received by the small farmer selling under these circumstances tend to be significantly lower than under any of the other arrangements.

### Palm oil extractors

In the palm oil extraction process, the FFBs are sterilized and the fruitlets stripped off. The loose fruitlets are then digested and pressed to extract the CPO. The kernels are separated from the fibrous mesocarp in the press cake and later cracked to obtain CPKO.<sup>LXXXI</sup> CPO, the primary product of the extraction process, exists in a semi-solid state and in Colombia is generally sold without further processing for either export or local refining. Once they are extracted from the fibrous mesocarp, palm kernels may be cracked to produce CPKO in the extraction plant or transported off-site to a palm kernel processor. CPKO is then sold for export or refined for domestic uses. The fiber and palm kernel shell separated during the extraction process are used as fuel –frequently for co-generation in the extraction mill itself– and the palm kernel meal left after the CPKO is extracted is generally used for animal feed. CPO accounts for approximately 80% of the total value of the primary products extracted from the palm fruit.

FEDEPALMA reported 68 palm oil extraction plants in operation in 2018, ranging in size from less than 5 tons of FFB per hour to over 25 MT FFB/hr., with over 63% of total installed capacity in mills with capacities of over 25 MT FFB/hr. Total extraction capacity grew by 11% between 2014 and 2018, with the greatest capacity increase in the central zone which grew by 30%. (Please see **Exhibit 19**)

**Exhibit 19: Palm oil extraction plants installed capacity 2015 – 2019 by zone**

	Total extraction capacity (MT FFB/hour)					% increase 2019/2015
	2015	2016	2017	2018	2019	
East Zone	607	601	633	688	728	19.9%
North Zone	396	401	408	403	395	(0.3%)
Central Zone	434	452	550	546	532	22.6%
South-west Zone	65	80	97	80	74	13.9%
<b>TOTAL</b>	<b>1,502</b>	<b>1,533</b>	<b>1,688</b>	<b>1717</b>	<b>1,729</b>	<b>15.1%</b>

**Description:** Exhibit 19 shows that the total extraction capacity grew by 15.1% between 2015 and 2018, with the greatest increase in the central zone, which grew by 22.6%. In total in 2019, 1,729 MT/hour of BFF were extracted.

**Source:** FEDEPALMA. Anuario Estadístico 2020 table 10.

### Palm oil refineries and biodiesel plants and crude oil international traders

Sales of Colombia's CPO in 2019 were nearly evenly divided between sales to domestic refineries and biodiesel plants (828,646 MT or 54% of total CPO sales), and exports (716,350 MT or 46%). Domestic sales were further divided between oil and fat processing industries, balanced feed producers, biofuel producers, and others as illustrated in **Exhibit 20**. (Some purchasers were active in more than one of the following categories.)

It is noted that while a small number of the larger palm oil companies are vertically integrated both backward into oil palm production and forward into refining and biodiesel production, the majority are only integrated backward.

The two largest international traders of CPO in 2018 were c.i. Biocosta, S.A., an export company made up by five palm oil extractors, and c.i. ACEPALMA, originally established under the FEDEPALMA umbrella and currently owned by shareholders including principally palm oil extractors.



**Exhibit 20: 2018 sales of CPO by domestic users and exports<sup>37</sup>**

		MT	Percent share
<b>Total sales of CPO</b>		<b>1,619,209</b>	<b>100.0%</b>
<b>Domestic sales</b>	<b>Total</b>	<b>779,105</b>	<b>48%</b>
	<b>Total</b>	<b>298,494</b>	<b>18%</b>
Oils and fats processing industries	Largest 5	156,149	10%
	All others	142,345	8%
	<b>Total</b>	<b>41,081</b>	<b>3%</b>
Balanced feed producers	Largest 5	33,661	2%
	All others	7,418	1%
	<b>Total</b>	<b>431,884</b>	<b>27%</b>
Biofuel	Largest 5	406,439	25%
	All others	25,445	2%
<b>Exports</b>	<b>Total</b>	<b>840,993</b>	<b>52%</b>
	Largest 2	501,067	60%
	All others	338,926	40%

**Description:** Exhibit 20 presents the sales of crude palm oil in Colombia during 2019 which were divided into oil and fat processing industries (18%), balanced feed producers (3%), biofuels (27%) and exports (52%).

**Source:** FEDEPALMA. Anuario Estadístico 2019, p. 67.

In addition to companies exporting CPO, Colombian refiners have recently begun exporting relatively small amounts of refined palm oil and its derivatives as shown in **Exhibit 21**.

Colombia's palm oil export destinations in 2017 are presented in the following chart. While precise data are not available, it is assumed that the majority of Colombia's palm oil exports to Europe were for use in the production of biodiesel. It is also assumed that most of Holland's imports were for re-export to other European countries. Exports of palm kernel oil followed a similar pattern.

Colombia's exports to the U.S. are negligible as the U.S. imports only refined palm oil and, as shown in **Exhibit 22**, 87% of Colombia's exports are in the form of CPO. Refined palm oil imports from Colombia accounted for only 0.47% of the U.S.' total imports of refined palm oil.<sup>LXXXII</sup>

**Exhibit 21: 2019 exports of oil palm products**

	MT	%
<b>PALM OIL PRODUCTS</b>	<b>771,939</b>	<b>100%</b>
CPO	650,197	84%
Palm oil RBD (refined, bleached & dried) and fractionated	87,694	11%
Palm oil in soap	8,141	1%
Palm oil in margarine and hydrogenated	19,432	3%
Palm oil in processed products	6,475	1%
<b>PALM KERNEL OIL PRODUCTS</b>	<b>106,745</b>	<b>100%</b>
Palm kernel oil in kernel	8	>1%
CPKO	83,874	79%
Fractionated palm kernel oil	18,951	18%
Palm kernel oil in processed products	3,912	4%

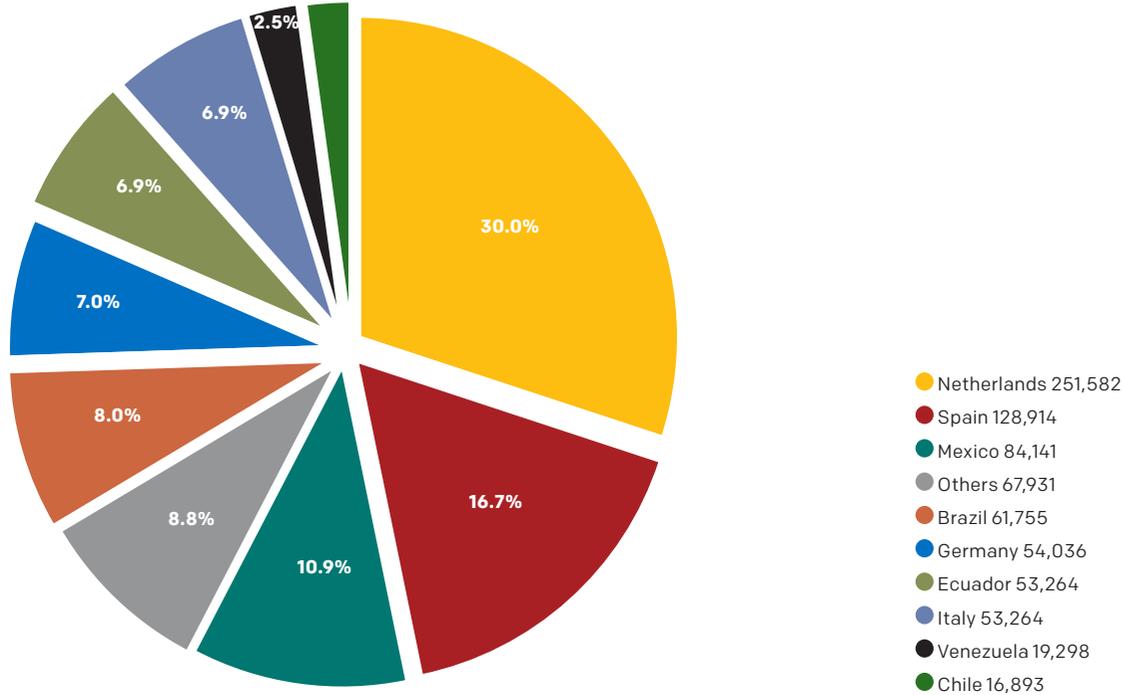
**Description:** Exhibit 21 shows that of 100% of exported oil palm products, 84% corresponds to CPO, while 11% corresponds to RBD and fractionated palm oil. The same occurs with palm kernel oil products, in which 79% of exports correspond to crude oil and 18% to fractionated palm kernel oil.

**Source:** FEDEPALMA. Anuario Estadístico 2020 table 26.



<sup>37</sup> Comparable figures for 2019 are not available.

Exhibit 22: Colombia's 2019 palm oil export destinations (MT)



**Description:** Exhibit 22 shows the main export destinations of Colombia, which are the Netherlands (31.8%), Spain (20.9%) and Brazil (14.6%).

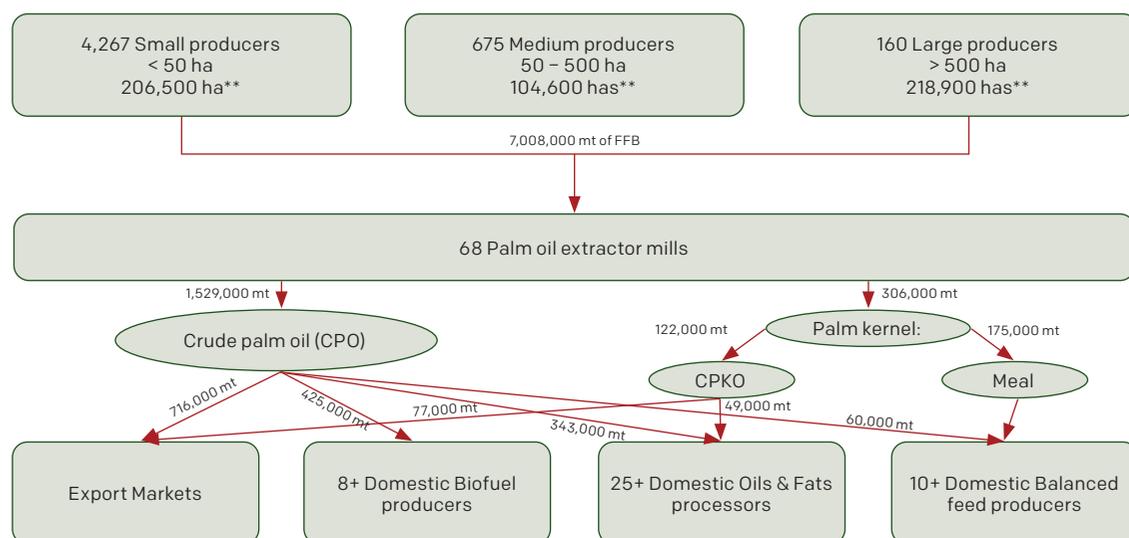
**Source:** Based on FEDEPALMA. Anuario Estadístico 2020 Figure 10.

### 3. Product flows

The structure of the Colombian oil palm industry and the flow and distribution of palm fruit and its derivatives are presented in **Exhibit 23** using volumes from 2019. As depicted in the diagram, the approximately 7.5 million tons of palm fruit harvested in 2018, after conversion to CPO and palm kernel, were sold by the extractor mills to domestic and foreign buyers as presented in **Exhibit 23**.



**Exhibit 23: Colombian palm oil value chain (2019)\***



\* Unless otherwise noted, all figures from FEDEPALMA, Statistical Yearbook 2020

\*\* Figures for small, medium and large producers from FEDEPALMA presentation to CMEP workshop, Bogotá, May 6, 2019; hectares estimated by authors based on distribution of plantation workers among small, medium and large plantations, as reported in “Encuesta de Empleo Directo Sector Pakmero,” DANE, 2016.

**Description:** Exhibit 23 presents a scheme with the value chain of palm oil in Colombia. The sector is made up of 5,000 small producers (less than 50 ha) that concentrate around 200,000 ha; a total of 675 medium-sized producers with farms between 50 and 500 ha that concentrate about 100 thousand ha; and a total of 160 large producers with farms of more than 500 ha that concentrate about 200,000 ha. The total production of Fresh Fruit Bunches (FFB) reaches 7,514,000 MT that go to 68 crude palm oil extractors. On the one hand, the fruit is transformed into 1,630,000 MT of Crude Palm Oil, of which: 841 thousand MT are exported, 432 thousand go to biodiesel producers; 298 thousand go to domestic fat and oil processors and 41 thousand go to domestic balanced food producers. The fruit is also transformed into 329 thousand MT of palm kernel, of which 128 thousand come in the form of oil destined for export (77 thousand MT) and domestic processors of oil fats (49 thousand MT); and 190 thousand MT come out in the form of flour that goes to domestic producers of balanced feed.

## 4. Production costs, prices, and financial returns to oil palm production

### Economic costs and returns

FEDEPALMA conducts annual economic production cost analyses, based on a sample of oil palm producers who have adopted “good agricultural practices” and representing, in 2018, 12% of the total land area under production, and a sample of 10 extractor plants which produced 23% of the national production of CPO.<sup>LXXXIII</sup>

Due to its nature as an “economic cost study,” total costs per hectare include the cost of establishing or replanting the oil palm trees and the opportunity cost of the land, as well as annual costs of maintenance, harvesting, and supervision (which vary according to the age of the palm tree). Due to differing costs and yields throughout the oil palm life cycle, the total cost per MT of FFB is calculated by summing the costs per hectare of establishing, maintaining, and harvesting crops over a 30-year lifespan, and dividing this number by the total tons of FFB harvested per hectare over the same 30-year span, based on cost and yields in 2018 from trees of different ages.

According to the 2019 analysis (2018 cost and yield figures), the national average cost per MT of FFB (*E. guineensis*) was COP 263,690, or USD89.17<sup>38</sup> with regional variations ranging



<sup>38</sup> Based on the average exchange rate in 2018 of COP 2,957 per USD1.00.

from COP 259,281 (USD87.68) to COP 275,645 (USD93.22). For the oil palm hybrid (*E. oleifera* x *E. guineensis*, or OxG), the average cost per MT of FFB was COP 259,281 (USD87.68).<sup>LXXXIV</sup>

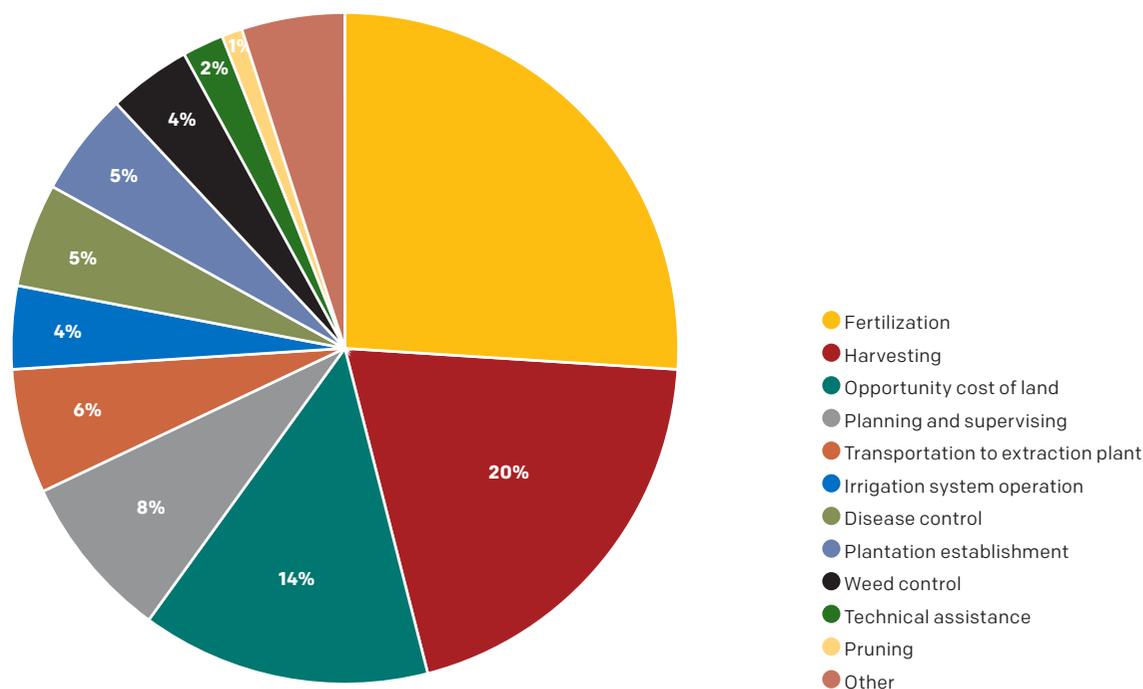
The share of the total cost of each major activity in the production of FFB is presented in **Exhibit 24**, where it is noted that fertilization, harvesting, and the opportunity cost of land account for 60% of the total production cost.

The cost per MT of CPO is calculated by adding the extraction plant’s cost per MT of FFB, minus the value of the oil palm kernels, to the cost of the FFB and dividing this number by the extraction rate of CPO per MT of FFB.

According to the 2019 analysis, the 2018 national average cost per MT of CPO was COP 1,339,625 for *E. guineensis* and COP 1,417,035 for the OxG hybrid (planted only in Southeastern Colombia),<sup>LXXXV</sup> or USD453.04 and USD 479.21, respectively.

During 2018, the FEP average indicator price for CPO fluctuated between COP 1,666,000 and 1,912,000 with an average of COP 1,801,000 or USD609/MT<sup>39</sup>, suggesting an economic return to palm oil production of over 34% after deducting the cost of initial investment, the opportunity cost of the land, and all maintenance and harvesting costs, and calculating average yields based on the 30-year life cycle including the initial three years before production begins, and the next three years during which yields are below those of the adult oil palm tree.

**Exhibit 24: Activity share in total economic production cost of FFB**



**Description:** Exhibit 24 shows the share of the total cost of each main activity in the production of FFB. Fertilization (26%), harvesting (20%) and the opportunity cost of the land (14%) represent 60% of the total cost of production.

**Source:** Mosquera, M., et al. (2019). Estimación del costo de producción para productores de palma de aceite de Colombia que han adoptado buenas prácticas agrícolas. *Palmas*, 40(2), p. 14.

<sup>39</sup> FEDEPALMA, 2019 Statistical Yearbook, Table 31 (page 78). Average indicator prices for 2014, 2015, 2016, and 2017 adjusted for the then-current exchange rates, were USD 793, USD 718, USD 679, and USD 688, respectively.

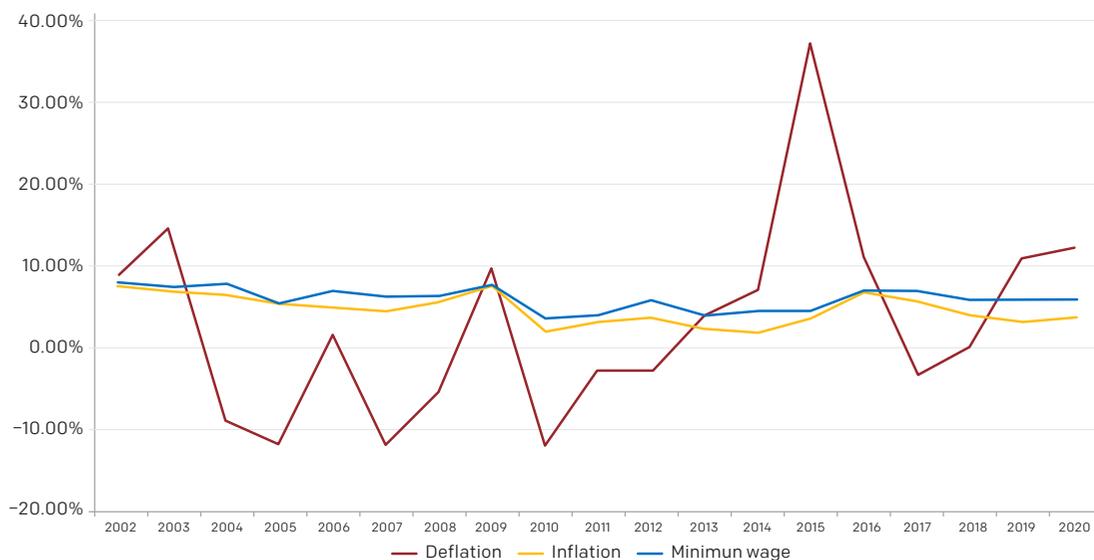


In addition to the calculation of costs and revenue as presented above, net returns to palm oil producers are affected by differences in the relative rates of local inflation, which affects production costs, and devaluation of the local currency against the currency in which sales are made (USD), which affects income. When the rate of devaluation exceeds the rate of inflation, income from sales rises faster than expenses, while when the rate of inflation exceeds the rate of devaluation, expenses rise faster than income.

**Exhibit 25** tracks changes in the Colombian peso/U.S. dollar exchange rate, the general level of inflation, and the minimum wage which is loosely linked to both the rate of inflation and the rate of productivity increase. As illustrated, between 2002 and 2020, inflation rates and changes in the minimum wage exceeded the rate of devaluation in ten years and were lower than the rate of devaluation in nine. In general, local costs increased faster than the dollar between 2004 and 2013, while with only two exceptions, the dollar rose faster than inflation between 2013 and 2020.

This means that, in general, palm oil producers saw their income decrease in relation to their costs due to inflation between 2004 and 2013 but have benefited due to the rising value of the dollar beginning in 2013. The huge disparity between the rates of devaluation and inflation in 2015 was cause for windfall profits for the sector that year.

**Exhibit 25: Annual percent change in average exchange rate, inflation, and minimum wage (2002-2020)**



**Description:** Exhibit 25 shows the changes in the USD-COP exchange rate, the general level of inflation and the minimum wage, which is loosely linked to both the rate of inflation and the increase in the rate of productivity. As can be seen, between 2002 and 2020, inflation rates and changes in the minimum wage exceeded the rate of devaluation for ten years and were below the rate of devaluation for nine. In general, local costs increased faster than the dollar between 2004 and 2013, while, with only two exceptions, the dollar increased faster than inflation between 2013 and 2020.

**Sources:** Devaluation: Calculated from Colombian Peso Market Exchange rate data published by Banco de la República (<https://www.banrep.gov.co/en/colombian-peso-market-exchange-rate>); Inflation and Minimum wage changes: El Salario Mínimo Colombiano en el Contexto del Sector Palmicultor,” presented at “Conversatorio sobre temas laborales,” FEDEPALMA, November 20, 2020.

Payments to oil palm producers, based on 17% of the FEP average indicator price, averaged COP 306,138/MT (USD103.53) which, after deducting average production costs (COP 263,690), left average net returns of COP 42,448 (USD14.36) per MT of FFB (*E. guineensis*), a net return of 16% over total production costs for Colombia’s more technologically advanced producers.



The two most important variables affecting net returns to oil palm producers are the yield (FFB/ha) and the price paid by extractors. While prices in 2018 and early 2019, as presented in Exhibits 9 and 11, appear to have permitted modest returns to oil palm producers who had adopted “good agricultural practices,” these prices suggest that economic returns for producers with yields near the national average for 2018 may have been severely reduced or eliminated before prices recovered during the second half of 2019.

**Exhibit 26** presents a sensitivity analysis of net returns to oil palm producers based on total costs as calculated in the 2019 study, with FFB yields fluctuating from -30% to +40% of the 2018 national average of 24.0 tons of FFB/ha.<sup>40</sup> of the FEDEPALMA study’s sample of producers using good agricultural practices, and prices fluctuating from USD 500/MT to USD 700/MT of CPO. As is evident, at prices less than USD 500/MT of CPO, yields must increase over the 2018 average by a minimum of 10% just to break even, and by nearly 30% to approximate the level of returns enjoyed in 2018 when the average indicator price was USD609. Given Colombia’s overall average yield for all oil palm plantations, including oil palm trees of varying ages, of 16.2 tons of FFB/ha,<sup>LXXXVI</sup> it is clear that most oil palm producers were losing money on a full cost basis at average indicator prices below USD 700. The prospect of prices remaining below USD 600/MT for the foreseeable future poses a serious threat to all but the most progressive oil palm producers in Colombia.

**Exhibit 26: Sensitivity analysis of economic returns to oil palm producers<sup>41</sup>**

		Avg. yield of adult oil palm							
RFF/ha % +/- 2018		16.8	19.2	21.6	24	26.4	28.8	31.2	37.0
-30%		-20%	-10%	2018	+10%	+20%	+30%	+40%	
Costo RFF/t (USD)		127.39	111.46	99.08	89.17	81.06	74.31	68.59	57.90
Indicator price/ MT of CPO (USD)	Price/MT FFB to producers* (USD)	Net return to oil palm producer per MT of FFB (USD)							
500	85.00	(42.39)	(26.46)	(14.08)	(4.17)	3.94	10.69	16.41	27.10
550	93.50	(33.89)	(17.96)	(5.58)	4.33	12.44	19.19	24.91	35.60
600	102.00	(25.39)	(9.46)	2.92	12.83	20.94	27.69	33.41	44.10
609	103.55	(23.86)	(7.93)	4.45	14.36	22.47	29.22	34.94	45.63
650	110.50	(16.89)	(0.96)	11.42	21.33	29.44	36.19	41.91	52.60
700	119.00	(8.39)	7.54	19.92	29.83	37.94	44.69	50.41	

\*17% of indicator price

**Description:** Exhibit 26 shows that FFB yields have fluctuated between -30% and +40% of the 2018 national average of 24 tons FFB/ha for the sample of producers in the Fedepalma study using good agricultural practices. Prices fluctuate from USD 500/MT to USD 700/MT of CPO. At prices below USD 500 MT CPO, returns must increase over the 2018 average by a minimum of 10% just to break even, and by almost 30% to approach the level of returns enjoyed in 2018, when the average indicator price was USD 609.

**Source:** Palma Futuro

## Cash costs and returns

While FEDEPALMA’s production cost study calculates the full economic production costs, of greater interest to the most producers is the annual cash flows from a plantation, both during its early years and later once the palms reach maturity. To estimate annual cash flows, the economic cost per hectare will be adjusted by:

<sup>40</sup> Average yield over 28-years of production in oil palm plantations using “good” technology, based on Mosquera et al. 2019 study. Mosquera, et al., op.cit.

<sup>41</sup> Calculations by authors based on average yields and average cost/ha as reported in Mosquera, et al., op. cit., and average FEP indicator price as reported in FEDEPALMA, 2019 Statistical Yearbook, Table 31.



- a. Eliminating the amortization of the initial costs to establish and maintain an oil palm plantation (5%)
- b. Eliminating the imputed opportunity cost of land (14%)

Furthermore, lower yield levels, which characterize much of Colombia's production, are most probably related with lower levels of fertilization and, in many cases, the absence of irrigation.

The recalculated cash costs per hectare, adjusted by productivity level and illustrative reductions in fertilization, and net returns under the same pricing scenarios as above are shown in **Exhibit 27**:

**Exhibit 27: Cash costs and returns to oil palm production at different levels of productivity and fertilization<sup>42</sup>**

MT FFB/ha		14	16	18	20	22	24
Economic cost/MT FFB (USD)		152,86	133,76	118,89	107,00	97,28	89,17
LESS amortization of establishment costs (4%)		6,11	5,35	4,76	4,28	3,89	3,57
LESS opportunity cost of land (14%)		21,40	18,73	16,65	14,98	13,62	12,48
Fertilizer costs (26%)		Less 50%	Less 40%	Less 30%	Less 20%	Less 10%	Less 0%
		13,91	9,27	5,56	2,53	0,00	
Net cash costs/MT FFB		105,48	95,77	88,22	82,18	77,24	73,12
Indicator price	Price/MT FFB	Cash returns per MT of FFB (USD)					
500	85,00	(20,48)	(10,77)	(3,22)	2,82	7,76	11,88
550	93,50	(11,98)	(2,27)	5,28	11,32	16,26	20,38
600	102,00	(3,48)	6,23	13,78	19,82	24,76	28,88
650	110,50	5,02	14,73	22,28	28,32	33,26	37,38
700	119,00	13,52	23,23	30,78	36,82	41,76	45,88

**Description:** Exhibit 27 shows the recalculated cash costs per hectare, adjusted for the level of productivity and reductions in fertilization, and the net returns using different price scenarios. At an FEP target price of US\$500, producers with lower levels of productivity cannot recoup their annual cash outlays. However, with prices above USD 550 and yields above 18 MT FFB/ha, the cash return for oil palm growers is positive and increases rapidly as prices and yields increase, showing a positive return for the use of fertilizers.

**Source:** Palma Futuro

As illustrated in Exhibit 27, at an FEP indicator price of USD 500, those producers with lower levels of productivity are unable to recover their annual cash outlays. However, with prices above USD 550 and yields above 18 mt FFB/ha, the cash return to oil palm producers is positive and increases rapidly as prices and yields increase, showing a positive return to the use of fertilizers.

The cash production costs assume that all labor employed is paid labor and does not include unpaid labor which may be supplied by smallholder producers themselves or by unpaid family members. It is common for smallholders to work on much of the cultivation and only hire paid labor to carryout harvesting or other specific tasks. In this case, the cash returns to the producer are increased by the paid labor saved.

### Cost of labor in oil palm production

A separate FEDEPALMA study,<sup>LXXXVII</sup> carried out by the same authors as the production cost studies, measured the cost of labor in the production of FFB to be equal to 42% of

<sup>42</sup> Calculations by authors based on average yields and average cost/ha as reported in Mosquera, et al., op. cit., and average FEP indicator price as reported in FEDEPALMA, 2019 Statistical Yearbook, Table 31, with illustrative adjustments to fertilization.



the total production cost for *E. guineensis* and 49% for the OxG hybrid (given the need for manual pollination). Tasks with the highest cost of labor as a percentage of total costs (for *E. guineensis*) were harvesting, weed control, and pruning (90% each), initial plantation establishment (70%), and disease control (60%).

By applying these percentages to the 2018 production cost studies, the cost of labor per MT of FFB was 42% of USD89.17 or USD 37.45.

The cost of labor study was based on the same sample of oil palm producers who have adopted “good agricultural practices” in the production cost studies referred to above. As such and based on the results of the DANE/FEDEPALMA Survey of Direct Employment in the Oil Palm Sector (Exhibit 12), it may be reasonably assumed that the cost of labor on the plantations considered in these studies included wages and social security benefits at least equal to the legal mandated minimum wage.

Additional studies cited by Olivera<sup>LXXXVIII</sup> and Mosquera<sup>LXXXIX</sup> demonstrate that:

- Colombia’s minimum wage of USD275.70/month is 122%% higher than the average minimum wage in Indonesia, the world’s largest palm oil producer, and similarly higher than all other southeast Asian palm oil producing countries, and
- Total costs per MT of CPO, as calculated by the international consulting firm LMC in 2017 were:
  - Colombia: USD 472
  - Thailand: USD 419
  - Indonesia: USD 324
  - Malaysia: USD 323

Combining the results of all the production costs and costs of labor studies cited above, it may be concluded that Colombia’s relatively high labor costs on plantations which have adopted “good agricultural practices” and assuming full compliance with legal minimum wages and social benefits, place Colombia at a competitive disadvantage with respect to its primary global competitors. Based on the sensitivity analyses cited above, it may also be concluded that oil palm plantations with lower levels of productivity experience difficulty in recovering the full cost of labor based on legal minimum wages and required social benefits, and that the high cost of labor may constitute an important obstacle to labor formalization for those producers. It may only be through the lower cost of “informal” labor –i.e., labor costs not meeting minimum legal wage and benefit requirements– that these producers are able to profit from oil palm production.

Increased agricultural productivity, combined with the presence of social compliance systems to guarantee that minimum wage and social benefit requirements are met, offer a path towards labor formalization and compliance with existing labor laws.

## 5. Sustainable palm oil certification

As reported by FEDEPALMA, by mid-2019, 310,000 MT, or 18.1% of the CPO produced in the country were certified by one or more of the three major international certification organizations (RSPO, Rainforest Alliance, and ISCC). Thirteen palm oil companies had received RSPO certification and another 21 were in progress; three had received Rainforest Alliance certification and nine were certified by ISCC.<sup>XC</sup> By the end of the first quarter of 2020,



RSPO reported that 17 oil palm growers and 21 palm oil mills (most certified mills were also certified growers) had received RSPO certification for 366,629 tons of CPO,<sup>XC1</sup> approximately 21% of Colombia's estimated 2019 production.

Since most Colombian palm oil extractors rely wholly or partially on palm fruit supplied by independent oil palm producers who lack sustainable palm oil certification, most of Colombia's palm oil sector is unable to comply with the growing international demand for 100% certification in the form of IP or SG RSPO-CSPO. While the sale of MB palm oil is still accepted in the absence of sufficient volumes of IP or SG palm oil, and as more than 100% certified palm oil becomes available from other producing countries, Colombia can expect to encounter increasing difficulty in competing in international markets.

Further progress in certifying additional producers is limited by the difficulty most small producers have in meeting the often overly stringent certification criteria of programs, especially RSPO, believed by many Colombian palm oil growers to have been designed for palm oil production in very different environmental and social conditions such as those most prevalent in Southeast Asia.

In response to the practical difficulty of extending RSPO certification to a significantly greater portion of the palm oil sector, the sector's leadership has proposed the creation of a Colombian Sustainable Palm Oil program. This will include the design and implementation of a sustainability index to validate compliance with criteria consistent with the condition of palm oil production in Colombia, considered by the sector to be most relevant in terms of sustainability, and including full compliance with international standards on the prohibition of child labor and forced labor.

## 6. Production and market expansion plans and opportunities

As discussed earlier in this report, by 2018, oil palm had been planted in 540,687 hectares, or only 2% of Colombia's land area classified as suitable for oil palm (23.7 million hectares), and only approximately 10% of the land "highly suited" for oil palm production (5.2 million hectares).<sup>XCII</sup> Until recently, most palm oil companies envisioned significant future expansion in the total area planted and an aggressive expansion of sales to international markets including, prominently, the U.S. where Colombian palm oil only accounted for less than 1% of the U.S.' palm oil imports and where Colombia exported only 1.7% of its total palm oil exports. It was thought that the continued demand for palm oil for use in producing biodiesel in Europe, plus Colombia's advantage in being closer to the U.S. market would allow Colombia to significantly expand its exports while continuing to offer prices to oil palm producers which guaranteed higher net returns for the production of oil palm than for nearly any other crop.

Investment in palm oil extraction plant capacity reflected the expectation for further expansion in the production of oil palm fruit and, by 2018, had reached 1,717 tons of capacity per hour or approximately 12 million tons of FFB per year<sup>43</sup> whereas the 2018 total harvest of FFB came to 7.5 million tons, suggesting an excess extraction capacity of over 60%.

By mid-2019, it became apparent to industry participants that at least for the next several years any expansion in the production of palm oil would only contribute to even lower net prices for producers, and in the absence of significant improvements in yields per hectare,



<sup>43</sup> Authors' calculation based on tons/hour of installed capacity times 24 hours/day times 6 days/week times 50 weeks/yr.

lower returns or increased losses to oil palm producers. Several factors contributed to this unfavorable scenario:

1. As illustrated in Exhibit 9, world palm oil prices had been falling since mid-2011 with only short-term interruptions to the overall trend.<sup>44</sup> In Colombia, the FEP indicator price remained at an attractive level through mid to late 2018 before declining to a point where positive returns to oil palm production became questionable given Colombia's current cost structure (which is largely driven by its FFB productivity per hectare). Colombia's average total cost per MT of CPO was estimated to be close to USD 500 in 2016 and, more recently, closer to USD 450, which may be a more reasonable estimate of annual production costs for mature oil palm plantations. It is estimated that the cost per MT of CPO produced in Malaysia or Indonesia is closer to USD 300.<sup>45</sup>
2. Future long-term prospects for palm oil are severely affected by a recommendation by the European Parliament to eliminate the use of vegetable oils in general and palm oil in particular as a component of biofuels, preferably by 2020.
3. Markets, especially in Europe, are increasingly critical of palm oil for non-biodiesel uses as well, primarily due to environmental concerns (deforestation, damage to habitats for endangered species, CO<sub>2</sub> emissions, etc.), presenting Colombia with additional challenges as it attempts to diversify away from biodiesel buyers in Europe.
4. Due to the mechanism used by the FEP to determine the average indicator price –on which payments to producers are generally based– according to a weighted average of the domestic indicator price and the export indicator price, the greater the percentage of Colombia's production is exported, the closer the average indicator price will be to the lower export indicator price.
5. The U.S., seen by many in Colombia as its most important potential market for additional palm oil exports, only imports RDB (refined, bleached & dried) palm oil and its products, palm olein RDB and palm stearin RDB, whereas Colombia exports almost exclusively CPO. Substantial new investment in new or additional refining capacity would be required to enable Colombia to export significant amounts of refined palm oil products.

Faced with these unfavorable prospects for additional CPO exports in the near term, actors in Colombia's palm oil sector, under the leadership of FEDEPALMA, are scaling back their expansion plans and turning their attention to two primary strategies to ensure the sector's long-term sustainability:

- 1. Productivity improvement:** With an average productivity in 2018 of 16.2 tons of FFB per hectare, palm oil production in Colombia is not profitable on a full cost basis for most producers at FEP indicator prices below USD 500. As shown in Exhibit 26, only those with average FFB yields above 26 tons of FFB/ha are likely to recover their full costs at FEP indicator prices of USD 500.

Yet yields in excess of 35 tons of FFB/ha are reported on well-managed plantations, including those of both large integrated palm oil companies and small individual

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<sup>44</sup> A short-term price rise during late 2019 and early 2020 had ended by April 2020 when the average world price returned to approximately USD 600/MT.

<sup>45</sup> Cost figures provided during interviews with leading palm oil extractors in May 2019.



producers<sup>46</sup> and yields of 30 tons of FFB/ha are common among many well-managed plantations. As shown in Exhibit 26, attractive net returns are available to producers with yields in this range at indicator prices of USD 550 or even USD 500.

Keys to increased productivities include primarily excellent sanitation, agronomic practices, fertilization, and irrigation. Genetic improvement, and the substitution of the O x E hybrid for traditional varieties also show promise.

- 2. Labor formalization and sustainable palm oil certification:** Within Colombia, issues related with the formalization of labor contracts and the elimination of illegal forms of labor outsourcing, together with the extension of full wage and social benefits to all oil palm workers and the provision of appropriate safeguards against workplace hazards are the primary areas requiring improvement to meet both Colombian labor law and RSPO certification.

The sustainable development of Colombia's oil palm sector will depend on compliance with Colombian labor standards to avoid labor-related sanctions, and compliance with RSPO principles and standards on sustainable palm oil in order to compete in international markets. At present, approximately 12% of Colombia's palm oil is RSPO certified.<sup>XCIII</sup>

## B. The Ecuadorian palm oil industry

With over 257,000 hectares in oil palm and an estimated 2017 production of 567,000 MT of CPO,<sup>XCIV</sup> Ecuador is the world's eighth largest producer and the third largest in Latin America after Colombia and Guatemala.<sup>XCv</sup> Production between the 1960s and early 1990s was intended primarily for domestic consumption in substitution for imported vegetable oil. As production increased beyond the needs of the domestic market, Ecuador began to export palm oil in 1994. By 2017, while domestic consumption had only grown from 168,000 in 1994 to 226,000 tons, exports grew from 6,000 to 320,000 tons and accounted for 56% of the country's total production.<sup>XCvI</sup>

### 1. Ecuadorian policy environment

#### Trade and price stabilization policies

From the time the palm oil industry was established in Ecuador during the late 1950s and early 1960s until the mid-1980s, palm oil was produced exclusively for domestic consumption as a substitute for imported vegetable oils and was priced in the local market to be competitive with the local prices for imported oil (including imported palm oil). These prices included the cost of transportation and customs to Ecuador, making prices in the local market significantly higher than world prices (for palm oil, world prices were generally quoted for either Malaysia or Rotterdam).

Beginning in the mid-1980s, Ecuador's production of CPO had increased to satisfy the needs of the domestic market, and producers were faced with the prospect of selling surplus palm oil on the international market at prices equal to the world price *minus* the cost of freight to world markets. Between 1992 and 1994, local prices had fallen to an average of USD 50 less than the world price for CPO.<sup>XCvII</sup> In 1993, in order to protect its growers from a



<sup>46</sup> According to an industry source interviewed by the authors, a small producer in the northern zone has achieved an average yield of 35 tons of FFB/ha on a 4-hectare plot.

continuation of low prices based on the fob export price of CPO, the National Association of African Palm Growers (ANCUPA) established FEDAPAL (Foundation for the Promotion of Exports of National Palm Oil and its Derivatives) to facilitate the export of surplus palm oil in response to the oversupply in the domestic market.

Among FEDAPAL's responsibilities was the administration of an Export Promotion Fund to cover the difference between the domestic price (based on the cost of importing CPO) and the fob export price. Funding for this Export Promotion Fund was provided by the palm oil extractors based on their volume of production. When the fund was originally established, exports accounted for a relatively small portion of Ecuador's total production, and the amount of compensation required was relatively small. However, as exports grew to approximate the volume sold domestically, the fund was less able to cover the difference between export and domestic prices, and, as a result, domestic prices fell to levels similar to those for export. The fund ceased operations in 2007, at a time when international prices were approaching a high of USD 1400/MT (see exhibit 9). By that time, many producers had begun to export directly and the issue of export prices versus domestic prices was irrelevant. FEDAPAL continued to support the sector until 2018 when, due to disagreements between various producer groups, it too ceased operations.

By the end of 2018, Rotterdam prices for palm oil had fallen to USD 535, their lowest level since the early 2000s (Exhibit 9). Corresponding fob Ecuador prices were below USD 500/mt.

### Labor policies

Due to the structure of the industry —where 89% of oil palm plantations are of 50 hectares or less,<sup>xcviii</sup> the high cost of meeting Ecuador's minimum wage requirements (see below), and the low average productivity (see following section)—, labor practices, especially among small producers, are generally considered non-compliant with Ecuador's labor legislation.<sup>xcix</sup>

As noted in a report prepared by Partners of the Americas, "the Ecuadorian legal framework is robust and progressive, one of the strongest in Latin America in its protection of workers (as well as its protection of forests, children and others)."<sup>c</sup> In 2019, the minimum salary —applicable throughout the country regardless of industry or geographical region— was USD 394/month, the second highest in South America after Chile, and seven times its level in 2000 reflecting an average annual salary increase of 10.75% despite a "dollarized" economy with minimum inflation.<sup>ci</sup> (Palm oil or other commodities produced for export must bear the full burden of the increased cost of labor, since devaluation of the local currency to offset cost inflation is not available in Ecuador's dollarized economy.)

In addition to a high national minimum salary, Ecuadorian labor legislation, which is based on urban standards, mandates a 40-hour Monday-Friday workweek with overtime for work outside of normal working hours or on weekends. It also includes the obligatory payment of social security premiums (which include medical care), a bonus payment equivalent to two months' salary, vacation pay, and a retirement reserve equal to one month's salary per year.<sup>cii</sup> Further, 15% of royalties from business go to workers by law, serving as a disincentive for business formalization. In addition to these worker benefits, Ecuadorian labor legislation has banned the outsourcing of core activities since 2008.<sup>47</sup>

<sup>47</sup> In May 2020, the Ecuadorian Assembly (Congress) approved legislation responding to current economic emergency conditions during the COVID-19 crisis permitting for a limited time, only contracts involving reduced working hours and providing additional flexibility regarding other contractual conditions. (<https://www.auxadi.com/news/ecuador-nueva-ley-organica-de-apoyo-humanitario/>).



For each ten hectares of a smallholder plot, labor practices for harvesting FFB generally involve part-time employment of two field workers for two days every other week. With an average size of 14 hectares in oil palm among the 89% of oil palm producers with less than 50 hectares (**Exhibit 28, below**), compliance with existing labor legislation which does not contemplate part-time employment is virtually impossible. And even on the more efficient larger plantations, the high cost of meeting minimum wage and benefits in the face of low oil palm productivity and low world prices for palm oil, together with the need to balance indefinite and seasonal or part-time employment, makes the profitability of palm oil production in Ecuador questionable.

According to a 2019 study prepared by the Ecuadorian General Assembly's Food Sovereignty and Agricultural and Fisheries Development Commission supporting of a proposed law to encourage the development of the palm oil sector, the high cost of labor in relation to the low prices paid for palm oil, *on average*, meant that the production cost of palm oil had exceeded the prices paid each year since 2016.<sup>ciii</sup>

As reported in the *Palma Futuro* Pre-situational Analysis, “[i]n the agricultural plantations, the hiring [sic] part-time labor with full legal contracts is also impacted by the cultural practices where informality is the norm, such as hiring ‘cuadrillas’ or teams for short-term work.” Compliance with the labor requirements in the palm sector was described in the Pre-Situational Analysis as “onerous” by several of the respondents. This situation contributes to a 60% rate of employment informality.<sup>civ</sup>

### **Child labor, forced labor, and acceptable conditions of work**

Due to the high minimum wage and associated benefits under Ecuadorian labor legislation, together with its lack of responsiveness to the nature of labor requirements in medium and small oil palm plantations (89% of Ecuador's oil plantations, covering 39.5% of the total area planted with oil palm (**Exhibit 28, below**), are of 50 hectares or less), non-compliant labor contacting mechanisms characterize an estimated 60% of Ecuador's oil palm sector, and especially medium and small oil palm producers.<sup>cv</sup> These may include outsourcing and informal hiring of day labor, and unacceptable conditions of work with below-minimum wages, lack of accident and health benefits, and non-compliant hours of work. As discussed above, the main reasons for this non-compliance are the non-applicability of Ecuador's labor legislation to the realities of the rural sector, which make compliance virtually impossible for most small and medium producers, and the low levels of oil palm productivity, which make labor compliance too costly for average oil palm producers.

Child labor was reported by Ecuador's Child Labor Eradication Project (*Proyecto de Erradicación del Trabajo Infantil – PETI*) to be far more prevalent in rural areas than urban settings, and mainly associated with the primary production sector (agriculture, livestock, forestry, and fisheries), based on data from the National Employment, Unemployment and Underemployment Survey of 2018.<sup>cvi</sup> Although the provinces with the highest levels of child (5 – 14 years) labor were not oil palm producing provinces, **Exhibit 28** presents the number of oil palm producers in the provinces with the greatest number of oil palm plantations, and the number of children under 15 years employed in those same provinces, although no evidence is presented that they were employed in the oil palm sector:



**Exhibit 28: Child labor in provinces with largest number of oil palm plantations<sup>CVII</sup>**

Province	Number of oil palm plantations	Rural child labor (<15 years old)
Esmeraldas	3,280	2,643
Manabí	994	4,543
Sucumbios	926	445
Los Ríos	913	1,396
Santo Domingo de los Tsáchilas	700	1,725
All other provinces	1,336	162,516
TOTAL	8,149	173,268

**Description:** Exhibit 28 shows a comparison of child labor in the palm-growing areas of Ecuador. In total, within the 6 areas analyzed (Esmeraldas, Manabí, Sucumbíos, Los Ríos, Santo Domingo de los Tsáchilas and other provinces) there were 17,268 children under 15 years of age working.

**Source:** National Employment, Unemployment and Underemployment Survey of 2018.

Although there is no direct correlation between the incidence of child labor and the number of plantations in the provinces with the highest number of oil palm plantations, the high number of small family farms in the oil palm sector and the cultural practices worldwide of involving young children in farming activities suggest that greater attention may need to be paid to the eradication of child labor on oil palm plantations. It should also be noted that while the 2018 survey used to collect this data is valuable, it does not accurately capture the full extent of child labor in Ecuador because the government has not conducted a comprehensive nationwide child labor survey since 2012. ILAB's report notes that both government and civil society agree that a lack of updated statistics hampers efforts in eradicating child labor. A new nationally representative child labor survey could capture valuable information about the palm oil sector as well.

Perhaps of greater concern is the employment of adolescents aged 15 – 17. While Ecuadorian labor law does permit the employment of adolescents, it tightly prescribes the conditions under which they may be employed and expressly forbids hazardous work which might include various tasks related with oil palm production and harvesting, limits their maximum hours of work, and requires continued school attendance.<sup>48</sup>

Forced labor is also of concern to both the Government of Ecuador and international palm oil buyers. Although no data exist regarding the incidence of forced labor in Ecuador's oil palm sector, future efforts to comply with domestic and international labor standards or to obtain sustainable palm oil certification must clearly define and identify forced labor practices and engage both public and private sector stakeholders for their elimination.

### **Environmental policies**

The widespread destruction of forests, peat bogs and natural animal habitats, primarily in Southeast Asia, have prompted environmental advocates and consumer groups primarily in palm oil importing countries to demand improved compliance with international environmental standards, the most important of which was no deforestation. The rate of deforestation in Ecuador had been identified by the United Nations Food and Agriculture Organization (FAO) as the ninth highest in the world and the highest in South America.<sup>CVIII</sup> This figure, however, was hotly contested by the Ecuadorian palm oil sector, as much of the land classified by the FAO as "deforested" had in fact been under cultivation for different crops

<sup>48</sup> The "Acuerdo ministerial MDT-2015-131" lists 27 specific "dangerous" activities for adolescents, although there is no specific reference to the palm oil industry. However, virtually any field work activity, including fumigations, harvesting (both cutting and collection and transport of FFB), as well as work in processing plants (palm oil extraction plants – "extractoras") would count as dangerous.



–especially cacao– and the land previously dedicated to cacao production had simply been replanted with oil palm.<sup>CIX</sup>

As reported in the 2017 oil palm census, prior use of the 257,121 hectares currently planted with oil palm were:

- Other crops – 146,623 ha (57.0%)
- Stubble and crop residues – 89,444 ha (34.8%), and
- Forests – 19,011 ha (7.4%).<sup>CX</sup>

Nevertheless, environmental regulations and measures to ensure their compliance have been strengthened in recent years. Based on the Ecuadorian Constitution of 2008, Ecuador’s Congress updated its Environmental Management Act of 1999 in 2017 with measures to protect the environment and conserve biodiversity by establishing stricter liability and removing the statute of limitations for environmental damages. While ambitious and far-reaching, implementing legislation and institutions had yet to be finalized as of September 2019. Although oil palm plantations are required to obtain an environmental license, the complexity of the license application as well as its cost are beyond many small producers’ ability to meet.<sup>CXI</sup>

Beginning in 2018, Ecuador received support from the Green Climate Fund in recognition of its on-going efforts to further reduce deforestation. These activities included the Amazonian Integral Forest Conservation and Sustainable Production Program (PROAmazonía) to reduce deforestation in the palm oil and other sectors.

Closely related with these activities, beginning in 2016 the Government of Ecuador established coalitions with stakeholders such as palm oil companies and non-profit organizations like ANCUPA and UN-RED (UN-Reducing Emissions from Deforestation and Forest Degradation). These were intended to launch a pilot program in the Ecuadorian Amazon region in order to obtain “Jurisdictional Certification” for the entire palm oil sector in the Amazon.<sup>CXII</sup> (Please see a fuller discussion of Ecuador’s jurisdictional certification program below.)

## 2. Value chain participants

### Oil palm producers

**Land area and distribution:** Oil palm production is concentrated in four distinct zones with numbers of producers, areas and fresh palm fruit production and productivity as shown in **Exhibit 29**. The distribution of oil palm plantations and area planted by plantation size is shown in **Exhibit 30**. The early development of Ecuador’s oil palm sector took place in the Quinindé region, where initial investments in oil palm production and extraction led to the rapid adoption of this crop by thousands of small farmers in the area given superior economic benefits compared to traditional food crops. As the industry expanded into other parts of the country, investments in large extraction facilities by integrated palm oil companies were accompanied by the establishment of large, company-owned plantations in the Amazonia and San Lorenzo zones. These facilitated small farmers’ conversion to oil palm by following the establishment of large company-owned plantations in Amazonia.<sup>CXIII</sup>



**Exhibit 29: Number of producers, area planted, and 2017 estimated palm fruit production by zone<sup>49</sup>**

Zone	# producers	Area			FFB production		
		Hectares	% of total	Average size (ha)	MT	% of total	Average yield (MT/ha)
San Lorenzo	151	29,388	11.4%	194.6	302,697	10.7%	10.3
Quinindé	3844	125,896	49.0%	32.8	1,462,113	51.8%	11.6
Quevedo	1604	68,036	26.5%	42.4	685,630	24.2%	10.1
Amazonia	1005	33,802	13.1%	33.6	383,804	13.5%	11.4
Total	6,604	257,121	100.0%	38.9	2,834,245	100.0%	11.0

**Description:** Exhibit 29 shows how oil palm production is concentrated in four specific zones, with numbers of producers, areas and production and productivity of fresh palm fruit. These four zones are San Lorenzo (11.4% of the area and 10.7% of the FFB production), Quinindé (49.0% of the area and 51.8% of the FFB production), Quevedo (26.5% of the area and 24.2% of the FFB production) and Amazonia (13.1% of the area and 13.5% of the FFB production).

**Source:** Censo palmero, 2017.

**Exhibit 30: Distribution of oil palm plantations and area planted in Ecuador by plantation size**

	Number of plantations <sup>50</sup>	Area in oil palm	% of total area
0 to 50 ha	7,256	101,589	39.5%
51 to 200 ha	741	68,841	26.8%
201 to 500 ha	111	35,286	13.7%
501 to 1000 ha	23	16,006	6.2%
Over 1000 ha	18	35,400	13.8%
TOTAL	8,149	257,122	100.0%

**Description:** According to Exhibit 30, 39.5% of crops have less than 50 ha, 26.8% between 51 and 200 ha, 13.7% between 201 and 500 ha, 6.2% between 501 and 1,000 ha, and 13.8% over 1,000 ha.

**Source:** Censo palmero, 2017.

**Palm oil productivity and production:** As shown in **Exhibit 28**, Ecuador’s average productivity measured in terms of FFB per hectare per year was 11.0 MT/ha, although this measure varies widely. In well-managed oil palm plantations, including those owned by most of the larger integrated oil palm companies, yields of 25 MT/ha are not uncommon and yields on experimental plantations might reach 35 or more MT/ha, depending on soil, moisture, and cultural practices. As evidenced by the difference between average yields and those obtained on well-managed plantations, yields obtained by independent smallholder producers as well as other producers experiencing the effects of bud rot disease (discussed below), are frequently below 10 MT/ha. When domestic prices remained high, before Ecuador’s increased production forced it to export its surplus production to world markets, oil palm production at these low levels of productivity remained profitable for smallholder producers as little labor beyond harvesting of the fruit was required. However, as prices came down – and especially after producers began to feel the effects of bud rot disease – the economic returns to “low intensity” oil palm production began to drop. Increased expenditures on fertilization, irrigation and proper cultural practices would more than pay for themselves with increase yields, but smallholders frequently lack the technical and financial resources to engage in these productivity improvements.

**Bud rot disease:** Bud rot is a disease that attacks and destroys all the new tissue of the African palm tree, leaving those palm fronds that were formed prior to the infection

<sup>49</sup> Not included are approximately 400 producers in other parts of Ecuador.

<sup>50</sup> A producer might have more than one plantation.



unharmful. Early symptoms include destruction of the newly formed flag leaves (or fronds). The rot then gradually spreads and stops the palm from growing. A recent issue of CropLife (Latin America) noted that:

*For more than forty years, the causal agent of the disease was not correctly identified. Recently, as a result of the work carried out by the Center for Palm Oil Research (Cenipalma) in Colombia, Phytophthora palmivora Butl was identified as the causal agent of the first lesions. Opportunistic pathogens are subsequently presented: several fungi (Fusarium spp., Colletotrichum sp., Thielaviopsis sp., and Rhizoctonia sp, among others), bacteria (Pseudomonas sp. and Erwinia sp) and insects (Rhynchophorus palmarum) that promote the rot process, which begins in the immature tissues of the newly developing fronds. Bud rot affects the immature tissues of the new fronds, deteriorates the emission and maturation of new fronds and, consequently, stops the future development of the plant (Martínez et al., 2010).<sup>CXIV</sup>*

This disease results in the rapid decline in productivity until the tree, and surrounding trees, eventually die, destroying the plantation. Good agronomic practices, such as weeding, appropriate fertilization and irrigation, are thought to help palms remain healthy enough to resist the disease, and sanitary control measures, involving the early detection and removal of infected palms, are the recommended best practices to avoid the spread of the disease. The long-term solution for seriously infected plantations is to destroy the remaining trees and re-plant with hybrids, one of the most popular being the Brazilian female *E. oleífera* with the African male *E. guineensis*<sup>51</sup> (OxG).

Bud rot has plagued Ecuador's oil palm sector for many years, with devastating results in the Amazonia region in the early 1990s, and more recently in the San Lorenzo region. In both cases, the presence of a single large integrated palm oil company, Danec, led to the replanting of entire plantations with newly developed hybrids which showed greater tolerance to the disease.

Beginning in 2017-18, bud rot began to spread throughout the Quinindé zone, Ecuador's largest oil palm producing region, which is heavily populated by small independent oil palm producers. Lacking the means for early detection and control, thousands of small producers began to lose some and later most or all of their oil palms, resulting in both a sharp decline in the production of CPO and the emergence of a social and economic crisis in the region as many smallholder households and over 13,000 plantation workers began to lose their principal source of income. By late 2019, based on satellite imagery of the Quinindé-La Concordia-Santo Domingo oil palm corridor, it was estimated that only 30% of palm plantations remained fully healthy, with 63.5% partially or severely damaged.<sup>CXV</sup> In Quinindé, only 22.7% of the palm area was determined to be unaffected, with the remainder, or approximately 70,000 of the zone's 113,130 hectares of oil palm partially or totally damaged. While figures are still preliminary, it is estimated that Ecuador's total palm oil production fell from the 2017 high of 567,000 MT to 555,000 MT in 2018 and between 321,000 and 472,000 tons in 2019, eliminating the country's ability to serve export markets after meeting domestic needs.<sup>CXVI</sup>



<sup>51</sup> *E. guineensis* was the traditional variety of oil palm originally planted throughout Ecuador and Colombia.

### **Producer organizations**

**ANCUPA.** In 1970, the independent growers who had been attracted by the Palm Project formed ANCUPA. During the following 20 years, ANCUPA established the Palm Research Center (CIPAL); constructed and equipped a Microbiology Laboratory; implemented Research, Training, and Technology Transfer programs; created FEDAPAL as the export-marketing arm of ANCUPA; signed numerous agreements with institutions and universities; and participated in the negotiation of international agricultural trade agreements such as MERCOSUR.

**FEDAPAL.** Was created by ANCUPA in 1993 to facilitate the export of surplus palm oil in response to the oversupply in the domestic market. FEDAPAL ceased operations in 2018. (See discussion of FEDEPAL's role above under Ecuadorian policy environment/Trade and Price stabilization policies.)

### **National Federation of the Palm Oil Production Chain of Ecuador (PROPALMA).**

Following the demise of FEDAPAL and the emergence of politically based factions within ANCUPA which tended to pit groups of small producers against the larger integrated palm oil companies, PROPALMA was created in 2018 as a sector-wide industry organization representing the interests of all parties including the large integrated palm oil companies. Among its functions were to represent the sector before the national government, international bodies, and the general public; collect and disseminate statistical information; sponsor training programs and other events; and facilitate technical assistance and producer financing.

### **Producer-extractor relationships**

Unlike other palm oil producing countries where small or medium independent producers often entered into long-term contracts with extractors under which the latter provided technical assistance and other forms of support in exchange for an guaranteed supply of palm fruit, in Ecuador palm fruit buyers (extractors) are unable to legally obligate a producer to sell them fruit. This absence of long-term relationships between producers and extractors means that deliveries of FFB are subject primarily to short-term market considerations involving prices and payment conditions. In regions where many extractors compete for supplies, such as the Quinindé zone, scarcities frequently drive palm fruit prices above levels where extractors can remain profitable, especially when selling CPO to the world market but requiring the fruit in order to meet palm oil sales commitments. Conversely, in periods of oversupply, independent producers might be unable to find a home for their perishable FFB.

### **Palm oil extractors**

Palm oil was extracted from fresh palm fruit by 41 extractors, including small and medium independent extractors which purchased palm fruit directly from independent growers or through palm fruit collection centers, and large extractors which formed part of vertically integrated oil palm companies with production, extraction, and further processing activities, and processed fruit produced on their own plantations as well as fruit purchased from independent producers or through collection centers. The installed capacity of the extractors varied widely with 14 small extractors with capacities of less than 12 mt/hr., 17



medium extractors with capacities of between 12 and 25 mt/hr., and 10 large extractors with capacities of above 25 mt/hr. (including 1 with a capacity superior to 50 mt/hr.).<sup>CXVII</sup>

Due to the early development of the oil palm sector in Quinindé, this zone presented a higher concentration of extractors than is noted elsewhere (4 in San Lorenzo, 5 in Quevedo, 3 in Amazonia, and 29 in the Quinindé zone).<sup>CXVIII</sup> Again, due to the historical development of the sector, the extractors in the Quinindé zone were often small and independent (i.e., not affiliated with integrated palm oil companies) while those located elsewhere –especially in San Lorenzo and Amazonia– tended to be large extractors affiliated with large integrated oil palm companies. Most of the small extractors either sold their CPO to local refineries or exported it through associated or third-party exporters.

### **Palm oil refineries**

CPO for domestic use –and increasingly, for the export of finished or semi-finished palm oil products– is refined and further processed by refineries affiliated with large integrated palm oil companies, or by smaller independent processors to produce vegetable oils and fats for the food industry or retail sales of cooking oils and margarines, as well cosmetics and soaps.

### **Policies for the recovery and development of the oil palm sector**

The combination of Ecuador’s oil palm sector’s low productivity level, production levels above those required to serve the protected domestic market, low world prices for CPO, and the devastation caused by bud rot, had by mid-2019, created a crisis affecting the livelihoods of thousands of smallholder producers and the future of the oil palm sector. Especially affected were the thousands of smallholder producers in Esmeralda, Ecuador’s leading palm oil producing province.

To address the economic and social devastation of the oil palm industry, efforts were underway at the beginning of 2020 to design an emergency program, to be implemented through an alliance between the Ministry of Agriculture, BanEcuador (Ecuador’s state-owned development bank), and the large integrated oil palm companies with operations, primarily, to help smallholder producers to replant their plantations with bud rot tolerant oil palm hybrids. It is expected that the large palm oil companies, acting as “anchor companies,” will supply hybrid seedlings and train Ministry of Agriculture technicians in the proper hybrid cultivation practices to help small farmers plant and care for the new hybrids. BanEcuador financing will be available at low rates of interest with payments extended up to 15 years with no payments required during the first six years as the new palms reach maturity. The bank financing will include payments to smallholder producers for their own labor in replanting their plantations in order to guarantee them some income until their new plantations reach maturity.

New legislation to support the development of the palm oil industry has also been proposed and, by late 2019, had made its way through a first reading by Ecuador’s National Assembly. The proposed law would include a number of measures to increase the sector’s productivity and coordinate marketing to guarantee producers an acceptable return.<sup>CXIX</sup> Other proposed legislation was focused on a flexibilization of labor laws in the rural sector to permit part-time employment, and youth and female employment while maintaining strict observance of existing wage and benefit requirements.



### 3. Product flows

Of the 566,929 MT of CPO produced in 2017, 320,408 tons were exported, and 246,521 tons consumed domestically or added to unsold inventories as reported by FEDEPAL.

Ecuador exported both CPO and finished or semi-finished palm oil products. Seventy three percent of Ecuador's 2017 palm oil exports were of CPO, with its principal markets being Colombia (56%), the Netherlands (10%), Venezuela (9%), and Germany (8%).<sup>52</sup> CPO was used in importing countries by both the food and cosmetics industries, and to produce biodiesel. Finished or semi-finished palm oil exports included olein, vegetable oils and fats, stearin, RBD palm oil, and soaps, whose CPO content accounted for the remaining 27% of Ecuador's 2017 palm oil exports.<sup>CXX</sup> Crude and finished or semi-finished palm oil products were exported by large integrated palm oil companies, while only CPO was exported primarily by either associations of independent extractors or by other non-integrated extractors.

According to U.S. census data, the U.S. imported 60 MT of CPO and 3,625 tons of refined palm oil from Ecuador in 2019, the latter accounting for 0.2% of total U.S. imports of refined palm oil.

### 4. Production costs, prices, and financial returns to oil palm production

The cost of producing FFB has been estimated by the General Assembly's Commission on Food Sovereignty and Agricultural and Fisheries Development to average USD125 per MT for adult palms.<sup>CXXI</sup> Assuming a price paid to producers equal to 17%<sup>53</sup> of the local price for CPO, prices for CPO would have to be at least USD735 to cover out-of-pocket production costs (which would not include amortization of initial investment, costs of supervision, administration, and financing). With the world price for CPO falling to nearly USD 500 per MT CIF Rotterdam by the mid-2019, it was clear that most small producers were unable to cover their out-of-pocket costs.

*Labor costs:* As reported by the General Assembly's Commission on Food Sovereignty and Agricultural and Fisheries Development, the cost of labor during the establishment phase of a new oil palm plantation (years 0-3) was estimated at 70% of total costs; during the development phase (years 4-6) at 50% to 60%, and during maturity (years 7-20) at 40% to 50% of total costs.<sup>CXXII</sup> Using the Commission's total estimated production cost for a mature palm of USD 125/MT of FFB, labor costs would be approximately USD 56.45/MT of FFB, which is significantly higher than Colombia's estimated labor cost per MT of FFB of USD 37.45.<sup>54</sup>

### 5. Sustainable palm oil certification

Danec, one of Ecuador's three largest integrated oil palm companies, together with two smaller palm oil extractors, Natural Habitat Americas and Organic Supply, both of which depended 100% on FFB from independent producers, were the only Ecuadorian palm oil producers to have maintained active RSPO certification status by early 2020, with a total of only 94,536 tons of certified sustainable CPO between them, or less than 20% of Ecuador's

**52** Colombia, which itself produced and exported more palm oil than Ecuador, was an attractive destination for Ecuadorian exports due to its duty-free access under the terms of the Andean free trade agreement and Colombia's domestic pricing mechanism under which a portion of the price for domestic extractor sales was used to compensate Colombian palm oil exports.

**53** Based on an average extraction rate of 20% plus the cost of extraction. Note that this cost per ton of FFB makes no mention of productivity per hectare. The lower the level of productivity, the higher the cost per ton.

**54** Many Ecuadorians tend to blame their high cost structure on "dollarization" – the use of the U.S. dollar as Ecuador's currency. Since both income and expenses are expressed in dollars, the only advantage of a non-dollarized economy would be during periods of rapid devaluation of the local currency, making exports earnings higher in local currency.



estimated total production.<sup>55</sup> In Danec's case, the MB certification model was used, by which certified palm oil produced on their own plantations was combined with "conventional" palm oil from fruit supplied by non-certified independent producers. The two smaller extractors sourced 100% of their FFB from growers who were included in their RSPO certificates as complying with RSPO Principles and Criteria.<sup>CXXIII</sup>

As is the case in Colombia, since all Ecuadorian palm oil extractors also rely wholly or partially on palm fruit supplied by independent oil palm producers, and given that by early 2020 no independent producers other than those included in Natural Habitats' or Organic Supply's certificates had received RSPO certification, most of Ecuador's palm oil sector is also unable to comply with the growing international demand for CSPO.

Beginning in 2016, and closely aligned with Ecuador's commitment to reduce deforestation (see discussion above), public and private stakeholders in Ecuador's palm oil sector joined together to pursue "jurisdictional certification," a new approach to RSPO sustainable palm oil certification, initially for the Amazonian region, one of Ecuador's principal palm oil producing regions. "In the context of sustainable palm oil, the jurisdictional approach involves the certification of palm oil production at provincial level, where a particular model of rural development is used. This approach allows local stakeholders to work with regional governments to improve the welfare of small-scale farmers while curbing the use of environmentally destructive practices, such as slash-and-burn clearing and the ironing out of supply chain inefficiencies."<sup>CXXIV</sup>

By 2018, an interinstitutional committee on sustainable palm (CISPS) had been created<sup>56</sup> and various timelines and action plans developed as RSPO itself progressed in the development of the jurisdictional certification standard (Ecuador would be the first country where the jurisdictional approach to sustainable palm oil certification would be applied).<sup>57</sup>

It is to be noted that while all forms of RSPO certification include adherence to economic, social, and environmental standards, in the case of Ecuador's initial moves towards jurisdictional certification, the primary focus of both the program's institutional sponsors and CISPS members, and the various activities associated with the effort appear to be on the environmental aspects of RSPO certification. The absence of participation by Ecuador's Ministry of Labor or by other public or private organizations concerned primarily with ensuring acceptable conditions of work and the absence of child labor or forced labor, suggests that at least by 2020 the primary focus of Ecuador's pursuit of jurisdictional certification is compliance with RSPO's environmental standards.

## 6. Production and market expansion plans and opportunities

Given the low international prices for CPO, Ecuador's below-average oil palm productivity, and the ravages of the bud rot crisis, Ecuador is unable to contemplate increased CPO exports in the short term and is struggling to meet domestic demand for palm oil and palm oil-based

<sup>55</sup> Two other large integrated Ecuadorian palm oil companies had originally received RSPO certification, but by early 2020 those certifications were no longer active. (<https://www.rspo.org/certification/search-for-certified-growers>)

<sup>56</sup> The CISPS included various palm oil producers' associations (ANCUPA, AXPALMA, FEDAPAL), the Ecuadorian Ministries of Agriculture (MAG), Environment and water, Production, foreign trade, investment and fisheries (MPCEIP), and the Consortium of Autonomous Provincial Governments (CONGOPE), as well as international NGOs including The Forest Trust (TFT), the World Wildlife Fund (WWF), Conservation International (CI), and the Wildlife Conservation Fund (WCS).

<sup>57</sup> Further details regarding aspects of the proposed jurisdictional certification are available at [http://www.congresopalmeromexicano.com/femexpalma2020/static/memoria\\_digital/simultaneas\\_sostenibilidad/3\\_Maria\\_Amparo\\_Alban\\_Certificacion\\_Jurisdiccional\\_de\\_Ecuador.pdf](http://www.congresopalmeromexicano.com/femexpalma2020/static/memoria_digital/simultaneas_sostenibilidad/3_Maria_Amparo_Alban_Certificacion_Jurisdiccional_de_Ecuador.pdf)



products. Once CPO production returns to previous levels and domestic demand is satisfied, increased exports of finished and semi-finished palm oil products is contemplated by the larger fully integrated palm oil companies.

Over the near term (next 2 to 5 years), increased production will be based on productivity increases rather than expanded land areas in order to bring down the unit production costs and allow Ecuador to become competitive in world markets.

One important opportunity for the sector will be to begin to produce palm oil for use in the production of biodiesel. To date, Ecuador has not passed legislation mandating the use of biofuels in place of fossil-based fuels, and the current price relationship between petroleum-based fuels and palm oil-based biodiesel strongly favors continued reliance on the former. Only under a scenario where Ecuador's palm oil production costs were to come down while the international prices of petroleum increased, would a move towards substituting biodiesel for petroleum-based diesel be economically feasible.

In the longer term, and only if oil palm producers are able to dramatically increase their productivity in order to become competitive in international markets, future industry expansion in all current oil palm production zones would be possible.





# IV. Competitive position of Colombian and Ecuadorian producers in domestic and international markets



## A. Current competitive position in domestic markets

### 1. Colombia

Colombia and Ecuador are both members of the Andean Community (CAN), a free trade zone which imposes an adjustable common tariff on the import of CPO or derivatives of between



1.2% and 20%, depending on the world price of CPO, so as to protect domestic palm oil production. While Colombia's FEP in effect neutralizes any benefit of this common external tariff to local producers by calculating a domestic indicator price equal to the landed prices—including tariffs—of imported palm oil, it does protect local producers from competition from lower-priced imported palm oil and palm oil products as well as competing vegetable oils.

The one major exception to the protected status of Colombian palm oil is the presence of CPO imported from neighboring Ecuador and Peru, which enters Colombia free of the common external tariff yet is not subject to the obligatory "*cesión*" or compensation payment required under the FEP for sales to domestic clients by Colombian palm oil producers. The presence of large quantities of lower-cost Ecuadorian CPO in the Colombian market has raised concerns among Colombian producers and calls for measures to require the payment of the "*cesión*" to the FEP by importers of CPO from CAN countries. As the presence of lower-cost Ecuadorian CPO in the Colombian domestic market forces Colombia to export a greater portion of its own CPO at lower world prices, the net effect of the imports of Ecuadorian CPO is to lower prices for Colombian palm oil producers. (The severity of the problem, however, has been lessened in the short term due to Ecuador's current production shortfall given the widespread presence of bud rot disease.)

**Exhibit 31** illustrates sales in Colombia's domestic market of domestic and imported palm oil and other vegetable oils. As may be observed, duty-free imports of CPO from Ecuador and Peru were equal to 35% of Colombia's domestically consumed CPO in 2018.

It is also noted that while relatively insignificant quantities of other domestically produced vegetable oils in Colombia's domestic market, imports of other vegetable oils were equal to 70% of the domestic sales of Colombian palm oil in 2018. This suggests the possible presence of significant additional market potential for palm oil in Colombia's domestic market if the industry is able to further adapt its products to the needs of Colombia's domestic consumers.

Combined with the possibility of limiting the import of duty-free palm oil from other CAN countries, the potential for expanded domestic sales of Colombia's palm oil production could be nearly equal to Colombia's current level of domestic sales. Any increase in the required biofuel content in diesel fuel (currently 10%) would only add to Colombia's domestic

market potential. Given the significant price difference between sales to the domestic and export markets, it is to Colombia's advantage to aggressively pursue opportunities to increase the proportion of its total CPO production sold for domestic consumption.

**Exhibit 31: Colombian domestic sales of domestic and imported vegetable oils 2016 – 2018 (MT)**

Product	2016		2017		2018	
	Domestic production	Imports	Domestic production	Imports	Domestic production	Imports
CPO	754,371	227,409	813,350	195,964	779,105	310,921
<i>CPO from Ecuador (CAN)</i>		169,802		152,274		216,724
<i>CPO from Peru (CAN)</i>		25,742		12,260		54,739
<i>CPO from Brazil</i>		6,004		31,429		38,948
<i>CPO from Indonesia</i>		3,499		0		0
<i>CPO from all others</i>		22,362		0		510
Crude soybean oil		343,925		269,838		288,803
Vegetable oil mixtures		22,862		35,560		6,180
Oil in soybeans	13,400	95,473	10,600	96,853	11,200	117,085
Oil in cottonseed	3,700		2,100		2,500	
Crude sunflower oil		22,482		22,360		28,057
Crude olive oil		3,973		3,693		4,164
Crude coconut oil		119		135		153
Other crude vegetable oils	1,900	26,119	2,600	17,060	nd	20,707
Refined vegetable oils and margarines		37,199		98,289		77,484
<b>Totals</b>	<b>773,371</b>	<b>779,561</b>	<b>828,650</b>	<b>739,752</b>	<b>792,805</b>	<b>853,554</b>

**Description:** Exhibit 31 illustrates sales in the Colombian domestic market of palm oil and other domestic and imported vegetable oils. Duty-free imports of crude palm oil from Ecuador and Peru were equivalent to 35% of the CPO consumed in Colombia during 2018. Most of the imports come from Ecuador (216,724 MT) followed by Peru (54,739 MT) and Brazil (38,948 MT).

**Source:** FEDEPALMA, Anuario Estadístico 2019.

## 2. Ecuador

Prices received by Ecuadorian palm oil producers are influenced primarily by the landed cost (including the CAN common tariff) of imported palm oil and other vegetable oils, and by the short-term domestic supply/demand situation which has recently been heavily impacted by production shortfalls due to the bud rot disease. But in the absence of a mechanism similar to Colombia's FEP, as Ecuador's total production grows again to exceed domestic demand, prices will fall below the landed cost of imported CPO as producers compete for export markets.

**Exhibit 32** presents sales in Ecuador's domestic market of domestic and imported palm oil and other vegetable oils.

**Exhibit 32: Ecuadorian sales of domestic and imported vegetable oils 2015 – 2017 (MT)**

Product	2015		2016		2017	
	Domestic	Import	Domestic	Import	Domestic	Import
Oil, maize		495		467		455
Oil, olive, virgin		1,388		1,099		1,460
Oil, palm	255,000	11,637	270,000	71	276,000	114
Oil, rapeseed		1,260		1,206		1,425
Oil, soybean		101,625		102,675		110,352
Oil, sunflower		22,276		22,767		30,685
all others		606		1,696		534
<b>Totals</b>	<b>255,000</b>	<b>139,287</b>	<b>270,000</b>	<b>129,981</b>	<b>276,000</b>	<b>145,025</b>

**Description:** Exhibit 32 shows that Ecuador's imports of other vegetable oils in 2017 were equivalent to approximately 53% of its domestic consumption of palm oil in 2017.

**Source:** Domestic: USDA/ERS; Imports: FAOSTAT.



Ecuador's 2017 imports of other vegetable oils were equal to approximately 53% of its domestic consumption of palm oil. Unlike Colombia, Ecuador's domestic market is not affected by duty-free imports from other CAN countries. This means that not only will Ecuador not have the opportunity to replace imported CPO with domestic production, but it will also have less of an opportunity to significantly expand domestic sales by capturing market shares currently occupied by other imported vegetable oils. As Ecuador's production recovers from the bud rot crisis, Ecuador will have to rely to a much greater extent on exports where, given Ecuador's current uncompetitive oil palm productivity levels, it will find it difficult to compete. This situation will only be exacerbated if Colombia succeeds in requiring imported CPO from Ecuador (and Peru) to pay the "cession". Biofuels are thought by some to be a potential new domestic market. Ecuador does not currently require the addition of biofuels to gasoline. Given the relatively low cost of fossil fuels and Ecuador's status as a net petroleum exporter, it may be difficult to justify legislation to require the addition of biodiesel to petroleum-based diesel fuel.

## B. Current competitive position in international markets

Neither Colombia nor Ecuador currently occupies competitive cost positions in international palm oil markets except in the case of Ecuador's access to the Colombian market, or where location may provide advantages in the cost of transportation. **Exhibit 33** present Colombia's and Ecuador's leading export markets along with the other countries supplying those same markets.

As is apparent from these tables, while Colombia was a major source of supply for western hemisphere importers, the European Union accounted for a full 63% of its exports although Colombia only supplied 5% of the EU's total palm oil imports. In the case of Ecuador, Colombia accounted for 56% of its exports, due to its privileged access to the Colombian market, followed by the European Union which took 18% of Ecuador's exports.

**Exhibit 33: Colombia's and Ecuador's 2017 palm oil exports by country of destination, and importers' total imports by country of origin**

Destination	Colombia's 2017 exports to		Destination countries' total 2017 imports USD Million	Destination countries's 2017 imports from %:								
	USD Million	%		Colombia	Indonesia	Malaysia	Guatemala	Honduras	Costa Rica	Ecuador	Peru	Rest of the world
European Union	244	63	4,513	5	54	20	5	6	0	0	0	9
Brazil	47	12	125	37	52	4	0	0	0	0	0	7
Mexico	47	12	326	14	3	2	34	1	30	4	4	8
U.S.	10	3	1,020	1	62	31	0	2	0	2	0	2
Chile	10	3	26	37	6	21	0	0	0	0	35	1
Dom. Republic	18	5	26	69	1	2	0	10	0	18	0	1
Other	16	4										
Total	390	100										

**Description:** Panel 1 of Exhibit 33 presents the main export markets of Colombia and Ecuador along with the other countries that supply those same markets. In the case of Brazil and Chile, 37% of their palm oil imports come from Colombia. For its part, the country's main export destinations are the European Union, Brazil, and Mexico. In the case of Ecuador, the main export destinations are Colombia, the European Union, Venezuela, the United States and Mexico. In addition, Ecuador accounts for 98% of palm oil imports from Venezuela and 66% of imports from Cuba.

**Source:** Derived from The Observatory of Economic Complexity (OEC) (<https://oec.world/en/>).



Ecuador's 2017 exports to			Destination countries' total 2017 imports	Destination countries's 2017 imports from %:									
Destination	USD Million	%	USD Million	Colombia	Indonesia	Malaysia	Guatemala	Honduras	Costa Rica	Ecuador	Peru	Brazil	Rest of the world
Colombia	115	56	148	0	0	0	0	0	0	79	5	17	0
European Union	38	18	4,513	5	54	20	5	6	0	0	0	0	9
Venezuela	17	8	18	2	0	0	0	0	0	98	0	0	0
U.S.	15	8	1,020	1	62	31	0	2	0	2	0	0	2
Mexico	12	6	326	14	3	2	34	1	30	4	4	0	8
Dom. Republic	5	2	26	69	1	2	0	10	0	18	0	0	1
Cuba	2	1	3	0	6	15	0	0	0	66	13	0	0
Other	2	1											
<b>Total</b>	<b>206</b>	<b>100</b>											

**Description:** Table 33 presents the main export markets of Colombia and Ecuador along with the other countries that supply those same markets. In the case of Brazil and Chile, 37% of their palm oil imports come from Colombia. For its part, the country's main export destinations are the European Union, Brazil, and Mexico. In the case of Ecuador, the main export destinations are Colombia, the European Union, Venezuela, the United States and Mexico. In addition, Ecuador accounts for 98% of palm oil imports from Venezuela and 66% of imports from Cuba.

**Source:** Derived from The Observatory of Economic Complexity (OEX) (<https://oec.world/en/>).

Sustainable palm oil certification, whether by RSPO, ISCC or Rainforest Alliance, does not appear to provide significant competitive advantage to either country's palm oil exports.

ISCC certification is required for all CPO sold to Europe for use in the production of biodiesel, and all of Colombia's major exporters and 22 of its extractor mills have ISCC certification.<sup>CXXV</sup> But Colombia only supplies 5% of Europe's total imports, an estimated 58%<sup>58</sup> which are used for biodiesel, while the vast majority of Europe's CPO imports for biodiesel are from Indonesia or Malaysia, where exporters are also required to provide ISCC certification.

Price premiums paid for RSPO-CSP0 suggest a competitive advantage for RSPO-certified palm oil producers. Premiums paid for RSPO-CSP0 were reported to be in the USD 25 - USD 35 range for IP or SG CPO, and USD 10 or less (and frequently nothing) for MB per TM, or between 0% and 6% of recent CPO export prices.<sup>59</sup>

In Colombia, although RSPO reported that by 2019, 21 palm oil mills had received certification for 366,629 tons of CPO, an analysis of the Annual Communications of Progress (ACPs) required by RSPO of each certified oil palm grower indicated that only 29% of the CPO sold by the eight palm oil companies which submitted ACPs for 2018 was sold as IP or SG palm oil (2 palm oil companies), and another 12% was sold as MB (5 companies). Twenty-three percent was sold under other certifications (3 companies), while 36% was sold as conventional (non-certified) palm oil (4 companies).<sup>CXXVI</sup> (Please see **Exhibit 34.**)

<sup>58</sup> Calculated based on USDA/FAS Office of Global Analysis (September 2019), and Oil World Weekly, June 28, 2019.

<sup>59</sup> Estimates from confidential industry sources. Actual FOB prices paid by buyers for crude palm oil, including premiums for certified sustainable palm oil, are not publicly available nor are they reported to or by the RSPO.



**Exhibit 34: CPO sales of certified palm oil by Colombian RSPO-certified producers in 2018**

CPO sold as:	Suppliers	MT of CPO	% of Total
RSPO	7	93,414	40
IP	2	52,719	23
SG	1	12,957	6
MB	5	27,738	12
Other certification	3	53,945	23
Conventional (non-certified)	4	84,597	36
Total	8	231,957	100

**Description:** Exhibit 34 shows that 40% of the palm oil sold by Colombian certified producers is sold with RSPO certification, 23% with other certification and 36% is non-certified. The most frequent RSPO certification is identity preserved (IP) with 23% of total sales.

**Source:** Derived from 2018 RSPO Annual Communications of Progress ([www.rspo.org](http://www.rspo.org)).

These sales figures include both domestic and international sales. Although data are not available to determine the domestic/export breakdown of sales under each form of certification, industry sources indicated a general pattern of sales made by RSPO-certified palm oil companies:

- IP and SG sales were either for export to buyers, primary in Europe, or to local buyers which are either subsidiaries of multinational corporations with corporate policies requiring the purchase of CSPO, or which export semi-finished or finished products containing palm oil to Europe or North America. (The U.S. does not import CPO – only RDB).
- MB sales were made to local buyers and international buyers who were willing to buy MB certified palm oil in the absence of available IP or SG palm oil.
- Sales under other certifications were primarily ISCC certified export sales to biofuel markets in Europe.
- Sales of conventional (non-certified) palm oil were made to other Latin American countries or to local buyers for use in biofuels as well as food and cosmetic industries.

Industry sources also indicated that the demand for MB palm oil was limited, forcing those unable to sell IP or SG palm oil to sell their RSPO-certified CPO as conventional palm oil with no premium payment at all.

For those palm oil companies which do not carry RSPO certification, the ISCC-certified CPO was sold primarily to European biofuel buyers. Rainforest Alliance certified CPO was sold primarily to U.S. and European buyers in the food and consumer products industries. Conventional (non-certified) CPO was sold to domestic buyers (biofuel and food/consumer products) and to buyers in other Latin American countries.

In Ecuador, of the two companies submitting ACPs for 2018, one reported sales of 640 tons of IP certified CPO and 1,140 of conventional CPO. The other, one of Ecuador's three largest palm oil companies, reported sales of 2,036 tons of MB-certified CPO and 69,149 tons of conventional CPO.<sup>CXXVII</sup>

These data suggest that even for the relatively few Colombian and Ecuadorian palm oil companies which have received RSPO certification —with only three exceptions— RSPO-certified growers sold their CPO as MB, indicating a mixture of certified and non-certified palm oil, as conventional (non-certified), or under a different certification scheme such as



ISCC or Rainforest Alliance. While the food and cosmetics industries in both the U.S. and Europe are increasingly requiring sustainable palm oil certification and are willing to pay a premium, Colombia and Ecuador's inability to meet these demands is primarily due to the mixture of FFB from the palm oil companies' own certified plantations, and FFB purchased from independent suppliers. The vast majority of these are not RSPO-certified.

Far from possessing competitive advantages in international markets, Colombian and Ecuadorian palm oil producers are generally at a competitive disadvantage in serving markets demanding sustainable palm oil certification, due mainly to the difficulty and cost of certifying their supply chain composed of many smallholder independent oil palm producers. (Most are also at a competitive disadvantage in serving U.S. markets due to their inability to meet the U.S.' demand for only refined palm oil.)

## C. Potential competitive advantage of palm oil produced certifiably free from exploited labor

Palm oil which is produced certifiably free from exploited labor may provide Colombian and Ecuadorian palm oil producers a competitive advantage in both their own domestic markets and in the international market for palm oil and palm oil products. In order to obtain this competitive advantage, the following four conditions must be met:

*Compliance.* The palm oil must, in fact, be produced in full compliance with fair labor standards on child labor, forced labor, acceptable conditions of work as defined in both national labor legislation and the certification criteria of buyer or third-party certification schemes.

*Certification.* Palm oil sector participants must acquire and maintain sustainable palm oil certification from one or more of the buyer or third-part certification schemes, depending on the markets to be served, as a means of communicating compliance to buyers.

*Market demand.* Markets must be willing to reward certified compliance with fair labor standards through price premiums and/or preferential purchases.

*Competitive position:* Palm oil producers must be able to demonstrate the competitiveness of their product in terms of buyer requirements when compared to similar products offered by competitors.

This section will examine the degree to which these four conditions may be met in the near future.

### 1. Compliance

*Colombia:* Previous sections of this report have noted shortcomings in the areas of contract formalization and the extension of minimum wages and benefits to all workers, including especially those employed on small plantations, as well as the risk of child labor, illegal forms of adolescent labor, and forced labor.

Three complementary strategies are recommended to achieve full compliance with labor policies and standards throughout the palm oil sector:

1. Social compliance extension activities designed to help oil palm producers of all sizes to incorporate socially compliant human resource management systems into their operating policies and procedures. Given the palm nucleus arrangement under



which larger integrated palm oil companies serve as hubs for extension activities through FEDEPALMA, the Colombian producers' association, and its research and extension affiliate, CENIPALMA, social compliance extension may be focused initially on medium and large palm oil producers with the understanding that those same companies will, in turn, facilitate extension to the independent smallholder suppliers which form part of the palm nucleus.

2. Tripartite review of legislation involving workers' and employers' organizations covering contractual formalization, wages, hours of work, health and accident insurance and related labor benefits to the conditions and needs of the rural sector. (Industry sources, including FEDEPALMA and both large and small producers interviewed in connection with this study, reported that one reason for non-compliance with labor legislation, especially among small producers, is believed to be the incompatibility of existing labor legislation, which was designed primarily with the needs of urban labor in mind, with the reality of the rural sector where seasonality, 7-day production schedules, and the need for part-time labor are common.)
3. Increased labor inspections by Ministry of Labor inspectors to effectively enforce Colombia's labor legislation. To complement this, other government agencies should also provide enhanced oversight of labor issues. For example, the Parafiscal and Pension Management Unit (UGPP) should increase inspections and monitoring of compliance with social security contribution requirements for the rural sector.

*Ecuador:* Social non-compliance in Ecuador's oil palm sector, especially among small and medium producers, is primarily the product of labor legislation, including especially the universal minimum wage, which is incompatible with the reality of the oil palm sector, and the sector's very low productivity levels which make full social compliance economically unfeasible. This situation has only been exacerbated by the recent devastation of oil palm plantations in Ecuador's principal oil palm production zone by the bud rot disease.

As in Colombia, the activities most likely to help the sector improve its level of social compliance will include the tripartite review of Ecuador's labor legislation to ensure that collective needs in the rural sector are met, including in terms of social compliance extension activities.

Unlike Colombia, where larger integrated palm oil companies provide a vehicle for extension activities to reach independent smallholder suppliers, in Ecuador, social compliance extension activities must generally be provided separately to the large integrated palm oil companies, and to independent smallholder producers. In the absence of a single effective oil palm producers' association such as Colombia's FEDEPALMA and CENIPALMA, in Ecuador government extension agencies must take the initiative in facilitating social compliance extension to all segments of the oil palm sector.

## 2. Certification

Palm oil sector producers must be able to communicate their compliance with the buyers' environmental and social expectations to their markets, in order to benefit from compliance-related incentives and avoid lost sales or trade restrictions resulting from non-compliance. Faced with the impracticability of each palm oil producer individually communicating its level of compliance with its current and potential buyers, third-party sustainable palm oil



certification schemes and corporate policies for the purchase of sustainable palm oil provide vehicles for market actors to communicate their expectations to producers and producers to communicate their compliance with those expectations to the market.

No certification scheme can guarantee full compliance with either labor or environmental standards, and poor auditing, intentional misrepresentations, or misunderstandings of certification criteria may (and do) detract from the reliability of all certification schemes. However, buyer or third-party certifications, despite their shortcomings, are the only practical means for palm oil sector participants to demonstrate compliance with buyer expectations regarding environmental and social practices and derive competitive advantage by doing so.

Among the various third-party certification schemes in use in Colombia, Ecuador, and in other palm oil producing countries, RSPO certification enjoys the widest degree of acceptance by buyers and other industry stakeholders, as confirmed in an independent evaluation of seven sustainable palm oil certification standards.<sup>60</sup>

In both Colombia and Ecuador, third-party certifications currently cover approximately 20% of the CPO produced. In both countries, significant further progress is hindered by limited demand for ISCC certification outside the European biofuels market, and the complexity of the RSPO certification process, even for medium and large oil palm producers, and especially by the difficulty of obtaining certification for the thousands of smallholder oil palm producer which provide 50% or more of the FFB used by extractor mills to produce CPO. Many of the RSPO certification criteria were originally based on conditions and practices in place in Southeast Asia, which palm oil sector participants in both Colombia and Ecuador believe are neither relevant nor applicable to the environmental or social conditions under which oil palm is grown in Latin America. These observations are especially applicable to the relationships between independent smallholder producers and the palm oil extractor mills to which they sell their FFB, which tend to be different from those observed in Southeast Asia where there are fewer truly independent smallholder producers and producers are typically more closely tied to specific extractor mills.

At the same time, in the opinion of at least one major international buyer, Latin American producers, including those in Colombia and Ecuador “lack strong plans for addressing the whole range of issues in palm oil. Lots more producers understand these issues in Southeast Asia – even if there are lots more problematic producers there as well.” This source views Southeast Asia as generally better in terms of responsible sourcing “because Southeast Asia has been the focus of so much negative attention this pushed suppliers to meet stringent standards and be aware of the range of stakeholders with different concerns/ agendas/ approaches. Latin American producers have a less nuanced understanding of stakeholders and issues; this lack of attention has led to complacency. For example, Latin American producers might try to argue that deforestation is not an issue since they are in compliance with the law.”<sup>CXXVIII</sup>

<sup>60</sup> “A Comparison of Leading Palm Oil Certification Standards” published by the Forest Peoples Programme (U.K.) “compares the world’s principal oil palm sustainability standards (RSPO [Roundtable on Sustainable Palm Oil], ISCC [International Sustainability & Carbon Certification], ISPO [Indonesian Sustainable Palm Oil], MSPO [Malaysian Sustainable Palm Oil], SAN [Sustainable Agriculture Network], HCS [High Carbon Stocks Approach] and RSB [Roundtable on Sustainable Biomaterials]) by measuring them against a comprehensive set of over 39 social and human rights indicators within six different themes.” The overall scores given to each standard were RSPO: 101; RSB: 91; SAN: 79; ISCC: 68; HCS: 66; MSPO: 62 and ISPO: 34. Only RSPO received a “green” designation meaning “Strong and clear requirements.” Both the Malaysian and Indonesian standards received the lowest color classification - red, meaning “Theme is not addressed and/or no clearly defined requirements.” (<https://www.forestpeoples.org/en/responsible-finance-palm-oil-rspo/report/2017/comparison-leading-palm-oil-certification-standards>).



Two strategies are currently under consideration to significantly increase the percentage of certified CPO for sale in domestic and international markets.

*Colombia:* At the initiative of FEDEPALMA's membership, a "Sustainable Palm Oil Program" was designed in 2019 and began implementation in 2020 with the definition of the principles of the Sustainability Index and its conduction. The program includes three separate but complementary sets of activities:

- Sustainable palm oil production: extension services to promote and facilitate the massive adoption of best sustainable economic, environmental, and social practices and to verify compliance.
- Sustainable palm oil markets: creation of a Colombian Sustainable Palm Oil brand as a "differentiated" palm oil, verification of oil palm producers meeting Colombian sustainability criteria, development of new market segments and new uses for both palm oil and its byproducts, and sales promotion in national and international markets; and
- Sustainable oil palm institutional support: development of broad alliances between oil palm producers and other public and private sector actors to coordinate sustainability initiatives and improve oil palm sector regulation.

The sustainable palm oil production activities will be managed by FEDEPALMA and CENIPALMA, while many of the activities involved in the branding and positioning of Colombian palm oil will be the task of a new independent multi-party institution governed by representatives from FEDEPALMA, various Colombian Government Ministries, and non-governmental organizations. Such tasks include the sustainability index as a tool to monitor performance using a variety of economic, environmental, and social indicators, and other activities focused on coordination and integration of sustainability initiatives.<sup>61</sup>

*Ecuador:* To address the difficulty of certifying a significantly greater portion of Ecuador's oil palm sector, stakeholders including the Ecuadorian Ministries of Agriculture, Environment and Labor, various large palm oil companies and producer organizations, and other representatives from civil society are working with RSPO to undertake a "jurisdictional" certification under which the entire country would receive RSPO certification. The Ecuadorian jurisdictional certification would be an initial pilot for RSPO, the parameters of which have yet to be determined. Given the current emergency conditions affecting Ecuador's oil palm sector due to the bud rot disease, combined with the historically low levels of oil palm productivity in Ecuador which limit its ability to compete in international markets, it may be unreasonable to expect rapid progress in the implementation of jurisdictional certification or any significant short-term increase in the level of sustainable palm oil certification in Ecuador.

### 3. Market demand

Market segments demanding improved compliance with fair labor standards and fair treatment of small producers exist in Colombia's and Ecuador's domestic markets, and

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<sup>61</sup> While the Sustainable Palm Oil Program includes sustainability criteria for producers and a sustainability index, it is not a "certification" in the sense of RSPO or other certifications.



in the international market for palm oil and palm oil products. Demand for fair labor/fair treatment compliance is expressed through price premiums and preferential or restrictive purchase policies. With the exception of U.S. trade restrictions regarding palm oil produced with forced labor, expressions of market demand for fair labor/fair treatment compliance (hereafter “social compliance”) in the palm oil sector observed in the course of this study were combined with market demands for compliance with environmental standards primarily focused on deforestation, CO<sub>2</sub> emissions, and loss of wildlife habitats. (Market demands for environmental compliance were not, however, universally accompanied by demands for social compliance).<sup>62</sup> Palm oil and palm oil products which are compliant with both environmental and social standards are generally termed as “Sustainable Palm Oil.”

*Domestic demand for sustainable palm oil:* Over half of Colombia’s palm oil production sold for domestic consumption is purchased by the country’s biofuels industry for the production of biodiesel. Although some biofuel producers carry either ISCC or RSPO certification or both, certification is not required for palm oil used to produce biodiesel, nor are price premiums paid. Were Colombia’s diesel industry to require a robust certification including acceptable conditions of work, free of child labor and forced labor, the palm oil sector would experience significantly greater pressure to improve labor practices.

A review was undertaken of the most important buyers of CPO in Colombia’s fats and oils sector and complemented with private communications with selected Colombian and Ecuadorian palm oil producers. Based on this review, the domestic demand for sustainable palm oil in both countries appears to be limited to buyers which export semi-finished or finished palm oil products to North American or European food industry buyers, or to domestic food industry divisions of multinational companies whose corporate policies require the purchase of sustainable palm oil. Palm oil producers surveyed in this study indicated that these local buyers expressed a preference for RSPO Identity IP or SG CSPO, but were often willing to purchase MB CSPO in the absence of available IP or SG palm oil. Of the ten largest buyers in Colombia’s fats and oils sector, representing 79% of total purchases by fats and oils processors as reported by FEDEPALMA,<sup>CXXIX</sup> only one large integrated palm oil company with significant exports of semi- and fully processed palm oil products, and one large integrated palm oil producer and processor serving the domestic food and biodiesel markets, reported certification by any of the widely recognized sustainable palm oil certifications bodies.

Palm oil producers who sold to domestic buyers requesting sustainable palm oil certification indicated that price premiums in the range of USD 30 per MT of CPO were paid for IP or SG CSPO, but that premiums were generally not available for MB certification. However, the ability to offer MB certified CPO did provide the supplier with a preferential sales advantage vis-a-vis suppliers offering only conventional CPO for those buyers requesting CSPO.

*Demand for sustainable palm oil in the U.S. and other international markets:* International demand for CSPO is strongest among the food industries in Western Europe and the U.S., and

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**62** Legislation in European markets, such as the UK’s Modern Slavery Act of 2015, exists to address forced labor and child labor concerns in supply chains. Certain large firms are required to publish annual statements indicating how they comply with the Modern Slavery Act and these may address palm oil when relevant, such as in the case of Cargill. However, enforcement action based on this legislation has generally not been applied to palm oil supply chains in a manner that has demonstrably affected market access. In contrast, EU market restrictions on palm oil have been on the basis environmental concerns and in EU documents labor issues are mentioned only in passing if at all.



the biofuel industry in Western Europe, markets which collectively represent only 10.1 million tons or 14% of the total world market for palm oil as shown in **Exhibit 35**:

**Exhibit 35: World palm oil consumption by market segment**

World palm oil consumption	2018-2019	
	000 MT	% of total
United States	1,501	2%
Western Europe & other high-income countries: food	4,293	6%
Western Europe & other high-income countries: industrial (primarily biofuel)	4,309	6%
Developing & middle-income countries	62,758	86%
<i>Indonesia</i>	13,721	19%
<i>India</i>	9,805	13%
<i>China</i>	7,012	10%
<i>Malaysia</i>	3,504	5%
<i>Pakistan</i>	3,245	4%
<i>All others</i>	22,850	31%
Total world consumption	73,081	100%

**Description:** Exhibit 35 shows that 86% of palm oil is consumed in middle-income developing countries, with the largest shares in Indonesia (19%), India (13%) and China (10%). Western Europe consumes 12% of palm oil, while the U.S. accounts for 2% of world consumption.

**Source:** Derived from USDA/ERS Production, Supply and Distribution (<https://apps.fas.usda.gov/psdonline/app/index.html#/app/home>).

In contrast, according to RSPO 15.6 million tons, or 19% of the world’s total palm oil production was certified by RSPO in 2019, 93% of which was produced in Indonesia or Malaysia.<sup>CXXX</sup> While reliable data are not available, evidence from the RSPO website suggests that only about 20% of the RSPO-certified Indonesian and Malaysian palm oil is IP or SG certified, with the balance offered as MB certified.<sup>63</sup>

It is also estimated that of the approximately 7.65 million tons of palm oil imported by European Union countries from Indonesia and Malaysia, approximately 51%, or 3.9 million tons were used to produce biofuels, and therefore had to carry ISCC certification.<sup>CXXXI</sup>

Most major palm oil traders, refiners and food industry buyers have announced their intention to source 100% sustainable palm oil, whether certified by RSPO or meeting the sustainability requirements of individual buyers. Leading brands in the food and cosmetics industries —Carrefour, Unilever, Walmart, Nestlé, Kellogg’s, P&G, Starbucks, Mondelez International, Hershey’s, L’Oréal, Mars and Ferrero— all with world-wide operations, have formally announced their intention to use 100% RSPO IP or SG palm oil.<sup>CXXXII</sup> Furthermore, many large traders and food manufacturers had also published their own sustainability standards. (Examples of buyers’ sustainability requirements are presented in Appendix B.)

As reported by the U.S. Representative of the RSPO, between 80% and 100% of palm oil imported into the U.S. is RSPO-certified, although much of it carries only MB certification, with little or no premium payment. Virtually all RSPO-certified palm oil is imported as refined (RBD) palm oil from Indonesia or Malaysia.

*“American consumer products companies are anticipating the demands of Millennials and Generation Z for products which reflect their ideals and core values regarding climate change primarily, and human rights more recently. Many American retailers expect to be*

<sup>63</sup> Based on country totals for IP and MB CSPO from the “Search for Certified Growers” page on the RSPO website (<https://www.rspo.org/certification/search-for-certified-growers>).



able to guarantee 100% sustainable palm oil in all products made with palm oil by 2020 or in some cases, 2025. In response American food manufacturers are also setting a target of 100% sustainable palm oil by 2020 or in some cases, 2025.”

“While the primary concern of American food and retail companies up until 10 or 15 years ago was deforestation, and 6-8 years ago climate change, more recently they have also ‘discovered’ that ‘sustainability’ applies to humans as well, and that sustainable palm oil must meet standards on working conditions / living wages as well as environmental concerns. These concerns are now reflected in the 2018 RSPO Principles and Criteria.”

“RSPO certification is a condition of entry –not a value-added feature– for U.S. markets, and as Europe switches away from using CPO for biodiesel, it will become a condition of entry into European food markets as well.”<sup>CXXXIII</sup>

Although the demand for CSPO by palm oil traders, refiners and major food industry buyers is near 100%, industry sources observed that in the U.S., this demand does not yet reflect strong consumer demand for sustainable palm oil. The following observations were made by industry participants interviewed in the preparation of this study:<sup>CXXXIV</sup>

- *One issue with the use of sustainably sourced palm (and other inputs) is that consumers of products at the lower end don’t seem to particularly care about sourcing issues - the person buying a USD 4 chocolate bar at Whole Foods is going to be very concerned about how things are produced and willing to pay for it; the guy buying a Crunch bar at a gas station not so much.*
- *Here in America, I haven’t heard that much (anti-palm oil propaganda) as in Europe, but those things can change pretty quickly. ... So far, I haven’t heard that much aversion (for palm oil) to come here to America, as in Europe. I am saying this from the point of view of consumers, not from the big companies.*
- *Customers are willing to pay more for CSPO, though this differs by country. It’s really just a European thing, “not North America at all.”*

In Europe, it was reported that 74% of the palm oil imported into the continent for food use in 2018 was RSPO certified, with a goal of 100% by 2020.<sup>CXXXV</sup> Unlike the U.S., the demand for sustainable palm oil by the European food and cosmetics industries is based on a strong consumer demand for both environmental and social compliance. And again, unlike the U.S., where MB certification is often acceptable, European food and cosmetic buyers are increasingly demanding only IP or SG palm oil.

As reported by a palm oil trader from an international commodity trading company:

“In Europe, the demand requires that it be segregated.<sup>64</sup> MB is that you can put non-certified, certified, and then you can say, Listen, out of this balance, fifty percent was certified, fifty wasn’t... this one is barely being used. In Europe, I don’t know who is using it. OK, you can say one thousand tons were certified, one thousand weren’t, and there are blended results, you get a mixed proportion... Europe does not use this. And the main reason is because the supply that Europe needs today is being fulfilled with SG oil.

<sup>64</sup> The trader includes both IP and SG when he refers to “segregated.”



*Europe consumes, if I am not mistaken, about 8 million tons of palm and all of it is mostly segregated. That goes for food, cosmetics, biodiesel as well.”*

*“So, what is going on right now? Well, I would say, if you want to export palm to Europe from Latin America, I would say that all the large players— Mondelez, Frito-Lay, big companies like that, you will need a certification. For segregated oil. Ten or fifteen years ago I was having this conversation with my palm producers, and they were saying, “no way am I going to invest more money on that...” Right now, they are going to get a premium for being sustainable... In ten years, you may not get a premium, and you will be out of demand. It is not a “nice to have” right now, for me certification is a must have.”<sup>CXXXVI</sup>*

As current EU policy is to phase out palm oil for use in biofuels between 2023 and 2030. If and when the European demand for palm oil for biodiesel declines and is replaced by greater usage of rapeseed or other European vegetable oils, the demand for palm oil by the food industry will increase, as will the demand for RSPO IP or SG certification. Even if EU policy towards palm oil for biofuels changes, given the level of consumer demand for palm oil certifiably free from unsustainable environmental and social practices, it may be reasonably expected that certification criteria for palm oil use in biofuels will be tightened to approximate RSPO requirements.

Outside of the U.S. and Western Europe (and selected other high-income countries), little if any demand is observed for palm oil meeting either environmental or social sustainability standards. As is evident in **Exhibit 34** above, the largest consumers of palm oil, in addition to the two largest producers, Indonesia and Malaysia, are India and China, which together consume a total of 16.8 million tons of palm oil and do not currently exhibit a demand for sustainable palm oil certification or a willingness to pay premium prices for it.<sup>65</sup>

To summarize the international demand for environmentally and socially sustainable palm oil meeting either private buyer sustainability criteria or third-party certification standards:

- *15.6 million tons of palm oil carry RSPO certification, 93% or 14.5 million tons of which comes from Indonesia or Malaysia. This figure by far exceeds the 5.8-million-MT palm oil consumption by the food and cosmetics industries in the U.S. and Western Europe. Only a relatively small portion of the total RSPO CSPO is for IP or SG certified palm oil, with the remainder offered as MB certified palm oil, combining unknown percentages of certified and conventional palm oil.*
- *Leading multinational food and cosmetic manufacturers and most other European food and cosmetic industries are increasingly demanding only IP or SG certified palm oil and are still willing to pay premiums averaging USD 30 per MT.*
- *It is estimated that between 80% and 100% of the palm oil imported by the U.S. is RSPO-certified, although a large portion of that is only MB certified, for which premium payments are not generally paid. To date, American consumers have not shown the same demand for palm oil meeting either environmental or social standards, although industry observers expect this to change within the next several years.*

<sup>65</sup> As quoted in “China & sustainable palm oil: from challenge to partner” on the RSPO website, “While major progress in the uptake of Certified Sustainable Palm Oil (CSPO) uptake has been made in Europe, in China –the third largest importer of palm oil– the uptake of CSPO remains low. This is why RSPO’s vision for China is to achieve 10% CSPO uptake by 2020.” (<https://rspo.org/news-and-events/news/china-and-sustainable-palm-oil-from-challenge-to-partner>).



- *As additional amounts of IP or SG-certified palm oil become available, they will replace MB certified palm oil, and eventually become basic purchase requirements for which premium prices will no longer be paid.*

#### 4. Competitive position

As an undifferentiated basic commodity, CPO sales are primarily based on the landed cost of the palm oil to the buyer, which in turn is influenced by the cost structure of the lowest cost major producer, transportation costs, and short-term supply and demand imbalances. Preferential trade arrangements or trade restrictions, market access, product differentiation through further processing, and intangible attributes such as sustainable palm oil certification may also affect the final price paid by the buyer depending on individual buyer requirements and the supply/demand relationship for those attributes.

##### Production cost

**Colombia:** Colombia's current presence in international markets where it now sells over 50% of its annual production (87% of which was sold as CPO in 2018),<sup>CXXXVII</sup> suggests that it is competitive in terms of price, quality, and delivery conditions with CPO from other exporting countries. However, Colombian producers' reliance on the FEP mechanism to compensate low export prices with transfers from sales in the domestic market suggests that without these compensation payments, Colombian palm oil may not be competitive in the international market. Although a significant increase in world palm oil prices, which took place during the second half of 2019 and early 2020, lessened the sector's dependence on compensation payments to support Colombia's exports, by April 2020 world prices had returned to their long-term price trend between 2011 and mid-2019 (see Exhibits 9 and 11). If Colombia continues to increase the portion of its total production exported to world markets, Colombia's total ex-mill economic production costs, estimated for 2018 by FEDEPALMA at USD 453.04 per MT,<sup>66</sup> may reduce Colombia's ability to remain internationally competitive.

**Ecuador:** Ecuador's overall low level of oil palm productivity (2.4 MT of CPO per hectare, nearly 40% below Malaysia and Indonesia's average) and the absence of a price protection mechanisms similar to Colombia's FEP has resulted in a lack of competitiveness in world markets for CPO at recent world prices. In 2017, the last year for which Ecuador's export statistics are available, when world prices were still in the USD 800 range, Ecuador exported 57% of its total production, 73% in the form of CPO and 27% as semi-processed palm oil or finished goods containing palm oil. Of the exported CPO, 55.5% was sold to Colombia where it enjoyed a competitive advantage due to its status as a duty-free import not subject to the Colombian FEP *cession* payment.<sup>CXXXVIII</sup> By mid-2019, given both the low world prices and production losses due to the bud rot disease, Ecuador's CPO exports were reported to be limited primarily to Colombia and Venezuela (where Ecuador also enjoys preferential treatment).

While the small number of Ecuador's large, integrated palm oil companies do enjoy high levels of oil palm productivity, the country's average productivity is so low that it is difficult

<sup>66</sup> Based on Mosquera, M., et al. (2019). Estimación del costo de producción para productores de palma de aceite de Colombia que han adoptado buenas prácticas agrícolas. *Palmas*, 40(2), 3-20, and an average exchange rate of COP2957 = USD1.00. Note: FEDEPALMA's production cost analysis is based on the costs and productivities of producers employing "good levels of technology adoption." Costs for producers with lower productivity levels may be higher.



to imagine it will be able to profitably export CPO to world markets in the near future, or even to Colombia if Colombia finds a way to collect *ession* payments from duty-free palm oil imports.<sup>67</sup>

A palm oil trader interviewed for this report summarized the importance of price competitiveness:

*"My priority would be to be competitive. You can invest a lot of money on your brand, but if you're not competitive, you'll have a hard time, because the moment you take away this demand on biodiesel, your competitors in Asia are going to be fighting for that remaining demand. You saw that: 67 million tons are being produced. If you take out 10 million tons in Europe, guess what. You're going to be competing with two countries that produce 60 million tons, so you'd better be competitive. Because it's not going to be a matter that Colombian palm is nicer; it's a commodity, so your consumers are going to be buying the cheaper one. Sustainable, compliant, but that won't change the fact that it is a commodity, so if you ask me, what would be my top priority for the next ten years, competitiveness for sure would be in the first spot. And then to keep working on your image."*<sup>CXXXIX</sup>

#### **Transportation costs:**

Ocean transportation costs are influenced by many factors including distance, vessel size, the cost of port facilities, and supply/demand considerations for different shipping routes. Colombia and Ecuador do enjoy transportation advantages to other Latin American ports as well as to North America, where Colombian maritime shipping costs for CPO were reported by the OECD in 2007 (the last year for which such statistics are available) to be less than half of those of Malaysia (USD 130/MT vs USD 290/MT).<sup>CXL</sup> This transportation cost advantage, however, is mitigated by privileged access to port facilities by major Southeast Asian palm oil exporters which often own their own facilities for the receipt of bulk palm oil shipments, and the higher production costs of Colombian and Ecuadorian palm oil as mentioned earlier in this report.

#### **Preferential trade arrangements or restrictions:**

As discussed above, Ecuador enjoys preferential import treatment in Colombia as a member of the Andean free trade area. Whether this arrangement will continue in the future will depend on whether the Colombian palm oil sector is successful in requiring Ecuadorian imports to pay the *ession*.

Of greater importance will be future European Community policies regarding palm oil imports for biofuels. Colombia, especially, is attempting to demonstrate that it should not be subject to the elimination of palm oil for biofuels due to concerns about deforestation as palm oil produced in Colombia is unrelated to deforestation.

There are currently no other trade restrictions affecting the export of either Colombian or Ecuadorian palm oil. (Palm oil enters the U.S. market duty free.)

As discussed above under labor policies in the Colombian policy environment section of this report, a Colombian Action Plan Related to Labor Rights (LAP) was signed between Colombia and the U.S. in 2011 as a precursor to the U.S.-Colombia Trade Promotion



<sup>67</sup> A marketing executive from one of Ecuador's major integrated palm oil companies with significant export sales of finished and semi-finished palm oil products stated that the only reason to export CPO was to "get rid of excess inventories."

agreement (“Free Trade Agreement”). Under the LAP, the palm oil sector, along with the sugar, mining, port, and flower sectors, was identified for improved law enforcement due to findings related to the misuse of CTA or “Associated Work Cooperatives” and other forms of labor outsourcing, as well as other situations in which Colombian labor laws were not being vigorously enforced.

Neither the LAP nor the Free Trade Agreement directly affected Colombian palm oil exports to the U.S., as they already entered duty free but were generally non-competitive with palm oil from Southeast Asia for the various market reasons discussed in this section. However, full compliance with the terms of the LAP, which would also facilitate compliance with socially sustainable palm oil certification requirements, will support future efforts to position Colombian palm oil as both environmentally and socially sustainable in U.S. markets.

### **Market access:**

Beyond government trade and tariff policy, crude or semi-processed palm oil imports are subject to vegetable oil distribution systems and the structure and purchasing policies of fats and oils processors in destination markets.

Malaysian and Indonesian investments in palm oil refineries in their home countries, as well as port facilities, bulk storage, and further refining capacity in the U.S., has limited palm oil access to U.S. markets to refined palm oil from these two countries. In 2019, the U.S. imported a total of 1,581,565 tons of crude or refined palm oil, 98% of which was imported from either Indonesia or Malaysia and all but 11,750 tons (less than 1% of the total) as refined palm oil. The same year, the U.S. imported 43 tons of CPO and 3,625 tons of refined palm oil from Ecuador, and 7,384 tons of refined palm oil from Colombia.<sup>CXLI</sup>

As reported to the authors of this report by major palm oil exporters in both Colombia and Ecuador, “entry barriers to the U.S. market and especially to its tightly controlled distribution system were difficult to overcome.”<sup>CXLII</sup>

### **Product differentiation:**

Colombia: Colombia currently only exports 8% of its total palm oil export volume as RDB palm oil and palm oil fractions, and 4.6% in products such as soap, margarine, or other processed products containing palm oil.<sup>CXLIII</sup> By adding value through further processing and serving the needs of differentiated market segments, Colombian palm oil may be able to remain competitive despite its overall higher cost structure, and may be able to find markets for refined or semi-processed palm oil products in the U.S. which does not import significant amounts of CPO.

Ecuador: Ecuador does appear to be more successful in exporting semi-processed or finished goods containing palm oil, with two of its largest palm oil companies, La Fabril and Danec, exporting 75% and 57% respectively of their 2017 palm oil exports as semi-processed or finished goods,<sup>CXLIV</sup> reportedly primarily to Latin American and European buyers. By producing semi-processed or finished goods for specific market segments, these companies are able to overcome any cost disadvantage in the production of CPO with value added through further processing and targeted marketing.



**Intangible product attributes:**

In the palm oil sector, while organic and fair-trade certification exist, sustainable palm oil, whether buyer or third party certified, constitutes the primary intangible attribute influencing palm oil providers' competitive positions, and RSPO sustainable palm oil certification or buyer-certified sustainability compliance are the preferred means of communicating compliance to buyers in the food and cosmetics sectors, and ISCC certification for exports the European biofuels industry.

Due to the imbalance between the 14.5-million-MT supply of RSPO-certified palm oil from Indonesia and Malaysia, and the 10.1-million-MT total demand for palm oil from the U.S. and Western European food, cosmetics and biofuels industries, it would appear that sustainable palm oil certification does not offer a competitive advantage to Colombian or Ecuadorian palm oil exporters. However, as approximately 80% of the Indonesian and Malaysian certified palm oil may only carry MB certification, the supply-demand imbalance may be confined only to markets for MB palm oil. As such, MB certification will not offer competitive advantage to Colombian or Ecuadorian producers in the U.S. or Western European markets which are primarily buying RSPO-IP or SG certified palm oil but which currently accept MB palm oil if IP or SG palm oil is unavailable. In these markets, MB palm oil represents the minimum quality acceptable, with no payment of a premium, and producers will need to compete for sales based primarily on the landed cost of their palm oil.

The only markets for Colombian and Ecuadorian producers where MB may offer a competitive advantage are those portions of their own domestic markets or other nearby Latin American markets requiring certification but unable to obtain IP or SG certified palm oil, where transportation costs give Colombian or Ecuadorian palm oil a cost advantage over palm oil from Southeast Asia.

Current market conditions for IP or SG palm oil are, however, quite different. Both the European and U.S. food industry segments are requesting 100% IP or SG CSPO – a potential market of at least 5.8 million tons. If IP and SG certified palm oil from Indonesia and Malaysia is only 20% of their total offer of RSPO CSPO, or 2.9 million tons, there is an additional demand for approximately 3 million tons of IP or SG CSPO, which is only being partially met by exports from Latin American countries, including, prominently, Guatemala and Honduras, as well as smaller amounts from Colombia and Ecuador.

Efforts to increase the amount of IP or SG palm oil offered for sale in world markets are underway in both Southeast Asia and in Latin America. Early successes in increased offerings of IP and SG palm oil will give those providers a temporary competitive advantage with respect to other producers only able to offer MB palm oil, and this competitive advantage will be rewarded by modest premium payments.

However, as palm oil producers throughout the world increase their offerings of IP or SG palm oil to levels equal to the total demand from U.S. and European food industries –which again only account for approximately 8% of the world's total palm oil consumption– IP or SG certification will become a baseline requirement for which no further premiums will be paid. Competition for sales will, again, be based primarily on cost for undifferentiated CPO or RBD, and other attributes achieved through product differentiation. This scenario could only be changed with increases if the demand for certified palm oil by countries such as China or India outpacing increases in worldwide production of IP or SG CSPO.

Future prospects for the international biofuels market will be heavily influenced by



whether or not the European Union goes through with its decision to phase out the use of palm oil in biofuels between 2023 and 2030. Even if it reverses its current policy and continues to permit the use of palm oil in biofuel using tighter sustainability standards, the impact on the demand for CSPO will be minimal as imported palm oil will have to meet existing food industry certification requirements (RSPO IP or SG), or tightened biofuel industry standards.

## 5. Summary of the potential competitive advantage of palm oil produced certifiably free from exploited labor

Colombian and Ecuadorian palm oil producers may enjoy short-term competitive advantages in providing palm oil certifiably free from exploited labor to international markets and segments of their domestic markets. Potential competitive advantages may exist in the following two product-market segments:

- Producers offering IP or SG CSPO under RSPO's classification system, or their equivalent under private buyers' sustainable palm oil criteria, may enjoy a short competitive advantage accompanied by modest price premiums (in the range of USD 30 per MT) serving buyers in the U.S. and Western Europe food industries, and buyers in their home countries which are subject to international food industry compliance criteria.
- Producers offering only MB CSPO or its equivalent under buyer sustainable palm oil criteria may enjoy short term competitive advantage in serving segments in their home countries or other Latin American countries requiring CSPO but unable to obtain either IP or SG CSPO. In most cases, while sellers of MB CSPO will enjoy preferential access to these buyers, they will receive little if any premium payments for MB CSPO.

Any competitive advantage enjoyed by Colombian or Ecuadorian palm oil producers due to compliance with environmental and social sustainability criteria is expected to be available only during the next several years as the supply of IP and SG CSPO increases. Indonesia and Malaysia currently supply 93% of the world's total of 15.6 million tons of CSPO – a figure which far exceeds the total consumption of palm oil by food industries in the U.S. and Western Europe. Although approximately 80% of Indonesia's and Malaysia's CSPO production is currently assumed to be MB, short-term increases in the amounts of IP or SG CSPO in Indonesia and Malaysia, together with existing supplies from other countries including Guatemala and Honduras, may soon equal or exceed the demand for IP or SG CSPO in the U.S. and European food industries as well as in other countries where CSPO is required. At this point, IP or SG certification will become a baseline requirement for sales, for which premium prices will not be paid.

Colombian and Ecuadorian producers must undertake measures which could allow them to enjoy short term competitive advantage based on compliance with international environmental and social standards. More importantly, these measures will allow them to retain access to international markets once IP or SG certification becomes a baseline condition of entry into those markets. These measures must include:



- *Full compliance* with fair labor standards on child labor, forced labor, acceptable conditions of work as defined in both national labor legislation and the certification criteria of buyer or third-party certification schemes, as well as with environmental standards as also defined in national legislation and international certification criteria.
- *Certification* by third-party certification schemes, preferably RSPO, or by private buyer sustainability criteria, of 100% of the palm oil sold. In order to guarantee 100% compliance with sustainability criteria, palm oil sellers must demonstrate sustainability compliance of their entire supply chain, including all independent smallholder producers. This may be the single most difficult requirement to be met in order to maintain access to international markets in the future. Innovative approaches to sustainability certification, such as Colombia's Sustainable Palm Oil Program, or Ecuador's jurisdictional RSPO certification, may provide avenues to facilitate certification of independent smallholder producers, which currently find any sort of certification prohibitive due to both their elevated cost and frequently labor and environmental standards which are inappropriate to their circumstances as independent small and medium oil palm producers.
- *Competitiveness* in the international palm oil market, dominated by Indonesia and Malaysia. Competitiveness may be achieved by one or more, or a combination, of the following strategies:
  - Productivity increases, especially among independent smallholder producers who supply 50% or more of the FFB to palm oil extractors in Colombia and Ecuador.
  - Transportation advantage to nearby Latin American markets.
  - Preferential market access to markets, such as the European biofuels market where Colombian and Ecuadorian producers may be able to avoid restrictions placed in Southeast Asian palm oil due to environmental concerns.
  - Product differentiation through further processing, to meet the specific needs of targeted market segments.

If Colombian and Ecuadorian palm oil producers do not rapidly provide evidence of compliance with the environmental and social standards demanded by international food industry buyers –and local buyers subject to international food industry compliance criteria– not only will they fail to enjoy any competitive advantage such compliance might bring in the short term; they will increasingly be excluded from the international market altogether due to their inability to meet baseline sustainability requirements for entry.



# V. Creating value through implementing social compliance systems

## A. The business case for improving responsible labor practices

### 1. Market incentives for certified sustainable palm oil

Based on the analysis of Colombia and Ecuador's competitive positions in the world market for palm oil, this study finds that palm oil producers who are able to demonstrate through appropriate certification that 100% of their sales are produced certifiably free from exploited labor and in accordance with internationally accepted environmental standards (i.e., CSPO) may enjoy modest short term price premiums and/or more favorable access to some domestic and international markets.

However, the world supply of 100% CSPO<sup>68</sup> may soon exceed its demand in Europe and the U.S. – the two principal markets where it is currently sought. When this happens, 100% CSPO will become a baseline requirement in Europe and the U.S., for which additional premiums will not be paid. Countries accounting for 86% of the world's total palm oil consumption – primarily low- and middle-income countries in Asia, Latin America, and Africa – have not, to date,

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<sup>68</sup> For producers certifying their product through the RSP0, 100% CSPO implies either Identity Preserved (IP) or Segregated (SG) palm oil. Mass Balance (MB) does not qualify as 100% CSPO.



shown a preference for either socially or environmentally sustainable palm oil or a willingness to pay price premiums to buy it.<sup>69</sup>

Colombia, and up until recently Ecuador have been able to compete in terms of landed cost with Southeast Asian and other Latin American palm oil producers serving Latin American and European markets. However, Colombia has generally been able to do so only due to its FEP mechanism which compensates producers selling into lower price export markets with payments from producers supplying the Colombian domestic market. As Colombia increases the percentage of its total production it exports to world markets, prices paid to producers will approximate world prices which, following a very recent price surge, may soon return to their long-term downwards trend.

In the absence of a mechanism similar to Colombia's FEP, Ecuadorian exports of CPO have only been profitable during periods of higher world prices. At prices seen during most of 2018 through mid-2019, CPO exports are not profitable for all but the most efficient Ecuadorian producers. To maintain competitiveness in export markets, some of the country's largest producers have successfully exported finished or semi-finished palm oil products to niche markets in Europe and the U.S., benefiting from their value-added and product differentiation.

The implications of this predicted scenario are that in order for Colombian and Ecuadorian palm oil producers to retain access to most of the international markets they now serve, they must:

- Meet these baseline requirements through improved compliance with international sustainable environmental and social standards, as evidenced by universal sustainable palm oil certification, and
- Improve their competitive position with respect to their international competitors in terms of cost and product differentiation through further processing.

Expensive, complex, and time-consuming requirements have in some cases limited producers' ability to complete the sustainable palm oil certification process. This has been especially true for RSPO certification and has been a driver for private buyer certification.

However, the principal barrier to greater CSPO certification in both Colombia and Ecuador is the lack of compliance with labor and related social criteria, especially among smallholder producers, and the resulting difficulty in extending sustainable palm oil certification to these producers.

While environmental compliance currently appears to be the primary focus of Ecuador's jurisdictional certification program, the high levels of non-compliance with existing labor legislation among small producers in both countries, as opposed to the relatively lower levels of environmental non-compliance, underscore the importance of improving compliance with labor and social criteria.

Closely related to the lack of smallholder compliance with labor and social certification criteria is the generalized low level of agricultural productivity among smallholder producers, made worse by the current bud rot crisis, which in turn reduces the financial returns to



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<sup>69</sup> Indonesia and Malaysia promote compliance with their own national sustainable certification systems, neither of which fully comply with the sustainability standards of RSPO or leading buyer sustainable palm oil criteria.

smallholder producers and often makes full compliance with labor legislation financially difficult.

Full compliance with labor certification criteria (which includes at least full compliance with existing national labor legislation) in the absence of higher prices may not seem attractive, especially to smallholder producers. The following arguments may, however, demonstrate that the adoption of social compliance systems at all levels of the palm oil supply chain may be beneficial to all participants:

1. 100% sustainable palm oil certification will soon be required for Colombian and Ecuadorian palm oil to participate in most of the international palm oil markets they currently serve.
2. Producers seeking 100% CSPO compliance must ensure that 100% of their fresh fruit supply chain is also compliant.
3. Social compliance systems (i.e., firm-level policies and procedures to facilitate compliance with international labor and other social standards) are required at all levels of the palm oil supply chain, including smallholder independent oil palm producers, in order to meet international CSPO standards.
4. Significant additional productivity improvements are required for most smallholder producers to reduce unit costs in order to remain competitive in international markets and to meet any increased financial cost of social compliance.
5. With improved productivity and social compliance systems in place, workers will benefit through improved earnings and related worker benefits, and oil palm producers, including smallholder producers, will benefit due to lower unit costs and sustainable palm oil certification allowing access and competitiveness in world palm oil markets.

The market-based imperatives for the Colombian and Ecuadorian oil palm industries could not be clearer:

Significantly improved oil palm productivity for the thousands of smallholder independent oil palm producers is required in order to reduce unit costs and remain competitive in world markets, and to pay for any additional cost of social compliance systems required for sustainable palm oil certification.

Social compliance systems at all levels of the palm oil supply chain, including among smallholder independent oil palm producers are a prerequisite for 100% CSPO certification which, along with price competitiveness, will become minimum entry requirements to palm oil markets in the U.S. and Western Europe.

## **2. Non-market incentives for improved business sustainability due to better labor relations**

The successful management of any enterprise, but especially of an agricultural/agribusiness enterprise such as an oil palm plantation requires a high level of trust between the owners/managers of the plantation and its employees. A high level of trust will result in workers being willing to take the initiative to identify and resolve problems in the field or to propose innovations which will improve the efficiency of the entire operations, and management willing to ensure that the workers receive the treatment, living wages and benefits necessary



to allow them and their families to lead a healthy and productive life. Labor strife and acrimonious labor-management relations detract from productivity and hurt workers and management alike. The creation of a stable, rules-based working environment in which neither workers nor management continuously feels threatened or exploited has been shown to be beneficial to both workers and management within Colombia's oil palm sector.<sup>70</sup>

Among small independent producers who may be accustomed to informal (i.e., non-compliant) forms of labor contracting and illegal forms of child labor, increased access to schools and health facilities may provide increased incentives for improved labor compliance. In the absence of local schools and health facilities, there is little incentive to pay for worker health and accident insurance or to avoid child labor.

## B. Challenges and opportunities for improved social compliance systems throughout the palm oil sector

### 1. Obstacles to production under acceptable conditions of work, free of child labor and forced labor

For small producers, economic and procedural obstacles inhibit palm oil production under acceptable conditions of work, free of child labor and forced labor.

- Low financial returns to many smallholder producers due primarily to their low levels of agricultural productivity –which in turn are often due to their inability to access credit to purchase required fertilizer and other supplies– severely limit their ability to pay legally mandated wages and benefits. The presence of large numbers of unemployed persons in many palm growing sectors, augmented by the presence of immigrants –legal or otherwise– from surrounding countries looking for employment and willing to accept wages below the minimum legal wage are further disincentives to fully comply with legally mandated minimum wages and associated benefits.
- While there are no reliable data confirming the presence of child labor or illegal forms of adolescent labor in either Colombia or Ecuador, economic necessity and cultural practices in both countries may encourage their use, especially on small subsistence level family farms unable to pay the cost of hired labor. This practice is common among farming families across the world and is permissible under the law assuming safety and age conditions are met.
- The small size of small producers' holdings means less requirements for full-time hired labor. Generally, a ten-hectare oil palm plantation requires two workers for one or two days every two weeks to harvest the fruit; additional work such as maintenance of canals, fertilization, sanitary control, etc., may also be contracted on an as-needed basis or provided by the producer or other family members. Thus, small producers generally do not hire workers on a full-time basis, and those workers who they do hire as day labor may rotate among different plantations, working on each one two days every two weeks. For such sporadic work, it is difficult for small producers to justify the time and expense of registering them for accident, medical, and pension coverage (three separate registrations in Colombia, each requiring significant paperwork).



<sup>70</sup> See the experience of Palmas del Cesar in "Direct hiring opens up new horizons in Colombia's palm oil sector." ILO, <http://www.ilo.org/global/about-the-ilo/multimedia/features/colombia/lang--en/index.htm>.

- Small producers, many of whom have only rudimentary levels of literacy, are generally heavily involved in their own productive activities and have neither the time nor the training to comply with what are perceived as overly bureaucratic requirements to fully comply with labor laws – laws which often appear to have been designed primarily for urban industries and which may be inappropriate for agricultural activities.<sup>71</sup>
- Unlike large plantations which may provide facilities for medical attention to their workers, small producers are frequently located at considerable distance from medical service providers as well as from the administrative offices where accident, medical, and pension coverage may be obtained.

*For larger producers, there are fewer excuses for non-compliance with national labor legislation. Nevertheless, given the economic hardship caused by the bud rot disease infestations in Southwest Colombia and many parts of Ecuador, combined with historically low prices for palm oil through mid-2019, it is not unreasonable to expect that many medium and large oil palm companies have also faced extreme economic pressure which has limited their ability to provide fair wages and benefits to their workers. Recent bankruptcies of large palm oil companies in both countries may be related to the current level of financial stress facing many palm oil producers, although continuing issues related to non-compliance with labor legislation may also be involved. As in the case of small producers, the presence of large numbers of unemployed workers in palm growing regions willing to work for below minimum wages is a further disincentive to fully comply with legally mandated wages and benefits.*

## 2. Strategies to overcome obstacles to improved social compliance systems

A comprehensive strategy to overcome obstacles to improved social compliance systems should include at least the following five elements:

### **Agricultural extension and financing:**

Low agricultural productivity lies at the heart of informal labor practices, especially among smallholder producers – as well as at the heart of Colombia and Ecuador’s lack of cost competitiveness in international markets. Given the wide disparities between national average productivities and those obtained on plantations employing good agricultural practices, massive campaigns are required to help smallholder producers acquire and apply technical inputs and agronomic practices necessary to dramatically improve their productivity in terms of FFB per hectare.

In Colombia, FEDEPALMA and its extension affiliate CENIPALMA will continue to provide extension services to the country’s over 60 “palm nuclei” where palm oil company agronomists will, in turn, provide extension support to independent smallholder producers associated with each palm nucleus. In many cases in Colombia, financing to independent suppliers for the purchase of fertilizer and other farm supplies is provided by the palm oil extractor mill associated with each palm nucleus, with payments deducted from payments to suppliers for their FFB.

<sup>71</sup> As this problem is not exclusive to the palm oil sector, Colombia’s new national development plan includes public policies to facilitate labor formalization in rural areas. However, these provisions are being challenged in court by organized labor.



In Ecuador, in response to the devastation caused by bud rot, an emergency program is currently under way combining agricultural extension assistance from the Ministry of Agriculture and financing provided through BanEcuador, the government's development bank, to replant smallholder plantations with bud rot-resistance hybrid palms. A second, in response to the COVID-19 crisis, provides short term relief from some of the more demanding aspects of Ecuador's labor legislation.

**Tripartite review of labor legislation and procedures to better meet the needs of the rural sector:**

Labor legislation regarding minimum wages, required social benefits, working hours, and forms of labor contracting should be reviewed with input from producer associations and workers organizations conjointly in order to make any adjustments for differences between urban industrial labor requirements and those in the rural sector, while taking care to preserve formal work and direct contracting wherever possible. Such differences include the implications of production seasonality and special labor requirements such as 7-day work weeks during peak harvest periods, weather variability and the need for labor under extreme weather conditions, livestock production cycles, and cost of living differentials. Temporary measures to preserve the financial health of private companies have been taken in both Colombia and Ecuador<sup>72</sup> in response to the COVID-19 crisis. While justified as short-term responses to the pandemic, they should be evaluated as well for any longer-term implications for labor compliance in the palm oil and other agricultural sectors.

In Colombia, FEDEPALMA has committed to lead intersectoral discussions on this subject.

**Social compliance extension for large palm oil companies:**

Significant progress has been achieved on medium and large oil palm plantations in terms of labor formalization and adherence to minimum wage and social benefit legislation. However, in Colombia complaints filed with Colombia's Ministry of Labor and with the ILAB of the USDOL, pursuant to the U.S. – Colombia LAP, suggest that gaps remain. A particularly sensitive area of current labor practice in the oil palm sector (as well as in other sectors of the rural economy) is workers' rights to organize and bargain collectively, including as it relates to subcontracting practices. The experience of companies which have successfully managed their relationship with organized labor on their own plantations, including both local affiliates of national agricultural labor unions and company-based worker associations, suggests that social compliance systems can include harmonious and productive labor – management relationships under which workers' rights to organize and bargain collective are respected.

In Colombia, social compliance extension is to be included in CENIPALMA's extension services under FEDEPALMA's recently announced Colombian Sustainable Palm Oil Program. In addition to social extension services intended to reach smallholder producers in each palm nucleus, social compliance extension to larger palm oil companies should include explicit attention to the development of productive relationships between management and organized labor.

Government extension services in Ecuador are focused primarily on smallholder



<sup>72</sup> Ecuador's "humanitarian support" law. Please see <https://www.auxadi.com/news/ecuador-nueva-ley-organica-de-apoyo-humanitario/>.

producers and may not currently contemplate similar services for the larger integrated oil palm companies.

The implementation of social compliance processes as part of the *Palma Futuro* project sponsored by the USDOL may provide an opportunity for further discussion in both Colombia and Ecuador of the benefits of improved labor practices in large palm oil companies.

### **Social compliance extension for smallholder producers:**

In addition to extension services intended to help smallholder producers improve their productivity and financial returns, extension services must also help smallholder producers to understand the law regarding labor contracting and payment of legal wages and benefits, to select the most appropriate labor contracting form based on their individual needs, and to comply with additional requirements regarding accident insurance and other labor-related benefits.

The unique labor needs of smallholder producers, which frequently call for only part-time employment, as well as the complexity and time-consuming nature of compliance with insurance and other workers benefits programs, require creative solutions to facilitate labor formalization. One alternative may be to promote various forms of small producer associations which might manage labor contracting, wages, and benefits received by hired workers for groups of small producers, or encourage, in the case of Colombia, extractor mills to provide these services to the associated small producers within their palm nucleus.

As in the case of social compliance extension to large palm oil companies in Colombia, CENIPALMA extension services include social extension provided directly to palm nuclei with the intention of reaching affiliated smallholder suppliers. Training manuals which include step-by-step instructions for the formalization of labor have been prepared by CENIPALMA and are in use in various palm nuclei. Some integrated palm oil companies have assumed a direct responsibility for assisting their affiliated smallholder suppliers to improve both their agricultural v and their social compliance. But additional resources and extension services focused directly on the needs of smallholder producers may also be required from FEDEPALMA and/or CENIPALMA with support from the *Palma Futuro* project.

Ecuadorian social compliance extension services are not currently a priority of the government's agricultural extension system, which is primarily focused on recovery from bud rot and improvement of oil palm productivity in cooperation with BanEcuador and several of the larger palm oil companies which source their FFB from independent smallholder producers.

The *Palma Futuro* project, working in partnership with FEDEPALMA in Colombia and ANCUPA and PROPALMA in Ecuador will be able to provide valuable support in skill building in terms of social compliance to larger palm oil companies in Colombia and Ecuador in a way that they, in turn, can meet the needs of smallholder suppliers in their radii of influence.

### **Improved inspections and enforcement of national labor legislation**

Colombia's Ministry of Labor as well as Ecuador's Ministry of Labor and Ecuador's Decentralized Autonomous Governments (*Gobiernos Autónomos Decentralizados*, GADs) are charged with inspection and enforcement of each country's labor legislation. As observed in the 2017 Public Report of Review of U.S. Submission 2016-02 (Colombia) by the ILAB of the USDOL, "there are significant systemic challenges that may hinder Colombia's enforcement



of labor laws including those related to the rights to freedom of association and collective bargaining.”<sup>CXLV</sup> In Ecuador, as observed in the Pre Situational Analysis developed as part of the *Palma Futuro* project, “[t]he public sector in Ecuador shares most of the challenges found in Colombia in terms of capacity to cover the areas where palm is produced.”<sup>CXLVI</sup> Effective and credible labor inspectors play a key role in ensuring that producers and supply chain actors are complying with labor laws as intended. These inspectors can serve a dual role in both detecting non-compliance and assisting producers to understand the long-term benefits of compliance.

As stated previously, labor enforcement can be challenging, costly, and uneven. Though labor enforcement should not be the only strategy to improve labor practices and address labor issues, an effective system of market and non-market incentives which reward desirable behavior could be efficient to address labor practices and non-governmental social compliance and certification systems can be effective in fostering sustainable outcomes. However, such systems may not always emerge organically and the presence of a legal framework underlying the goals and objectives of social compliance systems provides them with additional credibility, and where appropriate, sanctions for non-compliance.

Strategic compliance, which engages a wider range of stakeholders in proactive and targeted manner, is one emerging strategy for improving labor compliance which addresses many of the issues identified with traditional enforcement. Strategic compliance is intended to address the underlying sources of non-compliance to create sustainable solutions utilizing a mix of deterrents, incentives, and awareness-raising to empower stakeholders beyond enforcement agencies to ensure compliance. Strategic compliance approaches have already been deployed in Colombia’s palm oil sector.



# VI. Summary and conclusions



This report has examined the world market for palm oil, the Colombian and Ecuadorean supply chains through which palm oil is produced and sold, and the competitive positions of Colombian and Ecuadorean palm oil in domestic and world markets with the end purpose of understanding business incentives and potential obstacles for producing palm oil under acceptable conditions of work, free of child labor and forced labor, particularly for small and medium size enterprises.

This study finds that an incentive of premiums in the range of 5% over market prices may be available for palm fruit and palm oil produced under acceptable conditions of work, free of child labor and forced labor. However, the receipt of such a premium is subject to the following conditions:

- Compliance with standards on acceptable conditions of work, free of child labor and forced labor must be communicated to those buyers willing to pay premium prices for palm oil produced in compliance with these standards through certification by either a recognized third-party certification program such as RSPO or through in-house systems used by individual buyers to certify compliance.
- Most third-party certification programs and buyer in-house systems combine acceptable conditions of work, free of child labor and forced labor (“social compliance”) with requirements regarding deforestation, greenhouse gas emissions, destruction of natural habitats and related issues (“environmental compliance”) as “sustainable palm oil” requirements. Thus, producers seeking premium payments for compliance with social standards must also demonstrate compliance with environmental standards. In Colombia and Ecuador, environmental compliance is generally less of an issue than social compliance.
- Palm oil producers seeking premium payments for CSPO must demonstrate that 100% of the palm oil sold as CSPO is derived from fruit produced either by themselves

or by independent suppliers meeting sustainable palm oil standards. This means that all independent suppliers of palm fruit to a palm oil producer selling 100% sustainable certified palm oil must either also be certified by a third-party certification program such as RSPO or by private buyer certification systems, or they must be included in the palm oil producer's own certification.

- Palm oil sold as a mixture of certified and conventional (i.e., non-certified) palm oil, known as MB certified palm oil in the RSPO certification system, does generally not qualify for premium payments.
- In addition to sustainable palm oil certification, palm oil must be price competitive on a landed cost basis in destination markets and must comply with buyer specifications in terms of product quality and characteristics. (Whereas the majority of both Colombia's and Ecuador's palm oil exports are in the form of CPO, the U.S. only imports refined palm oil.)
- Obstacles to palm oil production under acceptable conditions of work, free of child labor and forced labor include:
  - Low financial returns due primarily to their low levels of agricultural productivity.
  - Economic necessity and cultural practices on small subsistence level family farms which may encourage the use of child labor or illegal forms of adolescent labor.
  - Difficulties in dealing with cumbersome bureaucratic requirements for compliance with worker health and labor risks insurance and other required social benefits, especially for smallholder producers with minimal levels of literacy, and who provide most of the labor required on their own small plantations.

Even when all social and environmental standards are met, the cost and technical resources required to complete the certification process are generally beyond the capabilities of small and many medium producers.

Of far greater importance than the short-term prospect of price premiums for compliance with sustainable palm oil standards will be the longer-term requirement that all palm oil must be produced under sustainable social and environmental conditions in order to enter markets in the U.S., Europe and other countries requiring sustainable palm oil. Sustainable palm oil will no longer elicit price premiums; sustainability certification will become a minimum requirement to enter these markets.

Currently, most domestic buyers in Colombia and Ecuador who are subject to international sustainable palm oil requirements, most buyers in the U.S., and some buyers in other countries are willing to accept a mixture of sustainable and conventional palm oil (termed MB under the RSPO certification system) in the absence of 100% certified palm oil. However, Indonesia and Malaysia alone currently supply over 14.5 million tons of RSPO-CSPO, much of which is sold as MB CSPO and may also carry ISCC certification. Total palm oil consumption by the food and cosmetics industries in the U.S. and Europe is only 5.8 million tons, with another 4.3 million tons consumed by Europe's biofuels industry, which requires ISCC certification. With the assumption that greater quantities of the palm oil coming from Southeast Asia will soon be upgraded from MB to 100% CSPO, there will soon be an



excess supply of 100% CSPO and therefore little or no demand for palm oil which is not 100% sustainable.<sup>73</sup>

In order to meet the requirement that all palm oil be certified as sustainable, palm oil producers will be forced to require their independent suppliers, including smallholder producers, also to meet sustainable palm oil requirements and be certified as doing so.

Producers failing to obtain sustainable certification for themselves and their entire supply chain due to their own or their suppliers' failure to comply with either social or environmental sustainability standards will be denied access to the U.S. and European markets and will only remain competitive in local or nearby other Latin American markets where sustainable palm oil certification is not required.

In order to meet social and environmental sustainability standards, small and medium sized producers will require additional extension services to help them increase their agricultural productivity and to implement social compliance systems. Adjustments to existing labor legislation to recognize differences between rural and urban industrial labor requirements may also be necessary to permit small and medium producers to fully comply with national law regarding minimum wages, health, worker safety and accident insurance, and other social benefits. An effective, ongoing dialogue between producers, labor representatives, and government agencies can serve to achieve this recognition. Social compliance systems should exist alongside and aligned with a legal framework that provides them with credibility and appropriate sanctions for non-compliance, while recognizing labor enforcement actions should not be the only strategy for improving labor practices.

Activities currently underway in Colombia under the auspices of FEDEPALMA's Colombian Sustainable Palm Oil Program address some of these needs but may need to be reinforced with additional assistance to assist small and medium producers to develop and implement the social compliance systems necessary to comply with the relevant standards on acceptable conditions of work, free of child labor and forced labor.

Extension activities by Ecuador's agricultural extension division of the Ministry of Agriculture are currently underway and are primarily focused on recovery from the bud rot disease and improvement of agricultural productivity. Additional social extension services to assist palm oil producers with the development and implementation of social compliance systems to enable them to meet the standards of acceptable conditions of work, free of child labor and forced labor are required.

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**73** Indonesia's and Malaysia's 14.5 tons of RSPO certified palm oil represent only approximately 23% of their combined total production, 75% of which is exported, mostly as non-certified palm oil primarily to other Asian destinations. Much of both countries' palm oil exports, especially to the United States and European markets, are in the form of refined palm oil.





# Appendixes





## Appendix A

### RSPO Criteria and Indicators for Principal 6: Workers' Rights and Conditions

CRITERIA	INDICATORS
<b>Impact Goal: People: Sustainable Livelihoods and Poverty Reduction</b>	
<b>Principle 6: Respect Workers' Rights and Conditions</b>	
6.1 Any form of discrimination is prohibited.	<p>6.1.1 (C) A publicly available non-discrimination and equal opportunity policy is implemented in such a way to prevent discrimination based on ethnic origin, caste, national origin, religion, disability, gender, sexual orientation, gender identity, union membership, political affiliation, or age.</p> <p>6.1.2. (C) Evidence is provided that workers and groups including local communities, women, and migrant workers have not been discriminated against. Evidence includes migrant workers' nonpayment of recruitment fees.</p> <p>6.1.3 The unit of certification demonstrates that recruitment selection, hiring, access to training and promotion are based on skills, capabilities, qualities, and medical fitness necessary for the jobs available.</p> <p>6.1.4 Pregnancy testing is not conducted as a discriminatory measure and is only permissible when it is legally mandated. Alternative equivalent employment is offered for pregnant women.</p> <p>6.1.5 (C) A gender committee is in place specifically to raise awareness, identify and address issues of concern, as well as opportunities and improvements for women.</p> <p>6.1.6 There is evidence of equal pay for the same work scope.</p>
6.2 Pay and conditions for staff and workers and for contract workers always meet at least legal or industry minimum standards and are sufficient to provide decent living wages (DLW).	<p>6.2.1 (C) Applicable labour laws, union and/or other collective agreements and documentation of pay and conditions are available to the workers in national languages and explained to them in a language they understand.</p> <p>6.2.2 (C) Employment contracts and related documents detailing payments and conditions of employment (e.g., regular working hours, deductions, overtime, sick leave, holiday entitlement, maternity leave, reasons for dismissal, period of notice, etc. in compliance with national legal requirements) and payroll documents give accurate information on compensation for all work performed, including work done by family members.</p> <p>6.2.3 (C) There is evidence of legal compliance for regular working hours, deductions, overtime, sickness, holiday entitlement, maternity leave, reasons for dismissal, period of notice and other legal labour requirements.</p> <p>6.2.4 (C) The unit of certification provides adequate housing, sanitation facilities, water supplies, medical, educational and welfare amenities to national standards or above, where no such public facilities are available or accessible. National laws, or in their absence the ILO Guidance on Workers' Housing Recommendation No. 115, are used. In the case of acquisitions of non-certified units, a plan is developed detailing the upgrade of infrastructure. A reasonable time (5 years) is allowed to upgrade the infrastructure.</p> <p>6.2.5 The unit of certification makes efforts to improve workers' access to adequate, sufficient and affordable food.</p> <p>6.2.6 A DLW is paid to all workers, including those on piece rate/quotas, for whom the calculation is based on achievable quotas during regular work hours.</p> <p>PROCEDURAL NOTE: The RSPO Labour Task Force will prepare guidance on the DLW implementation, including details on how to calculate a DLW, expected for 2019. The RSPO Secretariat will endeavour to carry out DLW country benchmarks for palm oil producing countries in which RSPO members operate and for which no Global Living Wage Coalition (GLWC) benchmarks exist.</p> <p>6.2.7 Permanent, full-time employment is used for all core work performed by the unit of certification. Casual, temporary and day labour is limited to jobs that are temporary or seasonal.</p>
6.3 The unit of certification respects the rights of all personnel to form and join trade unions of their choice and to bargain collectively. Where the right to freedom of association and collective bargaining are restricted under law, the employer facilitates parallel means of independent and free association and bargaining for all such personnel.	<p>6.3.1 (C) A published statement recognising freedom of association and right to collective bargaining in national languages is available and is explained to all workers in languages that they understand and is demonstrably implemented.</p> <p>6.3.2 Minutes of meetings between the unit of certification with trade unions or workers representatives, who are freely elected, are documented in national languages and made available upon request.</p> <p>6.3.3 Management does not interfere with the formation or operation of registered unions/ labour organisations or associations, or other freely elected representatives for all workers including migrant and contract workers.</p>
6.4 Children are not employed or exploited.	<p>6.4.1 A formal policy for the protection of children, including prohibition of child labour and remediation is in place, and included into service contracts and supplier agreements.</p> <p>6.4.2 (C) There is evidence that minimum age requirements are met. Personnel files show that all workers are above the national minimum age or above company policy minimum age, whichever is higher. There is a documented age screening verification procedure</p> <p>6.4.3 (C) Young persons may be employed only for non-hazardous work, with protective restrictions in place for that work.</p> <p>6.4.4 The unit of certification demonstrates communication about its 'no child labour' policy and the negative effects of child labour, and promotes child protection to supervisors and other key staff, smallholders, FFB suppliers and communities where workers live</p>
6.5 There is no harassment or abuse in the workplace, and reproductive rights are protected.	<p>6.5.1 (C) A policy to prevent sexual and all other forms of harassment and violence is implemented and communicated to all levels of the workforce.</p> <p>6.5.2 (C) A policy to protect the reproductive rights of all, especially of women, is implemented and communicated to all levels of the workforce.</p> <p>6.5.3 Management has assessed the needs of new mothers, in consultation with the new mothers, and actions are taken to address the needs that have been identified.</p> <p>6.5.4 A grievance mechanism, which respects anonymity and protects complainants where requested, is established, implemented, and communicated to all levels of the workforce.</p> <p>6.6 No forms of forced or trafficked labour are used.</p>

(...)



(...)

CRITERIA	INDICATORS
<b>Impact Goal: People: Sustainable Livelihoods and Poverty Reduction</b>	
<b>Principle 6: Respect Workers' Rights and Conditions</b>	
6.6 No forms of forced or trafficked labour are used.	6.6.1 (C) All work is voluntary and the following are prohibited: <ul style="list-style-type: none"><li>• Retention of identity documents or passports</li><li>• Payment of recruitment fees</li><li>• Contract substitution</li><li>• Involuntary overtime</li><li>• Lack of freedom of workers to resign</li><li>• Penalty for termination of employment</li><li>• Debt bondage</li><li>• Withholding of wages</li></ul> 6.6.2 (C) Where temporary or migrant workers are employed, a specific labour policy and procedures are established and implemented.
6.7 The unit of certification ensures that the working environment under its control is safe and without undue risk to health.	6.7.1 (C) The responsible person(s) for H&S is identified. There are records of regular meetings between the responsible person(s) and workers. Concerns of all parties about health, safety and welfare are discussed at these meetings, and any issues raised are recorded. 6.7.2 Accident and emergency procedures are in place and instructions are clearly understood by all workers. Accident procedures are available in the appropriate language of the workforce. Assigned operatives trained in first aid are present in both field and other operations, and first aid equipment is available at worksites. Records of all accidents are kept and periodically reviewed. 6.7.3 (C) Workers use appropriate personal protective equipment (PPE), which is provided free of charge to all workers at the place of work to cover all potentially hazardous operations, such as pesticide application, machine operations, land preparation, and harvesting. Sanitation facilities for those applying pesticides are available, so that workers can change out of PPE, wash and put on their personal clothing. 6.7.4 All workers are provided with medical care and covered by accident insurance. Costs incurred from work-related incidents leading to injury or sickness are covered in accordance with national law or by the unit of certification where national law does not offer protection. 6.7.5 Occupational injuries are recorded using Lost Time Accident (LTA) metrics.

**Source:** RSPO: Principles and Criteria for the Production of Sustainable Palm Oil, 2018. (<https://www.rspo.org/resources>) Accessed July 10, 2019.



## Appendix B

### Excerpts from corporate policies for sourcing palm oil



#### Palm Oil Responsible Sourcing at Nestlé

##### What actions did you take to requalify as a Roundtable on Sustainable Palm Oil (RSPO) member?

Following a number of discussions with RSPO, we submitted a time-bound plan to achieve 100% RSPO CSPO by 2023. The plan focuses on increasing traceability primarily through SG RSPO palm oil. Additionally, Nestlé will continue to deliver on its existing no deforestation commitment, including working with other partners to achieve transformation in the regions where it sources palm oil. The plan addresses RSPO's concerns, and we look forward to continue working with RSPO to transform the palm oil industry for a sustainable future. RSPO has an important role to play in driving industry change towards sustainable palm oil. We recognise the importance of maintaining our membership and sharing our experiences to help make this happen.

##### 2019 Report Summary

In 2019, Nestlé sourced approximately 455,000 MT of palm oil and palm kernel oil, achieving 62% traceability to plantation, 93% traceability to mill, and 79% Responsibly Sourced palm oil. We maintain a commitment to 100% Responsibly Sourced palm oil by 2020. To support transformation in our supply chains to meet our commitments, we spent 2019 directly engaging with our supply chain on transformation work around 45 refineries of origin in 11 countries. We focused in particular on addressing deforestation and peat development, exploitation, and smallholder inclusion.

To address **deforestation and peat development** we monitored our global palm oil supply chain with Starling satellite monitoring system to identify deforestation cases and risks, and to prioritize actions. We also supported the development of a public radar monitoring system, Radar Alerts for Detecting Deforestation (RADD). To support forest conservation and restoration, we supported forest protection and replanting initiatives in Malaysia, Indonesia, and Mexico.

To address **exploitation**, we continued to implement our Action Plan on Labor Rights in Palm Oil Supply Chains. We worked with Verité on an in-depth review of our management systems and approach, and supported initiatives in the areas of worker voice, ethical recruitment, fair targets and payments, children in plantations, access to clean water, and conflict management.

To ensure **smallholder inclusion** in our supply chains and help build their resilience, Nestlé supported eight palm oil smallholder projects in Indonesia, Malaysia, Cote d'Ivoire, Ghana, Brazil, Peru, Ecuador, and Mexico. These projects aim to enable sustainable livelihoods for farmers while helping them produce responsibly. Seven of these projects are through the Earthworm Foundation Rurality initiative, an approach to engaging smallholders that focuses on helping them develop their own capacity through strategic use of market links and supply chains. The eighth project is in Mexico, implemented by Proforest.





## Dunkin' Brands Guidelines for Sourcing Palm Oil – Updated November 2017

### Responsible Palm Oil Commitment

Dunkin' Brands supports and holds our suppliers and business partners accountable to our palm oil sourcing guidelines. We require that all suppliers source palm oil from operations that comply with the following principles:

#### General requirements

- Comply with all local, national and international laws
- Ensure traceability of the material to the primary processing stage of the supply chain (origin mill)

#### No Deforestation

- No development of palm oil in High Carbon Stock forests (HCS);
- Protection of High Conservation Value areas (HCV); and
- No burning in preparation of land or in development

#### No Development on Peat

- No development on peat areas regardless of depth
- Follow “Best Management Practices” for existing plantations on Peat, according to the RSPO BMP guidelines

#### No Exploitation of People and Communities

- Respect and support the Universal Declaration of Human Rights
- Respect, recognize and uphold the rights of all workers, regardless of gender, including contract, temporary and migrant workers
- Free, Prior and Informed Consent (FPIC) to operations on lands to which they hold legal, communal or customary rights via their own freely chosen representatives



## Cargill Sustainable Palm Oil Policy and Commitments

**Policy summary:** Cargill's commitment to producing and sourcing palm oil in an economical, environmentally sustainable and socially responsible manner is embodied in our responsible production requirements that aim to deliver palm oil that is produced in accordance with “No Deforestation, No Peat and No Exploitation” (NDPE) practices. Cargill commits to a traceable, transparent and sustainable palm oil supply chain that:

- Protects high conservation value (HCV) areas, high carbon stock (HCS) forests and peatlands regardless of depth
- Respects and upholds the rights of workers, indigenous peoples and local communities



- Enables smallholders to become successful businesspeople, improving their livelihoods through responsible production, maximizing yields and improving quality
- Upholds high standards of transparency through reporting of traceability, time-bound implementation plans, resolving grievances and achieving third-party verified policy compliance

We will work to ensure that all palm oil and palm products that Cargill produces, trades or processes are in line with these commitments (see policy for more details).

We will collaborate and seek the support of suppliers, customers, governments, non-governmental organizations and other stakeholders to implement this policy.



## Environmental management (1 March 2018)

- Identification and protection of High Conservation Value (HCV) areas and High Carbon Stock (HCS) Areas.
- For existing plantations on peat, appropriate management using Best Management Practices, as defined in the RSPO P&C and the RSPO manual on Best Management Practices for existing oil palm cultivation on peat. Where areas are identified as unsuitable for oil palm replanting, based on drainability assessments or other reasons, plans will be developed for the appropriate management of such areas, which could include rehabilitation.
- Implementation of programs to progressively reduce GHG emission, recycle/reuse palm biomass and generate renewable energy by methane capture.
- Enforcement of a no-burning policy.
- No use of Paraquat and pesticides that are categorized as World Health Organization Class 1A or 1B.

### Human Rights and Workplace

- Respect and uphold the rights of all workers, including contract, temporary, and migrant workers, in accordance with the Universal Declaration of Human Rights, the ILO's core conventions, United Nations Guiding Principles on Business and Human Rights and the principles of Free and Fair Labor in Palm Oil Production.
- Uphold the right to freedom of association and recognize the right to collective bargaining. Allow trade unions to have access to workers. Ensure employees have access to credible grievance mechanisms that respect anonymity of complainants and whistle-blowers
- Eliminate all forms of illegal, forced, bonded, compulsory or child labor and, in particular, follow responsible recruitment practices, including not charging recruitment related fees at any stage in the recruitment process, including by agents or their sub-agents in receiving and sending countries.
- No retention of workers' passports/identity documents or withholding of workers' wages other than that prescribed by law.



- Pay all workers the statutory monthly minimum wage and overtime compensation, in accordance with the current labor regulations.
- Provide fair and equal employment opportunities for all employees, regardless of race, nationality, religion or gender.
- Promote a safe and healthy working environment that is free of harassment.
- Provide adequate equipment and training on the implementation of health and safety policies

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- C** *Ibid.*, p. 11.
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- CIII** Asamblea Nacional de Ecuador, *op. cit.*
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- CV** *Ibid.*, p. 15.
- CVI** “ENEMDU 2018, Encuesta Nacional de Empleo, Desempleo y Subempleo” as presented by Proyecto de Erradicación del Trabajo Infantil PETI at Partners of the Americas Comprehensive Monitoring and Evaluation Plan (CMEP) workshop, Quito, Ecuador, September 10-13, 2019.
- CVII** Based on data from Censo Palmero 2017, *op. cit.*, and ENEMDU 2018, *ibid.*
- CVIII** Partners of the Americas *op. cit.* p. 8.
- CIX** Personal interviews by authors with industry spokespeople, September 2019.
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- CXII** “Ecuador chooses jurisdictional approach for RSPO certification.” 31 October 2016, RSPO / News & Events / News ( <https://rspo.org/news-and-events/news/ecuador-chooses-jurisdictional-approach-for-rspo-certification>)
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- CXVI** Propalma Ecuador, Situación del sector palmero nacional,” *op. cit.*
- CXVII** FEDAPAL, *op. cit.*, p. 215-219.
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- CXXIII** RSPO website (<https://www.rspo.org/certification/search-for-certified-growers>)
- CXXIV** “Ecuador chooses jurisdictional approach for RSPO certification (*op. cit.*)
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- CXXVII** *Ibid.*
- CXXVIII** Interview with buyer from a major food products company who requested anonymity.
- CXXIX** FEDEPALMA, Anuario Estadístico, *op. cit.*
- CXXX** RSPO website, *op. cit.*
- CXXXI** Bloomberg Environment: Environment & Energy Report. “Palm Oil’s Loss May be U.S. Soybean Gain in EU Biofuel Rule.” Jan. 23, 2019.
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- CXXXIII** Telephone interviews with Dan Strechay, U.S. Representative, RSPO. June 7 and 26, 2019.
- CXXXIV** Interviews with palm oil industry participants who wish to remain anonymous.
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- CXXXIX** Interviews with palm oil industry participants, *op. cit.*
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- CXLI** USA Trade Online
- CXLII** Interviews with palm oil industry participants in Colombia and Ecuador who asked not to be quoted. May and September 2019.
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