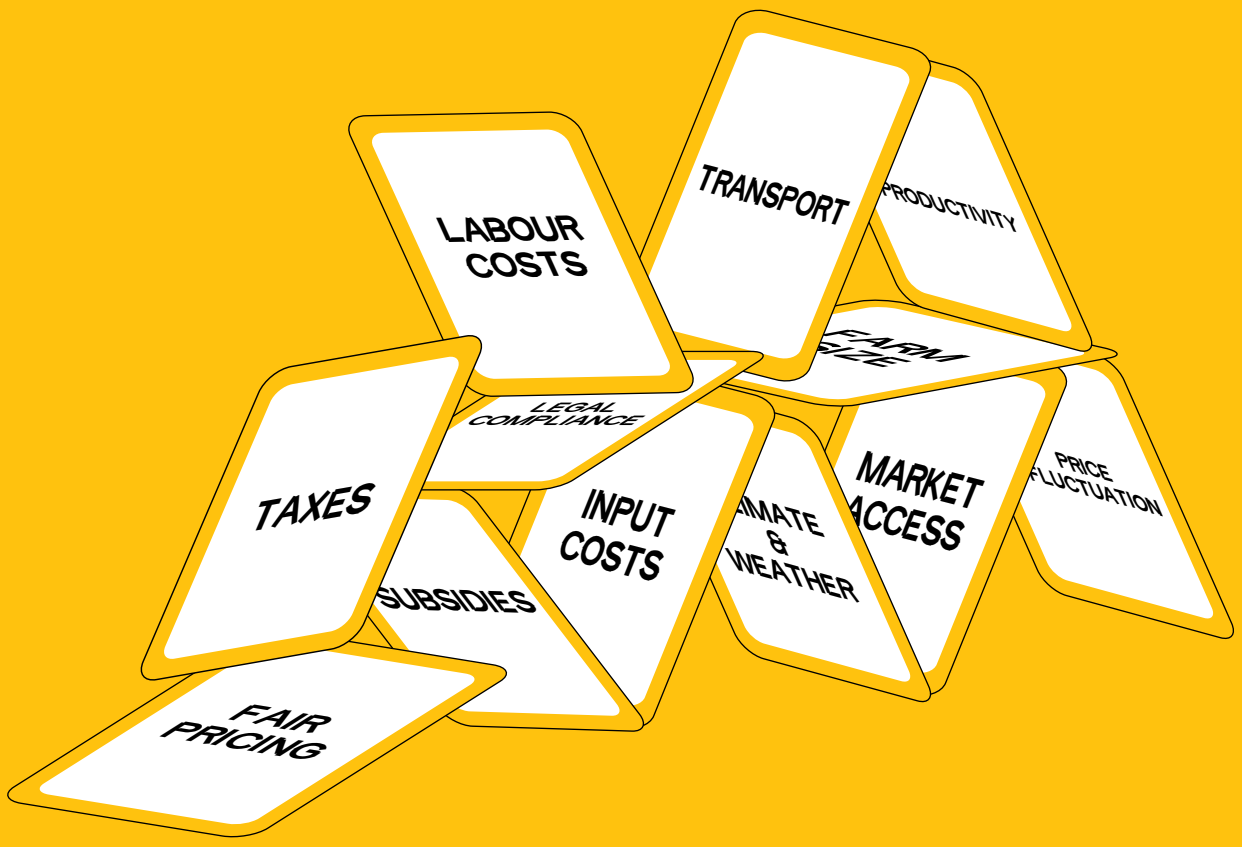
PALM OIL BAROMETER 2025



Procurement for prosperity

Solidaridad

Contents

Executive summary

Palm oil contributes to the food security and prosperity of millions of people, particularly across Asia, Africa and Latin America. Demand from Europe is in decline while markets in the global south are blooming. The biodiesel market is also growing in importance, creating direct competition between palm oil for food and fuel. While sustainable palm oil production has the potential to positively impact livelihoods and the environment, continued unsustainable palm oil production is to blame for multiple negative consequences including deforestation, land conflicts and labor rights issues.

Whether oil palm farmers produce sustainably or not, their incomes too often remain precarious. Earning a living income for oil palm smallholders is essential. Price volatility in the palm oil sector is high and shows no sign of stabilizing.[1] Climate change-related extreme weather conditions frequently impact farmers and will only continue to worsen.[2] This means that farmers can make a living income one month, and struggle to make ends meet the next. Palm oil buyers face growing sustainability demands, but in responding to these demands they often unintentionally exclude smallholder farmers from the most profitable markets.

To contribute to a more resilient sector, ensure farmer livelihoods, implement existing voluntary standards and prepare for upcoming regulation, companies in the palm oil value chain must take farmer realities into account. This means looking at the value chain through an inclusive lens. Do smallholder farmers have ownership, can their voices be heard, are they able to control risk and are they sufficiently rewarded through the payment of fair prices?

Across three oil palm growing continents – Africa, Asia and Latin America – we see similar patterns of hope and despair. When things are going well, smallholder farms and large plantations form the back-bone of sustainable development. Supportive governments and responsible businesses enable farmers to prosper within nature's boundaries. On the flip side, all three continents struggle with the immense challenges of safeguarding nature and standing up for the rights of communities, workers and farmers; both men and women. This is never straight forward.

Taking a closer look at each of these three continents, Asia is both the largest producer and consumer of palm oil globally. Its oil palm sector is characterized by a mix of plantation companies and smallholders that produce for local, national and export markets. Here, deforestation and land rights are persistent issues. While deforestation rates have dropped significantly, and national standards largely recognise the need to respect indigenous peoples' rights, there are still big steps to be made to ensure rights of people and nature are respected. A new wave of regulations, national standards and voluntary initiatives have set the stage for building a more equitable, just and resilient agricultural sector. However, incentives for sustainability and smallholder inclusion are lacking. Downstream companies demand traceability and sustainability, but are they willing to pay for its implementation?

Moving across the tropics to Latin America, together México, Honduras, Guatemala, Peru, Ecuador, Brazil and Colombia produce a smaller but growing share of the global crop. Here the benefits of oil palm growing have favored not only the development of the crop, but also attracted more smallholders.

These benefits include higher incomes, economic stability and job creation. Although there are not exact figures for all cases, in the cases of Colombia and Peru, the average income of a small producer is between 3 and 4 times legal minimum wages. Although deforestation associated with oil palm cultivation in Latin America is generally low, the risks remain latent, and the dynamics of the crop and international prices may generate incentives for new areas to be planted through deforestation.

Meanwhile, despite its own production in West and Central Africa, Africa consumes more palm oil than it produces. Therefore it also relies on imports from South East Asia. Low productivity in many places is a real stumbling block for the prosperity of oil palm smallholders. Sustainable intensification and modernization of production and processing methods could increase incomes and food security while protecting the environment. The lack of access to improved plant materials, such as seedlings, is a major challenge. Access to finance is also lacking. This hampers the much needed investments in farms and processing facilities.

In response to the findings on palm oil production and trade, we present a set of recommendations for buyers of palm oil products based on the four principles for Procurement for Prosperity:

1. **Policy:** Formulate internal policy, ensure commitment and implementation
2. **Pricing:** Implement fair trading terms, including fair pricing and payment terms and reward sustainable performance
3. **Partnerships:** Introduce equal partnership and collaboration
4. **Programmes:** Support suppliers through programmes and adequate investments

Our recommendations indicate how companies can design procurement practices that create more smallholder-inclusive value chains, taking into account the four aspects of farmer inclusivity: ownership, voice, risk and reward.

We hope these principles can support the sector to make the urgently needed shift from sustainable sourcing to inclusive procurement, ensuring a more ethical and resilient sector. This Palm Oil Barometer sets out to offer a solid contribution, giving direction to palm oil chain operators and buyers, governments, policy makers and financial institutions in taking their vital next steps towards a more sustainable and inclusive future for the sector.

Introduction

Over the last decade there's been much heated debate and substantial positive action taken in response to deforestation in the name of palm oil production. While the area of land being cleared to plant oil palm is in global decline, other equally serious issues remain.

Around 7 million oil palm smallholders are responsible for around 25-30 percent of the total palm oil supply.[3] Many of them live their lives on a month to month basis, not knowing whether their crops will be hit by another flood or fluctuation, potentially negatively impacting their income. The demands to produce more sustainably continue to pile up while the prices that buyers are willing to pay remain firmly out of smallholders' control.

In short, the palm oil industry is a challenging place to be a farmer. Smallholders are price-takers and to date the wider sector has avoided the big questions around value distribution, income and price volatility that disproportionately impact small-scale producers, and yet hold the key to their prosperity.

In this paper we look at how focusing on the four dimensions of inclusivity; ownership, voice, risk and reward, has the potential to turn the tide on unequal value distribution and support both farmer livelihoods and more sustainable production.

Flooded palm oil mill and plantations in Honduras. © Solidaridad

PAYING THE PRICE FOR SUSTAINABILITY

As with all crops, there is growing recognition that oil palm must be grown sustainably if we are to continue to meet demand and face today's climate crisis. Farmers are working on the frontline, facing worsening extreme weather conditions. They need more support on multiple levels to deal with the devastation that comes with an increasingly warm planet.

However, it's growers, of all sizes, who pay the price for sustainable oil palm farming while buyers and retailers pocket the majority of the value created in the supply chain for themselves.[4] This has to change. The cost of production and, in particular, more sustainable production must be more equally distributed throughout the supply chain.

In the first edition of the **Palm Oil Barometer**,[5] published in 2022, we wrote: "To minimize risk and take advantage of opportunities, the key point is to acknowledge smallholder farmers' interests and agenda setting as the point of departure, rather than implementing pre-conceived ideas". In 2024 this is still true. In this second edition we continue to contribute to the discussion by unpacking more about value distribution and purchasing practices, and to stimulate the debate.

The central question in the second Palm Oil Barometer is thus: In a globally operating sector that depends on market mechanisms, how can we establish a system that truly includes and supports growers and in particular smallholder farmers to produce in a more sustainable way?

ABOUT THIS REPORT

In the first chapter we give an overview of today's global market perspective and issues at play. In the second chapter we explain the current situation and growing challenges that smallholders face. The third chapter includes an overview of the status of palm oil production and smallholder experience in Asia, Latin America and Africa. In the fourth chapter we present our recommendations on how responsible procurement practices can offer real solutions to these global issues.

The production of the barometer was guided and supported by various smallholder representative organisations and academic experts, who together formed an advisory committee. This advisory committee reviewed selected areas of the report from an expert point of view and ensured that the barometer truly represents producers' perspectives. The authors would like to thank advisory committee participants for their feedback and contribution.

SOLIDARIDAD'S ROLE IN PALM OIL

Solidaridad played a leading role in developing this Palm Oil Barometer. Solidaridad is a civil society organisation promoting sustainable and inclusive value chains. With its work Solidaridad backs smallholders in more sustainable oil palm growth and trade.

Oil palms are a highly efficient crop and for many farmers they provide a steady two weekly income stream. This means that even smallholders with a relatively small plot of land can obtain an income from oil palms every month of the year. We have seen this continuous income stream allow smallholder farmers to invest in their homes and look after their families. Palm oil can lift them out of poverty within a single generation.

However, according to the International Union for Conservation of Nature (IUCN), oil crops, including oil palm, use around 37 percent of all agricultural land. This means "their future significantly influences global land use, prosperity, health, climate, and the environment".[6] Demand for oil continues to grow and there's an expected need for a further 14 percent increase in production by 2050. This additional demand will put even more pressure on farming land. Ensuring that both small and large producers operate in a sustainable manner is therefore key for a stable and climate-resilient food system.[7] IUCN says: "We can limit the impacts of vegetable oils on biodiversity if sustainable production methods are used, the expansion of oil crops into natural ecosystems is prevented, current yields are increased, oil crops are primarily used in food rather than as animal feeds or biofuels, and if synthetic oils become available in much greater volumes."[8] It also notes the efficient nature of oil palm; it has "the largest global production volume of any vegetable oil. It also has the highest yield, delivering the highest output of oil per area cultivated compared to all other oil crops."[9]

In our work supporting smallholder palm oil producers, Solidaridad therefore aims to:

1. **raise standards and improve support at national and regional level;** prompting local actors to increase the minimum requirements for sustainable palm oil production.
2. **raise the bar at an international level;** motivating critical downstream actors to share responsibility for sustainable palm oil production and pay a fair share.

CO-SIGNATORIES

The development of this report is supported by the following smallholder representatives, experts and researchers. They have also co-signed it.

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Authors' note: We appreciate the effort of interviewees in answering our questions and reviewers for their feedback. The final responsibility for the content and the views expressed in this publication lies solely with the authors.

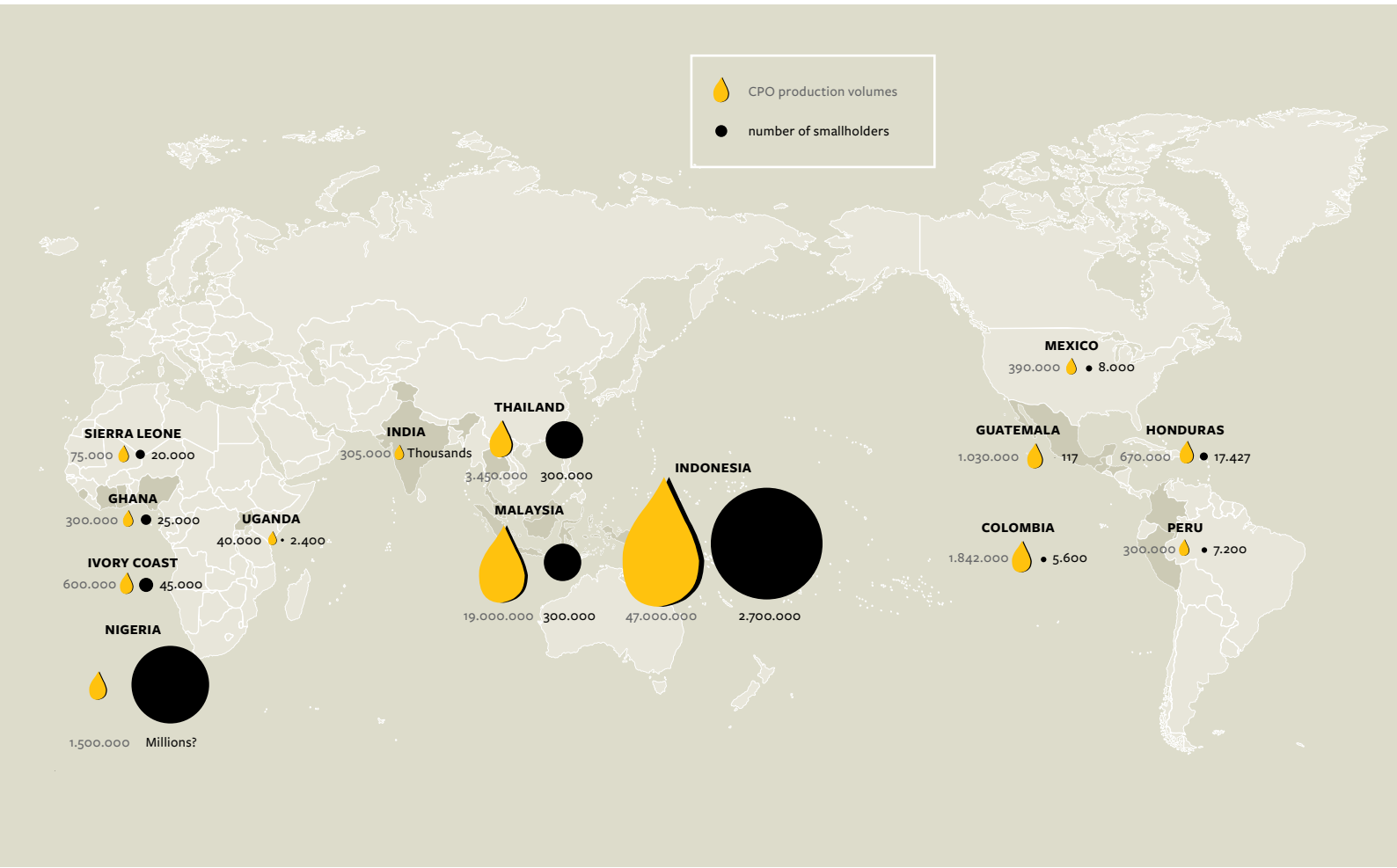
1

“Asia currently consumes two thirds of all palm oil globally. In the decades to come, the rising wealth of Asia will further boost the regional demand for palm oil.”

Marieke Leegwater, Senior Policy Advisor, Solidaridad Europe

Global state of palm oil production

FIGURE 1 **PALM OIL PRODUCTION MT AND NUMBER OF SMALLHOLDER FARMERS OF 14 SELECTED COUNTRIES IN 2023**

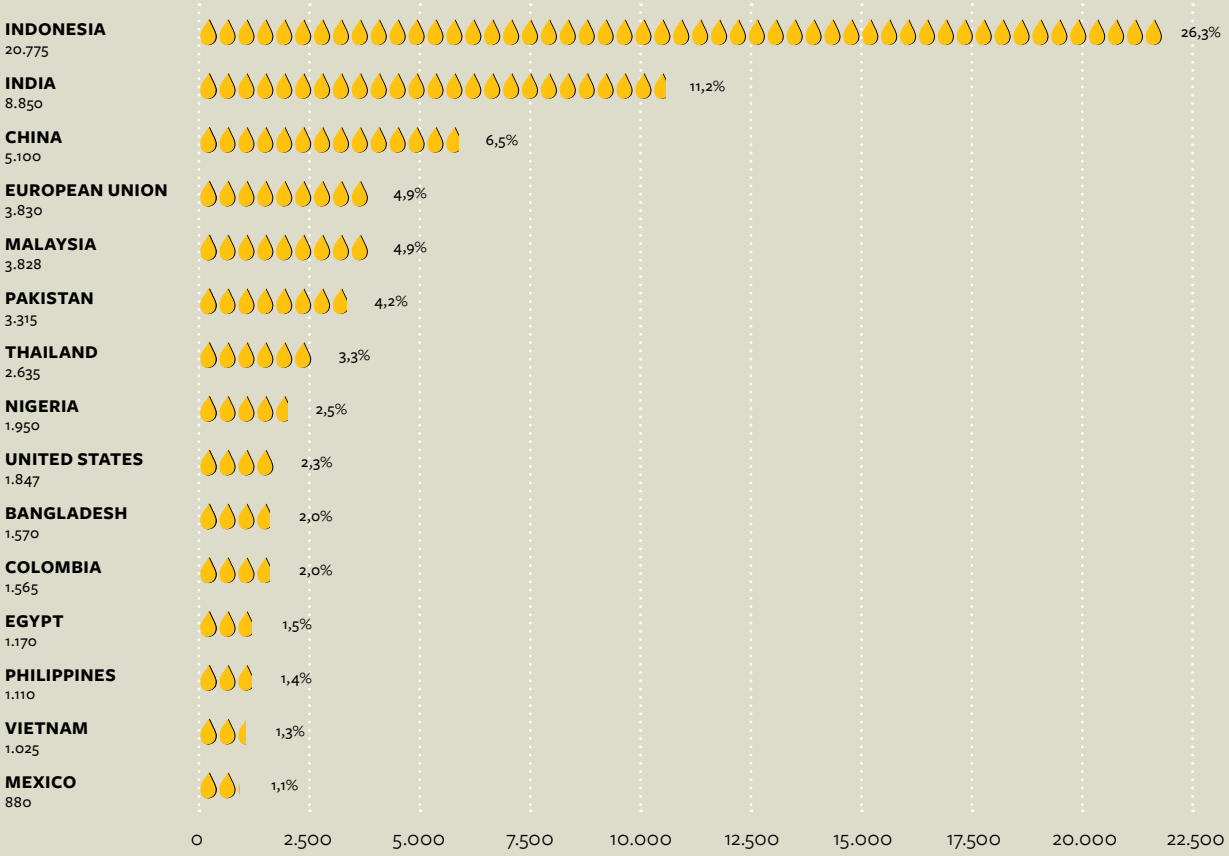


Source: Total global palm oil production as reported in March 2024 was 79,464,000 MT. USDA (2024), "Palm oil explorer": http://ipad.fas.usda.gov/cropexplorer/cropview/commodityView.aspx?cropid=4243000

For references to sources of production data, the number of smallholders in 14 countries and global figures, please see this document.

FIGURE 2 **WHERE IS THE MOST PALM OIL CONSUMED?**

Palm oil consumption in 2024 - in thousand metric tonnes and % of global consumption



Source: USDA, November 8, 2024, Oilseeds: World Markets and Trade, online: https://usda.library.cornell.edu/concern/publications/tx31qh68h?locale=en

For references to the source of the consumption in 15 countries and global figures, please see this document.

1.1 SUSTAINABILITY ISSUES IN OIL PALM SECTOR

While sustainable palm oil production can positively impact livelihoods and the environment, ongoing unsustainable palm oil production continues to have a negative impact. Deforestation, greenhouse gas emissions, land conflicts, labor rights issues and gender issues are pressing topics that need to be addressed.

Calls for corporate responsibility and strict environmental policies have led to a number of public and private efforts, in both consumer and producer countries. To improve palm oil sector governance, various standards and policies have been developed, such as the Roundtable on Sustainable Palm Oil (RSPO), which was formally set up in 2004 and now has over 6,000 members.[10] Its Principles & Criteria are globally seen as a point of reference for sustainable palm oil production. By 2024, 20 percent of the global palm oil production is RSPO certified.[11] Under the influence of the RSPO a lot has improved in the sector, but there is still more to do, particularly with regards to land rights, labor and gender.

At national level there are sustainability standards too, including:

- the Indonesian Sustainable Palm Oil (ISPO) standard
- the Malaysian Sustainable Palm Oil (MSPO) scheme
- the Indian Palm Oil Sustainability Framework (IPOS)
- Sustainable Palm Oil Colombia (APSCO)

1.1.1 Deforestation and biodiversity

Palm oil has been a significant driver of tropical deforestation in the past decades, especially in Southeast Asia.[12] While not all palm oil production is associated with deforestation, both industrial and smallholder plantations have been linked to:

- forest clearing
- peatland conversion
- environmental degradation
- biodiversity loss

Oil palm-driven deforestation rates in South East Asia dropped dramatically between 2015 and 2021, but saw a slight increase during 2022 and 2023.[13] In 2019 the TFA and Daemeter study (2019) indicated the following six interventions play an important role in this progress:[14]

- Governments in Southeast Asia have expanded policies and progress to advance green growth.
- Corporate action toward building deforestation-free, sustainable supply chains has surged.
- Trade in sustainable products is growing, strengthening the business case for sustainability.
- Civil society has emerged as an effective partner in achieving sustainability.
- Smallholder farming is becoming a major focus of research, outreach and support.
- Tools, knowledge and expertise on sustainable commodities has expanded markedly.

Similar patterns of improvement are visible in other parts of the world. For example, in Colombia, the official entity in charge of the Forest Monitoring System, IDEAM, carried out the first analysis of deforestation for the palm sector between 2011 and 2017. They studied 1,955,198 hectares. During this six-year period, 0.4 percent of the total deforestation in Colombia was associated with deforestation for palm crops. There was a reduction since the first measurement in 2017 from 0.4 percent to 0.2 percent in 2018, and subsequently to 0.03 percent in 2019.[15]

Despite progress, deforestation for oil palm farming continues. If we were to end measures to reduce deforestation, like zero-deforestation agreements, the risk of deforestation, peatland conversion and biodiversity loss would increase again.

1.1.2 Greenhouse gas emissions

The oil palm sector contributes to global greenhouse gas (GHG) emissions. The major sources of emissions are:

- deforestation
- peatland degradation
- chemical fertilizer
- processing oil palm fruit, especially CH_4 from POME

Palm oil mill effluent (POME) can create large methane (CH_4) emissions, which have a much stronger GHG-warming potential compared to CO_2. While huge steps have been made in the past decade on methane capture and generating renewable energy, there is still a long way to go to decrease CO_2 emissions, regenerate forests and peatlands and switch to less polluting production methods.[16] More and more companies in the supply chain are aware of this and have set targets, some of them already approved by the Science Based Targets Initiative (SBTi).[17]

1.1.3 Land rights

As with many types of agricultural production, conflicting land rights are a persistent issue in the palm oil sector. Especially when it comes to native customary rights, there is often ambiguity as to who has the right to use land; the company or the local community and farmers. Communities rarely have formal land rights and often the rights they do have lack legal protection and are not respected by government and companies. This leads to significant land conflicts.[18]

RSPO

The RSPO Principles & Criteria require palm oil plantations to have free, prior and informed consent (FPIC) for using the land on which they farm. However these rules are not always well implemented, even by RSPO certified plantations. The RSPO Complaints System provides a process with which to uphold the right to FPIC in relation to past land disputes in existing plantations. In many cases this system has provided an effective basis for conflict resolution, however there is still room for improvement for example by making the system more accessible.[19]

ISPO

The Indonesian standard ISPO requires smallholders and plantations to have valid proof of land ownership. [20]ISPO Article 8, paragraph 3, states the requirement of holding land rights.[21]

MSPO

The Malaysian standard MSPO includes criteria to ensure that "oil palm cultivation shall not diminish the rights of other users". It includes the requirement to respect FPIC and proof of land ownership or right to use the land. MSPO mandates growers to ensure that "customary rights shall not be threatened or reduced. Any conflict or land disputes shall be resolved in accordance with an FPIC process".[22]

1.1.4 Labor rights

Around two-thirds of palm oil production takes place on large company plantations. Millions of people work on large plantations and as part of the associated supply chains; in collection centres, transportation, mills and refineries. Smallholders also often employ their own workforces, hiring laborers for all kinds of on-farm activities. This means they too have the responsibility to treat these laborers with dignity and respect, abiding by human rights laws and ensuring a certain standard of working conditions.

According to labor union CNV Internationaal, the most severe labor rights risks in the palm oil sector in Asia and Latin America are:[23]

- occupational health and safety risks
- gender discrimination and gender based violence (see section on gender)
- lack of living wage
- lack of freedom of association
- absence of collective bargaining agreements
- existence of child labor
- low number of (long term) contracts among workers

The RSPO requires certified units to respect workers' rights and conditions. Its indicators focus on:

- forced labor
- child labor
- contract substitution
- grievance mechanisms
- workplace health and safety, for example workers' risk of exposure to agrochemicals[24]

Anecdotal evidence suggests RSPO certification drives improvements in the labor circumstances of RSPO certified farms and mills. RSPO reports that in 2023 more than half a million workers were working at certified locations.[25] However, it is hard to find more precise data on impacts of RSPO certification driving the improvements on labor practices.

1.1.5 Gender and social inclusion

In many countries, palm oil production is male dominated in terms of (land) ownership and decision-making. This male dominance occurs especially when formal land titles are 'required' for establishing an

oil palm farm. This happened for example in West-Kalimantan, where formal titles were 'given' to the head of households – usually men – while before when land was under customary rule, women had much more access to and use of the land.[26] This is why it is important to support women' s right to land. For example, in Nigeria, Solidaridad worked to ensure that women in the Oyen-Okpon community were allowed to own farm land, along with other fundamental rights.[27]

Attendees at a farmer training session in Nigeria. © Andrew Esiebo, Nigeria.

Financially speaking, income from oil palm is commonly controlled by male household members, who tend to spend less on feeding their families and health than their female counterparts.[28] A 2022 survey among farmers participating in Solidaridad programmes found that women in Indonesia, Malaysia and Ghana largely have more negative perceptions than men about their ability to manage basic family needs through oil palm farming. This indicates that interventions tailored to women farmers' specific needs are necessary.[29]

A 2024 study by KAMI states that "the gender dimensions of palm oil production in Indonesia and Malaysia are complex and multifaceted". It is therefore evident that "addressing gender disparities requires a comprehensive approach that encompasses not only legal frameworks but also social, economic, and environmental factors".[30]

According to the ILO, in the palm oil sector, women are the most vulnerable to poor working conditions. As well as being vulnerable to sexual harassment, they experience discrimination in terms of: [31]

- wage gaps
- social protection guarantees
- occupational safety and health protection

According to the Indonesian Ministry of Manpower, women often do low-skilled work with minimum productivity and long working hours. They are often unpaid, left to manage the majority of care and domestic responsibilities.[32] Labor union CNV Internationaal adds: "Most of the women work on a daily basis, without a proper contract. If they become pregnant [...] they don't receive any income".[33]

In terms of gender equality, palm oil buyers could do much better. The 2024 SPOTT ranking shows that only half the assessed companies have gender policies which they actively implement. This is very limited progress compared to 2023.[34]

- 42/81 companies (51.9 percent) publish proof of the actions they are taking to support the inclusion of women across palm oil operations, including addressing the associated barriers women face.
- 59/100 companies (59 percent) publicly report the percentage or number of women employees.
- 14/100 companies (14 percent) publicly report salaries by gender.

RSPO states that it needs to carry out further research and analysis to understand if and how levels of gender equity differ in its supply chains in comparison with the wider sector.[35] However, researchers in Indonesia found that RSPO certification can have a positive impact on gender equality. They concluded that all independent smallholder (ISH) groups from the Indonesia Sustainable Palm Oil Smallholder Forum surveyed, felt that "RSPO certification had an indirect impact on creating gender equality in their village through the existence of new knowledge regarding gender equality".[36] There is evidence that the cases are increasing of women taking leadership roles in some smallholder groups.[37]

In certified RSPO mills and estates, "the proportion of women in management and administrative roles at mills and estates is 13.3 percent [ranging from 9-17 percent per country] and 23.3 percent [ranging from 19-29 percent per country], respectively."[38] If the aim is to address social inclusion and capitalize the efforts from all individuals to develop the sector, these figures are limited. Rather, RSPO should aim to provide more information about the number of women in decision-making roles in comparison to men as well as developing the understanding about wage gaps between women and men.

TABLE 1 **RSPO IMPACT DATA ON LABOR AND GENDER OVER 2021**

COUNTRY	NUMBERS OF UNIT OF CERTIFICATION	CERTIFIED MILLS			CERTIFIED ESTATES		
		Total workers	Total female workers	Percentage of female workers	Total workers	Total female workers	Percentage of female workers
Colombia	24	3,101	368	11.87%	11,941	1,758	14.72%
Guatemala	14	2,211	92	4.16%	17,396	1,040	5.98%
Honduras	5	953	80	8.39%	3,508	346	9.86%
Mexico	6	865	124	14.34%	1,780	543	30.51%
Côte d'Ivoire	3	750	37	4.93%	2,868	143	4.99%
Ghana	5	1,082	66	6.10%	7,056	3,022	42.83%
Nigeria	4	832	70	8.41%	18,031	4,947	27.44%
Thailand	5	701	88	12.55%	1,663	645	38.79%
Indonesia	251	31,200	1,560	5.00%	275,555	70,542	25.60%
Malaysia	136	13,354	1,536	11.50%	87,340	17,992	20.60%

Source: RSPO - Metrics Template submission as of December 2022 for the reporting year of 2021

1.2 THE USE OF PALM OIL FOR BIOENERGY

Many actors are looking for ways to reduce the transport sector's CO_2 emissions. One growing use for palm oil is therefore in the bioenergy market, including aviation fuel (often called Sustainable Aviation Fuel or SAF), where edible oils like palm oil and its by-products are used as an alternative to fossil fuels.

The most notable developments in this field are taking place in Indonesia. The Indonesian government mandates its national transport sector to increase the use of palm oil as a source of energy.[39] The Indonesian Palm Oil Association (GAPKI) noted: "the implementation of the B35 mix has increased palm oil consumption for biodiesel from 9 million tonnes in 2022 to 10.6 million tonnes in 2023. With the B40 mandate set to begin [in 2025], the Indonesia Biofuel Producer Association expects it will drive up crude palm oil (CPO) consumption further to 14 million tonnes for biodiesel." At the same time, GAPKI encourages caution when it comes to further increasing the compulsory percentage of biodiesel, because it will "decrease the volume of CPO exports, potentially leading to reduced foreign exchange earnings for [Indonesia]". GAPKI also warns that: "a reduced supply of Indonesian palm oil in the global market could lead to increased vegetable oil prices worldwide, causing palm oil product prices to soar and potentially triggering inflation in Indonesia."[40]

On top of these economic concerns, the Asian Palm Oil Alliance (a non-profit alliance of palm oil consuming countries including India, Pakistan, Bangladesh, Sri Lank and Nepal) expresses its complete opposition to using food for fuel.[41] Similar opposition to using food for fuels has previously shaped European regulations on the use of palm oil for biofuels. The use of palm oil for biofuels in the European Union (EU) is declining.[42] This is because the EU implemented a policy to decrease the use of so-called high-indirect land use change feedstocks. This includes palm oil.[43] Although the policy does not ban the use of palm oil, feed and food crop-based fuels and fuels derived from palm and soy materials are not classified as green as they do not meet the sustainability criteria defined by the EU.[44] It is important to note that this policy applies to virgin palm oil. Used cooking oils and palm oil mill effluent are considered as green materials for biofuels.[45]

Within the biofuels market, the aviation biofuel market or SAF is growing.[46] Indonesia is experimenting with palm oil-blended aviation fuel.[47] However, according to the USDA, aviation biofuel volumes currently remain small. This means that the use of palm oil for aviation fuel also remains small.[48]

2

“These aging trees urgently need replanting to maintain productivity, but that comes at a price: several years of reduced yields and income.
For farmers, this transition can be a make-or-break moment.”

Lesly Vera, Palm Oil Manager, Solidaridad Peru

The need for more inclusivity in the palm oil value chain

2.1 DEFINING SMALLHOLDERS IN THE OIL PALM VALUE CHAIN

It's not easy to define an oil palm smallholder. These farmers contribute to the palm oil supply chain in a variety of ways, with significant differences both between and within countries. They follow a wide range of land use strategies and models of social organization. Commonly, families operate as independent units and pursue their own livelihood strategies with a combination of different production activities to generate household income. [49]A typical oil palm plot is below five hectares, despite the fact that the threshold for smallholder farmers is set at 25 hectares in Indonesia and 40 hectares in Malaysia.[50] To learn more about the specific circumstances facing oil palm smallholders in these regions, please refer to our continental deep dive chapters in the next section).

Smallholder farmers account for an estimated 27 percent of the total cultivated land area and between 25 and 30 percent of global production.[51] Large plantations often integrate smallholder plots through outgrower schemes or rental agreements. These so-called scheme smallholders are specialized in oil palm farming and rely on the plantation company for improved planting stock, fertilization and training.

When we talk about smallholders we usually refer to independent smallholders who have the freedom to choose how they operate their land. The vast majority of independent smallholders rely on diversified agricultural production to make a living, where the linkages between forest, farm and land support human well-being and a range of ecosystem services.[52] These smallholders are developing their operations independently from the large plantations. They organize themselves in farmer groups, cooperatives and associations to collect and sell their fresh fruit bunches (FFB) to the mill that offers the best price. Or they depend on intermediaries for selling their produce as well as for access to inputs and credit.

SMALLHOLDER DEFINITION

The term oil palm smallholders or farmers often lacks a precise definition, but in practice tends to refer to differences in size and level of reliance on family labor. The farm provides the majority of income to the family, and in turn the family provides the majority of labor on their farm.[53] This aligns with the RSPO's definition:[54]
"An oil palm grower with a total accumulative planted area of oil palm that is smaller than or equal to 50 hectares. The definition of a smallholder farmer and threshold of planted area of oil palm may vary by country, to be determined by the relevant National Interpretation of the RSPO P&C [Principles and Criteria] and/or ISH [Independent smallholder] standards". In this definition, the RSPO distinguishes two types of smallholders: scheme smallholders and independent smallholders.

Scheme smallholders: supply FFB to a specific RSPO P&C Unit of certification and its mill(s) under a formal and legal contractual FFB sourcing agreement.

Independent smallholders:

- Have enforceable decision-making power on the operation of the land and production practices.
- Have the ability and freedom to choose how the land and type of planted crops is organised, managed, and financed.

Many smallholders are attracted to growing oil palm for its greater yield and potentially higher prices, as well as the fact that it can be harvested year-round, providing a steady cash flow. Compared to other commodities like cocoa, coffee or tea, oil palm is seen as a profitable crop and price is rarely the subject of public debate. This is likely linked to the fact that palm oil is generally more profitable compared to other crops and that, in most cases, smallholders have larger plots than their peers in other crops.

However, oil palm smallholders face constant changes in a fast-moving market. Their incomes remain precarious, reliant on factors that are out of their control. At the same time, food manufacturers and consumer goods (FMCG) companies and retailers manage to consistently generate profits on products which include palm oil. [55]

2.2 SMALLHOLDER INCLUSIVITY

It is time to look at building palm oil value chains through an inclusive lens. This can best be done with the model of Vermeulen and Cotula that suggests assessing four dimensions of inclusion; [56]

1. **Ownership**: deals with the question of who owns what part of the business, and assets such as land and processing facilities.
2. **Voice:** the ability of marginalized actors to influence key business decisions, including their weight in decision-making, arrangements for review and grievance, and mechanisms for dealing with asymmetries in information access.
3. **Risk:** including commercial (production, supply and market) risks, but also wider risks such as political and reputational ones.
4. **Reward:** the sharing of economic costs and benefits, including price setting and finance arrangements.

Looking at these dimensions allows for a clearer perspective on inclusiveness and a better understanding of the actual conditions under which smallholders are included in business practices.[57] Many companies think they are smallholder inclusive when they source from smallholders. But that is only the start. To deliver on all four aspects of inclusive agribusiness[58], we must be aware of the interlinkages. For instance, ownership can influence voice, and voice in price-setting crucially affects reward. Ownership influences risk, as a jointly owned business also involves sharing business risks.

In terms of the palm oil sector, we can highlight interlinked elements like income and value distribution, corporate transparency or participation in multi-stakeholder initiatives.

In this paper, we take the four aspects of inclusion and their interlinkages as guidelines for procurement practices.

Smallholder farmers receive digital administration support. © Chikis Studios, Ghana.

2.3 RSPO AND SMALLHOLDER INCLUSIVITY

Palm oil companies rely on the RSPO for implementing sustainability and smallholder inclusivity in the palm oil value chain.[59] While RSPO is an important multistakeholder platform to drive improvements in the palm oil value chain such as labor standards and the recognition of rights of indigenous communities, it does not have a good track record with respect to smallholder inclusivity.

The number of smallholders included in certified value chains is low; in September 2024, independent smallholders made up 2.5 percent of RSPO certified volume,[60] representing around 50,000 smallholders[61] and around 130,000 hectares of RSPO certified land (2.5 percent of all RSPO certified land). New data from the RSPO suggests there has been a remarkable growth in numbers of certified smallholders in recent years, however this still represents only a few percent of all global smallholders. [62]

Instead the push for segregated RSPO certified FFB pushes smallholders out of RSPO certified value chains, as the costs of smallholder certification are usually relatively high compared to the benefits, as studies from Indonesia show.[63] So, we can say, the uptake and increase of RSPO certified material does not necessarily drive more inclusive value chains, nor does it improve independent smallholder farming practices.

2.4 SMALLHOLDER LIVELIHOOD

The amount a smallholder earns is reliant on a number of external conditions. Their income situation is comparable to a house of cards (see illustration). Farmer income is influenced by a range of factors including:

- The implementation of a pricing mechanism formula that's often prescribed by local or national governments.
- The world market price, as the FFB-price received by smallholders often relies on global prices.
- Size of the farm.
- Productivity level.
- Labor costs.
- The price farmers pay for inputs like fertilizer and pesticides also depend on global market prices.
- Whether the farmer or agent is selling to intermediaries or directly to the mill.
- The state and availability of local infrastructure and transport logistics
- The number and capacity of mills that can be reached before the FFB starts to deteriorate.
- The reliability and fairness of weighing scales and quality control procedures.
- The objective assessment of FFB grading by the mill and how transparent it is about its grading system.
- The Oil Extraction Rate (OER), which in turn relies on the quality of the FFB.

We are currently seeing three key developments that make the topic of smallholder inclusivity particularly relevant:

1. increasing vulnerability to climate change-related extreme weather events
2. increasing price volatility
3. increasing sustainability requirements

2.4.1 Climate change vulnerability

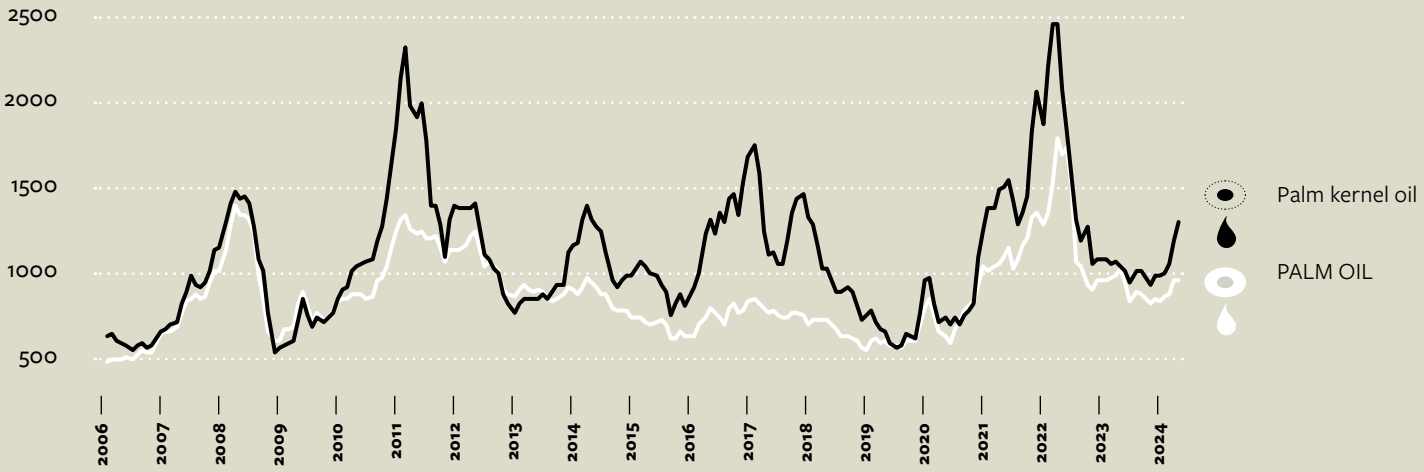
We see increasingly regular extreme weather events due to climate change, such as flooding and extended periods of droughts. Such events cause yield losses, lower returns to input supply, decrease or wipeout monthly income, increased costs to access farm inputs and further price volatility. Smallholders often lack access to the knowledge and capital to overcome these problems.[64]

2.4.2 Increasing price volatility

In the past four years we have seen palm oil prices swing between 576 US dollars in May 2020 and 1,776 US dollars in March 2022, and dip back down below 1,000 US dollars in 2023 and 2024.[65]

FIGURE 3 **PALM OIL AND PALM KERNEL OIL PRICES 2006-2024**

(US$/mt)

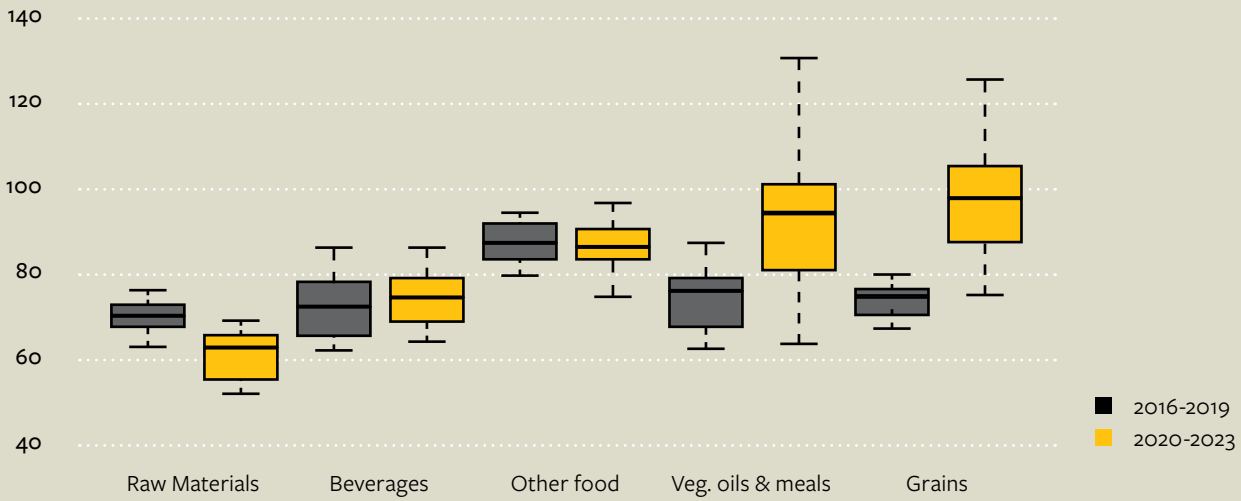


Source: IndexMundi (2024), Palm oil Monthly Price - US Dollars per Metric Ton - January 2006 - August 2024, online: https://www.indexmundi.com/commodities/?commodity=palm-oil&months=240
IndexMundi (2024), Palm Kernel Oil Monthly Price - US Dollars per Metric Ton - January 2006 - August 2024, online: https://www.indexmundi.com/commodities/?commodity=palm-kernel-oil&months=240

According to UNCTAD, between 2020 and 2023, the price volatility for vegetable oils and meals (which includes palm oil) has significantly increased compared to the 2016-2019 period.[66] This means that farmers' incomes have become less predictable. Various studies on living income for oil palm farmers have shown that under the right conditions, this crop can generate a living income.[67] However, all too often the conditions are not right. For example, as Mulyasari et al. reported in 2023 on Bengkulu, Indonesia: "FFB price fluctuations pose a threat to oil palm farmers for household welfare and family food security".[68]

FIGURE 4 **COMPARATIVE VOLATILITY OF REAL AGRI PRICE INDEXES**

Real Price Index (2010=100)



Source: Cárcamo-Díaz, R. (2024, 3 July), Global food markets: Implications for international trade and competition and consumer policies, Fifteenth Meeting of the UNCTAD Research Partnership Platform, online: unctad.org/system/files/non-official-document/ccpb_IGRRPP2024_presentation_Carcamo_en.pdf

INSIGHTS ON ACHIEVING A LIVING INCOME IN A HIGH-PRICE MARKET

UGANDA

Alex Amanya: "Based on what we see in our projects, it is clear that with oil palm growing, a Ugandan oil palm farmer can achieve a living income. Still, to actually make a living income, high and stable prices are a necessity. Increasing the productivity of smallholder farmers from currently 14 tonnes/hectare of FFB close to the 21 tonnes/hectare that big estates are producing can also guarantee a living income for smallholder farmers. The oil palm sector in Uganda is still young. We need constant monitoring of the cost of living to ensure the prevailing prices match a living income".

GHANA

Paa Kwesi Forson: "It is clear that with the current low yields and small farm sizes, the average oil palm farmer cannot reach a living income. Since 2023, FFB collectors and mills in Ghana are now mandated to pay at least the monthly minimum price set by the industry and endorsed by the Government of Ghana. Prices have been good and competitive over the last couple of years. Even with these minimum prices, it will be difficult for smallholders to make a living income with their average farm size of two hectares and low yields. Farmers therefore can increase their yields and consider additional income raising activities to secure a living income."

PERU

Lesly Vera: "Take, for example, one of our farmers in the Amazonía Connect project in Peru. With just 15 hectares of oil palm, this farmer earned in 2023 more than double the living income in the Amazon, far outperforming those cultivating cocoa, coffee, or other crops.

But there's a catch: fertilizers, vital to maintaining these high yields, now consume up to 40 percent of total production costs. This burden has surged over the last five years due to national political instability, increasing exchange rates and fertilizer prices, and slashing profits.

Even more critical; over 40 percent of oil palm plantations in the region are between 25 and 30 years old. These aging trees urgently need replanting to maintain productivity, but that comes at a price: several years of reduced yields and income. For farmers, this transition can be a make-or-break moment.

This is why innovation is not just an opportunity, but a necessity. Through targeted technology like fertigation, we can slash input costs, boost yields, and smooth the replanting process, allowing farmers to not only survive these challenges but thrive."

COLOMBIA

Maria Goretti: "We assessed living income data from 2021 from two regions: Tibu in the department of Norte de Santander, and the North Zone of the department of Magdalena. We spoke to a sample of 39 smallholder oil palm producing families. The average producer with nine hectares of oil palm generated a net income of 1,797 euros per hectare in 2021. This resulted in a total annual income of 16,243 euros. With the 2021 living income benchmark for a reference family of five members at 7,465 euros per year, it is clear that with the prices that year these farmers could make a living income from oil palm growing".

2.4.3 Sustainability requirements and lack of reward

Over the last two decades, the industry, governments and civil society have made serious efforts to contribute to more sustainable oil palm production. This is largely due to public pressure and mounting evidence of the dangers of unsustainable oil palm expansion and production practices.

Voluntary certification systems, such as RSPO, have been set up and corporate actors have made implementation commitments. They've also committed to initiatives such as 'No Deforestation, No Peat and No Exploitation' (NDPE), pioneered by the palm oil industry. Such initiatives seek to ensure that palm oil used in global markets is not associated with negative environmental and human rights impacts. These efforts have been complemented in recent years by government measures in producing countries (the ISPO and MSPO schemes), national voluntary standards such as APSColombia, and new regulation in consuming countries, specifically the EUDR.

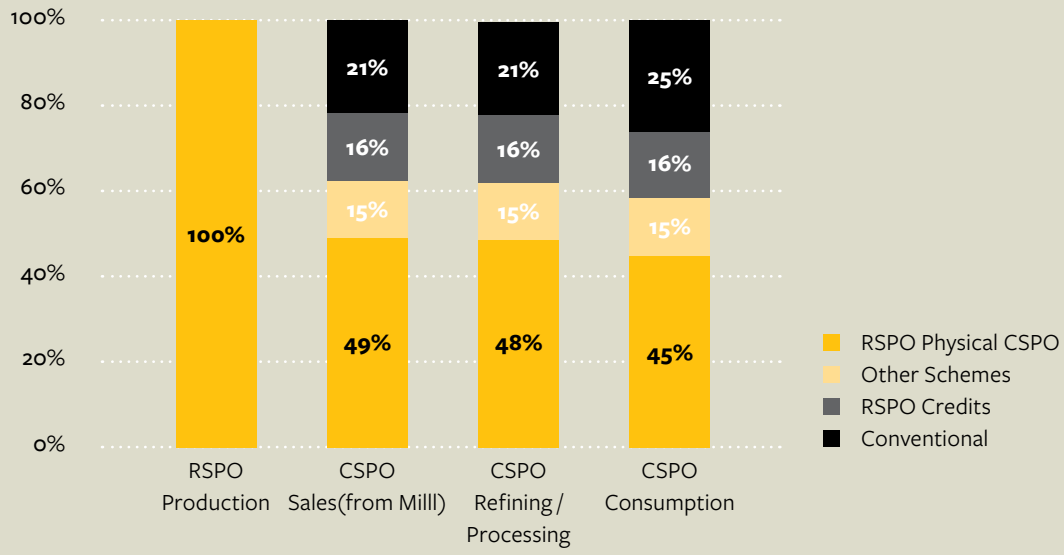
However, while these efforts are noteworthy, they have some serious drawbacks for oil palm smallholders. Certifications and NDPE commitments are easier for larger plantations to achieve, thanks to access to substantial financial resources. These same initiatives are more complex for smallholders to commit to. In the absence of commitment, their access to profitable markets is blocked. Likewise the EUDR, with its stringent traceability requirements, risks excluding many potentially eligible smallholders from European supply chains, because they do not have the means to prove their compliance.

In this context, efforts to push for sustainability become a barrier to trade or a burden for smallholders. Introducing compliance with sustainability requirements in oil palm landscapes often requires investment and training, and even when the requirements are met, there is no guarantee smallholders who produce sustainably will benefit financially from this arrangement. A prime example of this is the RSPO certification system.

2.5 INSUFFICIENT PREMIUM PAYMENTS FOR RSPO CERTIFIED PALM OIL

Not all RSPO-certified volumes are sold as such, whether it is regular certified sustainable palm oil (CSPO) or Independent Smallholder-CSPO.[69]

FIGURE 5 **CSPO PRODUCTION AND UPTAKE IN PREMIUM MARKETS (2022)**



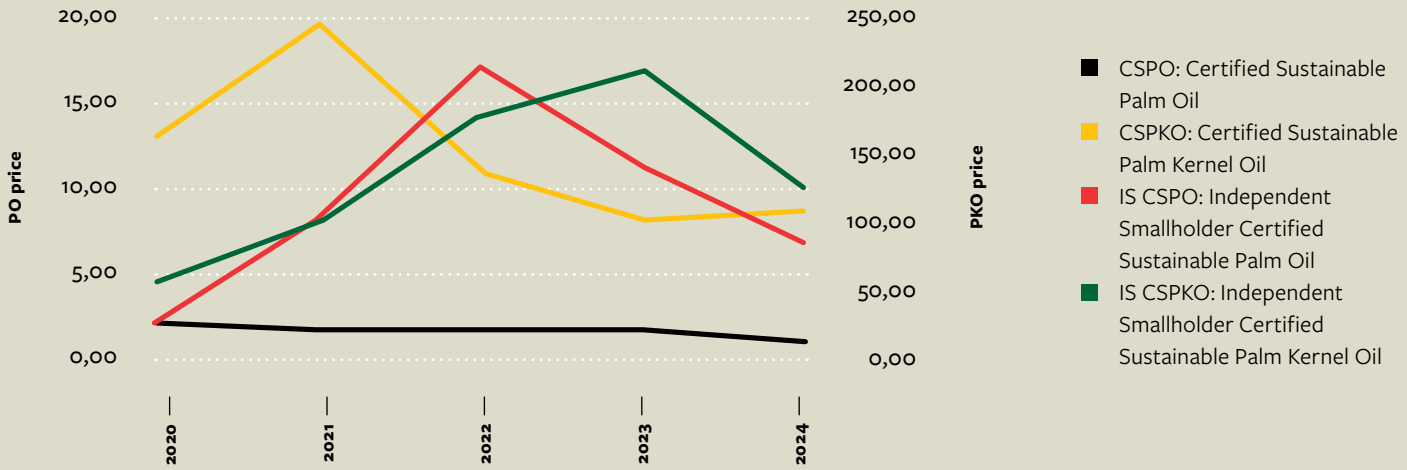
Source: RSPO (2024), Impact Update 2023, online: https://rspo.org/wp-content/uploads/Impact-Update-2023_.pdf

Figure 5 shows global CSPO production in 2022 versus the actual sales of these certified volumes. RSPO explains: "Of the 15.4 million metric tonnes (MT) in CSPO supply, 49 percent was sold as RSPO Physical (Mass Balance, Segregated or Identity Preserved) and 15 percent as RSPO Credits, totalling 9.7 million MT, up 8.1 percent from 2021. Sales under other schemes fell to 16 percent from 19 percent, with conventional steady at 21 percent. Downstream, supply chain inefficiencies reduced RSPO volumes used in consumer products to 9.2 million MT, or 12.1 percent of global palm oil consumption (75.4 million MT)." [70]

2.5.1 Sales of Independent Smallholder Credits

RSPO-certified smallholders can sell their certified volume physically or via so-called Independent Smallholder (ISH) Credits. The credit system was set up to ensure that independent smallholders who are not in close proximity of a certified mill, are still able to access a reward for certification. This trade can be done via the RSPO IT platform. However, recently the market prices for credits have been steadily decreasing. The latest prices can be seen via the RSPO credit market place.[71] See figure 6 for an overview.

FIGURE 6 **AVERAGE CREDIT PRICES PER TON CERTIFIED PALM OIL PRODUCT**
(US$/t)



Source: RSPO (2024), "Market trends", online: rspo.org/as-an-organisation/rspo-credits/market-trends/, viewed in May 2024. Own calculations based on RSPO data.

Furthermore, even smallholders in the supply base of RSPO-certified mills, who can sell their certified volume physically segregated, are not well rewarded. De Vos et al found in 2023 that: "Certification did not lead to new agreements on prices, uptake or grading."[72] One trader told us: "If our buyers don't want to pay the RSPO premium, we do not pay the premium to farmers".

On the other hand, there are smallholders that do generate additional income from certification. RSPO indicates: "Based on RSPO data from 2024, smallholders have received additional income of around 10 million USD (7 million from IS-Credit sales and an estimated additional income of 3 million from physical sales of certified FFB) due to RSPO certification. That results in a total of approximately 100 USD extra income per hectare".[73]

In summary, this means when a smallholder farmer has gone through the RSPO certification process and fully integrated the principles and criteria in its work, there is no guarantee that they will receive a premium for it.[74] The same applies for larger growers; those who have implemented sustainability measures on labor and human rights and environmental impacts are frequently unable to recuperate the associated costs from the market.

It is important to note that not paying for certification isn't just an RSPO issue. The situation is similar when it comes to buyers paying a price that at least covers costs for compliance with ISPO or MSPO certified palm oil.[75] Unlike RSPO, these certification systems do not have the Book and Claim supply chain mechanism that allows independent smallholders to sell their certified production as credits.

2.6 ECOSYSTEM PAYMENTS AND MARKETS FOR SMALLHOLDERS

As described in section 1.1.2 on greenhouse gases, agricultural production in general, and the oil palm sector, contribute substantially to global greenhouse gas (GHG) emissions.[76]

We hear from many companies that they are interested in reducing their emissions, for example by carbon insetting in landscape projects.[77] But major producers and buyers have not yet turned their pledges and commitments into action plans. In setting up emission reduction plans, it is essential that companies take into account the position of oil palm smallholders.

Smallholder farmers have increasingly more options to reduce their GHG emissions and sequester carbon, which opens the door to receiving an income for their ecosystem services on global carbon markets. Downstream actors should reward smallholder farmers for minimizing the GHG impact of oil palm production.

This includes sustainable land-use practices and agroforestry. Associate professor Maja Slingerland of Wageningen University & Research, active in the SustainPalm Program adds: "Land saving approaches can also play an important role in GHG emission reduction, for example, by using intercropping and livestock grazing in existing oil palm plantations. Or, by adding value to oil palm biomass by making wood or sugar from end-of-life oil palm trunks. In this way, we remove the need to use more land for food, animal feed, wood or sugar production, while generating additional income. Furthermore, replacing oil palm on peat by paludiculture with marketable products and carbon credits would largely reduce GHG emissions from peatland and provide alternative farmers income."[78]

In an internal 2021 study, Solidaridad identified the following selection of promising climate smart agricultural practices for the oil palm sector:

- water table management and optimal drainage[79]
- reduced or minimum tillage
- crop residue management (mulching)
- use of cover crops
- organic fertilizer application
- conducting land assessments to identify suitable planting areas
- recycling biomass waste

When implemented well, each of the above practices simultaneously results in a trio of positive outcomes, or a 'triple-win' scenario:

1. higher productivity
2. better climate adaptation
3. GHG mitigation

In addition, these practices can be included in the concept of regenerative agriculture. This concept can help farmers and value chain actors to think about impacts on soil health, water protection, biodiversity, climate mitigation and adaptation, and economic benefits for farmers[80].

DAABON AND CARBON NEUTRAL PALM OIL

Daabon, a leader in organic ingredients production with its headquarters in Colombia, uses a holistic regenerative agricultural approach.[81] As part of this approach, in 2024, the company started marketing carbon-neutral organic palm oil.[82] According to its life cycle assessment, palm oil from its CI Tequendama facility has a calculated CO_2eq of -977kg per tonne.[83]

In a press release, Managing Director of DAABON UK and EU Manuel Davila explained:

"Our next step is to replicate this at our other refinery, with the eventual goal of making all the palm oil we offer become carbon-negative and climate-positive. Of course, there is still some way to go to cut the emissions associated with onward transport and global shipping – but it's a fantastic start that will help our customers to cut their Scope 3 emissions and drive significant sustainability improvements." [84]

Daabon currently ranks no.1 in the SPOTT palm oil ranking.[85]

In the coffee and cocoa sectors Solidaridad has effectively implemented **payment for carbon sequestration** systems.[86] However, in the palm oil sector this concept is still very new. Solidaridad's **pilot project** with Uganda's Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) is working towards such a system.[87] It aims to facilitate farmers' participation in international carbon markets, where they can sell their carbon removal units to incentivize carbon sequestration efforts. Taking into account oil palm's long lifecycle, the project promotes the importance of adopting resilience-building strategies, including the implementation of climate mitigation and climate adaptation interventions. Similarly, the **NISCOPS 2** (National Initiatives for Sustainable and Climate-Smart Oil Palm Smallholders) project, implemented by Solidaridad and IDH, positions carbon financing in palm oil as a possible payment for ecosystem service (PES), that could incentivize and generate additional income for smallholder farmers.[88]

Another approach **currently being explored** by Solidaridad and its partners is biochar, whereby organic waste is treated and stored in the soil as a means of removing carbon dioxide from the atmosphere.[89] Applying biochar to soil can increase its water and nutrient holding capacity, acting as a carbon sponge for rain and an alternative to chemical fertilizers. Governments and companies should reward farmers for sequestering carbon in the soil with biochar.

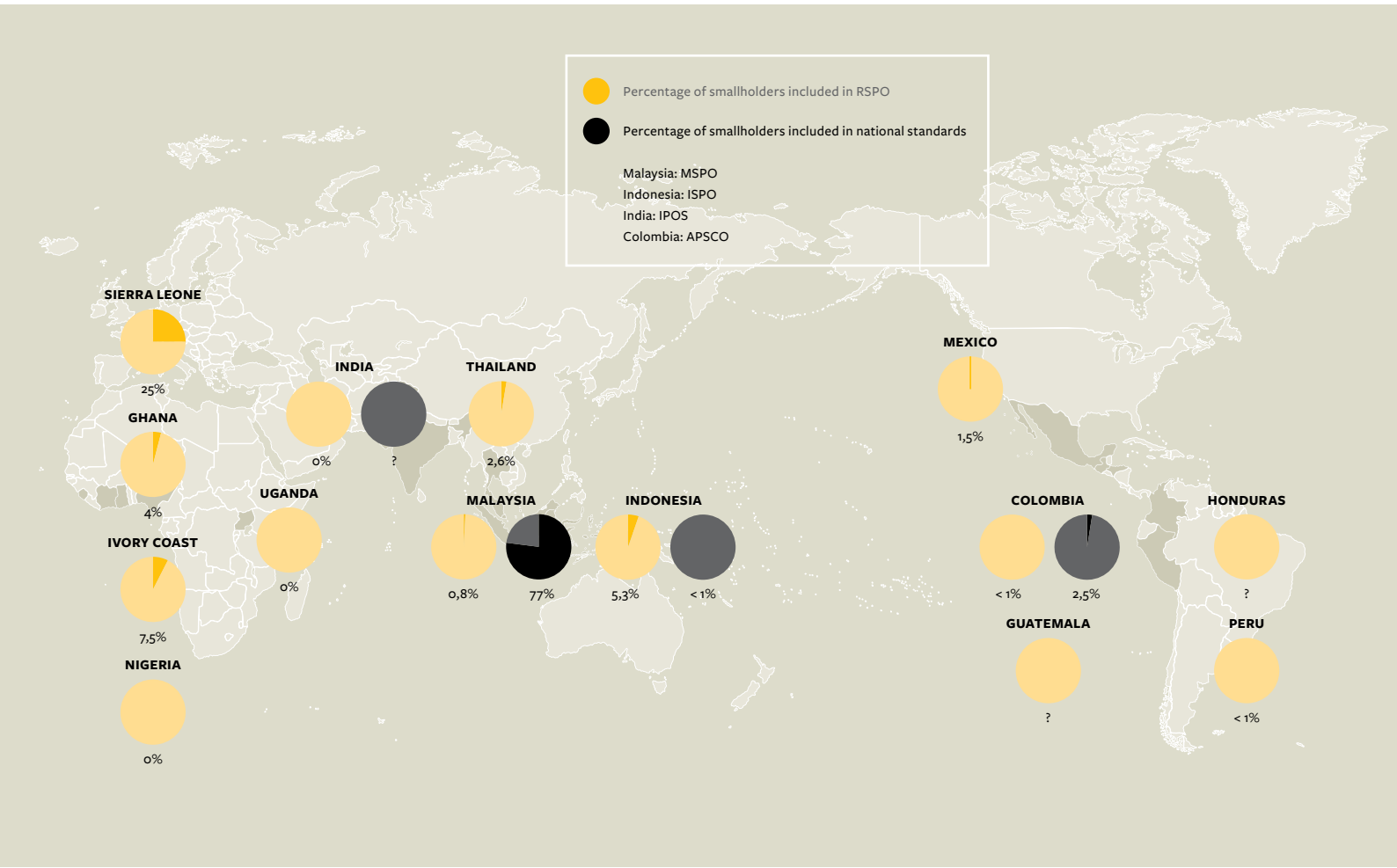
3

“Analysis of the socio-economic circumstances of oil palm smallholder production in various geographies shows that there cannot be a one-size-fits-all solution to greater smallholder inclusivity. Guided by the overarching principles for inclusivity, downstream players should ensure that smallholders receive a fair and equitable share of the palm oil value chain.”

Teoh Cheng Hai, Senior Advisor, Solidaridad Network Malaysia

Continental spotlight

FIGURE 7 **PERCENTAGE OF SMALLHOLDER FARMERS UNDER RSPO AND/OR A NATIONAL CERTIFICATION**



For references to sources of the number of smallholders and certification in 14 countries, please see **this document**.

3.1 ASIA

Asia is the world's main palm oil producer and consumer. Its palm oil sector is characterized by a mix of plantation companies and smallholders that produce for local, national and export markets. In the past decades the sector has expanded at great speed, with positive and negative effects: good for the economy, bad for nature; good for landowners, bad for those who lose their land; good for the largest conglomerates, not so good for smallholder farmers. But more recently, the tide has changed and a new wave of regulations, national standards and voluntary initiatives are setting the stage for building a more equitable, just and resilient agricultural sector. However, the current situation still lacks incentives for sustainability and smallholder inclusion.

Here we focus on how the scenario described above is impacting the three largest palm oil producing countries in Asia, who collectively produce around 87 percent of global palm oil volume:[90]

- Indonesia (59 percent)
- Malaysia (24 percent)
- Thailand (4 percent)

We also look at India as the world's largest importer of palm oil, primarily sourcing from Indonesia, Malaysia and Thailand. It consumed 9,350,000 MT (12 percent of global volumes) in the 2023/24 marketing year. It also wants to become a bigger producer; the Indian government has set a target to grow one million hectares of oil palms. In 2023, India produced 305,000 tonnes of palm oil.[91]

On the topic of consumption, it is also important to mention Indonesia. In 2023, Indonesia consumed 26 percent (20.7 million MT) of global palm oil production.[92] More than half of Indonesia's palm oil consumption is for biofuels, even though "Palm oil use for the biodiesel industry is revised down to 12.3 million MT for 2023/24 on lower-than-expected biodiesel distribution in 2023."[93]

For the above mentioned countries, we review palm oil production including the role of smallholders, their livelihoods, and social and environmental developments.

3.1.1 Country spotlight

3.1.1.1 Indonesia

The primary regions for oil palm farming in Indonesia are Sumatra and Kalimantan. The majority of smallholders are located in Sumatra, where the oil palm sector is well established and plantations are mature. There are fewer smallholders in Kalimantan where industrial plantations tend to dominate. In these areas, smallholders develop the lands between or adjacent to larger oil palm concessions.[94] Although statistics detailing the number of smallholders are limited, it is estimated that around 2.6 million smallholders work in the Indonesian oil palm sector.[95]

ISPO (Indonesia Sustainable Palm Oil) is Indonesia's national sustainability certification scheme for palm oil. ISPO-certified area covers 5.45 million hectares, which is "more than one third of Indonesia's total palm oil plantations" ISPO reports.[96] ISPO is mandatory for big plantations. As of November 2025, ISPO will also be mandatory for all smallholders.[97] ISPO does not report on how many hectares of smallholder land is certified. In 2024 an estimated 1 percent of all ISPO certifications were held by smallholders, whereas in 2021 only 0.21 percent of Indonesia's smallholders were ISPO certified.[98]

3.1.1.2 Malaysia

While the peninsula is Malaysia's historic palm oil centre, considerable expansion has taken place in Sabah and Sarawak.[99] In the Malaysian model, the palm oil sector is dominated by a dozen large conglomerates

that are often vertically integrated and operate plantations, mills and trade, as well as the processing plants in consumer markets like Europe, China and India.[100]

In total, there are more than 300,000 smallholders (<40 hectares) in Malaysia, of which about 260,000 qualify as independent smallholders.[101] In total, smallholders make up 27 percent of palm oil cultivation in Malaysia.[102] There are around 31,000 smallholders in Sabah and 46,500 in Sarawak.[103]

MSPO is Malaysia's national sustainability certification scheme for palm oil. Almost five million hectares of planted oil palms are MSPO-certified. The Malaysian Palm Oil Board (MPOB) estimated that by October 2024, 76.9 percent of Malaysian smallholders are MSPO certified. The MPOB goal is to have 90% of them certified by the end of 2025.[104] To achieve this, the Malaysian government has a financial support mechanism in place for smallholders. The support covers certification fees and costs for training on good agricultural practices, chemical stores and personnel protection equipment (PPE). Therefore, MSPO certification for smallholders is currently free of charge.[105]

3.1.1.3 Thailand

It's not well known that Thailand is the world's third largest palm oil producer, although the sector's dynamics are very different to those in Indonesia and Malaysia. Most of its palm oil is produced by 120,000 smallholders, while an additional 180,000 smallholders and their families grow oil palm to supplement their household income.[106] About 79 percent of these producers are small-scale farmers owning fewer than 50 hectares.[107]

A 2024 RSPO study indicated that "in terms of consumption, Thailand predominantly utilizes palm oil domestically, accounting for over 80 percent of its annual production." The researchers note that "the growth in domestic palm oil usage is attributed to activities such as biodiesel production and cooking oil consumption. Both palm oil exports and imports remain limited, mainly due to its inability to compete with larger markets such as Malaysia and Indonesia". Thailand's independent smallholders produce some of the highest yields in the world (17.5 MT/hectares of FFB). This can be explained in part by their strong relationships with certified independent palm oil mills.[108]

3.1.1.4 India

Oil palm farmers in India largely produce for the national market, where demand for edible oils is high. Smallholders produce 100 percent of India's palm oil. In India, 'smallholder' refers to those who farm fewer than 4 hectares. No scheme smallholders exist. As part of a national self-sufficiency strategy, the Government of India aims to reduce its dependence on palm oil imports. As part of this ambition, it provides subsidies for palm oil smallholder farmers in 13 out of 28 states. The government has national sustainability guidelines in place under the IPOS standard, for the protection of environment, forest, biodiversity, and water resources. Malaysian and Indonesian governments recognise the IPOS standard.[109]

The IPOS Framework provides a set of social, economic, environmental and agronomic guidelines for the country's palm oil production and trade. According to Solidaridad India, a total of 2,000 IPOS-certified smallholders account for approximately 2,000 hectares.

3.1.2 Social sustainability

3.1.2.1 Prosperity

Palm oil production provides significant economic improvements for smallholders[110] in Asia: "It has increased incomes, generated employment, and reduced poverty among farm and nonfarm households."[111] For example, the Solidaridad Indonesia team refers to some areas in East Kalimantan, where smallholders used to earn income from illegal logging. Today, thanks to oil palm farming, in some villages every

household has a car and there are newly surfaced roads. Palm oil provides smallholders in many areas of Indonesia with guaranteed market access, since palm oil mills can absorb large quantities. This is different to rice, fruits or vegetables, for example, for which the markets can become saturated due to oversupply. Similar patterns of livelihood improvements are visible in Malaysia[112] and Thailand.[113]

3.1.2.2 Land rights

There are certainly downsides to these developments. In particular, in Indonesia there are still many (indigenous) people suffering from land conflicts. "Palm oil conflicts generally stem from a sense of unfairness about how the lands are acquired by the company and how the benefits of land use are being shared."[114] There is also an issue that plasma lands are quite regularly promised by plantation companies to smallholders, but not given. This is particularly relevant in Indonesia.[115]

3.1.2.3 Labor rights

Millions of people in South East Asia work in the palm oil value chain. In Indonesia alone, 4.2 million waged laborers work on oil palm plantations. These are however mostly unskilled jobs with low and uncertain incomes. Working conditions on plantations and on processing sites are not always good.[116]

The sector also experiences labor shortages. Especially in Malaysia, where companies are trying to decrease the shortage by hiring foreign laborers. "Malaysia has the highest proportion of non-local workers due to a reliance on foreign labor, while Indonesia and other regions mainly draw from local labor markets".[117] For instance, the percentage of non-local workers (as percentage of total mill workers) employed in RSPO-certified oil palm estates in Malaysia is 76.1 percent, compared to 15.4 percent in Indonesia. Working abroad creates an additional vulnerability for low-skilled workers.

3.1.2.4 Gender

Regarding gender, there are traditional role divisions in palm oil production.[118] For example, men carry the heavy FFB, while women are involved in pesticide or herbicide spraying, which can negatively affect their reproductive health. According to a joint study by GAPKI, HUKATAN and CNV International into the working conditions of female plantation workers in Lampung, South Sumatra, Indonesia, there is a lack of compliance with the labor rights of women: "Female employees are often paid less than their male colleagues, they are at risk of being fired during pregnancy, or no suitable work is offered during pregnancy. In addition, women have many caring responsibilities besides work. By providing childcare at work, for example, women can more easily combine work and care."[119]

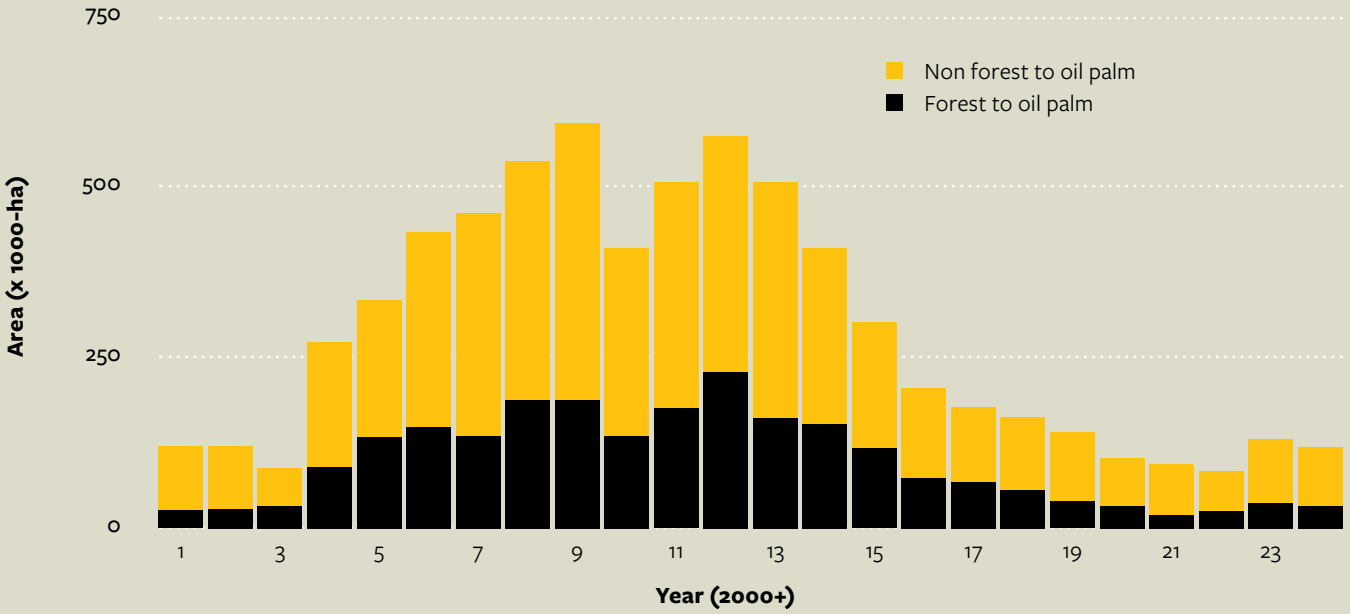
Land ownership by women is another gender issue. According to EFI, "the Indonesian Agrarian Law (Undang-Undang Agraria) recognises the rights of women to access and control land, but implementation can be uneven. Similarly, while legal provisions allow for joint land ownership by spouses, the practice may vary".[120] Likewise, EFI reports that in Malaysia, the Land Act amendment of 1994 "granted wives joint ownership rights to the land awarded to their husbands. Nonetheless, inheritance practices can favour male heirs, affecting women's rights to inherit and control land. Some ethnic groups traditionally pass down property through female relatives. However, these practices are often disregarded in the absence of a formal will, in which case the closest male relative is recognised as the legal heir".[121]

3.1.3 Deforestation, land conversion and biodiversity

While deforestation for palm oil production has dramatically decreased in the past decade, this success is precarious.[122] 2023 marked a slight increase in deforestation in Indonesia.[123] For 2024 it is still hard to tell; for now the Moratorium is in place, but it is unknown what the policies of the government installed in 2024 will be.[124]

FIGURE 8 **EXPANSION OF INDUSTRIAL OIL PALM PLANTATIONS BY YEAR FROM 2001 TO 2023 WITH EMPHASIS ON FOREST CONVERSION.**

The sum of yellow and black bars represents the area of oil palm plantation added each year. Black bars represent where areas of forest are cleared and converted to plantations. The yellow bars represent areas of non-forest converted to oil palm. Here, 'Forest' is old-growth, high carbon and high conservation value. ref to **Gaveau et al. 2022** for methods and definitions.



Sources: Nusantara Atlas (2025, 16 February), "Industrial Palm Oil Deforestation in Indonesia Slows Slightly in 2024", online: nusantara-atlas.org/industrial-palm-oil-deforestation-in-indonesia-slows-slightly-in-2024/

Gaveau, David (2022, March), Nusantara Atlas. Based on a PLOS ONE publication in March 2022.

Chain Reaction Research (2022, March 7), "The Chain: Deforestation Driven by Oil Palm Falls to a Four-Year Low", online: chainreactionresearch.com/the-chain-deforestation-driven-by-oil-palm-falls-to-a-four-year-low/

The scale of smallholder-linked (mainly slash-and-burn) deforestation is much lower compared to that of plantation companies. However, because smallholders often lack knowledge on which areas are protected or need to be conserved, they can still be responsible for nature loss. This can be due to unclear land boundaries, or unclear customary rights.

In Malaysia, just as in Indonesia, palm oil-driven deforestation has seen a sharp decline in the past decade.[125] Government policies have played an important role in this. In 2019, the Malaysian government introduced a policy to limit the expansion of oil palm plantations to 6.5 million hectares by 2023. This still left space for new oil palm planting.[126] At the same time, the sector has had to comply with the new requirements of the MSPO standards, which have prohibited the conversion of natural forest, protected areas, and areas with high conservation values since 31 December 2019, unless approved by the state authority with jurisdiction over land matters.[127] This is not to say that there is no deforestation risk at all. There are still instances reported every now and then.

In Thailand, there is much lower risk of deforestation with oil palm plots primarily established in place of other commodities.[128]

India's initiative to expand its oil palm plantations to reduce dependency on palm oil imports has raised concerns about potential large-scale deforestation, especially in ecologically sensitive areas like the northeast region of India and the Andaman and Nicobar Islands. The government aims to bring one million hectares of land under oil palm cultivation by 2025, which could lead to deforestation and disturbances to sensitive ecosystems, as well as triggering land conflicts in tribal areas.[129]

3.1.4 Smallholder livelihoods

In Asia, smallholder prosperity depends a lot on land size, among many other factors. Smallholders do not consistently make a living income. If prices are high, they can fare well. Many farmers indicate that their livelihoods have improved since they started growing oil palm. Nevertheless, this prosperity remains precarious as smallholders in Asia face numerous common challenges, including the impacts of climate change, rising costs for farm inputs and price volatility. Often smallholders lack access to the knowledge and capital to overcome these problems.[130]

3.1.5 Pricing mechanisms

3.1.5.1 Indonesia

In Indonesia, the government has developed a pricing formula to ensure farmers receive a fair price and prevent unhealthy competition among millers.[131] However, despite this, smallholders have a limited bargaining position on FFB price. The reality is that independent smallholders mostly sell their FFB directly to dealers or sub-agents who normally make cash payments without due consideration for FFB quality or prevailing CPO price.

Cash payment for independent smallholder's FFB without reference to fruit quality or CPO price in Riau Province, Indonesia © Teoh Cheng Hai, Malaysia.

A 2021 case study by SPOS Indonesia and Kehati found that "smallholders do not have a bargaining position on the FFB price. FFB prices are controlled by collectors. Meanwhile, the price of FFB for collectors is also controlled by large collectors which, in the end, are controlled by companies. The length of the distribution chain causes the price at smallholder level to be far from the price reference set by the government."[132]

The pricing formula sets the price per kg FFB: [133]
HTBS(P) = K(P-1) {(HCPO(P) x RCPO(Tab)) + (HPK(P) x RPK(Tab))}

Where:

- HTBS(P) = The FFB price received by smallholders at the mill level, expressed In IDR/Kg, in the current period (P)
- K (P-1) = Percentage of returns from mills given to farmers, i.e. when K = 0.5, 50% of the revenue goes to the farmers
- HCPO (P) = The weighted average price of crude palm oil (CPO) from export (FOB) and local sales of each company in the previous period, expressed in IDR/Kg
- RCPO (Tab) = The oil extraction rate, expressed in percentage (%)
- HPK (P) = The weighted average price of palm kernel (PK) realized export (FOB) and local sales of each company in the previous period, expressed in IDR/Kg
- RPK (Tab) = The palm kernel extraction rate, expressed as a percentage (%)

As such, the price of smallholders' FFB is influenced by the price of CPO as recognized by the company through sales invoices in the previous period, the selling price of the kernel, and the amount of CPO yield and kernels purchased by the company[134] and the K-index. The K-index includes "various costs for the individual mills, such as transport, processing, marketing, depreciation and administration costs."[135]

The K-index varies by province and fluctuates across years within provinces. The K-index does not apply to most independent growers.[136] But, for scheme/plasma farmers it permits palm oil companies to charge related operating costs back to smallholders. According to the International Finance Corporation, it also "gives room to charge a range of costs to smallholders, which may have a less direct relationship with plasma costs, such as mill depreciation costs, CPO transportation costs to a harbor, CPO products spillage along the way to the harbor, the company's own interest rates, and bank transfer costs. The system makes the calculation of the K-index complex to understand for smallholders".[137]

The pricing mechanism in Indonesia does not take into account the farmers' production costs, whether or not they use sustainable practices.

3.1.5.2 Malaysia

In Malaysia, the Malaysian Palm Oil Board sets daily FFB reference prices, also based on a pricing formula.[138] This reference price can be used by sellers and buyers in their FFB sale transactions. It is based on the global palm oil and palm kernel oil price, the oil and kernel extraction rate, milling processing cost and a levy for MPOB is subtracted. The formula for FFB price calculation is comparable to Indonesia and works as follows:[139]

FFB price = ((CPO price × OER) + (PK price × KER)) – (milling cost) – (MPOB Cess)

Where:

- CPO price = Crude oil palm price
- PK price = Palm kernel price
- MPOB cess = A tax levy by the Malaysian Palm Oil Board
- OER = Oil extraction rate
- KER = Kernel extraction rate

3.1.5.3 India

In 2021, the Indian government embarked on a national edible oils mission: "Due to the heavy dependence on imports for edible oils, it is important to make efforts for increasing the domestic production of edible

oils in which increasing area and productivity of oil palm plays an important part." As part of this mission, an interesting development in India is the viability price (VP), implemented by the government in 2021, when it announced:[140] "Presently the prices of [FFB] are linked to the international CPO prices fluctuations. For the first time, the Government of India will give a price assurance to the oil palm farmers for the FFB. This will be known as the Viability Price (VP). This will protect the farmers from the fluctuations of the international CPO prices and protect him from the volatility. This VP shall be the annual average CPO price of the last five years adjusted with the wholesale price index to be multiplied by 14.3 percent. This will be fixed yearly for the oil palm year from 1 November to 31 October. This assurance will inculcate confidence in the Indian oil palm farmers to go for increased area and thereby more production of palm oil. A Formula Price (FP) will also be fixed which will be 14.3 percent of CPO price and will be fixed on a monthly basis. The viability gap funding will be the VP-FP and if the need arises, it would be paid directly to the farmers accounts in the form of [Direct Benefit Transfer]. The assurance to the farmers will be in the form of viability gap funding and the industry will be mandated to pay 14.3 percent of the CPO price, which will eventually go up to 15.3 percent."

The Indian Ministry of Agriculture & Farmers Welfare reports that: "besides the Viability Gap Payment benefit, [National Mission on Edible Oils – Oil Palm] also offers special assistance of Rs. 70,000 [844 US dollars] per hectare to farmers for planting material and management. The mission is also providing Rs. 2,90,000 [3,500 US dollars] for the purchase of harvesting tools to farmers for palm oil cultivation and assistance of Rs. 25 lakh [30,176 US dollars] for establishing custom hiring centers. Processing companies under the mission are also establishing One-Stop Centers for oil palm farmers where they are providing inputs, custom hiring services, farm advisories of good agricultural practices, and collection of farmers' produce."[141]

In 2024 this policy was extended until 2031.[142]

3.1.6 Sustainability incentives

Whether there is a price upgrade for RSPO or ISPO-certified FFB depends on market players' willingness to pay a premium for certified FFB. Interviewees tell us that smallholders receive a better price for better quality FFB and that when a downstream actor pays the trader/processor an RSPO premium, in the case of segregated supply chains or for scheme smallholders, this premium is often redistributed to the farmer. Certified smallholders without a physical link to premium-paying value chain actors can sell RSPO Independent Smallholder Credits. FFB buyers often offer support to smallholder producers in the form of access to fertilizer or credits.[143]

Further support from governments and sourcing companies to develop a strategy for sustainable palm oil expansion would be beneficial. This should be based on replanting unproductive plantations. The Indonesian and Malaysian governments, for example, support replanting by smallholders by providing subsidies and grants.[144]

In 2023, Malaysia's Deputy Plantation and Commodities Minister Datuk Siti Aminah Aching said the ministry is always committed to helping smallholders reduce the cost of planting oil palm, which is currently on the increase. She said: "The government is always thinking of providing contributions or incentives to assist smallholders, but this would still depend on its ability to provide such assistance."[145] Industry experts also recognize that replanting support for smallholders is required.[146]

Likewise, the Indonesian government's CPO Fund provides each smallholder 60 million IDR [3,860 US dollars][147] per hectare (max 4 hectares) to support them to apply best management practices following oil palm replanting. This programme is called PSR (Peremajaan Sawit Rakyat, Smallholder Replanting Program).[148] The ministry reports that "since its launch by President Joko Widodo (Jokowi) in October

2017 until 2023, the replanting programme has covered a total of 326,678 hectares of oil palm plantations owned by 142,078 smallholders who had received a total fund of IDR 9.11 trillion [591 million US dollars][149] for implementing the replanting programme."[150] However, Hendrawan et al. show that local farmers "might not have the official land certificates required to participate in the replanting subsidy programme and also many other farming management support subsidy programmes."[151]

Indonesian government funding to support independent oil palm smallholders is available through the Palm Oil Plantation Fund Management Agency (BPDPKS), the State Budget (APBN) and the Regional Budget (APBD).[152] According to KAMI (a cooperation between the EU, Indonesia and Malaysia), as of 2024, "these funds have not been able to lift oil palm smallholders to productivity levels approaching those in company-owned plantations and lack of funding for the development of sustainable smallholder oil palm plantations remains a major challenge".[153]

For plasma farmers, pricing often lacks transparency as deductions are taken for the payback of loans related to plantation establishment costs. Deductions are also taken for costs of inputs used and sometimes even for potential RSPO premiums when companies use these premiums to compensate for their costs related to training the farmers for certification. Farmers are often not properly informed on the different deductions leading to the price they finally receive.

3.2 LATIN AMERICA

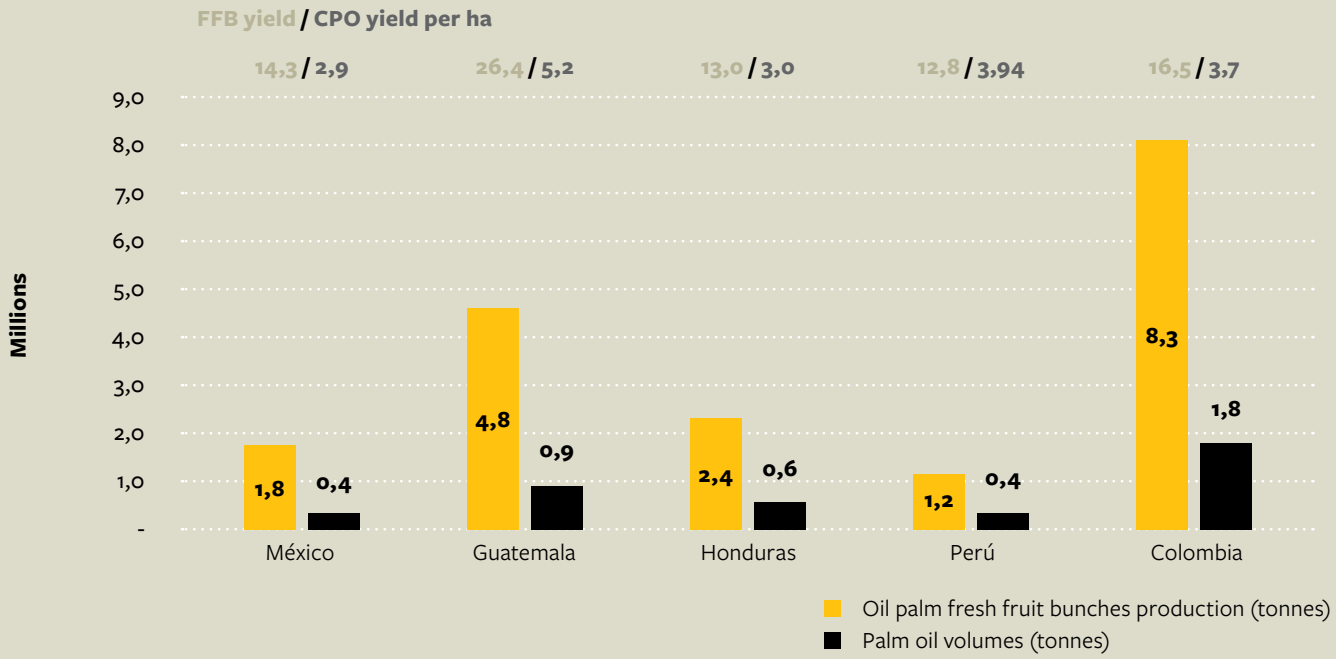
Oil palm cultivation has experienced accelerated growth in Latin America in recent years, positioning itself as one of the main agricultural crops in México, Honduras, Guatemala, Peru, Ecuador, Brazil and Colombia. For five producing countries we look at palm oil production including the role of smallholders, social and environmental developments and the livelihoods of smallholders.[154]

Oil palm cultivation has a positive outlook in Latin America, where its potential to generate economic and social development in rural areas is highlighted. However, challenges must also be addressed, such as social inclusion, the formalization of land tenure and labor, and the implementation of sustainable practices.

3.2.1 Country spotlight

The share of Latin American producing countries in the world's palm oil market represents about 7.6 percent globally.[155] Oil palm has two very relevant characteristics in the American context. Firstly, its popularity among producers has grown rapidly. For example, between 2018 and 2022, Guatemala, Mexico and Honduras expanded their planted area by more than 20 percent within their agricultural frontier. Between 2019 and 2022, Latin America's production area grew by 6.6 percent, while the world average was 3.6 percent. Secondly, it is one of the main agricultural crops; in Colombia it's the second most grown crop, third in Honduras, and the fourth in Guatemala. It therefore has a significant importance in these countries' economies.[156]

FIGURE 9 **AVERAGE PRODUCTION AND PRODUCTIVITY FOR COLOMBIA, PERU, HONDURAS, GUATEMALA AND MEXICO**



Sources: Statistical yearbooks of Fedepalma, Grepalma, Femexpalma. Own elaboration

In terms of production, Colombia leads with 1.84 million tonnes of FFB produced in 2023, followed by Guatemala, which, while only producing about 56 percent of Colombia's output (1.03 million tonnes), did so with globally outstanding productivity levels (5.2 tonnes of CPO). Brazil produced 730,000 tonnes. Between Honduras, Ecuador, Mexico and Peru, palm oil production amounted to 1.83 million tonnes.[157] The total production of Latin America[158] was 6.2 million tonnes, with an average increase of 16 percent between 2019 and 2023, almost three times higher than the average of the rest of the palm oil producing countries in other continents.[159]

Producer size and composition varies greatly across Latin American countries. In Guatemala, 50 percent of producers are small-scale.[160] In Peru, smallholders represent 60 percent of growers. Although there are few large producers, they farm almost 30 percent of the planted area and produce more than 58 percent of palm oil, clearly influencing productivity at the national level.[161]

In Honduras and Mexico, the palm sector is composed primarily of smallholder producers (99 percent and 94 percent respectively). This composition also reflects the greater challenges these countries face in terms of implementing good practices, investing in fertilization and technology and increasing productivity.[162]

In Colombia, 75 percent of producers are small-scale, most of whom are part of *núcleos palmeros*[163] or palm oil clusters. This model has made it possible to achieve better levels of productivity.[164]

3.2.2 Social sustainability

3.2.2.1 Prosperity

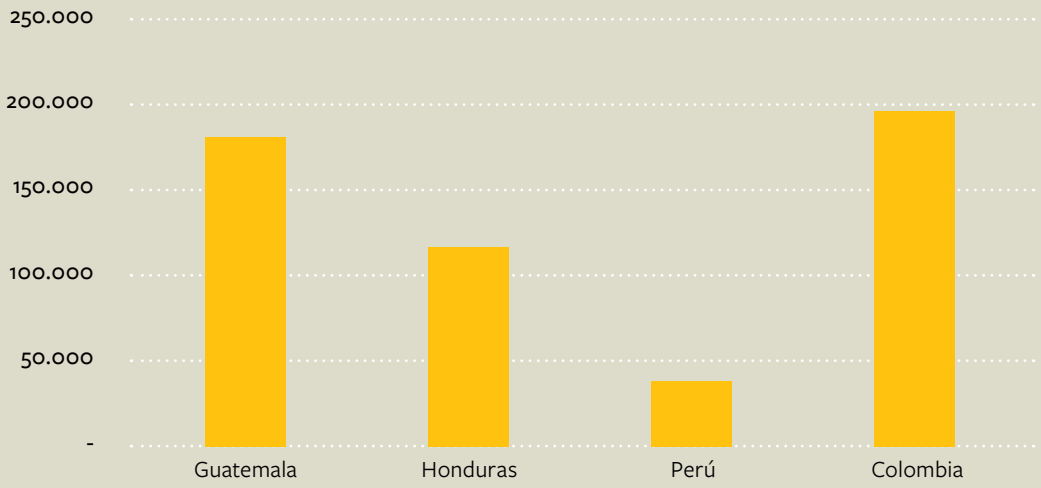
The oil palm sector in all Latin American producer countries actively promotes its economic and social benefits, focusing on:

1. Employment creation and growth
2. Stable income generation for small producers
3. Social and environmental benefits

In Latin America oil palm can be considered a small or medium-sized crop, meaning it is not characterized by the existence of multiple large companies and plantations covering thousands of hectares. In any case, due to its rapid growth and beneficial characteristics, it has become a strategic crop for the countries and regions where it grows.

Palm oil production provides jobs for fewer than 50,000 workers in Peru, and as many as 200,000 in Colombia. In each Latin American producing country, depending on the size of its sector, it generates an economic alternative in rural areas. For example, in the case of Colombia, of the total jobs generated, about 40 percent are direct jobs, and of these, 82 percent have a formal employment relationship.[165]

FIGURE 10 **TOTAL JOBS GENERATED BY THE OIL PALM SECTOR FOR COLOMBIA, PERU, HONDURAS AND GUATEMALA (SOURCES: FEDEPALMA, JUNPALMA, AIPAH, GREPALMA)**



By creating jobs, employers become responsible for treating laborers with dignity and respect, abiding by human rights laws and ensuring a certain standard of working conditions. Fundamental labor rights, like occupational health and safety and women's rights, still need special attention in this region. It is important to identify and address gaps.

3.2.2.2 Gender and social inclusion

In most Latin American countries, the profile of smallholders is in line with the characteristics of the wider rural population. In each of our focus countries Afro or indigenous communities, and to a lesser extent, women, participate in palm oil production.
The establishment of inclusion policies for female smallholders and smallholders from minority groups continues to be one of the greatest challenges of the industry. Working with these small producers to improve their productivity, livelihoods and working conditions, and to ensure they are part of the transition to sustainable agriculture is vital.

There is increasing interest from agencies and cooperation programmes to establish projects that generate long-term impact and greater participation of these communities.[166] In recent years, programmes and projects have been initiated in the following areas:

- Gender policies and programmes
- Technical assistance for the productivity and sustainability of small producers
- Inclusion of smallholders in sustainable supply chains
- Labor formalization of workers and small producers

3.2.2.3 Land rights

The problems surrounding land tenure and formality in Latin American producing countries are diverse. In general, the circumstances of informality or access to land correspond to the context and situation of each country and impact oil palm cultivation in the same way as other crops.

It is noteworthy that, on average, small oil palm producers have larger plots relative to farmers of other crops. For example, in Colombia, while a small oil palm producer averages 7.5 hectares, a cocoa producer averages 3 hectares and a coffee producer less than 1 hectare.[167] In Honduras, of the 97,000 registered coffee producers, approximately 78 percent are small coffee growers of less than 3.6 hectares and the general average area planted with oil palm is more than 10 hectares, with 98 percent of producers being small-scale. In Peru, the average area planted for cocoa barely exceeds 2 hectares, while palm averages 5.6 hectares. This is one fact that may explain the differences in income and the arguments that are often made in favor of oil palm.[168]

In some regions of Colombia and for most producers in Mexico, land ownership is communal (community territories or *ejidos*), a situation that generates difficulties in terms of access to credit and the formality of the activity.

3.2.3 Deforestation, land conversion and biodiversity

So far Colombia and Guatemala have led the analysis and determination of the deforestation baseline in Latin America. In the case of Colombia, 99 percent of its oil palm crop is deforestation-free,[169] and the study for Guatemala shows more than 90 percent of the established crop is deforestation-free.[170]

As a result, both countries have signed Zero Deforestation Agreements; Colombia under the scheme of agreements led by the Ministry of Environment and Sustainable Development with the support of other governments, and Guatemala with a private initiative. Both countries have promoted a deforestation monitoring scheme with private satellite monitoring technologies.

Producer associations' leadership, and larger companies and producers with an interest in continuing to supply export markets, have supported and promoted these initiatives.

In Peru, it is worth highlighting two considerations. First, although one of the areas deforested for cultivation is the Peruvian Amazon, according to Junpalma, fewer than 2 percent of the 3.5 million hectares lost in this region are linked to oil palm production. Second, a significant amount of these crops were part of illicit crop substitution programmes.[171]

In the cases of Honduras and Mexico, although they have tried to emulate Colombia and Guatemala, they have not yet been able to create initiatives of national scope with the same dynamics. For this reason, the consolidation of studies or official figures on the risks of deforestation associated with oil palm cultivation is still pending.

3.2.4 Smallholder livelihoods

The industry is keen to promote the stability and level of income that palm oil production brings to both smallholders and workers. Although there are not exact figures for every country, in the case of Colombia and Peru, Fedepalma and Junpalma respectively report that the average income of a small producer is between 3 and 4 times the legal minimum wage. These examples indicate income levels higher than those of other crops, or at least higher than the average income of rural families. For Colombia, Fedepalma estimates that a small-scale producer with 8 hectares and an average production of 20 tonnes of FFB has the capacity to generate a net income of between 4.4 and 5.4 times the monthly legal minimum wage.[172] It is also important to consider that the average productivity per hectare in Colombia in 2023 was 17.5 percent below this figure, with producers having an average of 7.5 hectares.[173]

In the case of workers employed at farm level, according to the National Department of Statistics (DANE), in Colombia a plantation employee receives on average 1.5 times the national legal minimum wage, which is 2.9 times the average income of a rural worker.[174]

These income levels, added to the stability brought by this year-round crop, is one of the positive factors of oil palm cultivation.

3.2.5 Pricing mechanisms

Farmer income is influenced by a range of factors including pricing mechanisms. In Colombia, the reference FFB price is based on indicators that ensure the FFB price is linked to the global palm oil market and a basket of substitutes. The basket of substitutes includes alternatives to palm oil, such as soy. It takes into account exchange rates and the costs of freight and duty. [175]

Prices are calculated using the following formulas:

1. Price Malaysia (BMD/M^3) + Freight + Duty = Local price * exchange rate
2. (Minimum between Soy USA and Soy Argentina * 65%) + (Minimum between Imported stearin and Tallow USA * 35%) *exchange rate

The pricing mechanism does not take into account the farmer's costs of (sustainable) production.

3.2.6 Sustainability incentives

In Colombia, Guatemala and Peru certified smallholders usually receive a premium for producing more sustainably. We lack more detailed information about additional value or exact premiums smallholders receive and how much of this compensates for the costs and investments required to obtain a certification.

However, it is important to note that the benefits associated with palm oil certification in Latin America, and in general, with the implementation of sustainable practices, are not only experienced through price or a premium. The main tangible benefits are:

- Increase in productivity and, therefore, in income.
- Increase in the efficiency of input use leading to a reduction in costs.
- Increase in formalization processes including hiring of personnel and reducing risks and accidents at work.

3.3 AFRICA

Despite its own production in West and Central Africa, the continent still consumes more palm oil than it produces. It therefore relies on imports from South East Asia. A relatively large share of the sector

operates at low productivity levels. In this chapter we focus on the five palm oil producing countries in Africa where Solidaridad has oil palm programmes:

- Nigeria
- Ghana
- Côte d'Ivoire
- Sierra Leone
- Uganda

For these countries, we review palm oil production including the role of smallholders, social and environmental developments and smallholder livelihoods.

3.3.1 Country spotlight

The combined production of the above mentioned countries is around 2.5 million MT.

3.3.1.1 Ghana

In Ghana, the smallholder palm oil area "is approximately 290,000 hectares (81 percent of total area) and large-scale industrial estates is about 70,000 hectares (19 percent of total). Harvested area reportedly includes about 150,000 hectares on wild oil palm groves with low yielding Dura palms; 140,000 hectares on independent small to medium-scale farms; and the remaining 70,000 hectares managed by oil palm plantations. Average palm oil farm size in Ghana is approximately 2.7 hectares". [176]

Supply mainly fulfils regional and local demand. An estimated 80-90 percent is supplied to artisanal processing centres while 10-20 percent ends up at large companies.

3.3.1.2 Nigeria

It is estimated that there are several million oil palm smallholders who, farming more than 2 million hectares, contribute to 80 percent of palm oil production in Nigeria.[177] According to the African Center for Economic Transformation, "farm sizes average between one and five hectares, sometimes characterized by mixed cropping to maximize land usage. [...] Oil palm plantations or estates cover around 118,264 hectares and make up 5 percent of palm oil production in Nigeria. The remaining 12 percent of production comes from smallholder government schemes and cooperatives, out-grower schemes, commercial smallholders, and medium-sized farms".[178]

3.3.1.3 Côte d'Ivoire

According to the USDA, "Côte d'Ivoire's smallholder palm oil area is approximately 220,000 hectares (73 percent of total) and large-scale industrial estates area is about 80,000 hectares (27 percent of total). Average farm size is 3 to 5 hectares for 45,000 smallholders, and some farms are greater than 100 hectares".[179]

3.3.1.4 Sierra Leone

The palm oil sector in Sierra Leone is much smaller in terms of production (around 75,000 MT) compared to several other African countries.[180] Therefore, most problems linked to the sector are related to the rudimentary and small-scale character of (low-quality) palm oil production and processing. According to the International Trade Centre: "Oil palm production in the region is dominated by several hundred thousand smallholder farmers, with typically 1–2-hectare holdings, who are estimated to account for an average of 70 percent of the total production area".[181] Sierra Leone is characterized by numerous wild palm trees: nearly every farmer in the country produces some small area with red palm oil production (dura variety), that is mainly suitable for regional (Mali, for example) and local consumption and soap production (mainly to Guinee), due to its low quality.

3.3.1.5 Uganda

The palm oil sector is relatively young in Uganda, with the first palm trees being planted around 2005, and production starting about 2010. The country is not included in statistical reviews of production levels. The expansion of oil palm production in Uganda is focused on increasing local production to reduce the country's dependency on imported oils, supported by government initiatives such as the National Oil Palm Project (NOPP).[182] "The total area planted with oil palm [in Uganda] is 10,924 hectares, with 6,500 hectares of nucleus estate run by Oil Palm Uganda Limited (OPUL), and 4,424 hectares by smallholder outgrowers (land owned by individuals)"[183]. OPUL was launched in 2002, following an agreement signed between the government and Bidco Uganda.

3.3.2 Social sustainability

3.3.2.1 Prosperity

Governments in Ghana, Nigeria and Côte d'Ivoire promote palm oil production as a key tool to alleviate poverty, particularly for rural communities.[184] But this is not an easy task, as the evaluation of Solidaridad's SWAPP programme shows: "Young men and women often see no perspective in the oil palm sector, considering it 'a poor man's job', and opting to migrate to urban areas instead. The key challenge here is that even with proper input use and adherence to BMP [best management practices], most oil palm farms still generate very modest incomes".[185]

3.3.2.2 Labor rights

Africa is the most labor-intensive palm oil region, at 13.0 MT of CSPO produced on average per worker, compared to, for example, 51.8 MT of CSPO produced per worker in Malaysia, or 38.5 MT in Indonesia. This is mainly due to technological differences.[186]

We see that where laws to protect workers' rights exist, the enforcement on plantations is not always guaranteed. Workers often do not have the opportunity, or even the legal right, to form unions and engage in collective bargaining for better wages and working conditions.

When it comes to earning a living wage, the reality is that it's not a priority for public authorities. It is often a contentious subject among farmer employers and farm workers. During negotiations employers take advantage of the continuous contention between government and umbrella workers' unions. They try to shift the goal posts around what the living wage should be, even in the face of harsh economic realities.

3.3.2.3 Gender

Gender is an issue, since palm oil production is male dominated in terms of (land) ownership and decision-making. Women do not always have the same legal rights as men. This is problematic, for example, when inheriting land.

Most women in the African palm oil value chain are involved in processing activities. Studies in Ghana and Nigeria show improved equality and higher incomes for women in palm oil production.[187]

3.3.3 Deforestation, land conversion, biodiversity

Oil palm expansion in Africa is slower than anticipated. There is substantial discrepancy between oil palm concessions given out in West and Central Africa and areas that are actually developed as oil palm plantations. Between 2016-2019, Africa's oil palm concession area dropped from 4.7 to 2.7 million hectares. Of the remaining 2.7 million hectares, only an estimated 220,608 hectares have been developed.[188] One explanation for this is that communities are better able to protect their land rights. At least 27 planned oil palm projects, covering 1.37 million hectares, failed negotiations or were abandoned between 2008-2019. About a third of Nigeria's oil palm smallholders are located inside rainforest areas. Solidaridad is working to create awareness among them to increase productivity and yields instead of expanding.

In Ghana, oil palm plantations are being cleared to give way to illegal gold mining sites. This causes some deforestation on oil palm sites. However, in general we do not see deforestation linked to oil palm production, since most bigger estates are RSPO-certified with NDPE declarations. Smallholders use only marginal areas for oil palm expansion, and the clearing of farms is too expensive for them.[189] In Sierra Leone, smallholders operate mainly in non-forested areas. In Uganda, on the other hand, the dominant land cover in Kalangala, the country's primary hub of palm oil production, used to be natural forest. Today it mainly consists of oil palm plantations, after deforestation and land grabbing to make way for further cultivation.

3.3.4 Smallholder livelihoods

Low productivity is a real stumbling block for the prosperity of oil palm smallholders. For example in Ghana, average yields of 8 MT of FFB/hectares and poor processing capacity cause low quality palm oil.

We see that lack of access to finance is also making it more difficult for smallholders.[190] A major challenge is the lack of access to improved plant materials (like seeds), poor agricultural practices, rudimentary processing techniques without proper machines (this can cause, for example, a lot of disposal or rotting of FFB that could have been extracted), leading to low yields, low quality palm oil, and pollution in water streams.

3.3.5 Pricing mechanisms

In Ghana, the government introduced a minimum price for FFB in 2023, that aggregators and mills country-wide must pay. This model followed a series of discussions between members of the Oil Palm Development Association of Ghana (OPDAG) and the Tree Crop Development Authority (TCDA), supported by Solidaridad. The minimum FFB price is benchmarked on CPO price (Reuters), exchange rate (from Bank of Ghana), cost of processing, processing margins, Tree Crops Development Authority levy, extraction rate (18 percent) aggregation cost and margin for quality.

In Côte d'Ivoire, the Inter Professional Palm Oil Association (AIPH) is responsible for setting FFB and CPO prices. The FFB farm gate price is based on global market prices and supply chain costs made beyond the mill. The farmers share is 59.5 percent of the CPO price.[191]

4

“During negotiations buyers are constantly stressing that materials must be delivered in accordance with NDPE-requirements, but smallholder inclusion and reward for sustainable performance are not deal-breakers for them.”

Palm oil trader, in an interview with Solidaridad

Procurement for Prosperity

4.1 INTRODUCTION

In the first Palm Oil Barometer, we gathered evidence highlighting that there is enough value in the oil palm sector for all actors to make a livelihood.[192] However, value addition in the supply chain does not make its way to farmers. While smallholders are in a precarious position and often struggle to make ends meet, at the downstream end of the chain, food manufacturers, retailers and consumer goods companies generate decent revenues for palm oil products.[193]

While guidelines for the sustainable procurement of palm oil do exist, none of them, as far as we have found, explicitly provides approaches to source in a smallholder-inclusive way.

In this chapter we will lay out a vision for both sustainable and inclusive procurement practices in the palm oil value chain. To structure our recommendations for buyers of products that contain palm oil, we have used the four dimensions of inclusivity detailed in paragraph 1.2: ownership, voice, risk and reward.

We build on research, interviews with major palm oil buyers, case studies from the field and solutions and best practices we have seen work successfully in other sectors. Among others, we draw inspiration from:

- the Common Framework for Responsible Purchasing Practices[194]
- Tony's Chocolonely's 5 Sourcing Principles (cocoa)[195] and
- the VOICE paper on responsible purchasing practices[196] (specific to the cocoa sector).

Finally, we share tangible examples of what buyers, retailers and other powerful downstream actors can do to ensure smallholder-inclusive supply chains that cover the cost of living incomes and wages, farm maintenance and sustainable production. We hope, and believe, they can provide a great foundation for the industry as a whole.

4.2 FROM SUSTAINABLE SOURCING TO INCLUSIVE PROCUREMENT

When we talk about sustainable sourcing, we're often referring to a list of sourcing conditions that buyers demand from their suppliers. Downstream buyers expect their suppliers to be NDPE-compliant, to get certified, to assure quality, to fill in documents, draft policies and deliver data. But when we asked a number of companies whether they paid a price that ensured their suppliers could produce in a sustainable manner, the answer was no. Fair pricing is almost never part of the sustainable procurement process.

But, as demonstrated in chapter 2, such sustainability requirements do not directly promote nor support the prosperity or sustainability of oil palm smallholders. As one trader put it during an interview conducted for this report: "Buyers are constantly stressing for NDPE-compliance in our negotiations, but smallholder inclusion and reward for sustainable performance are not deal-breakers for them".

To drive more smallholder-inclusive palm oil value chains, we will need to transition from buyers imposing a check-list of sustainability requirements, to systematically supporting suppliers to produce sustainably. If a company wants to truly make an impact on sustainability through its procurement system, the key is a responsible and inclusive approach.

To develop such an approach we use the term 'procurement practices', rather than 'purchasing' or 'sourcing' practices. While procurement is a strategic process, sourcing or purchasing refer more to the transactional function of actual sourcing and acquiring products and services, focusing on short-term goals around quantity, costs and timing. Procurement practices, on the other hand, have the potential to support and enable vital improvements in global supply chains, including contributing to the payment of living incomes and living wages.

We also see a role here for palm oil watchdogs. We see a lack of importance placed on inclusive procurement reflected in the dominant sustainable palm oil benchmarks. RSPO's Shared Responsibility Scorecard[197] does not include an indicator on inclusive procurement. And while ZSL's influential SPOTT ranking[198] includes indicators on labor rights and smallholder support programmes, indicators specific to pricing, payments, or contract conditions are not yet included. The WWF Palm Oil Buyers Scorecard's[199] procurement indicators are limited to CSPO uptake. These benchmarks are influential in nudging palm oil companies towards better policies and practices. We want to ensure that these benchmarks also push companies in the direction of smallholder-inclusive procurement.

4.3 WHY SHOULD DOWNSTREAM COMPANIES CHANGE THEIR PROCUREMENT PRACTICES?

The first reason a company should adapt its procurement practices is from a perspective of self interest. When farmers receive a **fair price** that allows them to earn a living income they can invest in their farms, which supports higher yields and creates an overall more resilient sector. This is particularly relevant when considering that the days of large-scale expansion are behind us; if we want production volumes to grow, this must come through higher yields, not more land use. Allowing farmers to earn a living income year-round creates a win-win situation. Smallholder farmers are becoming increasingly important to businesses.

Secondly, companies have a responsibility both to the planet and to the people at the start of the value chain. Procurement practices that consider the climate crisis are just one essential step companies can take to mitigate the difficult circumstances smallholders find themselves in. As noted by WWF in their 2024 Palm Oil Score Card: "While a handful of companies have taken commendable strides in eliminating deforestation, conversion, and human rights abuses from their palm oil supply chains, the industry as a whole is at a pivotal juncture. It demands more than isolated efforts; it requires a seismic shift. Every palm oil buyer must rise to the occasion, transcending current boundaries to deliver transformative impact at a scale and pace that our planet urgently needs."[200] We couldn't agree more. We need a major disruption to business as usual to achieve smallholder inclusivity and living incomes. And we don't believe this is possible without a debate on procurement.

A third reason companies must review their procurement practices is in response to current obligatory and voluntary frameworks, alongside those that will soon enter into force. Both the UN Guiding Principles

on Business and Human Rights[201] and the OECD guidance for the agricultural and garment sectors[202] clearly state that companies have to take responsibility for human rights across the whole value chain. And RSPO certification (Criterion 5.1) requires: "The unit of certification deals fairly and transparently with all smallholders (independent and scheme) and other local businesses."[203] Fairness and respect for human rights requires building transparent, direct and long-term relationships within value chains as a basis for risk and value sharing. Fair price setting must be part of this.

With the passage of the EUDR, companies operating in Europe will be required to eliminate deforestation from their supply chains, while companies are also asked to address any human rights issues faced by their suppliers and promote SH inclusivity. However, zero deforestation, human rights and smallholder inclusion are very different goals that must be pursued at the same time. A procurement policy should look at those developments in an integrated way.

4.4 PROCUREMENT FOR PROSPERITY: RECOMMENDATIONS TO DELIVER INCLUSIVITY

As explained above, we have defined a set of recommendations for inclusive procurement for companies buying oil palm products. By following these recommendations, companies can lead on the creation of more inclusive palm oil value chains. We have categorized the recommendations into the four principles of Procurement for Prosperity, or PPPP:

1. **Policy**: Formulate internal policy, ensure commitment and implementation
2. **Pricing**: Implement fair trading terms, including fair pricing and payment terms and reward sustainable performance
3. **Partnerships**: introduce equal partnership and collaboration
4. **Programmes**: support suppliers through programmes and adequate investments

VOICE
OWNERSHIP
RISK
REWARD

To highlight the link between the concept of smallholder inclusivity and our recommendations we have, where applicable, 'stamped' the principles and recommendations with the appropriate smallholder inclusivity dimension.

PRINCIPLE 1

POLICY: FORMULATE INTERNAL POLICY, ENSURE COMMITMENT AND IMPLEMENTATION

In order to implement changes to procurement practices you must have leadership buy-in and commitment. This includes integrating procurement practices into strategy and decision-making processes and establishing external reporting, internal KPIs, accountability and training.

A good question to ask is: how can we make sure our procurement practices drive inclusive value chains, rather than exclude smallholders? This is relevant when we consider that procurement practices largely focus on driving EUDR and NDPE compliance while securing RSPO segregated material, and not on smallholder inclusion. We need different practices to achieve inclusion.

To ensure internal commitment and coherence in procurement practices, companies should consider:

Strategy

- Gain support: Ensure top leadership commitment for Procurement for Prosperity, allocating sufficient resources, raising awareness across departments and identifying champions to drive action and implementation across key departments and functions.

- Strategy: Ensure Purchasing for Prosperity practices are formally integrated into the company's overall strategy, management systems and sourcing strategy. Procurement and sustainability departments need to be in close contact. We hear that currently a 'buying sustainable' target is often combined with 'buying cheap'. This contradiction leads to a lot of extra pressure being placed on producers.
- Consider engaging in collaborative action. While a single company can start to make a change, we need collective action to scale-up relevant initiatives. This could involve support for the introduction of the concept of a living income in RSPO or participation in platforms like the Palm Oil Collaboration Group[204] or the Retailers Palm Oil Group.[205]

Procurement policy

RISK
- Review sourcing policies and practices with respect to their impact on smallholder inclusivity. Find ways to include smallholders where they are currently excluded. Consider the difference between sourcing practices (short-term focus) and procurement strategy (long-term focus).

RISK
- Make smallholder inclusivity a topic of conversation in procurement decisions and negotiations. If there is limited visibility on the inclusion of smallholders and the potential impacts of policies, discuss the impacts of policies with suppliers to build understanding.

REWARD
- Include a KPI on the percentage of smallholder farmers in your value chain that earn a living income.

REWARD
- Look into opportunities and information to ensure payments of Living Income Reference Prices and set targets to contribute to the living income of smallholders in your supply chain. For support with this contact Solidaridad's NISCOPS II partner IDH, who are leading the development of living income benchmarks.

REWARD
- Look for ways to promote smallholder inclusion in collaboration with your suppliers and adjust contract conditions in favor of the most smallholder-inclusive suppliers and those who pay/ensure a living income. You could consider setting a target to source from a minimum number of smallholders. For example:
  - PepsiCo said in 2022: "As part of our commitment to support smallholders, we have decided to maintain a minimum 95 percent volume as RSPO-Certified sustainable palm oil from physical supply chain options, with the balance being made up exclusively of Independent Smallholder Credits".[206]
  - L'Oreal says: "Among [our] RSPO MB certified volumes, 25.4 percent of them are produced by independent smallholders as part of sustainable field projects implemented by L'Oréal".[207]

Recommendations for actors building EUDR-compliant supply chains:

- For downstream actors:
  - avoid restricting yourselves to 'safe' suppliers, but rather find ways to include smallholders on PPPP terms.
  - share the responsibility for activities or investments to ensure EUDR compliance for smallholder supply (geolocations, traceability, zero deforestation, legal compliance (see recommendation 4 on support for more suggestions.)
- For companies buying FFB: Promote smallholder inclusion; look for ways to organize compliance (see recommendation 4 on support for more suggestions).

PRINCIPLE 2

PRICING:IMPLEMENT FAIR TRADING TERMS, INCLUDING FAIR PRICING AND PAYMENT TERMS AND REWARD SUSTAINABLE PERFORMANCE

Generally speaking, within the palm oil supply chain, downstream companies have the most power. They set trading conditions that impact the whole value chain. They capture most of the value, while players at the beginning of the supply chain are most vulnerable, increasingly subject to price volatility and climate shocks. This makes it hard to ensure resilient production planning.

REWARD

Companies' procurement practices should take account of the need of farming families to earn a living income. This involves understanding suppliers net income and living income gaps, and subsequently rewarding producers accordingly. This should also be reflected in companies' commitments and transparent reporting. We recommend researching the specifics of living incomes in the regions from purchasing takes place ensuring that prices paid, enable the paying of a local living income. Whether you're a retailer, brand or trader, you should know how to calculate the living income gap for farmers in your supply chain. You should commit to a time-bound, gender-sensitive goal to close this gap, including regular assessment of the payment of a living income.

Our NISCOPS II partner IDH has taken on the task of further researching and better defining living income in the palm oil value chain and creating tools to support buyers.[208] The outcome of this work is openly available for companies to adopt on a voluntary basis.

Principle 2 also focuses on rewarding smallholders for more sustainable performance. Fast-moving consumer goods companies struggle to effectively reward their suppliers for better performance. A common excuse is that consumers are not willing to pay for sustainability and therefore they cannot pay higher prices for sustainability. However, it is possible, and there are tangible examples of how rewarding farmers for sustainable performance works in practice.

OWNERSHIP
RISK
REWARD

One approach is to ensure that payment conditions and contracts favor the most sustainable suppliers. One trader we interviewed said: "We can adjust payment terms to the advantage of sustainable suppliers, sourcing higher volumes from parties that deliver on sustainability. For example, we regularly ask suppliers if they are setting up smallholder projects where we can commit to sourcing this volume. We think that this improves sustainability at a grower level and it helps us to strengthen our supplier relationships".

This principle also includes the creation of longer term contracts. For example, one fast-moving consumer goods company told us that they prefer long-term partnerships, even when this is established through short-term contracts. "A contract might be short, also to prevent an oligarchy, but we want to invest with suppliers together in the supply chain. For sustainability and quality assurance. There are some minor changes in the supply chain partners, but 80-90 percent of the supply comes from the same parties over a long time". This company has contracts with a midstream party, which in turn can use this to their advantage by engaging in their own long-term partnerships with their suppliers.

RISK
REWARD

Another solution is to introduce a minimum premium price for sustainable palm oil production. Minimum prices, or alternative pricing models, can be introduced at company, standard or government level. An example is cost-plus-margin pricing, which is based on the costs of sustainable production, including a margin for the producer. The San Francisco Bay Coffee's sourcing programme, for example, ignores market prices and pays its suppliers on the basis of a cost-plus model.[209] Companies and governments can also lock prices for a season or over a longer timeframe. In general, these kinds of measures require good traceability between end producers and end users.

It is known, more or less, what the additional costs are for producing in accordance with RSPO, for example. Instead of fully relying on an open market, setting a minimum price can ensure that the cost for sustainable production is guaranteed for growers and smallholders. This can be done via cash payments or credits. One representative we spoke to from a major fast-moving consumer goods company said: "We pay the RSPO premium price on top of the material price. It is not something we are going to squeeze, we add it on top. The RSPO premium is independent from our other sourcing decisions".

Another option is to reward farmers for ecosystem services such as carbon sequestration. This is an excellent way to increase farmers' income and lower the buyer's scope 3 greenhouse gas emissions. See paragraph 1.3 for examples of how Solidaridad is making efforts in this direction.

SUCCESSFULLY SETTING MINIMUM PRICES IN GHANA

A good example of how setting a minimum price can work for farmers comes from Ghana, where the government introduced a minimum price for FFB in 2023. Aggregators and mills country-wide are now legally obliged to pay at least the monthly minimum price set by the government. This model followed a series of discussions between members of the Oil Palm Development Association of Ghana (OPDAG) and the Tree Crop Development Authority (TCDA), supported by Solidaridad.

Martin Ola, a farmer in the Western region of Ghana, said: "In the past, my minimum income was tied to the benevolence of the aggregators or mills and was often erratic. This made it difficult for me to plan. Under this current arrangement, I can predict my minimum income and effectively plan with it".[210]

As of June 2024, the Solidaridad Ghana team noted that implementation was going well. Farmers now receive higher prices and don't have to accept arbitrary pricing set by aggregators and mills. The mills have also been supportive of the approach thanks to the level of transparency.

VOICE

This example shows the importance of involving farmers and other stakeholders in the design of a pricing model. The first step was to hold meetings between stakeholders, value chain actors and policymakers to discuss the challenges around pricing and to collectively look for solutions.

The above example also reminds us that companies are not the only ones with a role to play in ensuring a fair price for farmers. Governments can also play a crucial role. And we're yet to discover the potential for national sustainable palm oil standards to set prices for sustainable palm oil. None of these standards have introduced price premiums. In any case, it is clear that standards also have a responsibility to enable farmers to receive a fair reward for their role in the value chain.

REWARD

LESSONS FROM COCOA

The debate on living income in the cocoa sector is a few years ahead of the oil palm sector.[211] Many of the largest FMCGs and retailers that buy oil palm products are also active in cocoa. So it only makes sense to look into the lessons from this sector. One way to ensure farmers receive higher farm gate prices is to implement Living Income Reference Prices (LIRP). The principle of an LIRP is that the farm gate price determined by the market is supplemented with additional payments direct to a farmer to allow the household to earn a living income. The LIRP is calculated by looking at variables such as cost of production, yield per hectare, farm size, other sources of income, household size, and the relevant living income benchmark.[212]

Developed simultaneously by Fairtrade and Tony's Chocolonely, these systems are now being adopted by a variety of companies, including Ben & Jerry's, Albert Heijn, Lidl Belgium, Aldi, Rewe and Colruyt. For example, Dutch retailer Albert Heijn reports on its LIRP practices for cocoa:[213]

TABLE 2 **ALBERT HEIJN'S LIVING INCOME REFERENCE PRICES FOR PRIVATE LABEL CHOCOLATE**

GHANA - PRICE IN US DOLLARS PER TONNE OF COCOA	**2021**	**2022**	**2023**
Farmgate price	1,820	1,767	1,225
Certification premium	240	344	328
Extra premium Tony's Open Chain	40	0	567
Total LIRP premium on top of farmgate price	280	344	895
Farmer receives in total	**2,100**	**2,100**	**2,120**
Management compensation cooperation	50	50	50

Palm oil companies can make similar calculations to contribute towards a living income.

While individual companies may not be able to influence global market prices, they can decide to deviate from them. We recommend the following:

Pricing

REWARD
- Investigate the specifics of living incomes in your suppliers' regions to build understanding about the potential existence of a gap towards achieving a living income.

VOICE
- Consider the role of pricing. We know this is a difficult and sensitive issue for buyers. We understand that there are many other approaches that can also improve the livelihoods of farmers. But for fundamental change and a really sustainable sector, we cannot ignore pricing. Break the taboo.

RISK REWARD
- Pay a minimum price for (certified) FFB, crude palm oil, kernel oil and palm kernel expeller. Companies can also introduce minimum prices or ignore commodity exchange prices and develop alternative pricing models. An example of such a model is cost-plus-margin pricing, which is based on the costs of sustainable production, including a certain margin for the producer (See the San Francisco Bay Coffee example in Principle 2).

RISK
- Lock prices for a season or over a longer timeframe.

RISK
- Ensure pricing can fairly accommodate fluctuating production costs. When production costs rise due to external factors, like inflation or increased transport or material costs, you should compensate for this in the price you pay. This should include the rise of fertilizer costs due to geopolitical developments like the COVID pandemic and the Ukraine war, for example.

REWARD
- Ensure rewards for sustainable performance. Investigate how to reward a supplier's positive performance. For example, by carbon insetting and a shared responsibility to address GHG emissions, or paying for other ecosystem services.
- Buy RSPO ISH Credits at a good price. This could be a good way for companies to contribute to their goals on smallholder inclusion. They are also valid for the calculation of the percentage of CSPO uptake. If the price you pay smallholders is right, it can be an effective way to contribute to their living income. As described in chapter 1 (see 'Independent Smallholder Credits'), the price paid is often not even sufficient to cover the cost of certification, let alone contribute to a living income. Buyers should consider using credits to pay a living income differential (see the cocoa example), instead of paying a purely market-driven price for credits.

RISK REWARD
- **For governments:** ensure minimum prices for FFB are produced in line with national standards.

Implement fair payment terms:

REWARD
- Ensure that when agents, dealers or intermediaries are involved in trading FFB, their payment terms are fair.

VOICE
- Ensure all parties understand and agree on payment terms
- Ensure timely payments and systems to monitor this.

- Consider advance payments covering costs for sustainable production, such as certification and traceability.
- Make price insurance policies and practices part of the deal by default.

RISK

PRINCIPLE 3

PARTNERSHIPS: INTRODUCE EQUAL PARTNERSHIP AND COLLABORATION

Equal partnerships and intense collaboration in the supply chain is essential to create smallholder inclusive and sustainable supply chains. This includes ensuring that farmers' voices are both represented and heard. It also includes ensuring fair business practices.

A 2024 study from Eggen et al. indicated that "the presence of smallholders within governance processes can affect the extent to which such producers can shape system standard setting and implementation in ways that yield tangible benefits for them". However, the study shows that farmer voices are not well represented.[214] This leads to farmers feeling excluded. For example, in large initiatives governing the palm sector, such as Palm Oil Collaboration Group, Tropical Forest Alliance and other fora, the farmer voice is barely represented.[215] In RSPO there is only one seat allocated to smallholders in the board of governors. In 2024, there are now two alternate positions created for this seat.[216]

For downstream operators working on improving their smallholder inclusivity a big challenge is the role of FFB traders or dealers. In particular in Solidaridad's **work in South East Asia**, we noted that FFB traders can have an influential role in the sector. They often play a substantial role in aggregating FFB for a mill. There can be many layers of actors in the smallholder supply chain; from the individual smallholder to collectors, sub-sub agents and sub-agents before they reach the main or lead agent and, finally, the palm oil mill. These dealers often provide additional services such as finances, labor and equipment. Especially in areas where there is more mill processing capacity than FFB supply, dealers have the upper hand in trade with competing mills.[217]

Companies can explore making smallholder cooperatives shareholders of a mill. The advantage is that they all benefit when the mill is certified and all lose when one of the farmers does not comply , for example, if they deforest, mix certified with non-certified FFB, or use forbidden pesticide. This may lead to a higher commitment by smallholders to the mill's sustainability goals and also to peer control. It may also lead to the mill providing smallholders with more structured assistance. It also solves the dichotomy of smallholders asking higher prices and mills offering lower prices. When smallholders are shareholders of the mills they are jointly responsible, potentially leading to a better understanding of pricing, how to price more fairly, and eventually, fairer prices.

Downstream companies that want to improve their procurement practices need to find out which farmers are in their supply chain. Solving this is not easy. If you don't know who is in your supply chain, how do you know if they receive a fair price, and experience fair payment conditions? We have found that some processors and traders seek ways to either bypass agents or ensure their cooperation.[218] One processor[219] located in Indonesia said: "we try to work with agents who treat their FFB suppliers fairly. We check that they indeed pay the right price for [the produce]."

OWNERSHIP

At this moment we don't have a clear solution on how downstream companies can best tackle this challenge. We recommend mills and downstream parties to explore solutions on this together.

Partnership and collaboration

VOICE

- Ensure that farmers, farmer representative and cooperative organizations are given a say in the development of pricing mechanisms. Oil palm farmers are price takers, but that does not mean that they can't influence pricing mechanisms.

VOICE

- Insist that farmers, farmer representatives and cooperative organizations have a seat at the table in multistakeholder initiatives such as RSPO and TFA, and can easily contribute to discussions.

OWNERSHIP

- Build an understanding of FFB traders' role(s) in your value chain.
- Make smallholder cooperatives (representatives) shareholders of a mill.

PRINCIPLE 4

PROGRAMMES: SUPPORT SUPPLIERS THROUGH PROGRAMMES AND ADEQUATE INVESTMENTS

While fair procurement and pricing are fundamental to farmer resilience and prosperity, assisting them is also possible through support programmes. This includes support for strengthening organizational matters, but also technical matters. Recommendations include:

VOICE

- Support the development of democratic cooperatives. This is a key mechanism to reduce risks for farmers, as it increases smallholders' ability to influence key business decisions, including their weight in decision-making, arrangements for review and grievance, and mechanisms for dealing with asymmetries in information access.

REWARD

- Traders and processors can offer inputs such as seedlings and fertilizer for free, or at a reduced price, to smallholders in their area in return for using sustainable production methods. If a farmer's costs are lowered by providing free or cheaper inputs, this also helps to maintain farmers' livelihoods and creates a more robust supply base.

OWNERSHIP
RISK

- Work towards creating access to finance for smallholder farmers. This will allow them to invest in their farms and create financial buffers for economic downfalls.
- Invest in projects and activities to support smallholder inclusivity. Buyers could consider investing in achieving shared sustainability goals, like mapping, ecosystem services, regenerative agriculture, carbon storage, positive social impacts and yield increase.

OWNERSHIP
REWARD

Various projects exist to support smallholder inclusivity that companies can get involved with. For example:

- **National Initiatives for Sustainable Climate Smart Oil Palm Farming** (NISCOPS) Solidaridad, IDH.[220]
- Sustainable jurisdictions / landscapes initiatives such as the Coalition for Sustainable Livelihoods (CSL) (Conservation International, IDH)[221]
- Conservation agreements (Conservation International)[222]
- Sustainable living Village Initiative (Apical)[223]

SUPPORTING SMALLHOLDERS TO ALIGN WITH EUDR

In **a briefing paper** co-authored by Solidaridad, we noted that the EUDR's limitations around traceability will pose serious constraints for oil palm growers complying with this new regulation.[224] The EUDR requires operators importing oil palm (products and derivatives) into Europe to:

- provide geolocations – and polygon maps, if the plot is more than four hectares – marking where imported products were grown
- ensure traceability to the plot

While it is theoretically possible to organize this information, the costs of complying are likely to be higher than the additional market value generated. Supporting smallholders in meeting requirements is critical if we are to protect sustainable producers' access to European markets. FFB pass through many hands between leaving the farm and arriving at the palm oil mill. Transactions between supply chain actors are informal and based on trust, so there is minimal documentation. The smallholder's crop, collected by the sub-agents or in collection centres, are neither segregated nor documented. Therefore it is not possible to know the exact original source of each fresh fruit bunch.

SERENDIPALM ORGANIC PALM OIL MILL

Even relatively small buyers can make a big impact. Dr. Bronner is a US-based soap and cosmetics producer. They have a special procurement model that shows how a smallholder inclusive procurement practice can work.

RISK

Instead of demanding suppliers comply with sustainability requirements, Dr. Bronner took direct action by investing in the Serendipalm mill in Asuom, Ghana. This is an interesting model for shared responsibility, spreading risk and reward more equally along the value chain.

Today Serendipalm supplies fair trade and organic palm oil to Dr. Bronner's, as well as European fair trade companies including GEPA and Rapunzel. The company says: "With growing demand for our palm oil, cocoa, and dynamic agroforestry practices we are expanding operations, to the benefit of farmers, workers, and the local community."[225]

OWNERSHIP

"Serendipalm sources palm fruit from over 600 organic smallholder farmers. Organized into four local associations, they deal directly with Serendipalm for the purchase and collection of palm fruits. The farmers receive a ten percent organic premium on top of the going market price. Their fruits are weighed, not merely gauged, as is customary, and payment is made within two days." [226].

REWARD

Dr. Bronner's speaks openly about premiums, for both fair trade and organic palm oil. They say: "All palm oil customers pay a fair trade premium as part of the purchase price. Our current premium revenue amounts to around 85,000 US dollars per year. The proper use of natural inputs allows farmers to maintain their organic certification, which ensures a 10 percent premium over the local market price for palm fruits."[227]

VOICE

The model is also interesting from a gender perspective: "With more than 250 employees (mostly women who have not completed secondary education), the mill is the most important employer in Asuom." The company is also open about wages and additional worker benefits.[228]

5

“Governments and industry in collaboration with sustainability certification platforms, need to adopt a new business model for engagement, organisational development, and capacity building, that supports improved access to inputs and markets for independent smallholder farmers.”

Mr. Chandran, Special Advisor to RSPO

Conclusions and recommendations

The palm oil industry is a challenging place to be a farmer. Even though oil palms often provide a steady income, in general oil palm farmers, like most farmers, are price takers. To date, the sector has largely avoided questions around value distribution, income and price volatility that disproportionately impact small-scale producers, and yet hold the key to their prosperity.

In 2022 Solidaridad concluded: "Assessed in economic terms, palm oil is an international success story. Looking at the incredible growth of production and demand in the last two decades, achieving widespread sustainability of palm oil is a significant challenge for companies, governments, growers and processors. Although implementation of sustainability initiatives is common, at times it seems that accommodating the demands of the most influential palm oil stakeholders in the planning and investment agenda is paramount. Therefore, the sector's sustainability agenda tends to focus on large industrial plantations, overlooking the pivotal role smallholders play in the industry.

Globally, palm oil production is giving an ever-growing group of smallholders access to what is arguably the most desirable prospect: a steady income and livelihood options. Clearly, smallholders are not a homogenous group. They range from subsistence farmers, to scheme growers and medium enterprise owners. Nevertheless, in their oil palm farming practices all these small farmers must constantly consider multiple needs of diversifying income, ensuring food security, and protecting cultural values. A number of programmes, regulations and supporting schemes are already in place in the palm oil sector. Still, few of them look integrally at the inclusion of smallholders in the value chain, taking into account different interlinked aspects of inclusive agribusiness, like ownership, voice, risk and reward."

Almost three years on, as described in Chapter 4, we have not progressed beyond this stage. In the 2.5 years since the publication of the first global Palm Oil Barometer, we haven't seen any breakthroughs on the theme of inclusivity. This is not surprising, as the preparation for the EUDR has occupied a large part of the global sustainability agenda. Investments in traceability to ensure legal compliance are the priority for companies with supply chain links to Europe. However, companies have the obligation to look at their impacts on human rights, and how to mitigate them. In other words: more attention has to be paid to how companies can better ensure value distribution and support smallholders. Zero deforestation and smallholder inclusion are very different goals that must be pursued at the same time. A procurement policy should look at those developments in an integrated way.

As becomes clear when we look at palm oil consumption figures in Indonesia, China and India, we should not only look to Europe to drive sustainability. The future of palm oil production and trade lies with producing countries and emerging markets. Solidaridad calls on actors in the global south to increase the minimum requirements for sustainable palm oil production. Governments, corporates, national standards and RSPO can play an important role in this. Palm oil buyers in Asia, Africa and Latin America have the responsibility to support smallholders in their value chain.

RECOMMENDATIONS

Most companies and governments say they want to drive smallholder inclusivity forward. However, so far we haven't seen any large-scale success. In terms of the four dimensions of smallholder inclusivity (ownership, voice, risk and reward) the sector still has a long way to go. It's time to take a step back and re-evaluate: how can the palm oil value chain be made more inclusive?

VALUE CHAIN ACTORS

We do not have the silver bullet. Different approaches need to co-exist and strengthen each other. Smallholder inclusivity requires a smart use of the available approaches. In paragraph 4.4 we give recommendations for inclusive procurement for companies buying oil palm products. These enable the urgent shift from sustainable sourcing to inclusive procurement to ensure a more ethical and resilient sector.

We have categorized the recommendations into the four principles of Procurement for Prosperity, or PPPP:

1. **Policy**: Formulate internal policy, ensure commitment and implementation
2. **Pricing**: Implement fair trading terms, including fair pricing and payment terms and reward sustainable performance
3. **Partnerships**: introduce equal partnership and collaboration
4. **Programmes**: support suppliers through programmes and adequate investments

Alongside our recommendations for value chain actors, we also see the need for multistakeholder initiatives, public policy makers and the financial sector to improve their smallholder inclusivity. Solidaridad calls on all actors to acknowledge that there is a shared responsibility in the value chain. For a comprehensive smallholder-inclusive approach to drive sustainability in the sector we recommend the following:

MULTI-STAKEHOLDER INITIATIVES

- Appoint smallholders or representatives as members of boards and important organs.
- Facilitate smallholder organizations and related social NGOs to participate in defining, challenging and steering sustainability policies.

PUBLIC POLICY MAKERS

- Ensure enabling policy environments where smallholder farmers can thrive.
- Include smallholders in decision-making processes.
- Work with different stakeholders, including CSOs, to accelerate the implementation of mandatory frameworks and national sustainability standards.
- Ensure that measures to avoid imported deforestation do not unintentionally exclude smallholders.
- Ensure support is available to organize compliance with reporting on legality, deforestation, geolocation and traceability.

- Provide support for certification, such as for example including auditing costs, training, PPE materials and storage for chemicals to smallholders. In Malaysia, MPOB already covers these costs for MSPO certification.[229]
- Initiate multilateral dialogues between palm oil consuming and producing countries to discuss sustainable transformation of the edible oils sector.

FOR BANKS AND FINANCIAL INSTITUTIONS

- Make smallholder inclusion part of your sustainability criteria.
- Make sure all investments combine NDPE policies with smallholder support to meet requirements.
- Ensure financial instruments work for smallholders

ANNEX DEFINITIONS: WHAT'S IN A WORD

There are no globally accepted definitions of the words and language we use to discuss price, income and value distribution. We use the following definitions:

Fair price: According to **Solidaridad**, in terms of agricultural goods, fair price covers at least the costs of production and leaves a reasonable margin for a farmer to have a living income. The term varies depending on the context, but whether we are talking about a fairer price or a higher price, we are always talking about the 'best price' and pricing practice for the smallholder palm oil farmers in question.[230]

Living income: The net annual income required for a household in a particular place to afford a decent standard of living for all members of that household.[231]

Reward for sustainability performance: The sharing of economic costs and benefits, including price setting and finance arrangements, for activities that lead to improved performance on social or ecological indicators. Read more in **Solidaridad's Price in Global Commodities paper**.[232]

Fair value distribution: This concept goes beyond farmers' ability to earn a living income for resilient livelihoods:

- It is about a just approach to the distribution of costs and risks of production, service provision, trade and consumption.
- It considers the rights, interests and voices of producers and citizens, in strategies and actions.
- It includes achieving economic justice and equality in how public goods and private resources, investments, infrastructure and profits are distributed to benefit and serve all people including marginalized populations.

Payment for Ecosystem Services (PES): There are various definitions of PES. Within Solidaridad the term refers to financial incentives that an actor, such as a government or a company in the supply chain, offers farmers to implement nature-based solutions.

Implementing nature-based solutions can help farms increase their production and resilience against climate change, and support food security. Solutions include:

- agroforestry
- climate-smart farming
- regenerative farming
- agroecological principles
- ecosystem-based management

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Citation: Solidaridad (2025), Palm Oil Barometer 2025 - Procurement for Prosperity
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Graphic Design: Tasja van der Veen, Bingo! graphic design

Expression of the authors: We appreciate the effort of interviewees in answering our questionnaire and reviewers for their feedback. The final responsibility for the content and the views expressed in this publication lies solely with the authors. The authors would like to thank the participants of the Advisory Committee for their feedback and contribution.

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- Sachnaz Oktarina, Researcher, Representing IOPRI on behalf of Apkasindo, Indonesia
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This report is supported and co-signed by the following smallholder farmers and research organizations:

This publication was made under the RECLAIM Sustainability! Programme and the National Initiatives for Sustainable and Climate Smart Oil Palm Smallholders (NISCOPS) 2 programme, thanks to the support of:

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