



IMPACT UPDATE 2023

ABOUT THIS REPORT

In November 2022, RSPO released our Impact Report 2022, introducing the new RSPO Impacts Framework as a comprehensive overview of our journey where sustainability is balanced with progress. As we believe in leading with transparency, we proudly present the Impact Update 2023, a data-focused publication on the Impact Themes and Indicators explored in the Impact Report 2022.

The Impact Update 2023 continues to track our journey as a global partnership to make palm oil sustainable. Through dedicated efforts and collaborations with industry players and stakeholders, RSPO's vision and strategy has paved the way for positive outcomes in three critical areas: People, Planet and Prosperity. Maintaining trust in the palm oil industry remains a core priority for us.

In this report, we present our impacts progress for the period spanning 1 January to 31 December 2022. References to 'RSPO,' 'us,' and 'we' throughout this report pertain to the Roundtable on Sustainable Palm Oil. We encourage you to explore this publication alongside the comprehensive RSPO Impact Report 2022, accessible on our official website.

About RSPO

The Roundtable on Sustainable Palm Oil (RSPO) is a multi-stakeholder organisation driving positive change in the palm oil industry, formed in 2004 as a global partnership to make palm oil sustainable. Since RSPO's formation, our impact has been significant. From seed to shelf, our certified practices span the entire palm oil value chain. With a growing global presence and strong support from our members, RSPO continues to grow, expanding our global reach and ability to drive positive impacts. Join us on this transformative journey towards a more sustainable future for palm oil and beyond.

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FOREWORD FROM THE CEO

On behalf of the Roundtable on Sustainable Palm Oil, I am honoured to present the RSPO Impact Update 2023, an important touchstone showing us where we are in our sustainability journey.

Over the past year, I have had the opportunity to visit our members and stakeholders all across the world, not just in closed conferences and executive board rooms, but on the ground, in mills or plantations in far flung rural areas. As I spoke with people who are part of our mission – whether it was with a smallholder who described how good agricultural practices have increased her yields, or an owner of a family-owned business proud of brandishing the RSPO Trademark, an innovator finding ways to make the supply chain more sustainable, a youth ambassador telling the sustainable palm oil story, or a village leader whose community has become more resilient through RSPO's engagement – I formed a deeper appreciation for the depth and breadth of work that RSPO has accomplished over the past two decades. It was an eye-opening year which has shown me the tremendous impact we continue to achieve through our global partnership.

As we go through the pages of this year's Impact Update, released on the cusp of RSPO's 20th anniversary, I urge you to reflect on just how far our multi-stakeholder partnership has come, in terms of knowledge, scale and influence, since the RSPO was conceived in 2004.

Our collective action has achieved positive impacts across a range of social, environmental and economic indicators: conserving 362,657 hectares of priceless forest, an area roughly 15 times the size of Kuala Lumpur, and adding 393,035 hectares of certified area to make a total of 4.9 million hectares spread across 23 countries. Over 44,000 farmers in 12 countries have benefitted from the RSPO Smallholder Support Fund, which has provided US\$4.2 million in funding since 2013. A total of 311 Compensation Plans have been approved, remediating an area equivalent to the size of Hong Kong. Cumulative GHG emissions equal to 444,444 cars have been avoided since 2015 (an increase of 49,155 from 2021) – equivalent to the motor vehicle fleet of Cambodia. More than half a million workers around the world benefit from the working standards provided by the RSPO P&C Certification. These are just the tip of the iceberg of RSPO's wide reaching impact. Yet beyond the numbers, there are the countless stories of lives and livelihoods that tell a much bigger impact story.

The progress we have achieved together over the past twenty years has laid a solid foundation for RSPO's sustainability story to flourish in the years to come. I am excited to see where our global partnership will take us over the coming decades. Through our effective and meaningful partnerships, I am confident that we will continue to deepen our impact as we work together to future-proof the sustainable palm oil industry.



Joseph D'Cruz

LETTER FROM THE CO-CHAIRS OF RSPO

Dear Fellow Members and Stakeholders,

Another year, another chapter unfolds in RSPO's sustainability story. We are approaching an auspicious moment in the history of our global partnership. In April 2024, we will be celebrating RSPO's 20th anniversary, marking a significant milestone since we first embarked on the roundtable process with the ambitious goal of sustainably transforming the palm oil sector.

Little did we know back then, since those first seeds of sustainability were planted, just how far our multi-stakeholder alliance would progress. Today, we have united over 5,600 global members representing each link of the palm oil value chain, placed 20% of the world's palm oil production under the strictest sustainability standards, and helped enrich the livelihoods of countless smallholder farmers by embedding responsible agricultural practices in their production processes.

Yet as the landscape of sustainability continues to expand, so do new challenges emerge, complicated further by numerous and interconnected crises today – from geopolitical conflicts, economic volatility, biodiversity loss to food insecurity, all of which are overshadowed by the impending climate emergency. Within the palm oil sector, growing international regulations to address the environmental crisis are spurring RSPO to step up and scale our actions to amplify our achievements of the past two decades, to ensure that the future of the palm oil sector is a sustainable and inclusive one.

The evolving demands of sustainability underline the significance of RSPO's multi-faceted work, particularly at such a critical juncture for the world. This latest Impact Update is a barometer of RSPO's continued accomplishments as each year passes, showing our progress in a range of sustainability areas from protecting and restoring nature, championing human rights, uplifting smallholders and rural communities, and limiting GHG emissions to fight climate change.

As we reflect on RSPO's remarkable sustainability journey and look at what lies ahead, we would like to acknowledge and thank the formidable commitment and efforts of our members for never losing faith in our vision set out twenty years ago. While the work is far from over, we are confident that our strong partnership will continue to cultivate positive change for people and the planet together in prosperity, for the next twenty years and beyond.

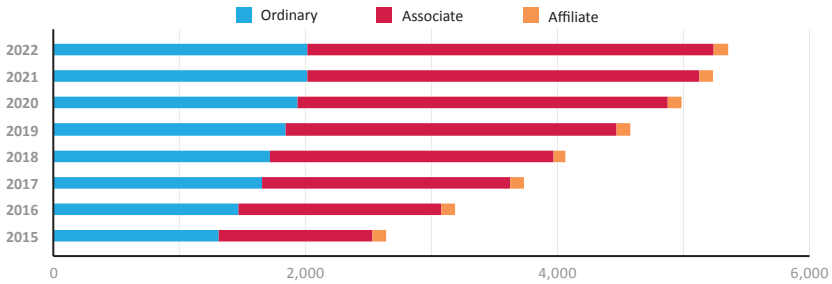


José Roberto Montenegro

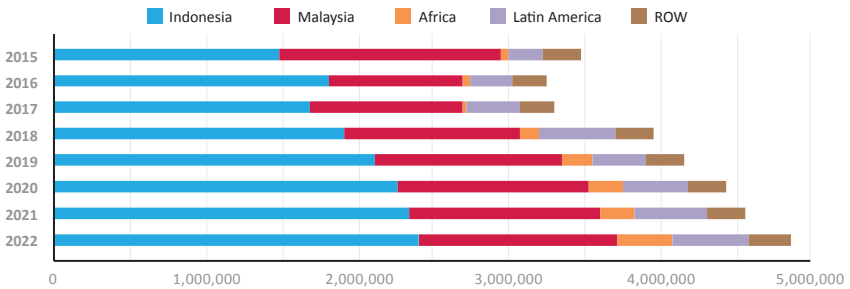


Anne Rosenbarger

RSPO Membership



RSPO Certified Area by Region



Key Impact of RSPO

8.1% of supply from 1% of land

RSPO Certification represents 1.0% of the global vegetable oil crop production area, producing 8.1% of global vegetable oil supply¹

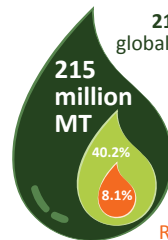
332 million ha
global vegetable oil
crop area

8.6%
of which
is oil palm

1% of which
is RSPO
Certified



Global vegetable oil crop area



215 million MT
global vegetable oil
production

40.2%
of which is
palm oil

8.1% of which
is
RSPO Certified

Global vegetable oil production

¹Includes palm oil and palm kernel oil, as both vegetable oils are produced from the same crop area (oil palm). RSPO area/production from RSPO Assurance data. Global palm oil data from RSPO estimates sourced from USDA, FAOStat, national sources or industry bodies. Global vegetable oil data from FAOStat (2022 estimates).

RSPO Impacts Framework

| RSPO Impact Theme | RSPO Impact Indicator | Impact Indicator Description | Impact Pillar |
|--|------------------------------------|--|--|
| Respecting Human Rights | Gender Index | Progress on inclusivity, equal access and empowerment for women through RSPO Certification |  |
| | Labour Index | Progress on respecting workers' rights and labour conditions through RSPO Certification |  |
| | Human Rights Risk | Status and risk level of human rights breaches within RSPO Certification |  |
| Including Smallholders | Smallholder Participation | Encouraging and assisting palm oil smallholder farmers towards sustainability |  |
| | Smallholder Certification | Progress on the reach and extent of smallholder farmers within RSPO Certification |  |
| Protecting and Restoring Nature | Safeguarding Nature | Progress on halting deforestation and preserving biodiversity within RSPO Certification |  |
| | Environmental Sustainability Index | Progress on promoting environmentally sustainable practices within RSPO Certification |  |
| | Water Stewardship | Promoting responsible usage of water and protecting freshwater ecosystems within RSPO Certification |  |
| | Remediation | Upholding responsibility in respect to historical deforestation through RSPO procedures |  |
| Preventing Fire | Fire Risk | Progress on mitigating and minimising fire risks within RSPO Certification |  |
| Limiting Climate Change | Emissions Management | Progress on climate change goals through emissions avoidance and mitigation within RSPO Certification |  |
| Advancing Certification | Certification Trends | Progress on the reach, extent and traceability of RSPO Certification in the global palm oil market |  |
| Transforming Markets | Certified Supply | Progress on shifting global production of palm oil towards sustainability |  |
| | Certified Consumption | Progress on shifting global consumption of palm oil towards sustainability |  |
| | Shared Responsibility | Ensuring certified consumption matches certified production, and all RSPO Members follow in the spirit of RSPO Principles and Criteria |  |

RSPO Highlights of 2022

“ **Respecting Human Rights**

544,036 workers represented by RSPO P&C Certification globally (+44,036 from 2021)

Labour Index ”

“ **Respecting Human Rights**

Women represent 13.3% and 23.3% of management and administration respectively, in certified mills and estates

Gender Index ”

“ **Respecting Human Rights**

81% of Human Rights-related RSPO Complaints cases closed (+3% from 2021)

Human Rights Risk ”

“ **Including Smallholders**

US\$4.2 million in RSSF funding to support 81 projects and 44,203 farmers in 12 countries since 2013 (+15 projects, +5,606 farmers from 2021)

Smallholder Participation ”

“ **Including Smallholders**

197,767 IS-Credits worth US\$5.5 million bought by downstream RSPO Members to directly benefit certified ISH (+30,746 IS-Credits, +US\$1.7 million from 2021)

Smallholder Certification ”

“ **Protecting and Restoring Nature**

362,657 ha conserved under RSPO P&C Certification (+61,637 ha from 2021) – an area 15 times the size of Kuala Lumpur

Safeguarding Nature ”

“ **Protecting and Restoring Nature**

Use of restricted pesticides and herbicides significantly reduced within RSPO P&C Certification

Environmental Sustainability Index ”

“ **Protecting and Restoring Nature**

Average water footprint of 0.005 m³/kg within RSPO P&C Certification, lower than other vegetable oils (e.g., soybean, rapeseed)

Water Stewardship ”

“ **Protecting and Restoring Nature**

311 Compensation Plans approved (+73 from 2021) – remediating an area the size of Hong Kong (101,176 ha, +29,779 ha from 2021)

Remediation ”



Preventing Fire

Probability of 1.2% (-0.2% from 2021) of fire hotspots within RSPO concessions (Indonesia and Malaysia) vs. 12.1% in non-RSPO concessions

Fire Risk



Limiting Climate Change

Cumulative GHG emissions equal to 444,444 cars avoided since 2015 (+49,155 from 2021) – equivalent to the motor vehicle fleet of Cambodia

Emissions Management - Avoidance



Limiting Climate Change

CSPO is associated with a lower level of GHG emissions vs. conventional palm oil and other vegetable oils (e.g., soybean, rapeseed)

Emissions Management - Mitigation



Advancing Certification

4.9 million ha of certified area globally across 23 countries (+393,035 ha from 2021)

Certification Trends



Advancing Certification

Average CSPO yield of 4.5 MT/ha vs. Average overall palm oil yield of 2.7 MT/ha vs. Average non-RSPO palm oil yield of 2.4 MT/ha

Certification Trends



Transforming Markets

CSPO supply reaches new milestone at 15.4 million MT; +4.8% growth or 706,900 MT increase in production year-on-year

Certified Supply



Transforming Markets

CSPO consumption reaches 9.2 million MT; +7.4% growth or 633,391 MT increase in downstream usage year-on-year

Certified Consumption



Transforming Markets

56% of applicable P&T, CGM and Retailer members met their 2022 CSPO SR uptake targets (+2% from 2021)

Shared Responsibility



Acting Responsibly

Average of 263 working days to close RSPO Complaints post-Complaints and Appeals Procedures implementation in 2017.

Grievance





RESPECTING HUMAN RIGHTS

Workers and communities are integral rights holders within the oil palm industry. The RSPO Principles and Criteria (P&C) 2018 recognises the crucial role of the labour force and acknowledges the rights of communities over land and resources to ensure their sustained livelihood as an indispensable criteria for the sustainable production of palm oil.

Principle 4 (Respect Community and Human Rights and Deliver Benefits) of the P&C 2018 requires RSPO Certification to recognise and respect community rights and ensure remediation, where needed. Principle 6 (Respect Workers' Rights and Conditions) obliges RSPO Certified estates and mills to ensure equal opportunities for each and every worker to fulfill their potential with dignity, in safety, and free from discrimination within a decent working and living environment. These requirements provide the foundation for RSPO to ensure that every pair of hands involved in the production of RSPO Certified Sustainable Palm Oil is given the due respect, fair employment, clear information, honest representation, and equitable prospects they deserve.

Labour Index



Using an almost complete set of 479 RSPO Principles and Criteria (P&C) Metrics Templates¹ provides a more accurate assessment on selected labour aspects of RSPO Certification (Figure 1). Globally, almost 550,000 workers are employed by certified units, with over 300,000 in Indonesia alone. Employment demographics vary: Malaysia has the highest proportion of non-local workers due to a reliance on foreign labour, while Indonesia and other regions mainly draw from local labour markets².

| | | Certified Palm Oil Mills | | Certified Oil Palm Estates | |
|--|---------------|--------------------------|---------------------------|----------------------------|---------------------------|
| | | 2022 | 2022 (change vs. 2021) | 2022 | 2022 (change vs. 2021) |
| Demographics Total number of mill workers | Indonesia | 31,200 | | 275,555 | |
| | Malaysia | 13,354 | | 87,340 | |
| | Latin America | 10,438 | 61,795 (+6,795) | 50,906 | 482,241 (+37,241) |
| | Africa | 3,426 | | 42,317 | |
| | ROW | 3,377 | | 26,123 | |
| Demographics and Employment Non-locals as a percentage of total mill workers | Indonesia | 10.6% | | 15.4% | |
| | Malaysia | 27.9% | | 76.1% | |
| | Latin America | 6.7% | 13.0% (-2.7%) | 7.3% | 23.7% (-4.3%) |
| | Africa | 2.9% | | 3.2% | |
| | ROW | 4.9% | | 1.7% | |
| Training Non-management workers trained as a percentage of total non-management mill workers | Indonesia | 81.7% | | 64.7% | |
| | Malaysia | 84.2% | | 91.7% | |
| | Latin America | 61.2% | 80.2% (+0.8%) | 72.0% | 73.3% (-14.5%) |
| | Africa | 92.3% | | 76.4% | |
| | ROW | 91.9% | | 99.1% | |
| Internal Grievance Open cases as a percentage of all cases received at year-end | Indonesia | 4.2% | | 9.6% | |
| | Malaysia | 4.9% | | 5.4% | |
| | Latin America | 1.5% | 4.7% (-4.1%) | 29.6% | 8.6% (+6.1%) |
| | Africa | 36.7% | | 17.9% | |
| | ROW | 23.5% | | 17.5% | |

Figure 1: Labour-related statistics of RSPO Certified Units

Crude palm oil output from the same dataset shows the relative labour intensity of production. In Malaysia, one worker in a certified unit is, on average, linked to 51.8 MT of CSPO produced. ROW follows at 45.2 MT per worker, with Indonesia and Latin America at 38.5 and 38.4 MT, respectively. Africa is the most labour intensive region, at 13.0 MT per worker. These statistics are relevant, as labour intensity levels are linked to RSPO's ability to positively impact jobs and lives, but may increase risks and costs.

Other principles within the RSPO P&C 2018 also look at labour aspects. Principle 3 includes criteria requiring certified units to offer equal access to training on applicable subjects, including RSPO. In 2022, 80.2% of non-management workers in mills and 73.3% of field workers in estates were trained at least once. Criteria 4.2 under Principle 4 requires a documented and mutually agreed system for addressing complaints and grievances. Over 90% of certified estates and mills have formal internal grievance systems. The number of open complaints in mills declined by 4.1% in 2022, but increased by 6.1% in estates. We observe that a small number of certified units are associated with a relatively high level of open cases. The RSPO Secretariat will work with such units to better understand their situation.

¹Introduced in May 2021 as a prerequisite to become certified under the RSPO Principles and Criteria (P&C) 2018, verified by auditors. The reference set of Metrics Templates for 2022 represents 97% of current P&C certified units [a palm oil mill(s) and its supply base(s)]. The reference set for 2021 consisted of 206 Metrics Templates, or 44% of then certified units.

²In Indonesia, non-local workers include transmigrants – inter-province resettlement under the transmigrasi initiative to move people from densely-populated areas (Java) to less populous areas (e.g., Kalimantan, Sumatra, Papua).

Gender Index



Gender issues are addressed in the P&C 2018 through several criteria under Principles 4, 6 and 7, ensuring no discrimination, no harassment, recognition of reproductive rights and removal of environmental risks to expectant mothers, linked to child mortality.

| | | Certified Palm Oil Mills | | Certified Oil Palm Estates | |
|---|---------------|--------------------------|---------------------------|----------------------------|---------------------------|
| | | 2022 | 2022 (change vs. 2021) | 2022 | 2022 (change vs. 2021) |
| Participation and Inclusion Female workers as a percentage of total workers | Indonesia | 5.0% | | 25.6% | |
| | Malaysia | 11.5% | | 20.6% | |
| | Latin America | 12.2% | 7.9% | 11.1% | 25.4% |
| | Africa | 6.7% | (+0.4%) | 29.1% | (+4.4%) |
| | ROW | 8.8% | | 27.8% | |
| Equal Access Female:Male ratio of workers trained | Indonesia | 1:1 | | 1:1 | |
| | Malaysia | 2:1 | | 1:1 | |
| | Latin America | 0.7:1 | 2:1 | 0.7:1 | 1:1 |
| | Africa | 1:1 | (=) | 0.8:1 | (=) |
| | ROW | 1:1 | | 1.5:1 | |
| Empowerment A percentage of total management/administrative roles as a percentage of total management roles | Indonesia | 9.0% | | 19.1% | |
| | Malaysia | 17.2% | | 29.2% | |
| | Latin America | 16.5% | 13.3% | 20.8% | 23.3% |
| | Africa | 11.4% | (+2.2%) | 26.9% | (-0.9%) |
| | ROW | 15.9% | | 24.1% | |

Figure 1: Gender Aspects of RSPO Certified Units (2022)

From Metrics Template data (Figure 1), there is a noticeably high proportion (25.4%) of female workforce participation in certified estates globally, with Africa having the highest at 29.1%. In certified mills, women form 7.9% of the workforce. Once employed, women and men receive equal training, proportionally¹. The proportion of women in management and administrative roles at mills and estates is 13.3% and 23.3%, respectively. In combination, this indicates a considerable level of gender equity within RSPO Certification².

Human Rights Risk



The P&C 2018 addresses human rights and social impacts in Principles 4 and 6, including issues such as labour rights, gender parity, no child labour, no forced or trafficked labour, Human Rights Defenders, Free, Prior and Informed Consent (FPIC) of land owners and affected communities including customary rights over land of Indigenous People. The standard also emphasises a key component of human rights practice – access to remedy through establishing an internal grievance mechanism.

The RSPO Complaints System provides an indication of potential violations through the lens of risk. To date, 67% of 183 complaints³ involved human rights-related allegations (FPIC/Land, Labour, Human Rights/Gender), forming the majority of all complaints in Indonesia, Malaysia, Africa and Latin America. The highest risk is on FPIC/Land issues (as high as 67% of related cases in Africa), however it must be noted that Labour and Human Rights/Gender risks are also present⁴. Complaints are investigated by the RSPO Complaints Panel, with 81% of related cases closed, from 78% in 2021.

¹The data is also derived from the total number of trainings conducted, including individuals attending multiple trainings. Situationally, women in mills tend to work in office roles with a broader spectrum of training requirements.

²Additional analysis and research is required to establish if levels of gender equity within RSPO Certification is statistically or significantly different from the wider palm oil industry.

³A complaint is accepted if the allegations, if proven to be true, amount to a breach of the RSPO Key Documents which includes, but not limited to, the RSPO Principles and Criteria (P&C), Code of Conduct and Membership Rules.

⁴Complaint cases are catalogued by category, and specific cases may be linked to multiple categories.





INCLUDING SMALLHOLDERS

The first SDG in the United Nations Sustainable Development Goals targets the alleviation of poverty in all forms and enshrines security of land rights. These issues are especially relevant to smallholders, a production demographic which RSPO recognises as a critical section of the palm oil supply chain requiring technical assistance, financial support and market access. There are also broader socio-economic aspects - research in Jambi, Indonesia indicates smallholder oil palm cultivation also confers long-term benefit beyond just income, in the nutrition, health and education of families¹.

Oil palm smallholders are contextualised into two forms - scheme smallholders who work in fixed contractual partnership with a single mill and independent smallholders (ISH) who retain operational independence and may supply to multiple palm oil mills. Globally, smallholders - especially ISH - tend to have lower yields and lesser awareness of sustainability issues, and are also particularly vulnerable to market shifts, being the furthest away from key trading decisions in the supply chain. For smallholders, RSPO Certification can have far-reaching positive impacts, explored in this chapter.

Smallholder Participation



RSPO estimates that there are at least 7 million smallholder farmers worldwide who earn a living (fully or partially) from oil palm cultivation. These farmers can participate in RSPO Certification in two ways: scheme smallholders supported directly by certified mills through the RSPO Principles and Criteria (P&C) 2018 Standard, or independent smallholders (ISH) certified under the RSPO ISH Standard 2019, which adapts and simplifies the P&C 2018 specifically to include more smallholders.

The pathway to certification, however, can be a lengthy one. RSPO has two procedures in place to assist ISH prior to membership or certification: the RSPO Smallholder Support Fund (RSSF) and the Smallholder Training Academy (STA).

In 2022, RSPO approved 15 new RSSF² projects with US\$180,000 of funding benefitting an additional 5,606 ISH in Indonesia (Figure 1). From this pool of RSSF projects, 6 new ISH groups joined RSPO as members in 2022³. Within the existing 36 certified RSSF-supported ISH groups, there is striking progress: new farmers joined (+21%), certified areas expanded (+19%) and land yields improved to produce more FFB (+46%). The gain in productivity levels does not appear to be solely linked to numeric growth in farmers or area: the Ngoyaï Gbaayegie Group in Sierra Leone reported a 34% increase in Fresh Fruit Bunches (FFB) output from a consistent level of farmers and area.

| | RSSF Funding (US\$) | | ISH Groups in RSPO | | RSPO ISH Certification | | |
|----------------|---------------------------------------|-----------|-----------------------------|-------------------------|--------------------------------|--------------------------------|---------------------------------|
| | Approved | Disbursed | Members | Certified | ISHs | Area | FFB Production |
| 2013-2022 | 4,207,357 | 2,961,027 | 177 | 83 | 28,979 | 84,544 | 1,571,799 |
| Change vs 2021 | +4.5% | +12.6% | +66 | +20 | +6,962 | +18,941 | +583,930 |
| Benefiting | | | RSSF Funded 36% | RSSF Funded 43% | RSSF Funded 66% | 63% | 59% |
| | ISH farmers | | ISH Groups (change vs 2021) | | ISH Groups (change vs 2021) | | |
| Total | 44,203 (81 Projects) | | 63 (+6) | 36 (=) | 18,995 (+21%) | 53,494 (+19%) | 922,545 (+46%) |
| Indonesia | 19,154 (49 Projects) | | 32 (+6) | 20 (=) | 8,066 (+35%) | 18,991 (+37%) | 408,087 (+77%) |
| Malaysia | 748 (3 Projects) | | 3 (=) | 3 (=) | 1,994 (+51%) | 7,975 (+28%) | 140,836 (+56%) |
| Latin America | 5,588 (9 Projects) | | 5 (=) | 0 (=) | | | |
| Africa | 14,519 (6 Projects) | | 11 (=) | 1 (=) | 4,983 (=) | 8,667 (=) | 16,777 (+34%) |
| ROW | 4,194 (14 Projects) | | 12 (=) | 12 (=) | 3,952 (+16%) | 18,539 (+14%) | 356,645 (+19%) |

Figure 1: RSSF funding as a pathway to ISH certification as of 31 Dec 2022

To assist the capacity building of potential and current ISH farmers and groups, RSPO launched the RSPO STA in November 2019. Supported by RSPO Members and collaborating partners, STA provides training modules for trainers to train smallholder group managers and individual smallholders across a range of sustainability topics, available in six languages (English, French, Indonesian, Malay, Spanish and Thai). This unique ‘train-the-trainer’ approach aims to build a pool of Master Trainers across sectors and organisations as a global community promoting sustainable palm oil practices through smallholder training. In 2022, RSPO facilitated 21 new STA global training sessions that empowered 887 additional ISH, bringing the overall STA reach to 200 training sessions benefitting 10,278 ISH.

¹Chrisendo, D., Siregar, H., & Qaim, M. (2022). Oil palm cultivation improves living standards and human capital formation in smallholder farm households. *World Development*, 159, 106034. doi:10.1016/j.worlddev.2022.106034

²Initiated in 2013, RSSF provides monetary assistance to organised ISH groups pursuing certification to reduce cost implications under 3 categories: Certification, Audit and Impact. It is funded by an annual allocation of 10% of revenue generated from CSPO trade, linking RSPO’s ability to assist ISH to progress in downstream sustainable sourcing.

³The parallel addition of new RSPO membership and certification from non RSSF-supported ISH groups led to a lessened representation of RSSF-supported ISH groups within RSPO.

Smallholder Certification



Through 2022, RSPO Certification has included over 167,000 individual farmers in 14 countries as scheme or independent smallholders (ISH). Collectively, RSPO smallholders operate an oil palm production area of nearly 415,000 ha¹, more than twice the oil palm area of Brazil². An estimated 7.5 million MT of certified FFB was produced, potentially representing 2% of global palm oil production³.

The extent of certified ISH groups grew beyond Southeast Asia in 2021 to Africa (Sierra Leone), and in 2022, RSPO welcomed the first certified groups in Latin America (Mexico) and in Ghana. We also note that there has been a notable deceleration in the pace of certifying scheme smallholders, primarily in Indonesia. The RSPO Secretariat will engage with identified certified mills to better understand scheme smallholder certification trends to accelerate inclusion.

| | Certification Production Area (change vs 2021) | Certified FFB Production (change vs 2021) | No. of Farmers (change vs 2021) |
|---------------------------|---|--|------------------------------------|
| Scheme | 330,361 (-2%) | 5,926,761 (-19%) | 138,488 (-3%) |
| Indonesia | 196,696 (-6%) | 3,689,541 (-29%) | 114,937 (-4%) |
| Malaysia | 8,347 (+40%) | 0 (-) | 44 (+47%) |
| Latin America | 56,025 (-19%) | 1,318,824 (-3%) | 1,453 (-1%) |
| Africa | 26,959 (+982%) | 247,710 (+705%) | 4,887 (+444%) |
| ROW | 42,334 (-23%) | 670,686 (-8%) | 17,167 (-3%) |
| Independent | 84,544 (+34%) | 1,571,799 (+34%) | 28,979 (+34%) |
| Indonesia | 35,706 (+33%) | 718,159 (+39%) | 15,485 (+41%) |
| Malaysia | 7,975 (+28%) | 140,836 (+25%) | 1,994 (+51%) |
| Latin America | 1,255 (-) | 5,280 (-) | 117 (-) |
| Africa | 8,348 (-4%) | 22,939 (+47%) | 5,116 (+3%) |
| ROW | 31,260 (+48%) | 684,585 (+29%) | 6,267 (+45%) |
| Total Smallholders | 414,905 (+4%) | 7,498,560 (-11%) | 167,467 (+1.5%) |

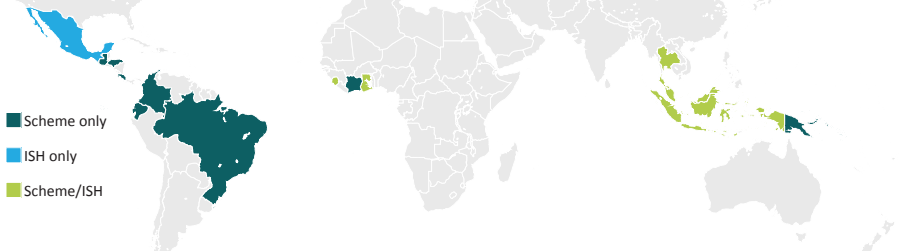


Figure 1: Distribution of RSPO certified smallholders (scheme, ISH) and statistics

Certification is not the end but the start of a journey of continuous improvement, crucial to improve smallholder livelihoods over the long run. Scheme smallholders receive sustained support from their associated certified mills and there are indications of this beneficial relationship: average FFB yields for certified scheme smallholders globally increased from 13.3 MT/ha in 2018 to 14.4 MT/ha in 2022, with notable gains in Colombia, Guatemala and Honduras.

Certified ISH groups have a similar yield globally at 14.9 MT/ha of FFB, though this average masks significant country-level variations – below 3.0 MT/ha in recently-certified groups from Latin America and Africa. The highest ISH yields (17.5 MT/ha) are in Thailand, in part due to the strong symbiotic relationship between ISH and certified independent palm oil mills. Constant, continuous support from RSPO Members across the supply chain through preferential sourcing, or direct market mechanisms like RSPO Independent Smallholder (IS-)Credits, is broadly linked to higher yields over time. In 2022, 197,767 volumes of IS-Credits worth US\$5.5 million were bought by downstream RSPO Members to directly benefit certified ISH, up from 167,021 volumes of IS-Credits worth US\$3.8 million in 2021.

¹The Impact Report 2022 incorrectly reported total certified area as total production area of scheme and ISH. Total certified area includes the total production area, and any areas of immature plantings, conservation or infrastructure.

²The area harvested for palm oil fruit in Brazil is estimated at 197,165 ha (Source: FAOStat).

³Total palm oil production in 2022 = 77.6 million MT (USDA); potential ISH palm oil output calculated using a lower yield (16%) than the average RSPO Oil Extraction Rate (OER, 20%).



PROTECTING AND RESTORING NATURE

The extent of cultivation of oil palm spans the equatorial belt where some of the world's most biodiverse ecosystems are found, as well as where some 3 billion people reside and rely on economic growth to alleviate poverty. RSPO was founded to protect these valuable environments in balance with sustainable development. Our standards, systems and procedures aim to eliminate deforestation risk and mandate reforestation, afforestation, environmental restoration and ecosystem rehabilitation. The intended impact is to protect and enhance valuable forests and crucial natural environments, for the people whose lives and livelihoods depend on these areas, and the species there found nowhere else on Earth.



FIRE RISK

After three consecutive La Niña weather cycles from 2020 to 2022 (a 'triple dip' La Niña), an El Niño has developed. This climate sequence is unprecedented. A La Niña brings wet weather to Asia's Pacific rim and dry conditions to the Americas, causing deluge or drought. An El Niño flips these conditions: causing fire risks in Southeast Asia and flooding risks in Latin America. A super El Niño – an extreme recurrence every 15-20 years¹– may be on the horizon, potentially leading to destructive tropical forest fires that raze jungles and degrade land, causing pollution and transboundary haze. To curb fire risk, RSPO has had a zero tolerance approach to the use of fire since 2005. Current criteria in the P&C 2018 and guidance in RSPO Best Management Practices (BMPs) are intended to prevent fires, or at the very least contain them if they occur, to minimise the damage on the environment, health and economy. Remote sensing tools aid in these efforts in order to prevent a spark from turning into a blaze.

Safeguarding Nature



RSPO Certification requires forests or areas of High Conservation Value (HCV) and High Carbon Stock (HCS) to be protected. Through 2022, RSPO Members have set aside and managed 362,657 ha of areas assessed as necessary for conservation, 15 times the size of Kuala Lumpur². Distribution is across 21 countries (Figure 1), with the largest extent in Indonesia (150,053 ha), Gabon (74,109 ha), Brazil (63,224 ha), Malaysia (22,296 ha) and Colombia (11,339 ha).

Deforestation risk is also addressed in pre-certification. The New Planting Procedure (NPP) applies to all new land development from the point of RSPO membership, segueing into P&C certification. Since 2015, 427,967 ha of NPP proposals have been submitted; 252,417 ha were approved for development and 96,577 ha have been conserved for environmental or social importance (HCV and HCS).

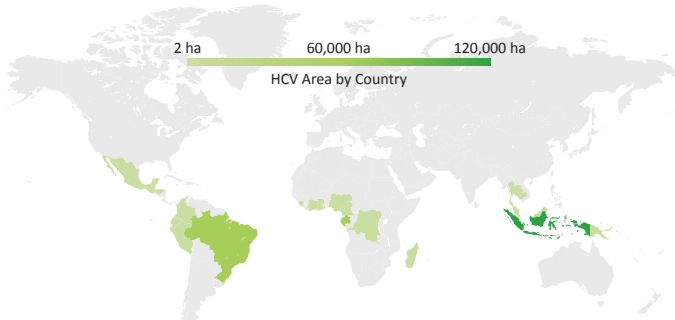


Figure 1: Distribution of RSPO conservation area by country in hectares (2022)

Water Stewardship



Water is crucial in palm oil, as a production input and as an affected resource. To be exemplary water stewards, RSPO Members are required by the P&C 2018 to have comprehensive water management plans for their catchment and treat Palm Oil Mill Effluent (POME), as wastewater impacts issues such as availability of clean water, freshwater ecosystem health and greenhouse gas emissions.

| | Indonesia | Malaysia | Latin America | Africa | ROW | Global Average |
|---|-----------|----------|---------------|--------|-------|----------------|
| Freshwater Usage per CSPO produced (m ³ /MT) | 4.95 | 5.63 | 6.61 | 5.47 | 1.67 | 5.02 |
| Freshwater Usage per CSPO produced (m ³ /kg) | 0.005 | 0.006 | 0.007 | 0.005 | 0.002 | 0.005 |

Figure 1: Estimated freshwater usage per MT/kg of CSPO produced (2022)

In 2022, average freshwater use was 5.02 cubic metres (m³) per MT of CSPO (Figure 1). Regional usage is similar, with the highest in Africa. As a fixed input, water footprints of certified mills are unlikely to be very different from conventional mills, but water sources may differ. Comparatively, abundant rainfall makes oil palm a less “thirsty” crop than soy or rapeseed. The P&C 2018 also covers riparian zones (fragile lands along rivers and streams) where development could adversely affect soil and water quality. Some 46,976 ha of riparian buffer zones have been set aside for protection within RSPO Certification.

¹The two most recent occurrences of a super El Niño were in 1997/98 and 2015/16, causing widespread persistent forest fires and hazardous air pollution conditions in Southeast Asia, and severe disruptive rainfall in Latin America.

²The Federal Territory of Kuala Lumpur in Malaysia is 23,400 ha in size.

Environmental Sustainability Index



Environmental sustainability covers a range of operational practices to reduce land degradation, protect human health, and address climate change. Our current dataset is limited to pesticide use, with a more representative baseline established. Monitoring for other aspects is being developed. In the RSPO Complaints System, 83% of 66 environment-related cases have been closed, from 79% in 2021.

| | Indonesia | Malaysia | Latin America | Africa | ROW | Global Average |
|---|-----------|----------|---------------|--------|------|----------------|
| Prophylactic Use of Pesticides | 1.2% | 4.4% | 3.3% | 4.8% | 0.0% | 2.5% |
| WHO 1A or 1B or Stockholm/Rotterdam Convention pesticides, or paraquat | 9.0% | 4.4% | 1.6% | 14.3% | 2.0% | 6.9% |

Figure 1: Pesticide usage in a sampling of RSPO certified units (2022)

In 2022, prophylactic pesticide usage to control disease occurred in only 2.5% of certified units, while restricted herbicides (paraquat) or pesticides to control outbreaks occurred in 6.9% (Figure 1). Usage was noted by auditors to be supported by due diligence, agronomist advice or government authorisation, in line with P&C Criteria 7.1. Some units also noted that such restricted practices had already been eliminated for Integrated Pest Management in preparation for RSPO Certification.

Fire Risk



RSPO monitors global hotspots daily in RSPO Member concessions (certified and non-certified)¹. Hotspots detected in, or near, an RSPO concession triggers a Hotspot Alert to members to verify potential fire for further action.

Monitoring data shows a consistent distinction in fire risk between RSPO and non-RSPO oil palm concessions² (Figure 1). In 2022, the probability of hotspots in non-RSPO concessions was at least 12.1% compared to 1.2% in RSPO concessions. Additionally, concessions on peat show an even more striking difference – at least 3.9% and 0.08%, respectively. Of RSPO hotspots detected, 28% were in-concession fires (down from 51% in 2021), the most common cause being spread from off-concession burning by local communities (65%). Of the remaining RSPO hotspots, 15% were false alarms, 28% were off-concession fires and 39% were inconclusive.

The 2023 El Niño phenomenon has already dramatically increased hotspots (+378% from January to September 2023). Monitoring, however, indicates that the probability of RSPO hotspots has actually declined considerably, inferring that RSPO Certification and membership does reduce a significant degree of fire risk.

| | 2021 | 2022 | Change | 2021 | 2022 | Change |
|--|-----------------|--------|---------------|----------------------------------|-------|---------------|
| Total Hotspots Detected | 85,471 | 67,922 | -20.5% | 100% | 100% | - |
| | <i>Of which</i> | | | <i>Probability of occurrence</i> | | |
| RSPO Hotspots (RSPO member concession, certified and non-certified) | 1,216 | 847 | -30.3% | 1.4% | 1.2% | -0.2% |
| Non-RSPO Hotspots² (known non-RSPO concessions) | 10,107 | 8,208 | -18.8% | 11.8% | 12.1% | +0.3% |
| RSPO Peat Hotspots (RSPO member concession, certified and non-certified, on peat) | 98 | 51 | -47.9% | 0.10% | 0.08% | -0.02% |
| Non-RSPO Peat Hotspots² (known non-RSPO concessions, on peat) | 3,579 | 2,647 | -26.0% | 4.2% | 3.9% | -0.3% |

Figure 1: Fire Hotspots in RSPO and non-RSPO concessions in Indonesia and Malaysia (2022, 2021)

¹Remote sensing tools include NASA Fire Information for Resource Management System and Global Forest Watch Pro.

²Based on known non-RSPO oil palm concession data available in geospatial platforms. The data library for Malaysia is largely incomplete, leading to under-counting. Hotspots detected in non-RSPO concessions represent the minimum level of occurrence, with the exact degree of unaccounted discrepancy undetermined.

Remediation



The Remediation and Compensation Procedure (RaCP) was adopted in 2015 to provide RSPO Members with an avenue to address past deforestation as responsible growers. Based on submitted disclosures of historical land clearance without prior environmental or social assessment since November 2005, potential non-compliant land clearing is identified and Land Use Change Analysis (LUCA) is conducted to assess any liabilities incurred. If liability is established, onsite, offsite or in-kind remedies making up for the loss of conservation areas or negative social impacts is required as a prerequisite for P&C Certification.

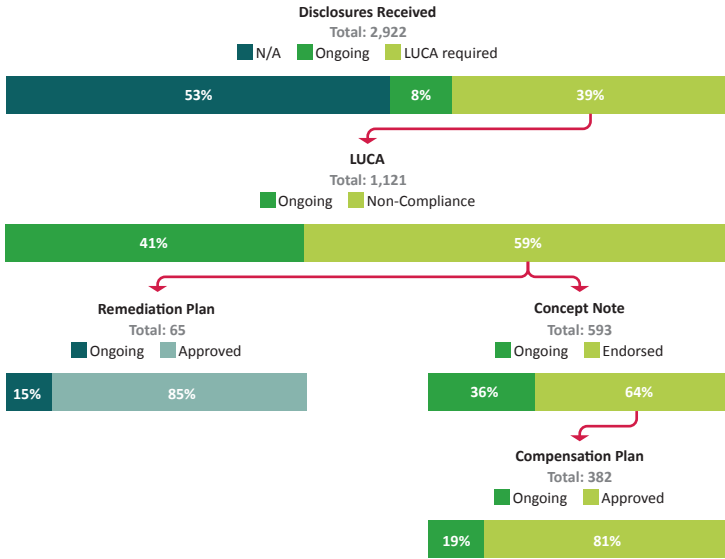


Figure 1: RaCP case progress/completion at each step of RaCP process (as of Dec 2022)

As of 31 December 2022, RSPO has received 2,922 disclosures from existing members, new applicants and group consolidation (Figure 1). Some 53% of disclosures did not involve non-compliance. Of the remaining 47%, 1,121 cases with potential non-compliance have proceeded to LUCA.

Completed LUCA assessments identified 658 cases requiring a Remediation Plan or Concept Note proposals for a Compensation Plan¹, depending on the nature of non-compliance. The extent of non-compliant land clearance is 706,295 ha out of a total oil palm area of 2.8 million ha across 24 countries. Excluding converted agro-forestry or degraded areas where development is permitted, deforestation of conservation areas incurred at least 163,747 ha in identified liabilities. Concept Notes for 382 cases have been endorsed and Compensation Plans for 311 cases approved, remediating 101,176 ha or an area almost the size of Hong Kong.

RaCP progress has improved with additional resources at the RSPO Secretariat. Post-2021, the average turnaround time to complete LUCA is 113 days (from 598 pre-2021), to endorse Concept Notes, 140 days (from 195) and to approve Compensation Plans, 101 days (from 297). Almost 87% of case closures were achieved between 2019 and 2022, and this operational efficiency is linked to 26 of the 44 new P&C certifications in 2022. We also note that incoming disclosures currently outpace case closures, indicating continued interest in pursuing RSPO Certification.

¹Remediation Plans where only environmental remediation is required due to clearing of prohibited areas (e.g., peat, steep slopes), with no conservation or social liabilities. Compensation Plans where conservation or social liabilities due to clearing of conservation areas (HCV) is determined through LUCA, calculated as Final Compensation Liability (FCL). Cases requiring Compensation Plans may also include environmental remediation.



LIMITING CLIMATE CHANGE

As with most agricultural activities, oil palm cultivation and palm oil production is both a cause and a casualty of climate change. It is thus crucial to ensure the adaptation of production systems and the reduction of greenhouse gas (GHG) emissions to address the challenges that emerge with the planet's rising temperatures.

RSPO approaches the climate change topic comprehensively. There are multiple components within our standards, systems and procedures that target the different aspects of limiting climate change. To avoid potential emissions, RSPO requires members with oil palm estate operations to identify, assess and estimate carbon stocks thoroughly prior to any new development. To sequester carbon, RSPO prohibits planting on tropical peatlands and requires remediation for historical deforestation. To reduce the risk of accidental emissions, RSPO has a zero tolerance approach to the use of fire, and remotely monitors hotspots daily for precautionary action. To mitigate operational emissions, we work with certified estates and mills to calculate their emissions risk profiles using the PalmGHG calculator, identifying opportunities and implementing plans to lower emissions levels.

Emissions Management - Avoidance



Any change in land usage releases carbon. This is especially so when the land use change involves conversion of pristine forests or landscapes. RSPO's Standards, systems and procedures aim to maximise emissions avoided by prohibiting land use change of valuable environments, while allowing development in areas, where appropriate, to support economic development. This includes mandatory environmental assessments, conservation requirements and protection criteria (e.g., peatlands, fire) within the P&C 2018 Standard and the New Planting Procedure (NPP).

Since 2015 (Figure 1), RSPO requirements have collectively avoided the release of a cumulative 2.2 million MT of CO₂ equivalent per year (tCO₂e/year). This corresponds to the annual emissions of 444,444 passenger cars – almost the size of Cambodia's total registered road motor vehicle fleet.¹ But what if RSPO did not exist? Our analysis suggests that the absence of RSPO or non-compliance of RSPO requirements could result in a worst case scenario of 404,740 tCO₂e/year released in total from areas currently conserved and protected through RSPO Certification.

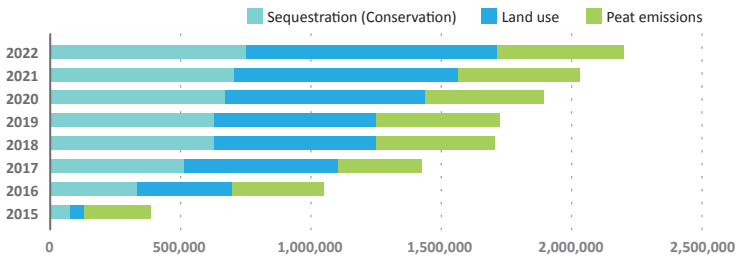


Figure 1: Cumulative GHG emissions avoided through RSPO procedures for new development

Emissions Management - Mitigation



Day-to-day operations in estates and mills involve some release of emissions. While unavoidable, the level of such operational emissions can be mitigated. From ACOP 2022 reporting, the three main operational sources of emissions identified by RSPO members are Palm Oil Mill Effluent (POME), fertiliser application and land use change. Other sources include existing cultivation on peatlands, fossil fuels, and grid electricity utilisation.

The RSPO PalmGHG v4 calculator allows more detailed analysis for further mitigation, by building an emissions risk profile for each certified unit. Analysis of PalmGHG results for 206 RSPO Certified units shows a median emissions profile of 1.6 tCO₂e/MT. Referencing available scientific research², while acknowledging methodological differences, this level is considerably lower than emissions associated with non-certified palm oil, or other notable vegetable oils replanted annually such as soy or sunflower. However, there are also large outliers in either direction in PalmGHG profiles. The main swing factor is POME, with PalmGHG formulae evaluating that advanced POME treatment (e.g., biogas capture) significantly lowers emissions risk. Monitoring the risks of POME and other emissions sources through PalmGHG allows RSPO certified units to consider business decisions to mitigate key climate change risks and reduce them.

¹Cambodia = 456,000 registered road motor vehicles (2020). Source: ASEANstats, ASEAN.

²Schmidt, J., & De Rosa, M. (2020), Certified palm oil reduces greenhouse gas emissions compared to non-certified, Journal Of Cleaner Production, doi: 10.1016/j.jclepro.2020.124045; Alcock, T., Salt, D., Wilson, P., & Ramsden, S. (2022) More sustainable vegetable oil: Balancing productivity with carbon storage opportunities, Science of The Total Environment, <https://doi.org/10.1016/j.scitotenv.2022.154539>; Schmidt, J. (2015), Life cycle assessment of five vegetable oils, Journal Of Cleaner Production, doi: 10.1016/j.jclepro.2014.10.011.



ADVANCING CERTIFICATION

The RSPO's three certification standards (RSPO Principles and Criteria, RSPO Independent Smallholder Standard for upstream production, and RSPO Supply Chain Certification Standard for downstream chain of custody) cover the entire sustainability journey of palm oil, ensuring traceability and providing assurance that RSPO Certified palm oil, and its many fractions and derivatives, is sustainable.

Continued advancement and growth in the reach and extent of RSPO Certification shows an established acceptance of RSPO Certification by the industry at large. This growth is more than just a series of rising numbers; the scale of RSPO Certification directly drives our ability to create and perpetuate positive impacts worldwide. It is also a means to enforce the RSPO Principles and Criteria and fulfill the standard's various social, environmental and ethical ambitions. From a foundation of strong certification and credible assurance, we can also initiate new approaches to certification or verification, and explore the use of technology to improve traceability across the supply chain to meet evolving expectations of sustainability.

Certification Trends



Reach of Certification

Globally, the certified area under the RSPO Principles and Criteria (P&C) 2018 Standard reached 4.9 million ha as of December 2022 (Figure 1), spanning five continents and 23 countries. Indonesia and Malaysia continue to account for most of this hectareage (almost 80%), while we observe significant growth in Africa, where certification has expanded to the West African island nation of São Tomé and Príncipe.

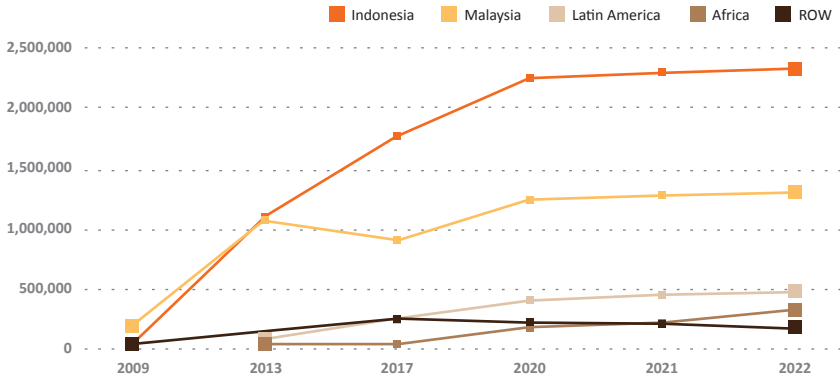


Figure 1: Evolution of RSPO Certified area by country or region

Of the 4.9 million ha of certified area, 3.6 million ha is classified as production area¹. Fresh Fruit Bunches (FFB) grown and harvested sustainably from such areas are delivered to 493 RSPO Certified mills to produce Certified Sustainable Palm Oil (CSPO). RSPO Certified mills represent 23.2% of the 2,128 known palm oil mills (Figure 2) tracked by the Universal Mill List². In 2022, growth in mills receiving their first-ever RSPO P&C certification was driven by Indonesia (+25 mills). We also note that the number of certified mills in Africa almost doubled (+10 new mills), and growth is still quite broad-based with Latin America and Malaysia adding 6 and 1 new P&C certifications respectively.

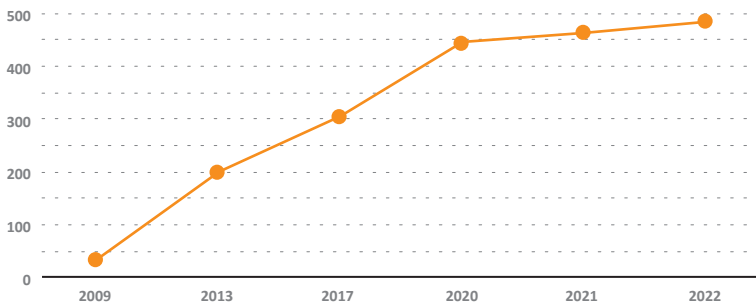


Figure 2: Evolution of RSPO Certified mills (global)

¹The difference between certified and production area is the hectareage dedicated to conservation and infrastructure (e.g., buildings such as mills, offices, storage, or infrastructure such as roads, water treatment areas, etc.).

²The Universal Mill List was launched in 2018, developed by the World Resources Institute (WRI), Rainforest Alliance, Proforest and Daemeter, with contributions from RSPO et al.

Traceability and Productivity

The number and extent of certified mills is important, as it illustrates the reach of RSPO Certification. The type of traceability model the mills are certified under is equally as important.

Of the 493 certified mills in 2022 (Figure 3), 313 were Mass Balance (MB) certified and 159 were Identity Preserved (IP) certified. A further 21 are dual IP-MB certified. Proportionally, MB certification is highest in Africa, Indonesia and Malaysia, while IP is more common in Latin America and ROW. Since 2018, new MB mills have outpaced new IP mills, seemingly a reflection of CSPO consumption growth driven by newer markets where downstream IP or Segregated (SG) physical infrastructure is not yet widely available (see Certified Consumption, pg 30). In 2022, the number of MB mills grew by 26, compared to +3 for IP mills.

| Country | Certification Model | | | |
|---------------|---------------------|------------------|----------------|------------------|
| | IP | MB | IP,MB | Total |
| Indonesia | 50 (-5) | 190 (+22) | 11 (+0) | 251 (+17) |
| Malaysia | 56 (+2) | 79 (-4) | 1 (+1) | 136 (+1) |
| Latin America | 32 (+2) | 21 (+0) | 5 (+2) | 58 (+4) |
| Africa | 4 (+3) | 19 (+9) | 1 (+0) | 24 (+12) |
| ROW | 17 (+1) | 4 (-1) | 3 (-1) | 24 (-1) |
| Total | 159 (+3) | 313 (+26) | 21 (+2) | 493 (+31) |

Figure 3: Active certified mills by country/region and Supply Chain Model³

Combining data on certified area and production (see Certified Supply, pg 29), RSPO can estimate productivity levels associated with CSPO. In 2022, the average global CSPO yield was 4.5 MT/ha, marginally lower than 2021, due to labour-related production drags in Malaysia and progressive additions of new P&C certificates over the year. The average global palm oil yield was 2.7 MT/ha, down slightly from 2021. By inference, average yields for non-RSPO palm oil was 2.4 MT/ha⁴.

In comparison to other vegetable oil crops (Figure 4), palm oil - whether CSPO, non-RSPO or total - has a high level of productivity and yield in terms of land use. Available data on global vegetable oil crop harvested area and oil production, CSPO may be up to 6 times higher than the average yield of sunflower oil, and could be up to 10 and 20 times higher than yields of soybean and coconut oil, respectively.

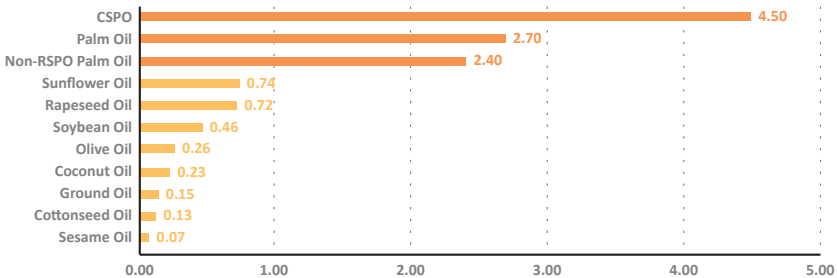


Figure 4: Comparative average yields (MT/ha) of palm oil (RSPO, non-RSPO) and other vegetable oils⁵

³The number of active P&C certified mills is a combination of the number of new mills (and associated supply bases) receiving their first-ever certifications, and fluctuations in the existing base of certified mills. Such fluctuations can be caused by a number of factors, including current status of P&C certification (e.g., suspensions, lapses or delays, extensions) or status of RSPO membership. Certified mills may also initiate changes to their certification's supply chain model - from MB to IP, or vice versa - as a business decision independent of RSPO rules.

⁴RSPO yields calculated from RSPO Assurance data. Global yield calculated from RSPO estimates for total palm oil production (Source: USDA, national sources) and total palm oil hectareage (estimated at 28,90,000 ha from the Food and Agriculture Organization of the United Nations/FAOStat, national sources, industry bodies or available research studies). RSPO and global yield data for 2021 has been recalculated for accuracy based on updated data sources.

⁵Yields for other vegetable oils based on oil production and area harvested data from FAOStat using 2020 or 2021 data, the latest of which is available.

Extent of Certification

To ensure credibility of sustainability claims, the RSPO Supply Chain Certification (SCC) Standard is crucial to ensure that what has been produced as sustainable is then traded, distributed, refined or processed as sustainable along an often-complicated downstream supply chain, and presented to consumers as trustworthy. If a product containing CSPO is sold to a non-certified site, the traceability chain halts and products from that supply chain node onwards will no longer be certified or traceable.

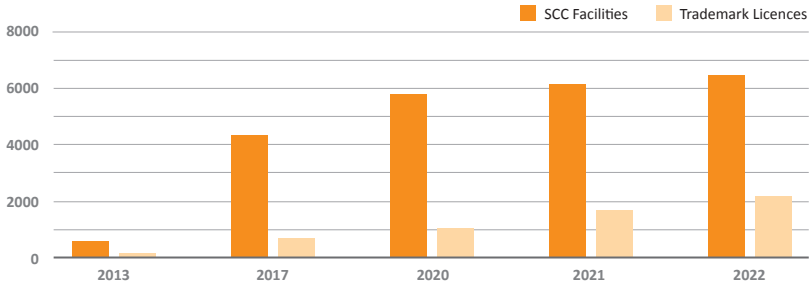


Figure 5: Evolution of RSPO SCC certified facilities and Trademark licences

The number of SCC certified facilities has seen significant and consistent growth, with the exception of a COVID-19 related decline in 2020, rising from 612 sites in 2013 to 6,428 sites in 2022 (Figure 5).

As of 31 December 2022, a majority of SCC certified facilities (Figure 6) are located in Europe (52%), with North America being the second-largest base (16%). This scale of SCC certification links to the high certified consumption levels in both markets (see Certified Consumption, pg 30). Beyond Europe and North America, we note that SCC certification in other key downstream markets is also gaining pace: China (+84 certified facilities from 2019), India (+41) and Indonesia (+50). We can also report encouraging growth in the following markets: Japan (+57% in certified facilities since 2019), South Korea (+270%), Taiwan (+133%), Thailand (+82%), Turkey (+29%) and Brazil (+74%).

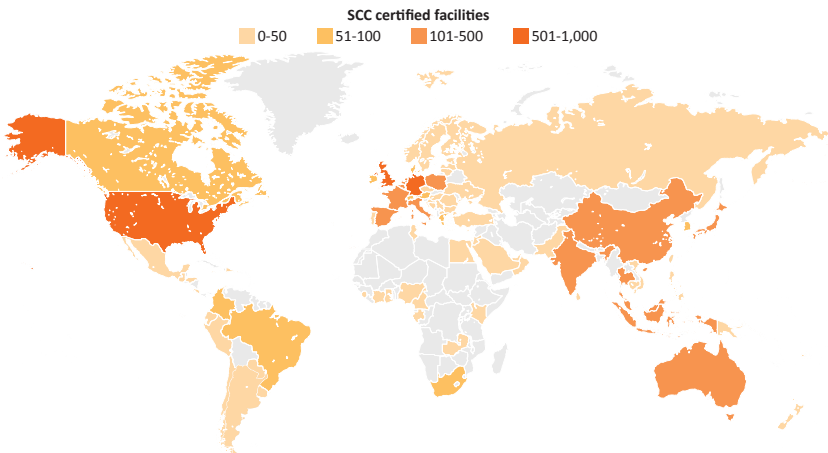


Figure 6: Global distribution of RSPO SCC certified facilities

On consumer visibility of RSPO Certification, use of the RSPO Trademark has grown from 181 licences covering 27 countries in 2013 to 2,143 licences covering over 100 countries and territories in 2022 (Figure 4), with usage for both general communications claims and on-pack labelling.



TRANSFORMING MARKETS

The standards, systems and procedures of the RSPO are intended to create a market ecosystem for sustainable palm oil to thrive worldwide. We set credible standards, establish rules, guide certification, convene stakeholders, and lead the dialogue on sustainability issues. Our role is to facilitate and monitor this market to better direct our outreach and development strategies.

Since 2008, when the first cargo of CSPO was shipped from Malaysia to Rotterdam, the market for sustainable palm oil has grown significantly. In 2022, 20% of the world's palm oil was produced under RSPO Certification. Certified consumption has accelerated as well, led by Europe and North America. However, due to different conditions, dynamics and velocities across regions, supply and consumption may be misaligned. While RSPO does not directly intervene in markets, our role is to energise, encourage and extend our membership base – especially in key consuming regions – to ensure that the global market for sustainable palm oil remains balanced, relevant and transformative.

Certified Supply



After the disruptions of COVID-19 in 2020 and 2021, the supply context for palm oil and CSPO continued to face challenges in 2022. A third consecutive La Niña climate pattern in the Pacific led to unseasonable weather cycles. There were also other localised issues - labour shortages in Malaysia, and a shift in Indonesia’s palm oil export policies (an export ban was introduced in May 2022 which evolved into controlled export quotas since June 2022).

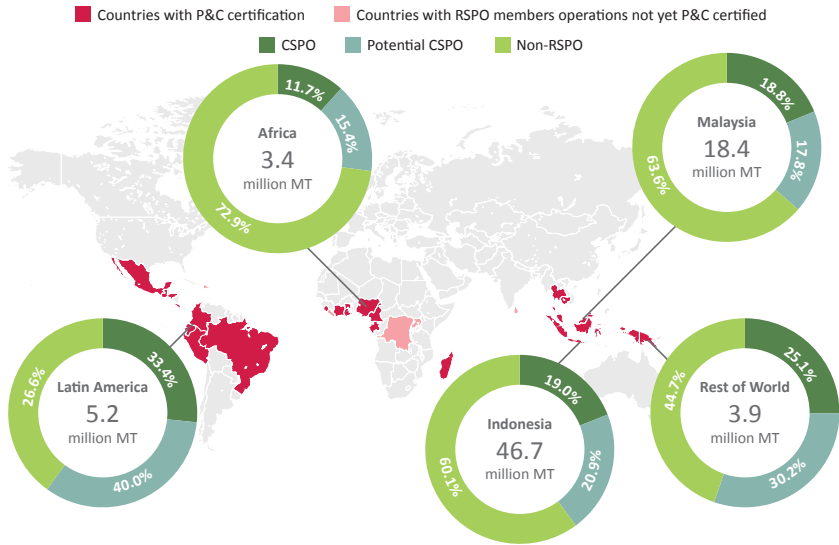


Figure 1: Global distribution of CSPO, potential CSPO and palm oil production (2022)¹

In spite of this, CSPO supply in 2022 is estimated to have grown by 4.8%, increasing by some 706,900 MT to 15.4 million MT in 2021 (Figure 1). Growth in CSPO supply outpaced growth of total crude palm oil by 1.4%. Against global production of 77.6 million MT in 2022, the CSPO share of total palm oil supply is 20% (Figure 2). Indonesia and Malaysia remain the largest producers, collectively accounting for over 80% of CSPO supply, while production is accelerating in other regions. Two milestones were reached in 2022: in Latin America, CSPO now represents a third of regional palm oil supply; and in Africa, the CSPO share of regional supply is at double digits for the first time.

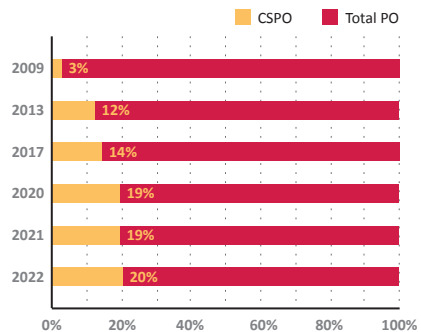


Figure 2: Evolution of global CSPO and total palm oil production

¹ CSPO actual production extrapolated from available audit data of certified mills and member Annual Communication of Progress (ACOP) reports. Total palm oil production estimated from USDA Oilseeds: World Market and Trade reports.

Certified Consumption



There were major downstream market disruptions in 2022. The invasion of Ukraine caused geopolitical and economic shocks: oil and natural gas prices jumped, while limited sunflower oil volumes altered global vegetable oils trade, causing food and energy inflation.

However, CSPO consumption has been resilient. CSPO supply is sold under three options: RSPO, other sustainability schemes, or as conventional. Of the 15.4 million MT in CSPO supply (Figure 1), 49% was sold as RSPO Physical (MB, SG or IP) and 15% as RSPO Credits, totalling 9.7 million MT, up 8.1% from 2021. Sales under other schemes fell to 16% from 19%, with conventional steady at 21%. Downstream, supply chain inefficiencies reduced RSPO volumes used in consumer products to 9.2 million MT, or 12.1% of global palm oil consumption (75.4 million MT).

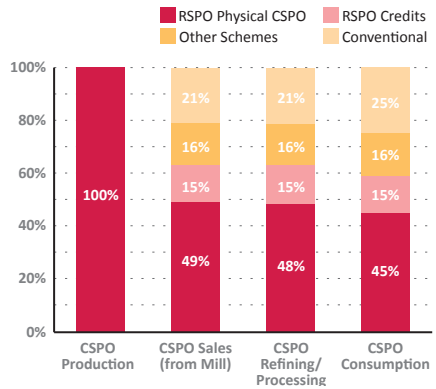


Figure 1: CSPO Supply/Consumption flow through the supply chain (2022)¹

Distribution is tilted towards Europe and North America. Both regions represent a combined 53% of CSPO consumption, with regional uptake near 90% levels (Figure 2). The multinational operations of European and North American RSPO members has also influenced the CSPO market in other regions. In 2022, consumption volumes increased in all regions except Europe. Malaysia is now at double-digit CSPO uptake for the first time and Latin America shows impressive growth from 10% in 2020 to 18% in 2022. Other notable markets are Australia and New Zealand (41%), Japan (27%), South Africa (17%), Mexico (15%), Singapore (14%) and Saudi Arabia (10%).

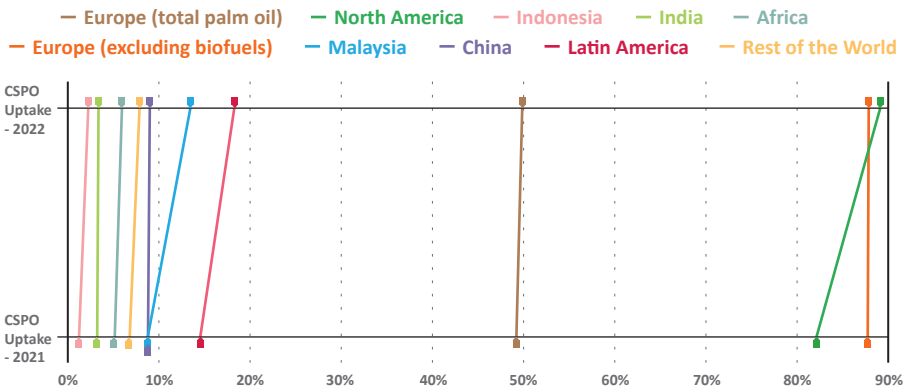


Figure 2: CSPO Uptake by key countries and regions (2022)

In CSPKO, we note that while certified kernel crushers increased supply by 9.8% in 2022, these additional volumes were quickly absorbed through strong demand, maintaining high premiums. However, there are signs that the tight CSPKO supply situation has begun to ease in 2023.

¹ CSPO consumption extrapolated from RSPO PalmTrace traceability data and member's Annual Communication of Progress (ACOP) reports. CSPO consumption includes volumes used by Consumer Goods Manufacturers, Retailers and Processors operating in animal feed, biofuels and power generation.

Shared Responsibility



Shared Responsibility (SR) is a framework for collective responsibility to achieve RSPO’s vision to make palm oil sustainable. The framework applies to Ordinary, non-grower members and the requirements covers four thematic areas: Transparency & Legality, Social, Environmental and Resourcing.

To drive CSPO consumption, SR requirements include annual uptake targets for members in the downstream palm oil supply chain (Processors and Traders, Consumer Goods Manufacturers, Retailers). Analysis of SR targets for 2022 (Figure 1) shows similar trends to 2021, although the major downstream market disruptions affecting supply chains should be noted (see Certified Consumption, pg 30). Retailers continued to perform well, with 70% meeting their targets. Performance was more broadly mixed in other sectors: 62% of Consumer Goods Manufacturers met targets (up from 59% in 2021), while 47% of Processors and/or Traders did (up from 41% in 2021). Several members specifically noted increased CSPO sourcing to meet SR targets in their ACOP 2022 reports, linking Shared Responsibility (at least in part) to the 8.1% or 725,000 MT rise in CSPO sold from mills to refineries for 2022.

In April 2023, the Shared Responsibility Scorecard was launched on the RSPO website as a public portal of overall SR performance. RSPO Members to whom SR applies are assessed on the SR requirements under four thematic areas and CSPO uptake target, if applicable. Scores range between 0 and 10 as an indication of where such members are in their sustainable palm oil journey. The SR Scorecard is updated annually, with the latest scores reflecting SR performance for 2022 based on ACOP 2022 data. Average scores by sector (Figure 2) indicate considerable progress made in collective SR performance, but also significant room for improvement.

Shared Responsibility Uptake Targets

| Year | P&T | CGM and RT |
|------|-----|------------|
| 2021 | 2% | 15% |
| 2022 | 2% | 12% |

Uptake Target Performance Category

| Category | Definition |
|---|---|
| ■ Target met | Member met the annual uptake target OR Member increased CSPO uptake to 100% |
| ■ Did not meet target | Member did not meet the annual uptake target |
| ■ >95% uptake | Member with >95% CSPO uptake but did not meet uptake target |
| ■ Did not submit ACOP | Uptake performance is unknown as member did not report ACOP |

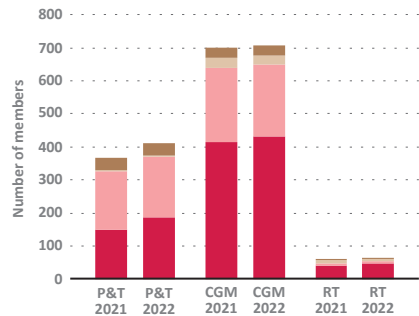


Figure 1: Shared Responsibility CSPO uptake target performance (2022 vs 2021)

| RSPO Membership Sector | Average SR score (2022) ¹ |
|------------------------------------|--------------------------------------|
| Palm Oil Processors and/or Traders | 1.62 |
| Consumer Goods Manufacturers | 2.07 |
| Retailers | 3.62 |
| Banks and Investors | 4.23 |
| Environmental or Nature NGOs | 3.55 |
| Social or Development NGOs | 2.66 |

Figure 2: Average Shared Responsibility scores by membership sector

¹The Shared Responsibility Scorecard methodology for 2022 was revised to account for and include SR requirements that are part of the original SR Framework adopted in October 2019, but not included in the SR Scorecard methodology for 2021 due to phased implementation. This revision in methodology accounts for the shift in average SR scores for the Processor and/or Traders, Consumer Goods Manufacturers and Retailer membership sectors.



APPENDIX - BASE DATA AND GLOSSARY

Base Data

Current and historical base data is available in the supplementary data file that accompanies the Impact Update 2023. Unless otherwise stated, all base data is representative of a calendar year (1 January to 31 December).

Glossary

Affiliate Members: RSPO Membership category consisting of organisations that are not directly involved in the palm oil supply chain, but have expressed interest in RSPO's objectives and activities. Membership extends to academia, research and development organisations, donors and sponsors. Affiliate members may attend the annual General Assembly as observers.

Annual Communication of Progress (ACOP): Reports submitted by RSPO Members to gauge progress towards producing, processing, consuming or supporting 100% RSPO Certified Sustainable Palm Oil. Reporting is mandatory for Ordinary and Affiliate members, and are submitted each year.

Best Management Practices (BMPs): Practical guidelines to enhance oil palm management.

Certification Body (CB): Organisation that provides third party auditing and certification services related to a product, process or system, and which can issue a certificate of compliance.

Certified Sustainable Palm Kernel Expeller (CSPKE): Palm kernel expeller produced by RSPO Supply Chain Certified kernel crushers from palm kernels derived from FFB grown on a plantation that has been managed and certified in accordance with the RSPO Principles and Criteria.

Certified Sustainable Palm Kernel Oil (CSPKO): Palm kernel oil produced by RSPO Supply Chain Certified kernel crushers from palm kernels derived from FFB grown on a plantation that has been managed and certified in accordance with the RSPO Principles and Criteria.

Certified Sustainable Palm Oil (CSPO): Palm oil derived from FFB grown on a plantation that has been managed and certified in accordance with the RSPO Principles and Criteria.

Crude palm oil (CPO): A type of vegetable oil obtained from the fruit of the oil palm.

Dispute Settlement Facility (DSF): The Dispute Settlement Facility is a part of the RSPO Complaints System and offers complainants, RSPO Members, and relevant stakeholders involved in an active social or environmental related complaint, the opportunity to resolve these matters through mutually agreed terms, with the help of DSF Mediation.

Final conservation liability (FCL): Compensation liabilities as a result of clearance without prior HCV assessment since November 2005 under the Remediation and Compensation procedure. FCL is expressed in hectares.

Free, Prior and Informed Consent (FPIC): A principle that a community has the right to give or withhold its consent to proposed projects that may affect the lands they customarily own, occupy or otherwise use.

Fresh Fruit Bunches (FFB): Fruit bunches harvested from oil palms. Each bunch can weigh from 5 to 50 kilogrammes and can contain 1,500 or more individual fruits.

Greenhouse gas (GHG): Term for gases which trap heat within the atmosphere. The primary greenhouse gases are water vapour, carbon dioxide, methane, nitrous oxide, and ozone.

Hectares (ha): A unit of measurement equivalent to 10,000 square metres, or 100m x 100m.

High Conservation Value (HCV) forest: Forests of outstanding and critical importance due to environmental, socio-economic, cultural, biodiversity and landscape value, first developed by the Forest Stewardship Council (FSC) in 1999.

High Carbon Stock (HCS) forest: Forests that are important to local communities or that have high carbon or biodiversity values.

High Forest Cover Country (HFCC): Countries having more than 60% forest cover; less than 1% oil palm cover; a deforestation trajectory that is historically low but increasing or constant; and a known frontier area for oil palm or where major areas have been allocated for development.

High Forest Cover Landscape (HFCL): Landscapes having more than 80% forest cover.

Hotspot: A small area with a relatively high temperature in comparison to its surroundings.

Human Rights Defenders (HRD): Individuals, groups and associations who promote and protect universally recognised human rights and contribute to the effective elimination of all forms of violations of human rights and fundamental freedoms of individuals and peoples. The definition does not include those individuals who commit or propagate violence.

Identity Preserved (IP): Supply chain model which assures that RSPO Certified palm oil is kept separate from oil that is not RSPO Certified. This oil can be physically traced back to its plantation of origin.

ISEAL Alliance: Global membership association for credible sustainability standards, which work together to improve the impact and effectiveness of current and potential future members.

Jurisdictional approach (JA): Certification approach of palm oil production at the jurisdictional level. The approach facilitates collaboration between local stakeholders and regional governments to improve the welfare of small-scale farmers, curb the use of environmentally destructive practices, and iron out supply chain inefficiencies.

Land Use Change Analysis (LUCA): Assessment determining changes to vegetation cover and land use over a given timeframe. Must be completed by RSPO Members prior to any conversion or new planting.

Living Wage (LW): The remuneration received by a worker, for work performed on regular hours, in a particular place sufficient to afford a decent standard of living for the worker and their family.

Mass Balance (MB): Supply chain model which allows certified claims to be transferred from one oil palm product to another, either through physical blending or administratively under strictly controlled circumstances.

Metric tonne (MT): A unit of mass equivalent to 1,000 kilogrammes.

New Planting Procedure (NPP): RSPO procedure providing guidance on how and under what conditions new oil palm plantings should be carried out, applicable to all RSPO Members with oil palm plantation operations.

Oil Palm: A species of palm (*elaeis guineensis*) and the principal source of palm oil. Native to west and southwest Africa, but is now cultivated in over 40 countries. Ideal growing conditions occur up to 10 degrees either side of the equator.

Ordinary Members: RSPO Membership category consisting of companies that have direct involvement, or have activities around, the palm oil supply chain. Only Ordinary members are allowed to submit resolutions and vote at the General Assembly.

PalmGHG: Calculator developed by the RSPO Greenhouse Gas Working Group (2010–2011) and further refined and improved by the RSPO Emission Reduction Working Group to estimate and monitor net GHG emissions risks from current estate and mill operations, as well as new plantings.

Palm Kernel Expeller (PKE): By-product of the Palm Kernel Oil extraction process, as a dried residue commonly used as meal in animal feed applications. Also known as Palm Kernel Cake.

Palm Kernel Oil (PKO): Oil extracted from the kernel or core of the palm fruit.

Palm Oil: Edible oil extracted from the fruit of the oil palm. Palm oil is one of the few highly saturated vegetable fats, remaining semi-solid at room temperature and suitable for a wide variety of applications, from food to personal care to energy applications.

PalmTrace: RSPO traceability system for certified oil palm products. Certified members use PalmTrace to register physical sales and processing activities under the IP, SG and MB supply chain models, as well as the trade of RSPO Credits.

Peat: Accumulation of rotting plant material, forming in wetlands or peatlands.

Remediation and Compensation Procedure (RaCP): Procedure whereby RSPO Members are required to remediate and compensate for land clearance without prior HCV assessment since November 2005.

RSPO Board of Governors (BoG): RSPO management body comprising 32 RSPO Members, representing each of the seven RSPO Ordinary membership sectors, designated for service by the General Assembly in two year terms.

RSPO Complaints and Appeals Procedure (CAP): Procedure for dealing with complaints arising from a breach of the RSPO Key Documents, and appeals against the decision of the Complaints Panel in relation to such Complaints.

RSPO Complaints Panel: High-level body that handles complaints against RSPO Members.

RSPO Credits / Book and Claim (B&C): Model wherein the supply chain is not monitored for the presence of sustainable palm oil. Manufacturers and retailers support the production of RSPO Certified sustainable oil palm products through the purchase of credits from RSPO Certified mills, kernel crushers and independent smallholders.

RSPO Drainability Assessment (DA) Procedure: Procedure to assess future subsidence and flood risks of peatlands, assisting RSPO Members to adjust management processes to reduce subsidence rates and prolong the workable lifetime of plantations.

RSPO Principles and Criteria (P&C): Guidelines on how to produce palm oil sustainably. The basis of all company assessments for certification and is reviewed for relevance at least once every five years.

RSPO Smallholder Support Fund (RSSF): Fund established by RSPO to help small, independent farmers secure sustainable palm oil certification while minimising costs. The RSSF is funded from 10% of annual revenue generated through the trading of CSPO.

Segregated (SG): Supply chain model maintaining separation between sustainable palm oil from different certified sources and ordinary palm oil throughout the supply chain. The model assures that RSPO Certified oil palm products delivered to the end user comes only from RSPO Certified sources.

Set-aside Area: Areas set aside that are not planned to be planted, such as peatlands, areas of fragile or marginal soils, steep slopes, etc., excluding HCV areas.

Smallholders: Farmers growing oil palm on a plantation of less than 50 hectares. Smallholders may be scheme (supplying FFB under a contractual arrangement with a specific palm oil mill) or independent (supplying FFB to multiple palm oil mills).

Standing Committees: Committees that oversee RSPO's overall operations, consisting of representatives from the RSPO BoG and RSPO Members. Four Standing Committees have been appointed: Standards, Assurance, Market Development, and Smallholders.

Supply Chain Associates: RSPO Membership category consisting of companies that procure, use or trade less than 500 MT of palm oil annually. Supply Chain Associates may attend the annual General Assembly as observers.

United Nations Sustainable Development Goals (SDGs): A set of 17 aspirational global goals to end poverty, protect the planet and ensure that all people enjoy peace and prosperity.

PARTNERS FOR THE Next20

RSPO is an international non-profit organisation formed in 2004 with the objective to promote the growth and use of sustainable oil palm products through credible global standards and engagement of stakeholders.

Roundtable on Sustainable Palm Oil

Unit 13A-1, Level 13A, Menara Etiqa,
No 3, Jalan Bangsar Utama 1,
59000 Kuala Lumpur, Malaysia

Other Offices

Jakarta, Indonesia
London, United Kingdom
Beijing, China
Bogota, Colombia
New York, USA
Zoetermeer, Netherlands



rspo@rspo.org



www.rspo.org