



RSPO

MOVING  
AHEAD



Credit: RSPO, Jonathan Perugia



IMPACT REPORT 2022

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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.

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IMPACT  
REPORT 2022

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# About This Report

In the two years since the previous Roundtable on Sustainable Palm Oil (RSPO) Impact Report was published, much has changed. The coronavirus disease (COVID-19) triggered a global pandemic, shutting down borders and disrupting lives. In March 2020, there were fears that RSPO's journey of transforming markets to make sustainable palm oil the norm would be interrupted, or even regress.

It didn't. Despite worldwide turmoil, RSPO continues to grow in almost all aspects. In this Impact Report, we are pleased to document sustained growth in membership and certification, encouraging progress in certified production and consumption, expanding reach in markets and to smallholder farmers, and most importantly, tangible positive impacts. Through the commitment and ambition of over 5,200 members, sustainability in the palm oil industry is now entrenched through RSPO. But we cannot stop here. We must continue to move ahead as an organisation and an industry to collectively address challenges of the future. Our progress since 2004 shows that change is possible, and we will continue our efforts to encourage change and transform markets.

*The RSPO Impact Report is a bi-annual publication narrating the impacts generated by RSPO and our members through certification and other RSPO systems and procedures. The report serves as a platform to communicate our achievements in terms of People, Planet and Prosperity to stakeholders and to the public. This report has been prepared in accordance with Target 12.6 of the Sustainable Development Goals, to integrate sustainability information as part of reporting cycles. We do this as a standard-setting organisation and as a membership body representing our members, because the impacts they have achieved through their individual sustainability commitments are the collective impacts of RSPO.*

*Reporting is on a calendar year basis, from 1 January to 31 December of respective years. Previous Impact Reports were reported on a financial year basis, from 1 July to 30 June; all data included in this report has been adjusted retrospectively unless otherwise stated. All references made in this report to 'RSPO', 'us' and 'we' refer to RSPO.*

*All previous RSPO Impact Reports can be accessed on our webpage ([www.rspo.org](http://www.rspo.org)).*

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# CEO'S FOREWORD

**It is with great pride and honour that we present the RSPO Impact Report 2022, marking nearly two decades since the roundtable process for sustainable palm oil was initiated. This report is as much a detailed summary of our impact as it is a snapshot of RSPO's history as a global organisation in the ever-changing landscape of sustainability.**

Looking back, it is highly encouraging to see RSPO's evolution over the years. Many milestones have been reached since our foundation, not least of which is our significant expansion. Today, we count over 5400 members, spread across all regions of the world. Despite coming from different sectors of the palm oil value chain, our membership has been bound by our solid commitment and shared values, steering us towards our vision of transforming the market to make sustainable palm oil the norm.

On numerous occasions, I have mentioned that sustainability is a journey. And while we still have a long way to go in our own path to reach our vision, in many ways, RSPO has already transformed the market – RSPO first sowed the seeds of sustainability in the palm oil industry two decades ago when it set an ambitious goal of catalysing change, and today we see those actions bearing fruit. This Impact Report outlines in quantitative terms RSPO's positive impacts across a broad swath in the sustainability spectrum, showing how we are squarely aligned with the UN Sustainable Development Goals. Our impacts continue to be wide and deep in the areas of upholding human rights, smallholder inclusion, environmental protection, fire prevention, climate change mitigation, certification and market transformation.

To highlight just a few of the key findings of this report: today, an estimated 4.5 million hectares of land are RSPO certified, and of this area, over 300,000 hectares – equivalent to about 12 times the city of

Kuala Lumpur – are conserved and protected through RSPO certification. Certified Sustainable Palm Oil (CSPO) production increased by nearly 900,000 metric tonnes in 2021, reflecting a year-on-year-growth of 6.3%. Certified scheme and independent smallholders operate across an area covering 416,791 ha, which is more than the total oil palm production area in Ghana. Greenhouse gas emissions that have been prevented since 2015 are equivalent to nearly 400,000 cars driven annually – roughly the emissions of the entire motor vehicle fleet of Macau and Brunei combined. Over US\$4 million has been directed by RSPO Smallholder Support Fund to thousands of smallholders across 12 countries since 2013.

Yet reading beyond the numbers, there is a much bigger story. Personal stories and testimonials of people we have collaborated with over the years – from smallholders, partner farmers, communities and company managers – all of whom depend on the oil palm crop, and whose lives and livelihoods have been enriched when sustainability was placed at the heart of our actions.

I encourage each of our members to contemplate these stories and feel proud of what we have accomplished, working in synergy throughout the years. May they also fuel our motivation to step up over the next decade, reaffirm our shared responsibility and fortify our alliances in this next chapter of scaling up the sustainable palm oil value chain.

I look forward to the years to come to continue our own story of sustainability, as a force for good for the planet and people.

**Joseph D'Cruz**  
*Chief Executive Officer, RSPO*

## Profile of Joseph D'Cruz

Joseph D'Cruz was appointed Chief Executive Officer of the RSPO by the Board of Governors with effect from 15 March 2022. With extensive experience in sustainable policy, business strategy, feasibility analysis, privatisations and sectoral approaches, JD also brings valuable knowledge in the development and implementation of complex, multi-stakeholder initiatives.

Currently based in Kuala Lumpur, JD was born in Malaysia, and educated in Malaysia, Australia and the United Kingdom with degrees in politics, economics and international development. He began his career in management consulting, working in a range of sectors and industries prior to joining the UN.

JD has over twenty years' experience in sustainability, having worked on a range of global development challenges from environmental conservation and

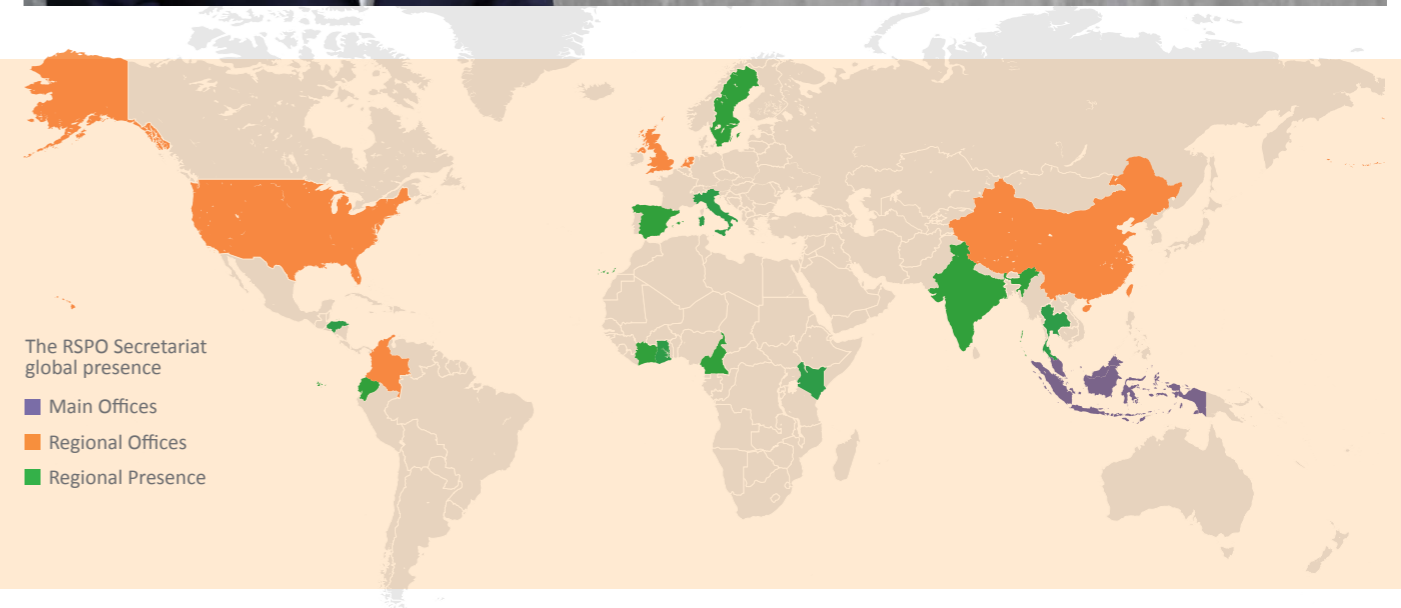
climate change to poverty reduction, economic development and disaster recovery. In his most recent position as Special Advisor, Strategic Planning & Innovation at the United Nations Development Programme (UNDP) in New York, he led UNDP's global strategy development, futures and innovation functions, working directly with the head of UNDP. He led the creation of a global network of solution-finders for sustainable development, connecting experts in 170 countries and territories to address world challenges. During his career he has worked with governments, industries and communities at all levels across the Asia-Pacific as well as globally. He has previously also held the position of Co-Chair of a Global Future Council at the World Economic Forum.



## The RSPO Secretariat

In his capacity as CEO, Joseph D'Cruz is supported by a global team at the RSPO Secretariat. The team is currently almost 150 people in strength, spanning 19 countries. The RSPO Secretariat handles the day-to-day operations of RSPO, coordinated from Kuala Lumpur, Malaysia and Jakarta, Indonesia with offices and colleagues in North America, Latin America, Europe, Africa and Asia. The key roles of the RSPO Secretariat are in standards development, technical guidance,

assurance, market transformation, stakeholder engagement and communications, membership support and impacts. These operations are backed by the critical functions of human resources, business solutions, finance, and legal compliance. The RSPO Secretariat aims to be an employer of choice through continuous organisational development and embracing diversity, in line with the principles, criteria and ambitions of RSPO.



# LETTER FROM THE CO-CHAIRS OF RSPO

Dear Fellow Members and Stakeholders,

In times of crisis, true character emerges. Little did we know back when we last published our Impact Report that the world would soon be facing an unprecedented pandemic upending the status quo. The global community suddenly found itself plunged into times of uncertainty, living with new social norms and working in modified virtual environments from the safety of the indoors. Yet despite the many challenges and disruptions brought about by pandemic-related lockdowns and restrictions, we are proud to say that RSPO has held itself strongly and soldiered ahead, emerging even stronger as a global organisation.

This makes the latest RSPO Impact Report 2022 even more encouraging, as it encapsulates our continuing achievements aligned with our goal of sustainable market transformation, despite the many difficulties we faced.

The challenges of the last few years have urged us to step back and reflect and rectify our shortcomings, as well as reinforce our strengths as we navigate the sustainability landscape that grows more challenging by the day. One of the most significant changes we have made in this period has been boosting the RSPO Secretariat's senior staff with a fresh lineup of highly competent talent. In March of this year, we warmly welcomed Joseph D'Cruz (JD) as our new Chief Executive Officer. JD has an impressive track record working on a wide spectrum of global development issues, from environmental conservation and climate change to poverty reduction and economic development. He joined us after previously working as the Special Advisor, Strategic Planning and Innovation at the United Nations Development Programme (UNDP), and as a Co-Chair of a Global Future Council of the World Economic Forum. JD's professionalism, organisational acumen and down-to-earth approach to leadership has been an inspiration for us all, and we are confident that he will steer us to even greater heights in our next stage of transforming the palm oil value chain.

RSPO has also been mindful of the struggles of smallholders who were severely affected by the pandemic. Which is why in 2021, we allocated a hardship allowance of 1.2 million Malaysian ringgit (about US\$270,000) to the RSPO Smallholder Support Fund as an additional mechanism of support for smallholders. This assistance helped farmers in Indonesia and Malaysia access Covid healthcare and medical assistance, new farming equipment, protective gear and food supplies.

Apart from financial aid, we continue to build closer ties with smallholder groups and local communities through our outreach programmes across the regions where we operate. We are particularly proud of the many milestones that smallholder groups achieved over recent years, especially in emerging producer regions. In 2021, The Ngoyai Gbaayegie Group in Sierra Leone, composed of nearly 5000 smallholder farmers owning a total land area of 8667 ha, became the first independent smallholders group in Africa to be certified by RSPO – making them the single largest certified independent smallholders group across all regions do date, in terms of the number of smallholders. We also applaud the Ghanaian farmers who became the country's first RSPO certified Independent Smallholder Group in 2022, embodying how sustainable agriculture can improve livelihoods and mobilise community development. Four Mexican Independent Smallholder groups who participated in the Holistic Programme of PepsiCo, Nestlé, Oleofinos, and Oleopalma, obtained the first RSPO certification in the Latin American region. And in Southeast Asia, Thai smallholders completed the first Master Trainers Course from the RSPO Smallholder Trainer Academy.

At times, as we pore over the details of our projects and programmes in our day to day responsibilities, we may be 'missing the forest for the trees'. Yet when we look back and take a broader view, and see these 'firsts' as well as the positive data outlined across the impact indicators in this year's report, we should be proud of just how much we can achieve when we work in synergy. These accomplishments are a reflection of the genuine resilience, strength and diligence of our Membership, and for this we would like to express our heartfelt gratitude.

The storm may have passed, but this does not mean there won't be more ahead. Yet we believe that we are better equipped today with the resources, expertise and clarity of vision to face the challenges to come.

**Anne Rosenbarger and Dato' Carl Bek-Nielsen**

## Profile of Dato' Carl Bek-Nielsen

Dato' Carl commenced his career with United Plantations Bhd in 1993 as a Cadet Planter before obtaining his degree in Agricultural Science from the Royal Veterinary and Agriculture University of Copenhagen, Denmark. In 1997, he returned to Malaysia to resume his career as a Corporate Affairs Officer with United Plantations Bhd. Today, he holds the position of Vice Chairman and Chief Executive Director of United Plantations Bhd. He is involved in several aspects of the palm oil industry and the company's overall business operations, adopting a "hands-on" approach.

He has close to 20 years of experience within the palm oil industry, and has been a Council Member on the Malaysian Palm Oil Council (MPOC) for a total of 15 years from 2005 to 2020. He has also been a member of the Programme Advisory Committee to the Malaysian Palm Oil Board from 2008 to 2019. He has been a Council Member of the Malaysian Palm Oil Association (MPOA) since 2005.. In November 2014,

he was appointed to the RSPO Board of Governors as Co-chair representing the MPOA. Dato' Carl has presented several papers at various international and local conferences on issues relating to sustainable palm oil production and agriculture in general.



## Profile of Anne Rosenbarger

Anne Rosenbarger is the Global Engagement Manager for Commodities and Finance at the World Resources Institute. She has been based with WRI in Indonesia since 2010, concentrating on the links between agribusiness supply chains and forest conservation. Her primary focus is on engaging and convening stakeholders to identify, align on, and implement evidence-based tools and processes for addressing commodities-driven deforestation and conversion. She is currently working as part of the Global Forest Watch Pro and Forest Data Partnership initiatives.

Anne was elected to the RSPO Board of Governors in 2015, representing Environmental NGOS and was appointed as co-chair in 2018. She serves on various other RSPO groups such as the Standards Standing Committee, Biodiversity and High Conservation Value Working Group and No Deforestation Task Force.

Prior to joining WRI, Anne conducted research on a range of topics related to tropical ecology and community based forestry management. She received her Master's degree from the Nicholas School of the Environment at Duke University.



## The RSPO Board of Governors

Dato' Carl Bek-Nielsen and Anne Rosenbarger co-chair the RSPO Board of Governors that comprises 16 members, designated by the RSPO General Assembly to serve a term of 2 years each. Another 16 members serve on the Alternate Board of Governors. To ensure an efficient and progressive management, the BoG is supported by four Standing Committees. Each Standing Committee (Standards, Assurance, Market Development, Smallholders) includes members from the Board of Governors and Alternate Board of Governors, as well as other RSPO members.

The representation and composition of the RSPO Board of Governors is:

Sector/Member Category	Number of Seats
Oil Palm Growers	4*
Palm Oil Processors and/or Traders	2
Consumer Goods Manufacturers	2
Retailers	2
Banks/Investors	2
Environmental/Nature Conservation NGOs	2
Social/Development NGOs	2

\*Representing oil palm growers in Indonesia, Malaysia, Rest of the World and Smallholders

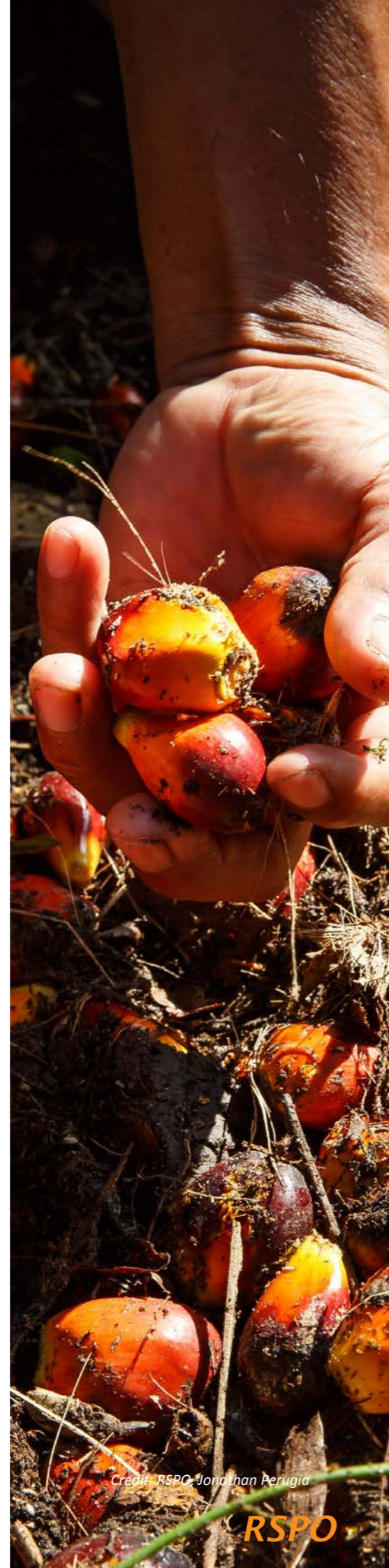
# ABOUT RSPO

The Roundtable for Sustainable Palm Oil (RSPO) is a non-profit, multi-stakeholder organisation with the objective to promote the growth and use of sustainable palm oil and palm oil products. Our vision is to transform markets to make sustainable palm oil the norm, by convening stakeholders from across its different sectors to set and implement the most ambitious standard for sustainability in the industry. RSPO members represent the entire spectrum of palm oil stakeholders, from those that grow oil palm and produce palm oil (Oil Palm Growers, Independent Smallholders), those that trade, process, use and sell palm oil products (Processors and/or Traders, Consumer Goods Manufacturers, Retailers), those that finance the industry (Banks/ Investors) to those that monitor the industry (Environmental/ Nature Conservation and Social/ Development NGOs).

Since our establishment in 2004, the ambition of RSPO has always been to drive change. Our standards have led the way in defining what sustainability means for the countries, companies and farmers that depend on the crop. Our certification covers the entire span of the palm oil value chain from plantation to mill to refinery to factory to consumer, emphasising the crucial element of traceability. Our impacts describe the positive social and environmental change that we are making and that we hope to make, strengthening our standards and certification in the process to ensure that palm oil remains equitable and sustainable in the decades to come. This is only possible through the efforts and cooperation of our members, who meet annually at the General Assembly to set the ambition of RSPO into motion.

In the 15 years since the first metric tonne of Certified Sustainable Palm Oil (CSPO) was produced in 2008, the global certified area of oil palm and global production of CSPO has grown in size and scope. It now represents a fifth of all palm oil produced in the world. Our certified production base covers 21 countries and over 460 mills in the key regions of Southeast Asia, Latin America and Africa. These certified volumes are processed and used in over 6,000 certified facilities globally to produce a wide range of products, a growing number of which carry the RSPO trademark. Our membership has grown from a few founding members in 2004 to over 5,200, with entrenched support in Europe and North America, and increasing interest from developing regions.

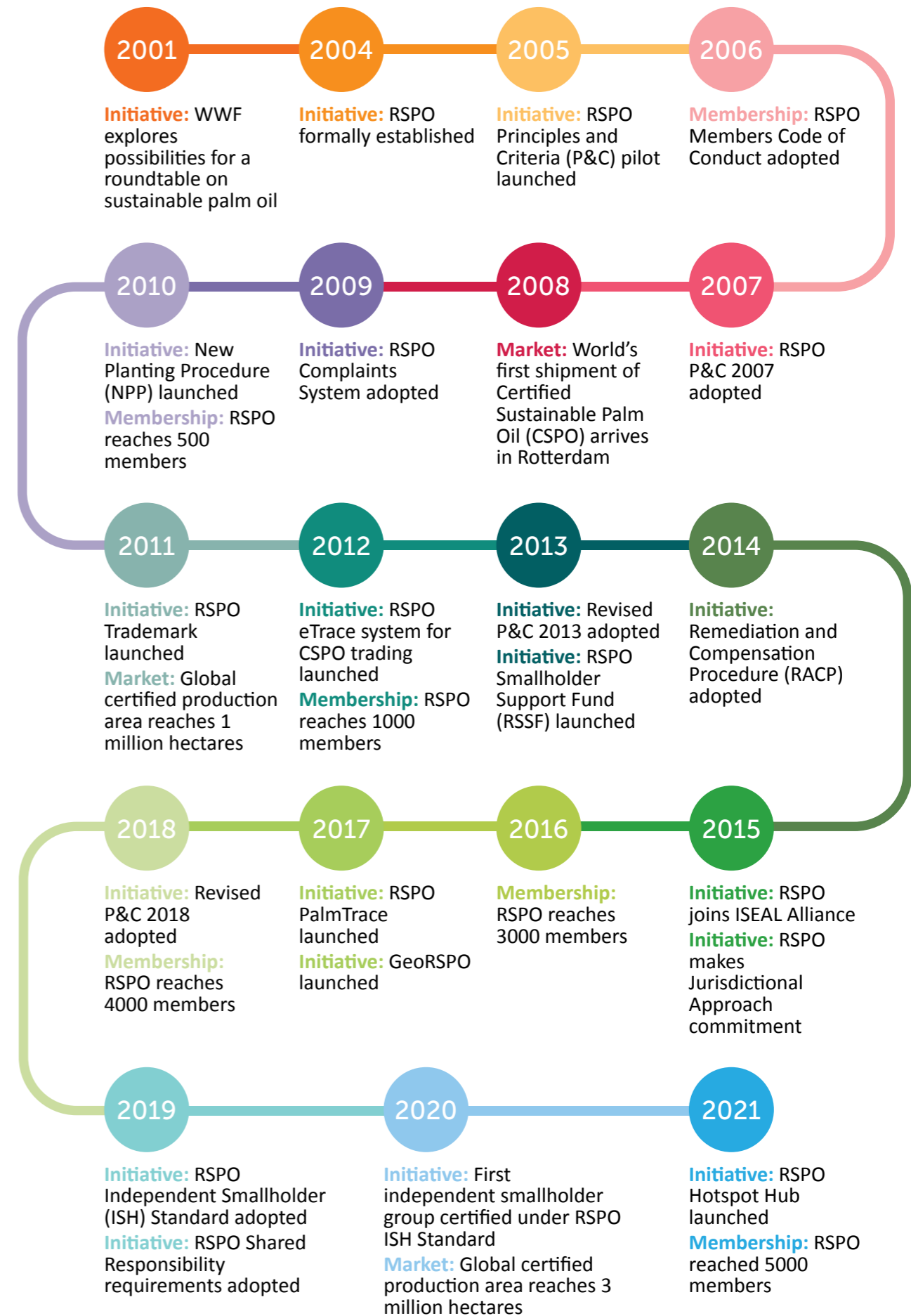
In 2020, the world changed when the coronavirus disease (COVID-19) pandemic led to unprecedented global disruption. Consequently there were fears that RSPO's ambitions would be disrupted. This has not happened. In spite of operational lockdowns, individual restrictions and challenges for our members, RSPO has continued to grow. Between 2019 and 2021, our membership has grown by over 650. The RSPO certified area has grown by over 400,000 hectares worldwide, while the global production and consumption of CSPO has accelerated. Our members have collectively continued to drive the change that RSPO wants to make even in the "new normal". We want to continue moving forward with this momentum. There is much ground to cover before sustainable palm oil is the norm, but the entrenched support by RSPO members shown over the past two years is a sign that it can be done.



Credit: RSPO, Jonathan Perugia

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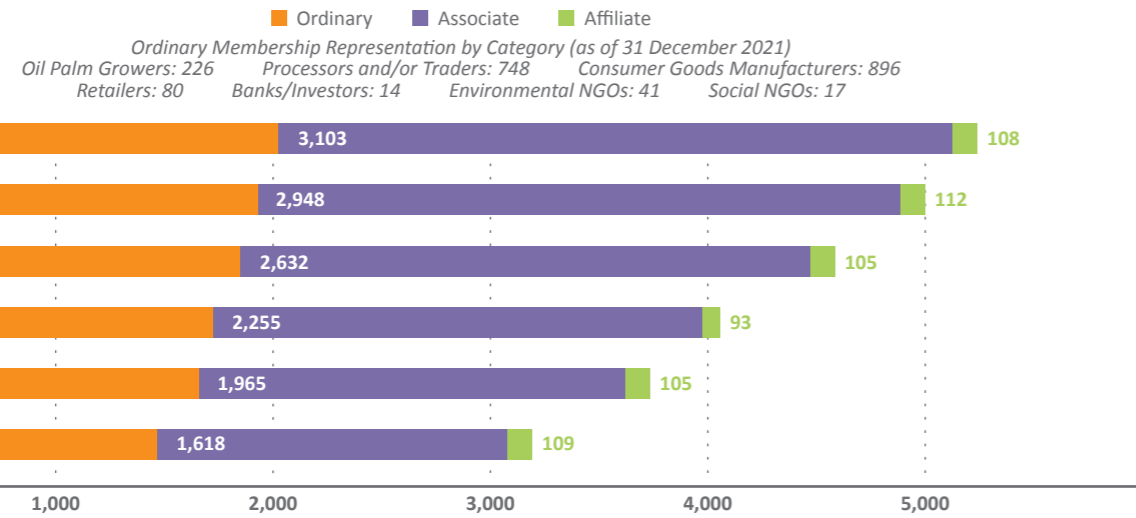
## RSPO Throughout The Years



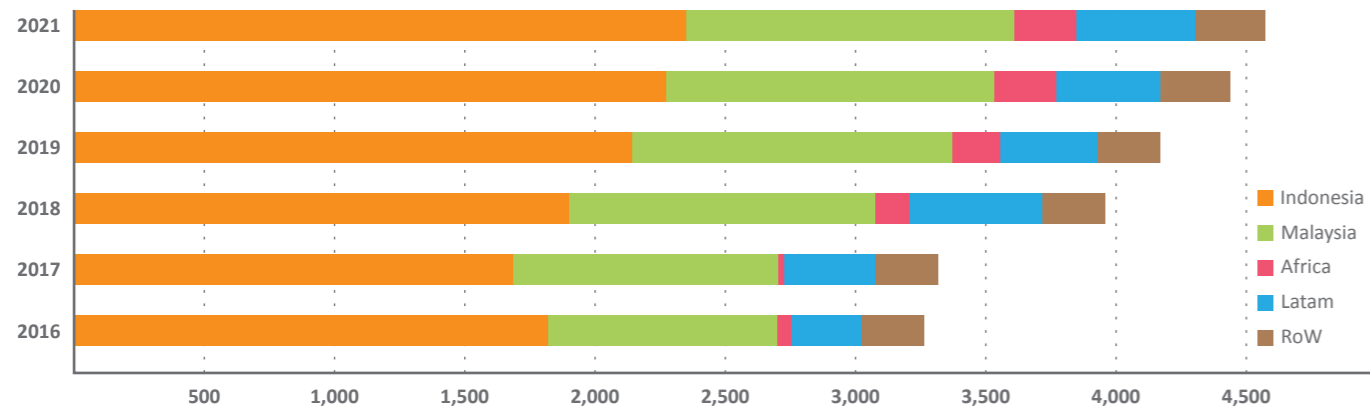
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# RSPO IN NUMBERS

## Growth in RSPO membership

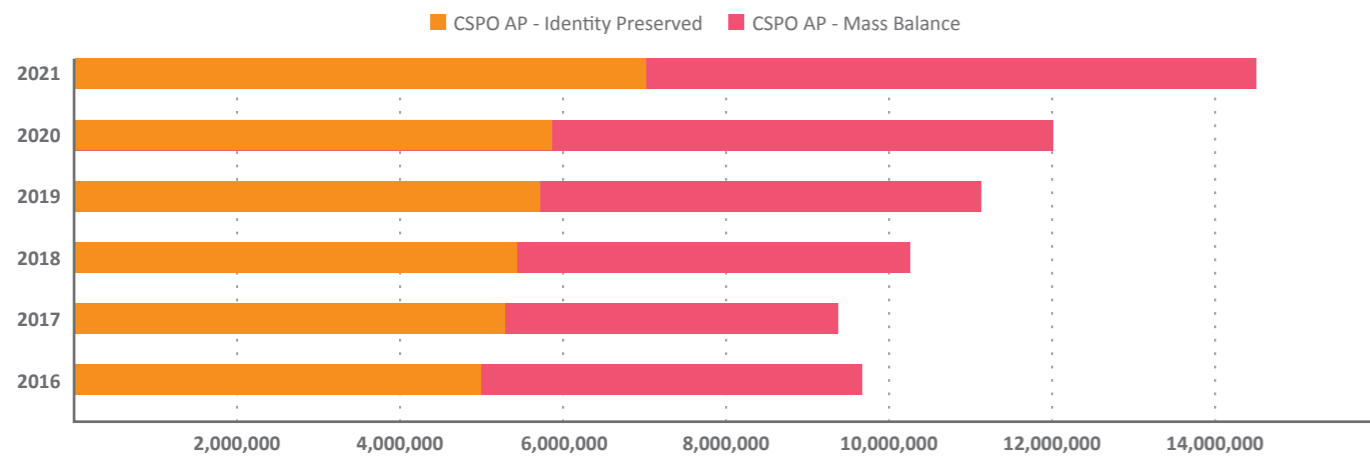


## Growth in RSPO Certified Area

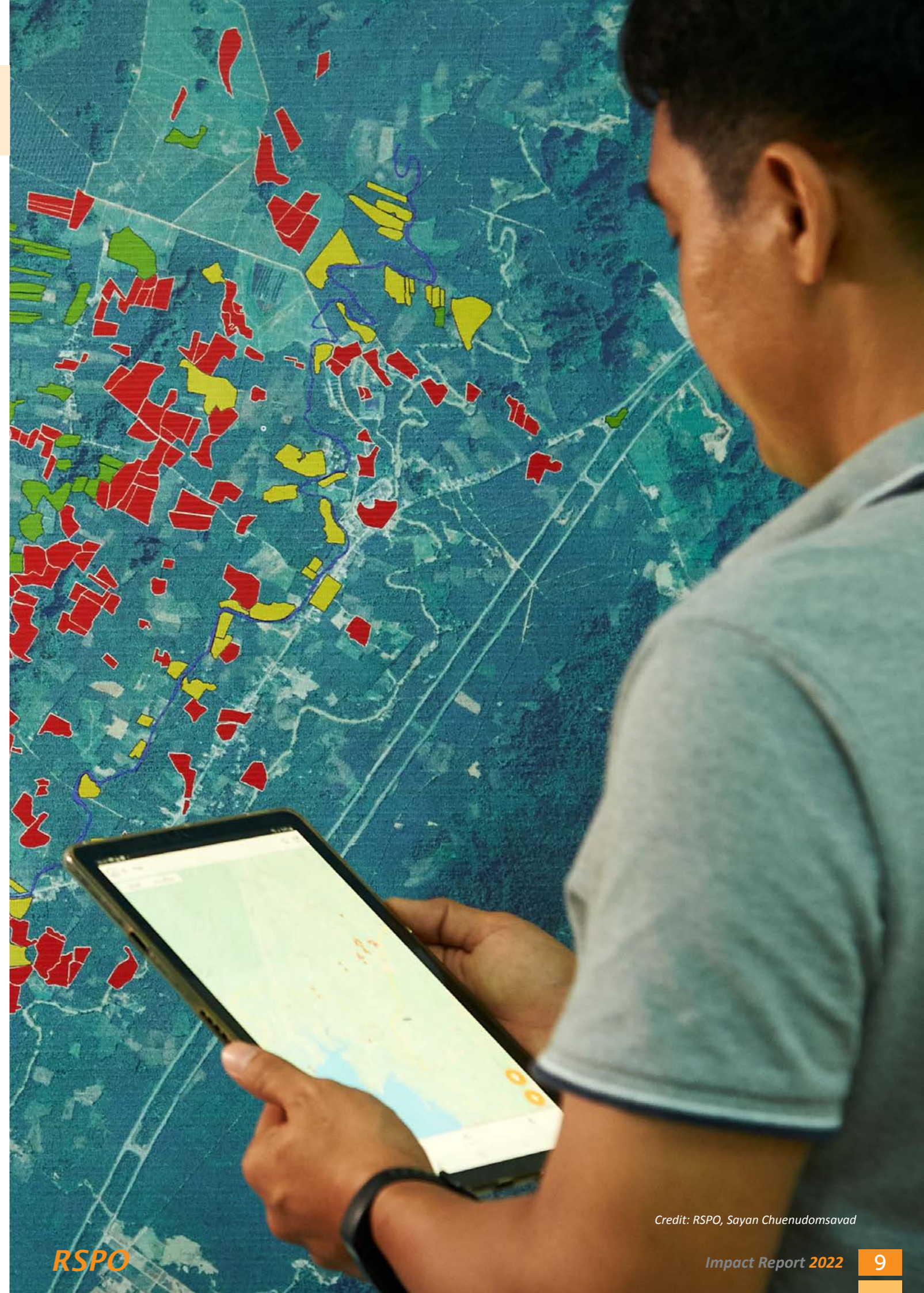


Note: All figures are cumulative of the calendar year (1 January to 31 December)

## Growth in Estimated CSPO Actual Production (AP)



Note: All figures are cumulative of the calendar year (1 January to 31 December)



Credit: RSPO, Sayan Chuenudomsavad

# THE EVOLUTION OF RSPO IMPACTS

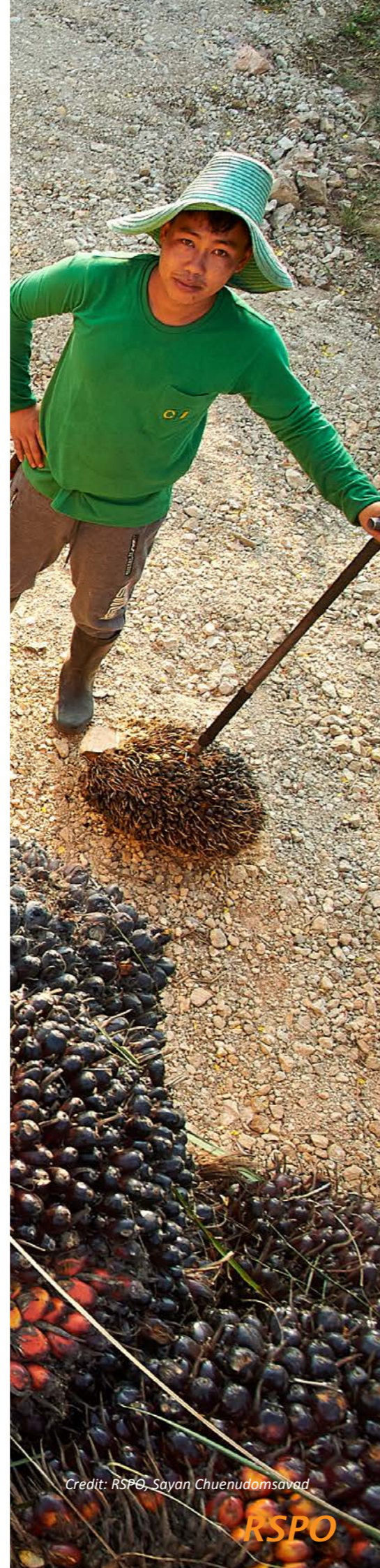
In 2017, the first RSPO Theory of Change was published, providing a roadmap on how RSPO and our members would achieve the vision of transforming markets to make sustainable palm oil the norm. By engaging stakeholders, setting standards and showing sustainability leadership, RSPO has created a conducive framework and an enabling ecosystem to drive sustainability forward in the global palm oil industry. As all stakeholders across the value chain play their own roles of responsibility, the vision of RSPO is being achieved and represented through our three impact pillars: People, Planet and Prosperity.

The RSPO Theory of Change has underpinned our work and progress since by outlining the strategies that we must take, and the support that we must galvanise, to turn theory into reality. Our Monitoring and Evaluation (M&E) framework was aligned to the Theory of Change, placing the outputs and outcomes of the RSPO standards in the context of our impact pillars. Data gathered through RSPO certification, and other RSPO systems and procedures, is crucial in defining the progress that has been made, as well as identifying trends and gaps. This process of monitoring and evaluation is supported by research, RSPO-commissioned or independently-conducted, with the RSPO Research Agenda guiding priority topics for research institutions to assess and examine the impact of RSPO.

We are now taking this further. In order to provide a broader, deeper and better narrative of RSPO and its impacts, we are revising our approach to M&E, and redefining how we present our intended impacts. Our Theory of Change is being reviewed for relevance in a changing sustainability landscape to

better illustrate how our expected change will be achieved. Our M&E framework has been expanded to Monitoring, Evaluation and Learning (MEL), adding a “learning” function to create feedback loops that set our standards development and assurance systems on a path of continuous improvement. And our impacts have been recalibrated into a new RSPO Impact Framework to better narrate what RSPO has achieved and how much further we have to go. These revisions are expected to be completed in 2023, providing a clearer, more strategic and relevant direction for RSPO to move into the future.

The new RSPO Impact Framework underpins this Impact Report. Through a thorough review of our data and comprehensive mapping against the United Nations’ Sustainable Development Goals, we have codified our impacts into an initial set of seven Impact Themes and 15 Impact Indicators. The themes are arranged in a general rhythm of People, Planet and Prosperity. Each indicator has been developed to align with our impact pillars and mapped to priority SDG goals and targets. Although some indicators are still in development as we adjust our data systems and architecture, we are using the framework for this report as a statement of intent and ambition. The RSPO Impact Framework is also designed to be fluid and flexible. As the RSPO standards evolve, our impact indicators can be adjusted to include new aspects or introduce new indicators on important topics such as decent living wages and jurisdictional approaches. This Impact Report is an introduction to the new framework, as a way of defining how RSPO will evaluate its progress in the years to come, expanding and evolving as necessary.



Credit: RSPO, Sayan Chuenudomsavad

## The RSPO Impact 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	PEOPLE PLANET PROSPERITY
	Labour Index	Progress on respecting workers’ rights and labour conditions through RSPO certification	PEOPLE PLANET PROSPERITY
	Human Rights Risk	Status and risk level of human rights breaches within RSPO certification	PEOPLE PLANET PROSPERITY
Including Smallholders	Smallholder Participation	Encouraging and assisting palm oil smallholder farmers towards sustainability	PEOPLE PLANET PROSPERITY
	Smallholder Certification	Progress on the reach and extent of smallholder farmers within RSPO certification	PEOPLE PLANET PROSPERITY
Protecting and Restoring Nature	Safeguarding Nature	Progress on halting deforestation and preserving biodiversity within RSPO certification	PEOPLE PLANET PROSPERITY
	Environmental Sustainability Index	Progress on promoting environmentally sustainable practices within RSPO certification	PEOPLE PLANET PROSPERITY
	Water Stewardship	Promoting responsible usage of water and protecting freshwater ecosystems within RSPO certification	PEOPLE PLANET PROSPERITY
	Remediation	Upholding responsibility with respect to historical deforestation through RSPO procedures	PEOPLE PLANET PROSPERITY
Preventing Fire	Fire Risk	Progress on mitigating and minimising fire risks within RSPO certification	PEOPLE PLANET PROSPERITY
Limiting Climate Change	Emissions Management	Progress on climate change goals through emissions avoidance and reduction within RSPO certification	PEOPLE PLANET PROSPERITY
Advancing Certification	Certification Trends	Progress on the reach, extent and traceability of RSPO certification in the global palm oil market	PEOPLE PLANET PROSPERITY
Transforming Markets	Certified Supply	Progress on shifting global production of palm oil towards sustainability	PEOPLE PLANET PROSPERITY
	Certified Consumption	Progress on shifting global consumption of palm oil towards sustainability	PEOPLE PLANET PROSPERITY
	Shared Responsibility	Ensuring certified consumption matches certified production, and all RSPO members follow in the spirit of RSPO impacts	PEOPLE PLANET PROSPERITY

# RSPO IMPACTS AND SUSTAINABLE DEVELOPMENT

Sustainable development in the palm oil industry and across its value chain has been at the heart of RSPO since our inception in 2004. While our ambitions have never wavered, the way that RSPO measures, reports and narrates its impacts has evolved as our reach and organisation has grown. In 2017, our Theory of Change (ToC) defined our impacts along three pillars of People, Planet and Prosperity. In this report, we have connected and codified our impacts in a new framework with the global vocabulary on sustainability, the United Nations Sustainable Development Goals.

This process started with a comprehensive mapping of available metrics and data gathered by the RSPO Secretariat against the SDG goals, targets and global indicators (Figure 1). Much of this data comes from the certification requirements of RSPO's P&C 2018 standard, but also from other requirements, systems and procedures within RSPO such as our Grievance system, Annual Communication of Progress (ACOP) reporting, RSPO Smallholder Support Fund (RSSF), and Fire Hotspot monitoring in an effort to coalesce usage of our broad datasets. In this way, we have better understood how our contributions to SDG goals and targets can be made.

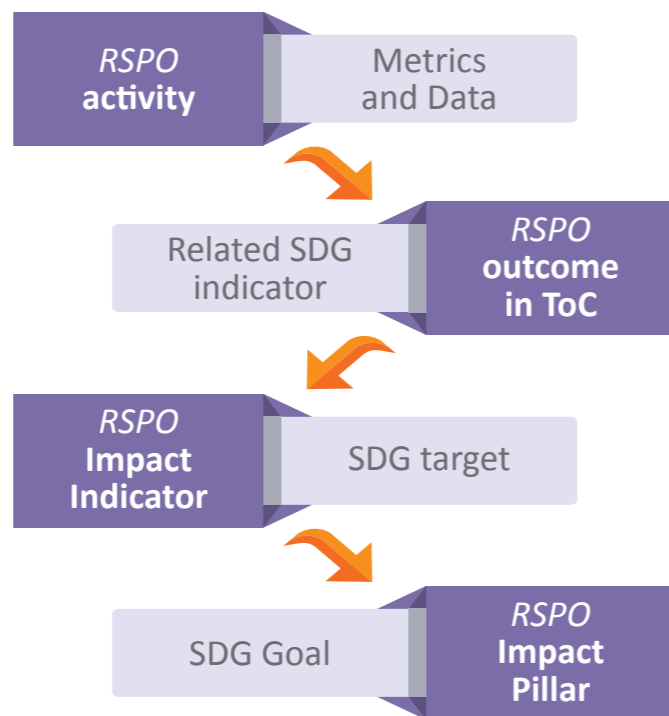


Figure 1: Mapping RSPO Impacts to SDGs

Through this process we have identified an initial list of 66 linkages between the 248 SDG targets/indicators and RSPO. A summary of these linkages is shown in Appendix 1 (pg. 76) and the full indicator mapping analysis is available in the supplementary data file that accompanies this Impact Report. These linkages form the basis of the RSPO Impact Themes, and we can see that several Impact Indicators in our RSPO Impact Framework already have strong links to SDG targets. This framework will be further refined as part of the ongoing review of RSPO's Theory of Change which is expected to be completed in the first half of 2023, as well as inform the upcoming revision of the RSPO Principles & Criteria in 2023.

With the exception of SDG 14 (Life Below Water), RSPO has linkages to all SDGs. Some of these linkages are direct, while others are indirect. While the ambition of RSPO is to show our contributions and attributions to all linkages, as a means of focus we have identified nine priority SDGs where our impact is most direct and strategically aligned to our three impact pillars of People, Planet and Prosperity. Neatly, each impact pillar has three priority SDGs connected to it (Figure 2).



Figure 2: RSPO Impacts and Priority SDGs

## What are the Sustainable Development Goals?

The United Nations Sustainable Development Goals' 2030 Agenda for Sustainable Development has the overall goal of 'Leaving No One Behind'. It was first adopted in 2015 by the UN General Assembly and at its heart are the SDGs: 17 goals, 169 targets and 248 indicators chosen to tackle major global development challenges by 2030. They serve as an international commitment to end extreme poverty, and to create a fairer and environmentally sustainable world.

The SDGs define a common framework of action and language that helps companies communicate more consistently and effectively with stakeholders about their impact and performance in a 5-step process. These goals also help bring together partners to address the world's most urgent societal challenges. The SDGs have become a universal and holistic approach for governments, businesses and NGOs to engage each other around shared sustainability aims, commitments, outcomes and impacts.



We are now 8 years away from 2030, the year that the SDG targets should be met. Achieving this ambition requires contribution from an entire spectrum of stakeholders. RSPO is part of that momentum, and in defining and aligning our impacts to the SDGs, we provide a framework for our members to better understand their part in sustainable development and how they can contribute to the SDGs on an individual, organisational, national and global level.



# HIGHLIGHTS OF RSPO IMPACTS

The data outputs and distinct outcomes of RSPO and our various standards, systems and procedures is expansive. The goal is to become broader, deeper and better in learning from what is working and what is not, and understanding the beneficial impacts we can report and the significant stories we can tell. This Impact Report covers the seven Impact Themes and 15 Impact Indicators in depth over the following pages. For brevity, here are 24 highlights of our key achievements that show how we have advanced our three pillars of People, Planet and Prosperity.

Respecting Human Rights

“ An estimated **500,000** workers in estates and mills globally are represented under RSPO certification through the Principles and Criteria (P&C) standard.

Labour Index ”

Respecting Human Rights

“ Over **90%** of certified estates and mills have introduced formal internal grievance systems.

Labour Index ”

Respecting Human Rights

“ Within certified estates and mills, female workers receive training in equal proportion to male workers .

Gender Index ”

Protecting and Restoring Nature

“ Since 2015, **238** RaCP Compensation Plans have been implemented, remediating for an area equivalent to the size of Singapore.

Remediation ”

Preventing Fire

“ If there is a fire hotspot detected in Indonesia or Malaysia, there is a less than **1.5%** probability that it is within an RSPO certified concession.

Fire Risk ”

Limiting Climate Change

“ Cumulative GHG emissions avoided since 2015 equivalent to **395,289** cars driven annually, more than the entire motor vehicle fleet of Macau and Brunei combined.

Emissions Management - Avoidance ”

Respecting Human Rights

“ Women represent **12.1%** and **24.2%** of management and administrative roles, respectively, in certified mills and estates.

Gender Index ”

Respecting Human Rights

“ **78%** of human rights-related Complaints cases have been closed, including cases related to land, FPIC (Free, Prior and Informed Consent), labour and gender.

Human Rights Risk ”

Including Smallholders

“ **US\$4.03** million under the RSPO Smallholder Support Fund (RSSF) has supported **38,597** farmers across 12 countries since 2013, resulting in **71%** of current certified independent smallholders.

Smallholder Participation ”

Limiting Climate Change

“ Indicative data, supported by research, shows that CSPO is associated with a **lower rate of greenhouse gas (GHG) emissions** compared to conventional palm oil.

Emissions Management - Mitigation ”

Advancing Certification

“ Since RSPO certification began, **global certified area has increased from 125,000 ha over 3 countries in 2008, to 4.5 million ha over 21 countries.**

Certification Trends ”

Advancing Certification

“ Average **CSPO yields from RSPO certified estates and mills is 4.5 MT/ha**, compared to average yields of 3.2 MT/ha for overall palm oil.

Certification Trends ”

Including Smallholders

“ Certified scheme and independent smallholders operate an area the size of **416,791 ha**, more than the oil palm production area in Ghana.

Smallholder Certification ”

Including Smallholders

“ **Sierra Leone's Ngoyai Gbaayegie Group** becomes the first Independent Smallholder (ISH) Group in Africa to achieve certification, also the first certified group outside Southeast Asia.

Smallholder Certification ”

Protecting and Restoring Nature

“ An area of **301,020 ha**, almost **30 times** the size of Paris, has been conserved and protected through RSPO certification.

Safeguarding Nature ”

Advancing Certification

“ **RSPO Trademark licences** have increased to **1,676** covering over **100** countries and territories, with increasing growth seen in China, Japan and Southeast Asia.

Certification Trends ”

Transforming Markets

“ Production of Certified Sustainable Palm Oil (CSPO) increased by nearly **900,000 metric tonnes (MT)**, a year-on-year growth of **6.3%**.

Certified Supply ”

Transforming Markets

“ Downstream consumption of CSPO through consumer and retail products increased by over **914,000 MT**, a year-on-year growth of **12.0%**.

Certified Consumption ”

Protecting and Restoring Nature

“ RSPO certification has **significantly reduced the use of restricted pesticides and herbicides for pest or disease control** in favour of natural biological methods.

Environmental Sustainability Index ”

Protecting and Restoring Nature

“ Certified palm oil mills have an average water footprint of **0.005 m<sup>3</sup>/kg**, lower than other vegetable oils such as soybean and rapeseed.

Water Stewardship ”

Protecting and Restoring Nature

“ Improved momentum in processing Remediation and Compensation Procedure (RaCP) cases, with **317** RaCP cases closed since 2019, representing **81%** of all case closures.

Remediation ”

Transforming Markets

“ Uptake of CSPO and certified palm oil products exceeds **80%** in Europe and North America, with encouraging growth also in Latin America, China and Malaysia.

Certified Consumption ”

Transforming Markets

“ **54%** of supply chain members subject to Shared Responsibility requirements met their **2021 CSPO uptake target.**

Shared Responsibility ”

Addressing Grievance

“ Average time to close Complaints cases has improved to **273 working days** since the Complaints and Appeals Procedure in 2017, almost equivalent to one calendar year.

Respectful Conduct ”



# RSPO AROUND THE WORLD

Our way of working may have changed significantly due to the coronavirus disease (COVID-19) pandemic, but RSPO's efforts to make sustainable palm oil the norm has continued even in the "new normal". Here are some highlights of our virtual and in-person initiatives, outreach efforts and achievements over 2020 and 2021.

# RESPECTING HUMAN RIGHTS

Workers and communities are integral rights holders within the oil palm industry. The coordination and efforts of workers, labouring together as a coordinated hive of activity, ensure that fruit is harvested, crops are delivered and valuable oil is extracted. Two of the seven principles under the RSPO Principles and Criteria (P&C) 2018 are focused on creating positive impact towards People, to promote sustainable livelihoods and poverty reduction. Principle 4 (Respect Community and Human Rights and Deliver Benefits) ensures that the rights of communities' are protected, respected and remedied by RSPO certified plantations and mills. Principle 6 (Respect Workers' Rights and Conditions) aims to ensure that the workforce engaged in palm oil production have equal opportunities to fulfill their potential in work, are not discriminated against and have a decent working and living environment. Through these requirements, RSPO has and continues to ensure that the livelihood of people involved in the production of each drop of certified palm oil is achieved through decent work and equal opportunity.



“

In order to make sure that employee rights in palm oil are respected throughout the supply chain, it is important that workers are well organised and involved in social dialogue. That's why the participation of unions in the Roundtable on Sustainable Palm Oil is essential. Indonesian trade union Hukatan, a CNV Internationaal partner, was the first to join RSPO. In 2020, CNV Internationaal itself became a member. It's positive that labour rights are part of the RSPO standard, but I feel that a stronger focus on social impact is indispensable for the coming years, as there are still many steps to be taken when it comes to compliance. The results of negotiations will become part of Collective Bargaining Agreements (CBAs) and will be monitored and periodically renewed. This way the impact of RSPO on the daily life of workers in the palm oil sector will be positive and sustainable.

**Eva Smulders**

*Co-Chair of the RSPO Human Rights Working Group (HRWG),  
representing [CNV Internationaal](#)*

”



RSPO RSPO

# LABOUR INDEX



Worldwide, there are millions employed in the palm oil sector. In Indonesia and Malaysia alone, there are at least 4.3 million people working in palm oil plantations<sup>1</sup>, with the industry supporting millions more indirectly<sup>2</sup>. Labour rights are fundamental to the production of palm oil. A lack thereof can cause a major disruption: for example, since 2020, Malaysia has experienced a labour shortage in its palm oil sector as the coronavirus disease (COVID-19) and subsequent restrictions led to a scarcity of foreign labour, which the industry relies on. Consequently, both Malaysian palm oil and Certified Sustainable

Palm Oil (CSPO) production declined in 2021 (see Certified Supply, pg 70). However, as with agriculture in general, labour in palm oil is both a reward and a risk. Millions of individuals are in gainful employment in an industry worth at least US\$65 billion globally<sup>3</sup>. The production and trade of oil palm directly contributes towards national Gross Domestic Product as well as indirect contributions to national development through tax revenues. But that size also raises the risks of labour issues that impact workers and their fundamental human rights.

		Certified Palm Oil Mills		Oil Palm Estates	
Grievance	Mills / Estates with a system to record internal grievances	Indonesia	88.2%	91.4%	
		Malaysia	90.8%	100.0%	
		Latin America	90.73%	93.3%	95.1%
		Africa	100.0%	100.0%	
		ROW	100.0%	100.0%	
	Open cases as a percentage of all cases received at year-end	Indonesia	5.5%	4.0%	
		Malaysia	11.7%	1.6%	
		Latin America	8.8%	1.1%	2.5%
		Africa	24.6%	0.0%	
		ROW	6.1%	33.3%	
Demographics	Non-locals as a percentage of total mill / estate workers	Indonesia	13.1%	17.7%	
		Malaysia	30.7%	75.1%	
		Latin America	15.7%	6.9%	28%
		Africa	3.1%	4.1%	
		ROW	1.6%	0.3%	
Demographics and Employment	Non-locals on non-permanent contracts as a percentage of total non-local mill / estate workers	Indonesia	1.5%	27.5%	
		Malaysia	19.7%	20.1%	
		Latin America	12.2%	10.1%	22.2%
		Africa	20.8%	16.3%	
		ROW	0.0%	3.9%	
Training	Non-management workers / Field workers trained as a percentage of total non-management mill workers / field estate workers	Indonesia	81.4%	91.3%	
		Malaysia	86.9%	92.7%	
		Latin America	79.4%	58.8%	87.8%
		Africa	85.7%	54.3%	
		ROW	90.2%	94.4%	

Figure 1: Labour-related statistics in a sampling of RSPO Certified Units (2021)

Through compliance with the RSPO standards, where labour rights are concerned, RSPO certification aims to ensure that the rights of workers are respected and protected, upheld and aspects of wellbeing assured. Within Principle 6, this includes a prohibition of discrimination in any form (Criteria 6.1), adequate pay and working and living conditions (6.2), rights to collective bargaining and freedom of association (6.3), no child labour (6.4), no harassment or abuse (6.5), no forced or trafficked labour (6.6), and occupational health and safety (6.7). These indicators are audited annually by independent third-party Certification Bodies (CBs) accredited by RSPO's accreditation body, Assurance Services International (ASI), which oversees and monitors the performance and capabilities of all CBs. Through these audits, RSPO is able to gauge compliance and obtain data that describes the working conditions within certified palm oil producers.

Using a sample of 206 P&C Metrics Templates<sup>4</sup> submitted by Units of Certification (units), we also have data to infer the current state of selected labour aspects (Figure 1). However, due to the incomplete nature of the dataset, we are reporting these numbers indicatively for now. Globally, almost 500,000 workers are employed by RSPO certified units, 88% of whom work in plantation estates and 12% in mills. Depending on the country or region, demographics vary. In Malaysia, non-local workers represent three quarters of the estate workforce while only 0.3% are non-local workers in Rest of the World (ROW) estates (including Papua New Guinea, Thailand and Cambodia). Of the overall workforce, most are employed as permanent staff, but the incidence of staff on non-permanent contracts appears to be higher in Latin American and African estates. For local workers, a large majority are permanent staff in both estates and mills. This ratio is similar for non-local workers<sup>5</sup>, although there appears to be a larger extent of non-local workers employed under non-permanent contracts in Indonesia and a higher proportion of non-local workers employed as permanent staff in Latin America.

Using this labour data in combination with data from other Impact Indicators allows us to tell an even more nuanced story. For example, of the half of a million workers represented through P&C 2018 certification in estates and mills across 21 countries, we estimate that 121,000 of these workers are in Malaysia, representing 24% of the global workforce associated with RSPO certification. Certification data shows that Malaysian actual production of Certified Sustainable Palm Oil (CSPO) represents over 25% of global CSPO production. This implies that, in Malaysia, certified estates and mills are less labour-intensive than the global average, producing more certified FFB and CSPO per unit of labour. This has obvious implications to consider as the industry as a whole considers mechanisation and automation as pathways forward to boost overall

An estimated **500,000** workers in estates and mills in 21 countries are represented under RSPO Principles and Criteria (P&C) through certification

productivity. From this analysis, we note that labour intensity within RSPO certification is highest in Africa, which are important distinctions to note as we improve how we engage, guide and work with our members.

The P&C 2018 also requires certified units to have documented human resource procedures for recruiting, hiring and managing all these workers (Criteria 3.5) and an occupational health and safety plan (3.6) applicable to all. Criteria 3.7 requires staff in certified units to be appropriately trained. In estates, nearly 76% of estate workers received at least one training in 2021 while 88% of their counterparts in mills received training. Access to training was afforded to all levels of the workforce (including scheme smallholders), but was mainly focused on field workers in estates (87.8% trained) and non-management workers in mills (79.4%).

A documented and mutually agreed system for addressing complaints and grievances is also required (Criteria 4.2). Over 90% of certified estates and mills have a formal internal grievance system, including all units in Africa and ROW, and all estates in Malaysia. If an internal grievance case is recorded, reports indicate that almost all cases are closed within the year (including historical cases from previous years). However, there is still a higher level of unresolved cases within mills in Africa and estates in ROW that represent a potential risk that may lead to the escalation of formal Complaints through the RSPO's independent Complaints System.

<sup>1</sup> Indonesia has an estimated 3.78 million plantation workers, out of 16.2 million working in farms, plantations, mills and refineries (including smallholders). Source: National Development Planning Agency (BAPPENAS). Malaysia employs at least 505,972 plantation workers (2012). Source: Malaysian Palm Oil Board (MPOB).

<sup>2</sup> Indonesia's palm oil industry is estimated to support 12 million people indirectly, mainly in rural areas. Source: Director General of Estate Crops (Ditjenbun).

<sup>3</sup> Global Market Report: Palm Oil, Sustainable Commodities Marketplace Series 2019, International Institute for Sustainable Development (IISD).

<sup>4</sup> Introduced in May 2021 as a prerequisite for certification, as stipulated in the P&C 2018. P&C Metrics Templates are verified as part of RSPO's independent third-party certification audits. This sample represents some 47% of currently P&C certified Units of Certification, with each unit representing a palm oil mill(s) and its supply base(s).

<sup>5</sup> Non-local workers are defined under the current P&C Metrics Template Guidance as migrants (foreign nationals) and transmigrants (nationals from different regions within the country). The latter is noted to be particularly significant in Indonesia.

Other labour-related aspects of P&C 2018 are in the process of metrication and development, including Lost Time Injury Frequency Rate<sup>6</sup> (LTIFR, Indicator 6.7.5). Overall, some of the RSPO labour datasets are primarily for demographic description while some could be benchmarked to indicate progress or variance (if any) from norms. These insights can also be supported through commissioned research to assess the impact of certification on labour issues. Moving ahead, we intend to compile this data into a Labour

Index, using weighted components from the various available labour-related datasets. This Index will also include elements of risk, incorporating incidences of labour-related Non Compliances (NCs) reported as part of annual RSPO certification audits by scale and by region. In doing so, we hope to have a clearer understanding of our impacts on labour within RSPO and identify ways to assist and guide our members towards best labour practices.



Credit: RSPO, Jonathan Perugia

## Statement from the RSPO Secretariat on Decent Living Wage, ambition and progress

“Indicator 6.2.6 of P&C 2018 shows the commitment of RSPO members to pay a decent living wage (DLW) for their workers. We have been supporting members in their effort to comply with DLW requirements through developing guidance, socialisation and training. As a result, members have been encouraged to take a step towards DLW, such as assessing their workforce’s prevailing wages and exploring existing benchmarks. But we also understand that this is not sufficient and it is important to continuously provide similar support until DLW becomes a norm in the palm oil industry. The RSPO Secretariat, together with the DLW task force, endeavours to further develop

potential benchmarks. In the process, we have encountered several challenges that have created important learning experiences. Moving forward, RSPO will take a stepwise approach that enables better identification of members’ needs and provide the necessary support to them, while developing a system that enables concrete measurement of progress towards DLW and, in the future, its impact on poverty alleviation and economic inclusivity.”

**Ayelech Tiruwha Melese**  
Manager, Decent Living Wage

*Additional note from the RSPO Secretariat: As work on Decent Living Wage progresses, we hope to develop a specific Impact Indicator for DLW, given its strong linkage with SDG 1 (end poverty in all its forms everywhere) and SDG 10 (reduce inequality within and among countries) as identified through the RSPO Impacts-SDG mapping (see Appendix 1, pg 76)*

<sup>6</sup> Expressed in million injuries per man hour, in line with the International Labour Organization (ILO) guidance on measuring occupational injuries.

# GENDER INDEX



Mao Zedong, in rallying women to join China’s labour force, said ‘women hold up half the sky.’ But what about under palm oil skies? A Food and Agriculture Organization (FAO) study reports that women form 43% of agricultural labour globally<sup>1</sup>, but are more likely to be informally self-employed to balance household responsibilities. Formally, in terms of waged rural labour, female participation can range from 1.4% (Nigeria) to 8.6% (Indonesia) to 16.6%

(Malawi) of the working females. Within palm oil, statistics are scant. But women are present, often in substantial numbers, especially in Africa. Within RSPO certification, under P&C 2018, gender issues are addressed implicitly in Criteria 6.1 (no discrimination), 6.5 (no harassment, reproductive rights), 4.6.3 (equal opportunity in small holding land titles), and Indicator 7.2.11 (pesticides and pregnancy/breastfeeding).

		Certified Palm Oil Mills		Oil Palm Estates		
Participation and Inclusion	Female workers / Female estate workers as a percentage of total workers	Indonesia	4.9%		23.2%	
		Malaysia	11.0%		19.8%	
		Latin America	<b>7.5%</b>	8.6%	<b>21.0%</b>	8.2%
		Africa		7.9%		25.6%
		ROW		7.6%		30.0%
Equal Access	Female:Male ratio of workers trained / estate workers trained	Indonesia	0.7:1		1:1	
		Malaysia	3:1		1:1	
		Latin America	<b>2:1</b>	1.3:1	<b>1:1</b>	1.2:1
		Africa		1.2:1		0.8:1
		ROW		0.8:1		1:1
Empowerment	Female workers in management roles as a percentage of total management roles / administrative roles	Indonesia	6.4%		17.2%	
		Malaysia	20.2%		30.5%	
		Latin America	<b>12.1%</b>	12.3%	<b>24.2%</b>	24.6%
		Africa		10.7%		26.3%
		ROW		5.3%		24.1%

Figure 1: Labour-related statistics in a sampling of RSPO Certified Units (2021)

Data from a sample of 206 P&C Metrics Templates has been adapted to further illustrate gender demographics in certified plantation estates and mills (Figure 1). As the dataset is incomplete, we are referencing these numbers indicatively. On a distribution level, a significant proportion of women are included in estates, at 21% globally and as high as 30% in the Rest of the World (Thailand, Cambodia, Papua New Guinea, the Solomon Islands and Sri Lanka). At mills, women form 7.5% of the workforce, going as high as 11% (Malaysia). Many roles at estates and mills are physically demanding, and traditionally this has led to a higher proportion of male workers in such roles. Studies from Malaysia<sup>2</sup> and Ghana<sup>3</sup> show female workers roles at estates focus on loose fruit collection, fertiliser/pesticide application, weeding and tending of seedlings. This inherent structural gender bias is common not only in palm oil, but other agro-commodities, but No Discrimination policies ensure that any role is open to both women and men, who can meet the physical demands and skills required.

Within certified estates and mills, female workers receive training in equal proportion to male workers

<sup>1</sup> Raney, T., Anriquez, G., Croppenstedt, A., Gerosa, S., Lowder, S., Matuscke, I., Skoet, J. (2011). *The role of women in agriculture (ESA Working Paper 11-02)*.  
<sup>2</sup> Ahmad, A., & Ismail, N. (1998). *Gender roles in Malaysian agriculture: implications for extension planning. Journal Of International Agricultural And Extension Education, 5(1)*. doi: 10.5191/jiaee.1998.05102  
<sup>3</sup> Sarku, R. (2016). *Analyses of gender roles in the oil palm industry in Kwaebibirem District, Ghana. International Journal of Humanities and Social Science, 6(3)*. Retrieved from [https://www.researchgate.net/publication/319173770\\_Analyses\\_of\\_gender\\_roles\\_in\\_the\\_oil\\_palm\\_industry\\_in\\_Kwaebibirem\\_District\\_Ghana](https://www.researchgate.net/publication/319173770_Analyses_of_gender_roles_in_the_oil_palm_industry_in_Kwaebibirem_District_Ghana)

No Discrimination policies can also achieve a level of gender balance in the training opportunities offered to staff. Criteria 3.7 requires all staff in certified units to be appropriately trained; combined with Criteria 6.1, this implies equal access to training by gender. The data here is encouraging. In estates, women and men are equally trained in proportion to their demographic distribution. In mills, it appears that for every male trained, 2 females receive training, skewed higher by a 3:1 ratio in Malaysia. Situationally, this could be because women in mills tend to work in office roles with a broader spectrum of training requirements.

In terms of contributing to women's empowerment, the percentage of females in administrative roles at estates is 24.2%, and 12.1% in management roles at mills. Although there are no known studies on the subject to compare these statistics to, RSPO does note a recent increase in our members publicising women being appointed to managerial positions in mills and estates (especially in Indonesia and Malaysia), some citing the work of internal Gender Committees (stipulated in P&C Indicator 6.1.5).

As this is the first time RSPO is analysing gender data within certification, we view this baseline data as encouraging and progressive. It implies that RSPO certification, through our Principles & Criteria, has already achieved a level of gender parity in terms of equal opportunities for vocational training, as well as improved opportunities for leadership, which are directly connected to three Sustainable Development Goals targets: SDG 4.3 (equal access by gender to technical, vocational and tertiary education by 2030), SDG 4.4 (eliminate gender disparities in technical, vocational and tertiary education by 2030) and SDG 5.5 (ensure women's full, effective and equal participation and opportunities for leadership). For more information on RSPO Impact Indicators and SDGs, please see the chapter on Mapping RSPO Impacts and UN SDGs (Appendix 1, pg 76).

As our dataset on gender aspects is developed and refined, we will be codifying the data into a Gender Index, using weighted components of participation/inclusion, equal access and empowerment. As RSPO standards evolve, more components may be added. The potential to use this Index as a baseline, a trendline or indicative informative has not been determined. But it is clear that palm oil provides benefits for women, and RSPO requirements through certification have created a level of positive impact on some gender issues which we believe will lead to further improvements.



Credit: Agropalma

## The story of Joyce Silva da Rosa, partner farmer of Agropalma Group

In January 2019, Joyce arrived in Vila Palmares, a district of Tailândia, Pará in Brazil. She was determined to manage the 98 hectares (ha) of land owned by her mother, Marlene Silva da Rosa, of which 48 ha was planted with oil palm. As the granddaughter of farmers in Rio Grande do Sul, Joyce had always been interested to work in agriculture. "But I never imagined it would be in oil palm."

If asked before about her biggest hurdle in the sector, Joyce would have previously mentioned the two seasons in Pará – one with a lot of rain and one with no rain at all – two extremes that could cause cultivation problems. Today, however, she feels that her biggest challenge is finding qualified labour, primarily men, that can accept working under a woman's leadership. **"There is still prejudice by male farm workers just because I am a woman who leads and manages all the activities on the site, including palm cultivation."**

Despite these challenges, Joyce has increased her land productivity from 26 metric tonnes (MT) per ha per year to 28 MT/ha/year in just two years. By 2022, she hopes to achieve 30 MT/ha/year. She believes that goal is achievable, after receiving encouragement and technical assistance from Agropalma Group (RSPO Member ID: 1-0003-04-000-00) which supports women farmers like her.

Joyce is now considered a role model for small farmers, praised by auditors in a recent RSPO certification audit. Moving forward, Joyce intends to acquire an additional plot of land to expand. She hopes she can maximise productivity and increase income, while proving that women like her can thrive as excellent leaders in the oil palm sector.



Credit: Uzabiaga/Wikimedia Commons/CC-BY-SA 4.0

## A look at... 'Oil Palm Mamas' in Ghana

Beyond the RSPO P&C, there is also scope to look at gender issues through female entrepreneurship and institutional positions in trade - see the so-called 'oil palm mamas' or 'market queens' in Ghana. Called ohemma (market queens) in the Twi language, they are a naturally occurring trader structure present in fresh food markets, particularly rural ones, studied in a Wageningen University paper<sup>4</sup>. The operators of each produce (almost always women) form unspoken trade associations by crop, electing a Queen Mother to act as their leader<sup>5</sup>. This informal collusion acts as both a cooperative and a cartel, ensuring price stability and providing micro-financing through informal credits, but also serving as barriers to entry for non-affiliated traders.

These ohemma are connected to palm oil beyond merely trading the fruit. Some are small-scale oil palm farmers, while others buy directly from farmers or intermediaries, or act as intermediaries themselves. Palm fruit is also not their only product; through networks of cooperation linked by ohemma, there are informal female-led artisanal palm oil mills that

produce unrefined red palm oil. These mills are almost self-organising with different structures depending on location; in some, women take turns to operate the semi-mechanised mill independently by hand and, in others, process fruit into oil collectively. Men occasionally participate in such groups, but these are largely female-dominated, in numbers between 5 to 22 workers. The oil is also sold at markets, as a key ingredient in traditional dishes such as palm oil chop or red red stew.

Organised and thriving, these women groups are not exactly independent smallholders but not licensed processing operations either. They have offered women in Ghana and West Africa an informal chance to reap benefits from palm oil that is not, at present, in the formal industry. In their own corner of the palm oil world, such women hold the power and presence to dictate quality and police their products; in one known case, an ohemma suspected a new seller of offering stolen goods and when subjected to questioning, her instincts turned out to be right.

<sup>4</sup> Ayisala, A. (2011). *An analysis of the price setting mechanisms in the palm oil industry in Ghana* (Master's thesis, Wageningen University, Netherlands). Retrieved from <https://edepot.wur.nl/176517>

<sup>5</sup> Amusingly, a market's collective Queen Mothers will also choose a Supreme Queen Mother, to act as their highest authority and make decisions with external parties on their behalf. Traditionally, this has been the Queen Mother of Yam. 'Thrones' are held until death.

# HUMAN RIGHTS RISK



It is challenging at any given time to measure the presence of human rights compliance in oil palm plantations. Within the SDGs, this is seen through perception; for example, indicator 10.3.1 assesses the 'proportion of population reporting having personally felt discriminated against or harassed...'. In RSPO certification, human rights aspects are addressed through P&C audits by independent third-party Certification Bodies (CBs). The focus is mainly on Principle 4: evaluating requirements to establish policies and mechanisms on upholding human rights

including protection for human rights defenders (Criteria 4.1), establishing grievance mechanisms to recognise complaints and enable access to remedy (4.2), Free, Prior and Informed Consent (FPIC, (4.4 and 4.5) and the rights of indigenous people and local communities to their land (4.6). Human rights aspects are also embedded within Principle 6. However, policies and procedures are not enough to capture the broader picture of human rights in practice. Inversely then, is it possible to measure the absence of human rights?

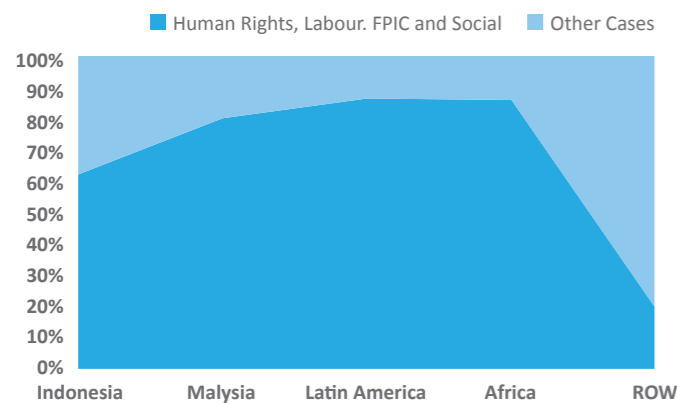


Figure 1: Human rights-related cases as a percentage of total Complaints cases

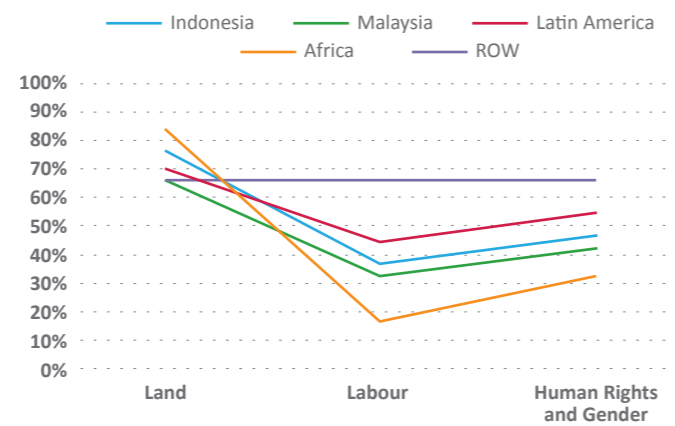


Figure 2: Human rights-related cases by category as a percentage of total human rights-related cases

It is. RSPO provides a mechanism to address complaints against members through our Complaints System. An impartial and transparent process that provides stakeholders with an avenue to address grievances, the Complaints System was established in 2009 and strengthened in 2017 with the implementation of the Complaints and Appeals Procedure (CAP). Focused on independence, transparency and credibility, the system has accepted 165 official complaints to date. A complaint is accepted if the allegations, if proven to be true, would amount to a breach of the RSPO Key Documents<sup>1</sup>. Cases are catalogued by category, with some linked to multiple categories. Using Complaints data to evaluate the incidence of human rights-related cases (including Labour, Social, Gender and FPIC/Land), we can begin to better understand risk levels associated with human rights within RSPO.

Of the 165 cases submitted to date, 64% involved human rights aspects. This risk appears to be more common in certain regions (Figure 1). Categorically, allegations concerning FPIC/Land show a high incidence (Figure 2), although Labour and Human Rights issues are also apparent. These cases are addressed by the RSPO Complaints Panel - an independent multi-stakeholder body mandated by the RSPO Board of Governors to deliberate and decide on cases. Some 78% of Human Rights and Social Standards (HRSS)-related cases have been closed. Closures vary by region and category (Figure 3), with data for open cases indicating a higher level of human rights-related risk in Latin America, Africa and Indonesia.

	Indonesia	Malaysia	Latin America	Africa	ROW	Grand Total
Land	82%	75%	89%	70%	100%	81%
Labour	72%	75%	50%	100%	100%	72%
Gender	100%	N/A	N/A	N/A	N/A	100%
Human Rights	77%	80%	57%	100%	100%	77%

Figure 3: Closure rates of HRSS-related cases by region

These insights are instructive. As we gain a better understanding of human rights risk and regional variations, RSPO will be able to assist our members to address such risks, as well as provide guidance to CBs on specific issues to focus on during audits. Complaints data is also planned to be used with human rights-related Non Compliances (NCs)

reported through RSPO audits by scale and by region to gain a fuller understanding of RSPO's Human Rights Risk; when development is complete, this Impact Indicator will be able to express the likelihood of human rights issues arising within our membership quantitatively. This will then be assessed internally to lower that likelihood.

## Our community wellbeing efforts



Credit: RSPO, Jonathan Perugia

Despite a global pandemic, RSPO has been actively involved in initiatives that enhance the benefits of sustainable palm oil for local communities and workers. Since 2019, in collaboration with Sabah Environmental Protection Association (SEPA), we have conducted the Community Outreach Programme

in Malaysia, running 44 workshops in Sabah, 12 in Sarawak and 19 in Peninsular Malaysia. Through this, we have extended RSPO's outreach to intermediary organisations (IMOs) and affected parties, bridging the gap between communities and worker entities' access to RSPO and our systems.

In Indonesia, we carried out two key programmes: Independent Smallholder Outreach (in partnership with FORTASBI) and Community Outreach (with the Institute for Policy Research and Advocacy [ELSAM]). Here, we focused on disseminating crucial information on sustainable palm oil by convening local communities, indigenous peoples, trade unions, local NGOs and smallholders for productive collaboration. Some on-the-ground impacts from these initiatives are heartening: two smallholders in South Sumatera told stories of how RSPO certification improved yields and lowered maintenance costs, allowing them to support their village with rural rehabilitation activities, new school facilities, better health and safety measures, and inspiring food distribution for the underprivileged.

## RSPO perspective on forced labour

The recent reporting of labour issues within the palm oil sector, compounded by the imposition of regulatory sanctions against some RSPO members, has brought to fore the issue of forced labour. P&C 2018 contains a clear prohibition on the use of forced or trafficked labour (Criteria 2.2 and 6.6) but recognising that this issue cannot be addressed alone, RSPO engaged with the International Labour Organization (ILO) and Malaysian Palm Oil Association (MPOA) in October 2021 to discuss labour-related issues and challenges faced by the industry. This engagement included important discussions on the identification and verification of recruitment fees, and the need for better engagement between the industry, governments and workers when translating standards into action.

With the ongoing Standards Review process, we aim to improve RSPO's alignment with international labour standards, such as ILO and International Organization for Migration (IOM), including the 11 ILO Indicators of Forced Labour, contextualised for the palm sector. To build capability and provide further guidance, the Labour Sub-Group of the Human Rights Working Group is working on developing efforts on labour rights training, social dialogue and recruitment fees identification and remediation.

**Leena Ghosh**  
Head, Human Rights and Social Standards

<sup>1</sup> Including but not limited to the RSPO Principles and Criteria (P&C), Code of Conduct and Membership Rules.

<sup>2</sup> Complaints cases may fall under multiple categories. The number of HRSS cases by category presented here captures all cases associated with a specific category, not the unique number of cases.

# INCLUDING SMALLHOLDERS

The first targets within the Sustainable Development Goals (SDG) touch on extreme poverty (SDG1.1) and national poverty (SDG1.2), as well as basic services and land rights (SDG1.4). These issues are very pertinent to the people that RSPO is best-positioned to help: smallholders. In Malaysia, 13.6% of oil palm independent smallholders (ISH) are families living in poor social and environmental standards, earning RM1600 per month or well below the national poverty line of RM2,208<sup>1</sup>. Research in Cameroon found that smallholders who invest in oil palm could earn US\$7-14 per day more than those that do not, way above the international poverty line (US\$1.90 a day)<sup>2</sup>. A recent study in Jambi, Indonesia concluded that smallholder oil palm cultivation provides significant income gains, and also improves long-term family living standards through better nutrition, health and (especially) education<sup>3</sup>. RSPO certification can confer even broader impacts, and we will examine how in this chapter.



“ Growing oil palm can raise a family out of poverty in one generation. However, for this to happen smallholders need to receive a fair price for their crops. RSPO plays a role in this by promoting fair treatment and pay of smallholders. Criterion 5.1 requires a unit of certification (usually the mill) to deal with smallholders fairly and transparently. This requirement explicitly includes indicator 5.1.3 which specifies that the FFB pricing is agreed with smallholders. ”

**Marieke Leegwater**

*Co-Chair of the RSPO Smallholder Standing Committee (SHSC), representing Solidaridad*

<sup>1</sup> Rahman, S. (2020). *Malaysian independent oil palm smallholders and their struggle to survive 2020*. ISEAS Perspective, 144.  
<sup>2</sup> Ayompe, L., Nkongho, R., Masso, C., & Egoh, B. (2021). *Does investment in palm oil trade alleviate smallholders from poverty in Africa? Investigating profitability from a biodiversity hotspot, Cameroon*. PLOS ONE, 16(9), e0256498. doi: 10.1371/journal.pone.0256498  
<sup>3</sup> Chrisendo, 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





# SMALLHOLDER PARTICIPATION



To benefit them, RSPO must first engage with oil palm smallholders. Because of a general lack of access to expertise, infrastructure and finance, supporting smallholders towards certification can be time-consuming. Defined within RSPO as farmers with 50 hectares (ha) or less of oil palm production area<sup>1</sup>, smallholders derive their principal source of income from harvesting Fresh Fruit Bunches (FFB)

that they sell to nearby palm oil mills. They usually have two choices of business models: entering into a direct contract with a mill<sup>2</sup>, or maintaining autonomy as free agents. The latter are defined by RSPO as Independent Smallholder (ISH), covered by the RSPO ISH Standard that has adapted and simplified the Principles & Criteria (P&C) specifically to include more smallholders.

	Total Funding Approved (US\$)	Total Funding Disbursed (US\$)	RSPO Membership (ISH Group)	RSPO Certification (of ISH Group)	Certified ISHs	Certified Production Area	Certified FFB Production		
<b>2013-2021</b>	<b>4,027,081</b>	<b>2,630,694</b>	<b>111</b>	<b>63</b>	<b>22,017</b>	<b>65,603</b>	<b>987,869</b>		
<b>Benefiting</b>			ISH groups funded by RSSF	51% (53%) <sup>3</sup>	57% (71%) <sup>3</sup>	Certified ISH groups funded by RSSF	71%	69%	64%
<b>RSSF Project</b>	<b>38,597 (66 Projects)</b>		<b>57</b>	<b>36</b>	<b>15,680</b>	<b>45,064</b>	<b>633,036</b>		
Indonesia	13,548 (34 Projects)		26	20	5,980	13,902	230,669		
Malaysia	748 (3 Projects)		3	3	1,324	6,225	90,338		
Latin America	5,588 (9 Projects)		5	0	-	-	-		
Africa	14,519 (6 Projects)		11	1	4,983	8,667	12,488		
ROW	4,194 (14 Projects)		12	12	3,393	16,270	299,542		

Figure #1: RSSF funding for ISH groups and resulting impact on ISH certification

However, the path from first engagement to certification may be a lengthy one. For example, if an ISH chooses to pursue certification, he or she must form a group with other farmers to have the organisational capacity and scale for compliance. That takes time, which is why RSPO's involvement with assisting ISHs begins even before membership.

Our first mechanism is the RSPO Smallholder Support Fund (RSSF). Initiated in 2013, RSSF provides monetary assistance to ISHs pursuing certification, reducing cost implications through three categories of funding: Certification, Audit and Impact. The RSSF receives an annual allocation of 10% of revenue generated from the trade of Certified Sustainable Palm Oil (CSPO) and has been aligned with the RSPO Smallholder Strategy mandated in 2017. Between 2013 and 2021, US\$4.03 million was approved under RSSF to help 38,597 ISH across 12 countries (Figure 1), of which US\$2.6 million has been disbursed.

RSSF can generate positive impacts from the outset; a 2015 Solidaridad West Africa project partially-funded by RSSF to provide Best Management Practice (BMP) training to smallholders across four reportedly poorly maintained farms in Nigeria led to a near-tripling of FFB yields from 2.7 MT/ha to 7.4 MT/ha, without the use of inorganic fertilisers. RSSF projects are also a strong avenue with eventual engagement: 51% of all current RSPO ISH groups and 57% of all certified ISH groups received RSSF funding for certification or audit-related projects<sup>3</sup>. This differential appears to imply that RSSF-funded ISH groups have a quicker velocity towards certification, 'hitting the ground running' through the pre-membership and pre-certification projects covered by the fund.

## RSSF Testimonial #1

“ After applying the best management practices taught to us during the training programme funded by RSSF, I saw an increase in my FFB production. Since joining (the smallholder group), I also understand how to use fertiliser and how to spray. We learned how to care for our oil palms; before we used to do our work without thinking. My smallholder group also gives opportunities to women; out of 21 members, 14 are women.



**Delfrida Marbun**

Asosiasi Pekebun Swadaya Kelapa Sawit Labuhanbatu (RSPO Member ID: 1-0273-19-000-00)

Credit: APSKS Labuhanbatu

## RSSF Testimonial #2



Credit: Lahai Jenkins, Nedoil Ltd

“ I feel more secure now after having understood the importance of land documentation, something that I knew nothing about before the (RSSF-funded) project started. I now can distinguish the difference between a landowner and a land user, which is now made clear through the land rights document.

**Abdulai Gbla**

Ngoyai Gbaayegie Farmer Based Organisation under Natural Habitats Europe-Africa B. V. (RSPO Member ID: 2-1017-19-000-00)

Productivity levels of RSSF-funded certified ISHs, however, do vary. Thai ISHs received only 5.8% of funds but have significantly higher yields (measured in FFB/ha and FFB/farmer) than any other ISH groups. RSSF's focus on Indonesia has led to increasing participation with good land yields (FFB/ha) although productivity per farmer is weaker (FFB/farmer), possibly linked to multi-cropping. Overall, RSSF-supported ISHs form 71% of all certified ISHs, yet with a lower share of certified production area (69%) and certified FFB production (64%). This seems to imply that while RSSF expands the reach of ISH participation in RSPO certification, smallholder productivity levels are also driven by other factors. We will discuss this trend in the next section (See Smallholder Certification, pg 33).

Moving ahead, the nature of RSSF itself is also evolving. While the original objective of the fund was to prepare ISHs for certification, a new approach for RSSF was endorsed in June 2022 to align the fund with the first two objectives of the RSPO Smallholder Strategy. Objective 1 of the Strategy is to improve livelihoods, through funding for capacity development towards sustainable practices and ease an ISH group's transition towards certification. Objective 2 is focused on certification, funding ISH groups not only towards initial RSPO certification but also in maintaining certification over the long-run through a focus on

improving production practices to boost income and offset costs related to certification. Objective 3 is focused on market access, as an operational focus by the RSPO Secretariat to build partnerships with stakeholders across all RSPO membership categories to support smallholders wherever they may be. As part of the new RSSF framework, RSPO has committed to approving US\$1 million annually to support increased ISH participation over the next three years beginning 2022.

To complement the financial assistance, RSPO also provides training through the RSPO Smallholder Trainer Academy (STA) launched in November 2019. Supported by partners, STA provides a series of training modules for smallholder group managers and individual smallholders through a unique 'train-the-trainer' approach. This aims to build a pool of Master Trainers across sectors and organisations to form a global community to promote sustainable palm oil practices through smallholder training. STA includes a range of topics around sustainability, available in six languages (English, French, Indonesian, Malay, Spanish and Thai). Although interrupted by COVID-19, RSPO conducted 179 STA trainings by 2021 (Figure 2) physically and virtually in eight countries, empowering 9,391 participants with a priority on including women smallholders as well (40% of all participants).

<sup>1</sup> Unless defined otherwise through the National Interpretation (NI) of the RSPO P&C, which provides a local adaptation of the standard based on domestic cultural or legal differences e.g., the Indonesia and Ecuador NIs define the threshold for smallholders as below 25 ha and below 75 ha, respectively.  
<sup>2</sup> Known as scheme smallholders. If contracted with an RSPO certified mill, they are covered by the P&C requirements applicable to the mill as its supply base, including provision of support, training and fair dealing.  
<sup>3</sup> Including the nine groups undergoing certification in 2022, 71% of certified ISHs are connected with RSSF. Two groups joined as members in 2022, increasing RSSF representation in RSPO membership to 53%.

Category of Training	Country	No. of Trainings	Participants	% of female participants
Group Manager Training	Malaysia	5	121	28%
	Colombia	1	18	33%
	Mexico	1	33	12%
Smallholder Training	Indonesia	10	1,840	23%
	Malaysia	28	996	29%
	Ghana	2	83	30%
	Thailand	114	5,601	48%
Training of Trainers	Malaysia	5	80	16%
	Dem. Rep. of Congo	1	5	40%
	Côte d'Ivoire	3	76	11%
	Thailand	9	538	40%
<b>Total</b>	<b>179</b>	<b>179</b>	<b>9391</b>	<b>40%</b>

Figure #2: STA trainings conducted by region (2019-2021)

## Oil palm smallholders and where they are

To be able to engage smallholder farmers, we need to know where they are. There is no known resource providing a concrete estimate of smallholders involved (fully or partially) in oil palm globally. On a national level, data availability varies considerably. In absence of independent statistics, RSPO is providing our own estimate on the global distribution of smallholders<sup>4</sup>.

We estimate that there are at least 7 million smallholders that earn a living (fully or partially) from oil palm worldwide. Some 3.3 million are located in Indonesia and Malaysia, where data is strongest. In Thailand, over 364,000 smallholders represent more than 70% of the area planted with oil palm (concentrated in the southern provinces around the Isthmus of Kra). Indications for Latin America provided by national sources or social development organisations appear to be fairly reliable, but does not cover all countries in the region.

Africa is where the variability in data is most consequential. Existing research papers and studies on African smallholders focus almost solely on production yields. When smallholder numbers are mentioned, the data may not be fully distinct as it may be in the number of groups rather than number of farmers, or where differing sources for the same country provide a formidable contrasting range<sup>5</sup>. Because of this variability in the data, RSPO's estimates should be taken as conservative figures. As we expand our work with smallholders worldwide, we will be in a position going forward to provide better statistics on oil palm smallholders as we work on improving their lives and livelihoods.

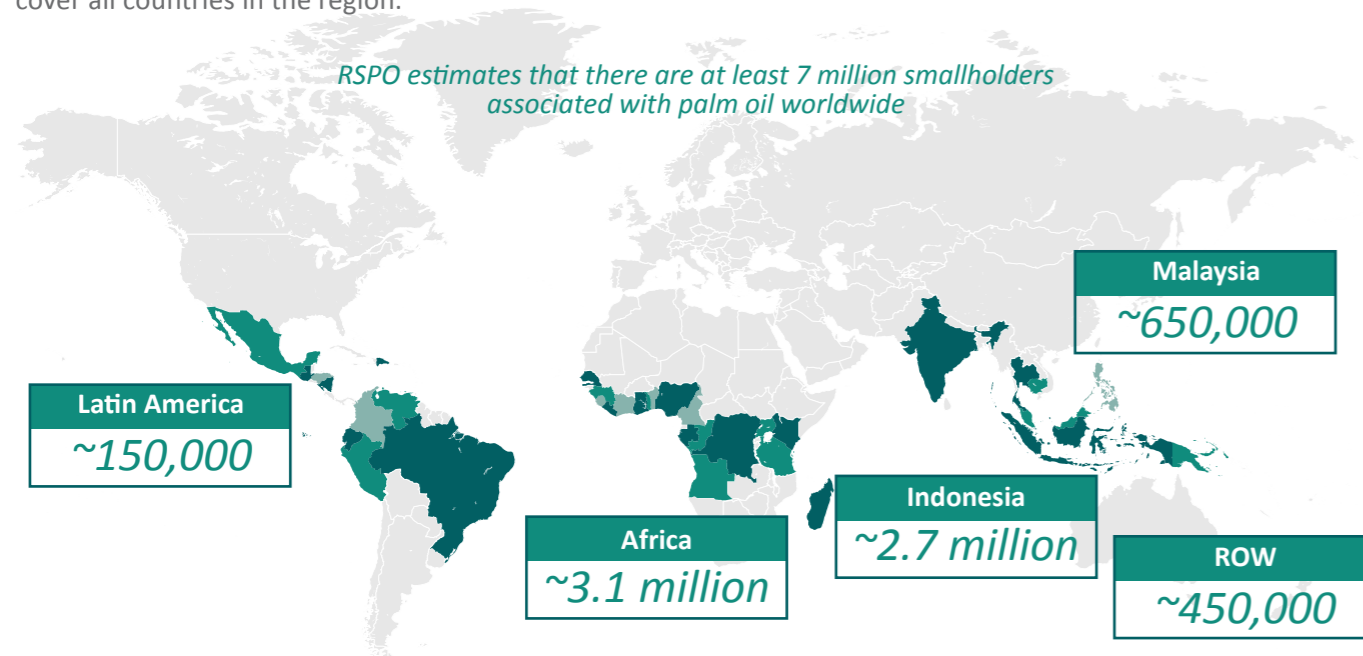


Figure #4: Estimated number of smallholder farmers involved in oil palm by region

<sup>4</sup> Using data from national sources, industry bodies or extrapolated data calculated from related statistics in published research studies.  
<sup>5</sup> Unverified sources for smallholders in Nigeria, for example, range from 1 million in a corporate report to 4 million in a media interview. RSPO numbers for data-deficient countries are extrapolated from known proxy data on total hectareage, average yields, average area per smallholder or other related data.

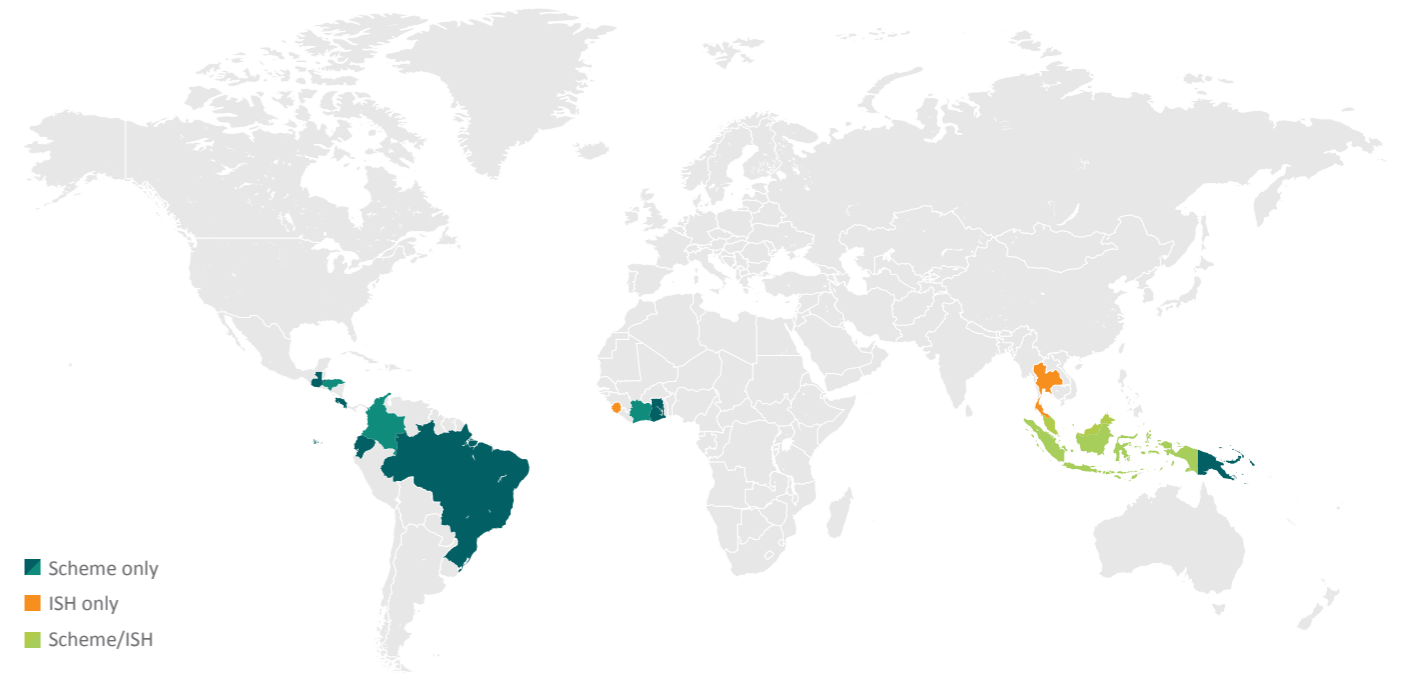
# SMALLHOLDER CERTIFICATION



Between scheme smallholders working in fixed partnership with certified palm oil mills and independent smallholders (ISH) that have joined as members, RSPO certification has now expanded to include over 165,000 farmers in 14 countries. Collectively, RSPO smallholders operated an area of nearly 417,000 hectares (ha) to produce an estimated 8.68 million metric tonnes (MT) of Fresh Fruit Bunches (FFB) in 2021. While there are still many

more that could benefit through RSPO, here is an idea of our smallholder scale<sup>1</sup> so far:

- 165,462 smallholders, or more than the population of the U.S. island territory of Guam
- 416,791 ha of land, or more than the entire oil palm production area of Ghana
- 8,677,814 MT of certified FFB, potentially representing 2% of global palm oil production



	Certified Production Area	Certified FFB Production	No. of farmers
<b>Scheme</b>	<b>351,188</b>	<b>7,564,974</b>	<b>143,445</b>
Indonesia	208,707	5,182,474	119,856
Malaysia	5,948	121,996	30
Latin America	78,723	1,501,511	1,708
Africa	2,492	30,783	899
ROW	55,318	728,210	20,952
<b>Independent</b>	<b>65,603</b>	<b>1,234,836</b>	<b>22,017</b>
Indonesia	26,839	516,936	10,953
Malaysia	6,225	112,922	1,324
Latin America	-	-	-
Africa	8,667	15,610	4,983
ROW	23,872	589,368	4,757
<b>Total Smallholders</b>	<b>416,791</b>	<b>8,799,810</b>	<b>165,462</b>

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

<sup>1</sup> Population of Guam: 153,836 people (U.S. 2022 census); Palm oil production area in Ghana: 360,000 ha (Oil Palm Development Association of Ghana/OPDAG); Total palm oil production in 2021: 75.9 million MT, potential ISH palm oil output calculated using a lower yield (18%) than the average RSPO Oil Extraction Rate (OER, 22%).

Based on ACOP 2021 reporting, there are an additional 7,007 ISHs and 413,577 ha of scheme smallholder area that have yet to be certified (primarily in Indonesia, Malaysia and Thailand). This gives us an idea of where RSPO smallholder efforts could go, which could potentially double the size of certified smallholder area through current membership alone. As noted in the previous section (see Smallholder Participation, pg 30), a smallholder farmer's journey towards compliance and certification can be lengthy. But there are insights from engagement and analysis that can help us strengthen that.

RSSF funding has brought nearly 15,700 ISHs into the RSPO ecosystem, and it is key that this continues. However, institutional support and organisational partnerships are also very important. The ground-level work of RSPO downstream and development-focused members (such as Unilever, The Procter and Gamble Company, Solidaridad, World Resources Institute, The Proforest Initiative, Wild Asia Group Scheme), systemic support of RSPO growers who have smallholders within their sphere of influence, and non-member partners (such as SNV, GIZ, government agencies) has been instrumental in our smallholder progress so far. This is particularly true in Indonesia, where the support of local partners like FORTASBI and Setara Jambi has been crucial in identifying, engaging and equipping independent smallholders.

Our data indicates that the connection between this intent or support and smallholder progress is strong. For scheme smallholders, RSPO growers that have certified some or all of their scheme smallholders are also associated with higher levels of total certified area and total Certified Sustainable Palm Oil (CSPO) production. A look at the productivity levels of ISHs also shows an indicative pattern, where higher yields (FFB/ha) are broadly linked with a mature level of support from RSPO members and length of RSPO certification. This infers that while encouraging smallholder participation in RSPO is important, it is equally as important to continuously support our ISH groups to increase their productivity so that they can improve their livelihoods in the long-run. This is also a goal of the revised RSSF approach.

Beyond palm oil mills, which are the most immediate point of engagement for oil palm smallholder farmers, other RSPO members in the supply chain also support smallholder farmers directly. While some do fund programmes to engage and assist independent smallholders privately, the most common form of support comes from the purchase of ISH Credits<sup>3</sup>. In 2021, a total of 138,555 IS-CSPO Credits were purchased and claimed by downstream RSPO members, with each IS-CSPO Credit representing one metric tonne of palm oil. Historically, uptake of ISH Credits has been very strong, with most, if not all, ISH Credits made available purchased for near-full uptake. Of these Credits, the vast majority were claimed for usage in Europe; in 2021, more than 90% of IS-CSPO Credits claimed were in Europe, spread across 18 countries, followed by North America at over 5%, and also some support in Brazil, Japan and Thailand.

Certified scheme and independent smallholders operate an area the size of 416,791 ha, more than the oil palm production area in Ghana

Thailand is a striking example of how successful RSPO smallholder certification can be. Certified ISH groups in Thailand have FFB yields per hectare far higher than average smallholders or even some commercial plantations. The best-performing Thai ISH groups show a commonality, either being long-established (since 1968 for one group) or supported symbiotically by nearby independent palm oil mills, to which they sell certified FFB to. In Thailand's Tapi River basin - covering the provinces of Surat Thani, Nakhon Si Thammarat and Krabi where 60% of Thai palm oil is produced - 13 RSPO certified ISH groups represent over 5,300 farmers who supply some 317,000 MT of FFB to 11 certified independent mills. At this landscape level, where RSPO represents only 11% of palm oil supply, both certified farmers and mills have better waste practices, lower fossil fuel usage and advanced water management, potentially emitting 21% (FFB) and 97% (palm oil) less greenhouse gases than if they were not certified<sup>2</sup>.

As role models of certification, progress recorded by Thai smallholders is encouraging. In 2022, RSPO signed a Memorandum of Understanding with the province of Surat Thani to scale those achievements up into a national example for sustainable palm oil for Thailand as a whole. The specific traits of the Thai independent smallholder evolution may not be replicable completely elsewhere, but it does underscore the importance of experience, funding and guidance in not just certifying smallholders but enhancing them as well. These are mechanisms that are already in place at RSPO, and further development will be key to our ambition of advancing certification for oil palm smallholders.

## Coming home - the first independent smallholders in Africa are certified

The first ISH group in Africa, where oil palm originates, has been certified by RSPO. Supported by RSSF funding, the Ngoyaï Gbaayegie Group in Sierra Leone was certified to Milestone B (or full compliance) of the RSPO ISH Standard in August 2021, and is the single largest ISH group across all regions to date with 4,983 farmers. Goldtree Sierra Leone Ltd acts as its Group Manager.



Credit: Goldtree Sierra Leone Ltd

## The impact of RSPO Credits on ISHs in Indonesia

- Used to support local communities with basic food necessities (rice, cooking oil) and fertiliser during the COVID-19 pandemic
  - Asosiasi Petani Kelapa Sawit Mandiri, Central Kalimantan
- Conserved and restored a 500 metre span of the Pengabuan River as a restricted fish sanctuary to reverse declining populations of endemic species
  - Usaha Bersatu/FPS MRM, Jambi
- Some 60% of credits revenue allocated to encouraging new smallholders to join and to purchase health and safety equipment for them
  - UD Lestari, North Sumatera
- Built a dam that became the Agrowisata Education waterpark, now a popular attraction in the district, and promoting more agrotourism efforts
  - KUD Tani Subur, Central Kalimantan
- Improved rural roads, upgraded local kindergartens and provided rewards for excelling students, as well as the purchase of high-quality palm seedlings
  - KUD Sumber Rejeki, South Sumatera



Credit: RSPO, Jonathan Perugia

Once certified, ISH groups may sell their FFB at a premium physically to a mill or as RSPO Credits<sup>3</sup>. While ISHs in Thailand and Malaysia sell some 90% of their FFB as physical certified, ISHs in Indonesia depend predominantly on credit sales (65% of FFB volumes) as proximity to certified mills is often a challenge. This is where RSPO members in the downstream supply chain can step up, to interact directly with those in most need of help, encouraging and rewarding ISHs on their sustainability journey. Here is how choosing ISH Credits has transformed lives in Indonesia:

## Field testimonials - the voice of certified Thai smallholders

*"We have consistently had high yields each year, as a result of our adjusted farming approaches which provide proper, continuous care. Spreading palm fronds on the ground has helped add organic matter and moisture in the soil, prevent erosion, and add nutrients to palms, further enhancing fertiliser efficiency. We recognise that increased productivity, higher income, larger profits, and better health can all be attained without paying additional costs."*

**Community Enterprise Group - Suratthani (RSPO Member ID: 1-0122-12-000-00)**



Credit: RSPO, Sayan Chuenudomsavai

<sup>2</sup> Saswattecha, K., Kroeze, C., Jawjit, W., & Hein, L. (2015). Assessing the environmental impact of palm oil produced in Thailand. *Journal Of Cleaner Production*, 100, 150-169. doi: 10.1016/j.jclepro.2015.03.037

<sup>3</sup> A specific set of RSPO Credits is available for ISHs, covering IS-CSPO (palm oil), IS-CSPKO (palm kernel oil) and IS-CSPKE (palm kernel expeller), the proportion of which is calculated as part of certification. As credit premiums go directly to smallholders, they generally trade at a higher price on the RSPO PalmTrace trading platform. <http://rspocredits.org/>

# PROTECTING AND RESTORING NATURE

The ideal growing conditions for oil palm, a highly productive crop that offers a far greater yield at a lower cost of production than other vegetable oils<sup>1</sup>, coincide with some of the world's most biodiverse and valuable ecosystems. Protecting these vulnerable environments, while balancing equitable economic growth, is at the heart of RSPO. More than just preservation, we also address instances of historic unsustainable development to not just retain but expand conservation through environmental restoration and rehabilitation procedures. The Principles and Criteria (P&C) 2018 and RSPO Independent Smallholder (ISH) Standard have set in place an ambitious set of criteria for environmentally sustainable operations and measures to halt deforestation, supported by other RSPO mechanisms such as the New Planting Procedure (NPP) and the Remediation and Compensation Procedure (RaCP). With these in place, RSPO certification will be able to ensure that some of the world's most fragile and threatened ecosystems are conserved, protected and enhanced to provide for the next generations.



“ As a member of RSPO and being responsible by living on this planet we all call home, it is so important that we use our limited resources sustainably for the collective good. The BHCVWG was established in 2010 to provide strategic and technical advice to RSPO in support of effective implementation of the P&C to ensure that biodiversity is preserved and High Conservation Value (HCV) areas are protected, while still allowing for responsible land use to provide food, income and shelter for the billions of people who share our only planet with endangered species like tigers, jaguars, elephants, rhino, gorillas and orangutans.

**Lee Swee Yin and Harjinder Kler**  
Co-chairs of the RSPO Biodiversity and HCV Working Group (BHCVWG), representing Sime Darby Plantation and Kinabatangan Orang-utan Conservation Programme.

”

<sup>1</sup> World Wildlife Fund (WWF), a founding member of RSPO.

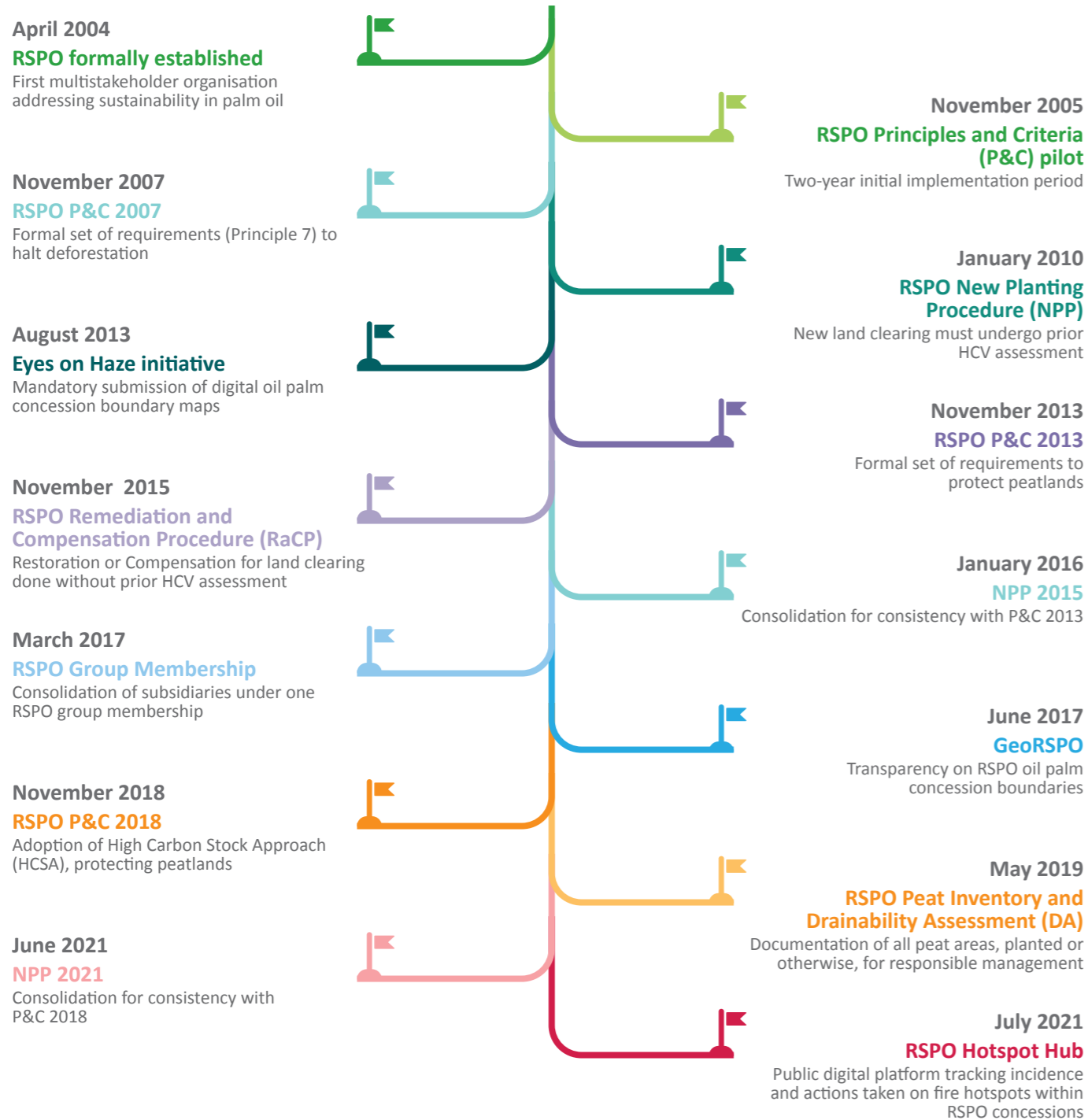


# THE RSPO JOURNEY IN HALTING DEFORESTATION

From our establishment in 2004, RSPO's ambition has always been to halt deforestation as part of the sustainable production of palm oil. Since the pilot P&C was introduced in 2005, we have continued to

implement rigorous requirements in pursuit of that ambition. As we head toward a revision of the P&C in 2023, this timeline captures RSPO's journey so far in halting deforestation.

## Halting Deforestation Timeline



# SAFEGUARDING NATURE



In a forest, it is never quiet. There is always a symphony of sounds at play, from the calls of birds to the buzzing of insects, the soft treads of predators to the audible growth spurts of plants, the gushing of rivers and the whispers of indigenous people that call this green canopy their home. The equatorial belt contains some of the world's richest and most diverse

forests, including tropical rainforests and vast jungles where dinosaurs once roamed, and are home to some of the world's most iconic fauna and valuable flora. RSPO was established to ensure that palm oil is produced sustainably in such a way that these forests are preserved and do not fall silent.

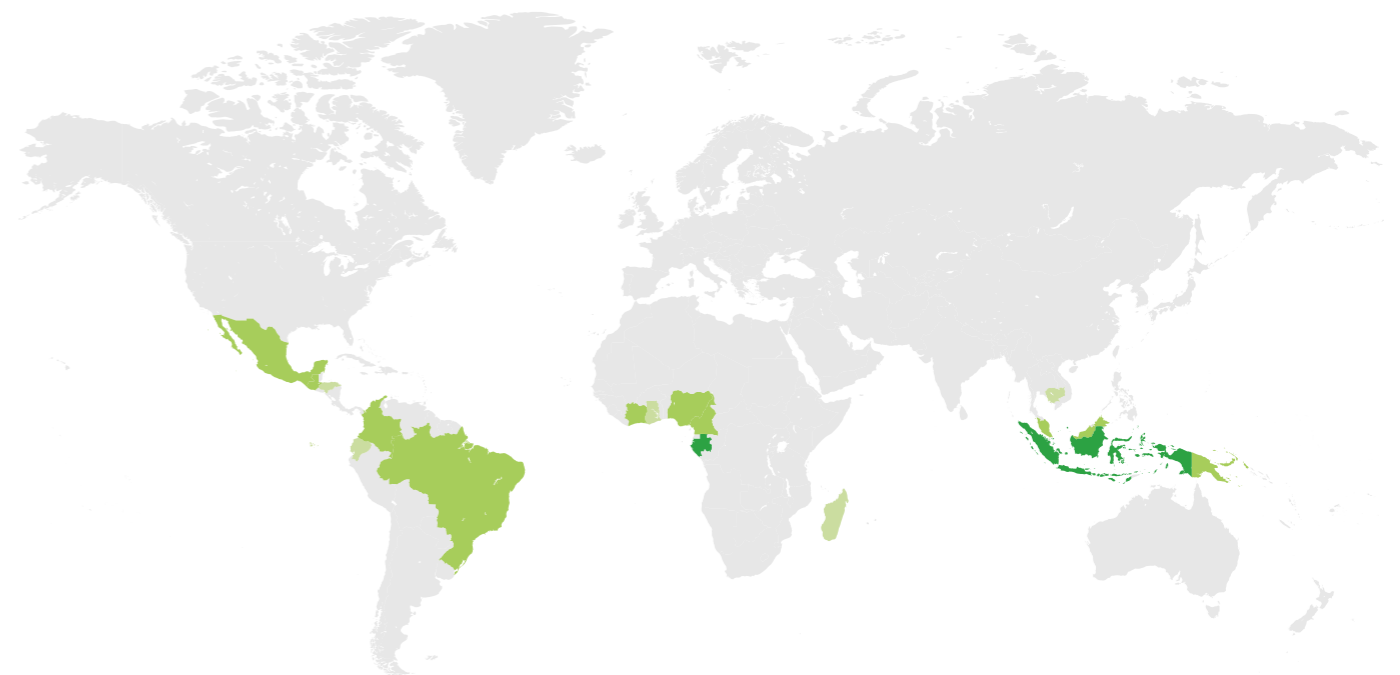


Figure 1: Distribution of HCV Area by Country in hectares (2021)

Cumulatively through 2021, RSPO members have set aside 301,020 hectares (ha) of land and forests for conservation (see "A conservation conversation") as part of P&C certification. That is an area almost 30 times the size of the city of Paris<sup>1</sup>. Protected and managed by certified plantations and mills, these areas are distributed worldwide across 17 countries (Figure 1), with the highest proportion of conservation areas in Indonesia (123,333 ha), Gabon (64,065 ha), Brazil (57,237 ha), Malaysia (19,550 ha) and Colombia (12,877 ha).

ability to continue safeguarding vital natural forests, landscapes and ecosystems of environmental and social importance.

**An area almost 30 times the size of Paris (301,020 hectares) has been conserved and protected through RSPO certification**

To place this progress in a historical context, in 2015 the total conservation area of RSPO certified units was 144,967 ha, or 4.2% of the total P&C certified area. In 2021, the cumulative size of conservation areas has more than doubled, representing 6.6% of the total P&C certified area. As RSPO certification progresses (see Advancing Certification, pg 62), so too does our

<sup>1</sup> The City of Paris, the capital of France, is 10,540 hectares in size.

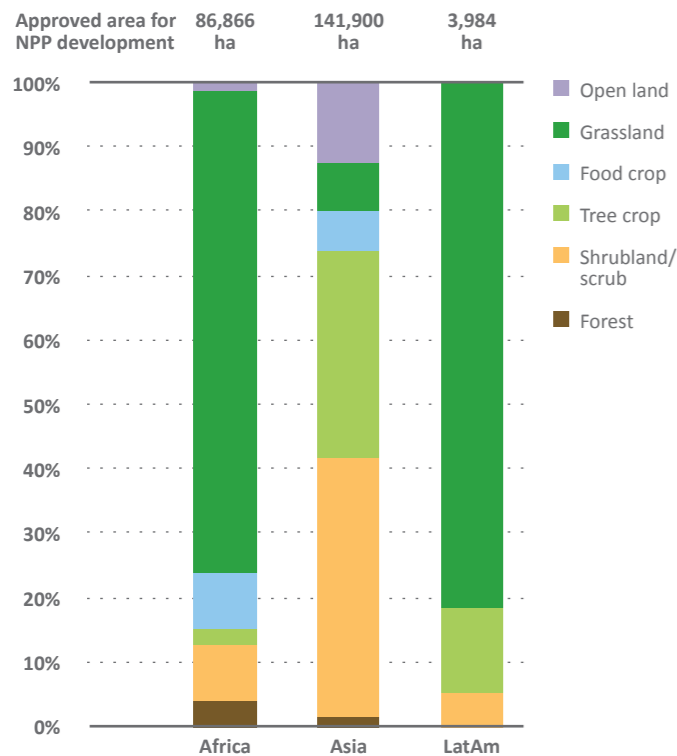


Figure 2: Land profile of areas approved for oil palm development under NPP (2015-2021)

The New Planting Procedure (NPP) is key to this, and is applicable to all new plantings and land clearing planned by uncertified management units. Since 2015, some 392,000 ha of planned new plantings were submitted under NPP, of which 232,750 ha were approved for development and 90,595 ha conserved for environmental or social importance<sup>2</sup>. Of the area approved for development, only 2% was on forested areas (Figure 2) after HCV, HCS or HCV-HCS environmental assessment was conducted. The most common land profile for development were grasslands in Africa and Latin America, and shrubland/scrub or other tree crops in Asia.

Going forward, we intend to desegregate our data even further in order to obtain more insights on the types of areas being conserved and what positive impacts this has led to. Has biodiversity improved? What unique ecosystems are being preserved? Which vulnerable communities are being sheltered? We also would like to be able to share stories from the RSPO members' conservation, reforestation and rehabilitation efforts, as one of the few forest commodity voluntary sustainability standards with criteria for reforestation<sup>3</sup>. We want the symphonic sounds of forests globally to continue playing for generations to come, and we want the RSPO and our members to be part of that chorus.

## Stories from the field: Certification and conservation in Gabon

Forest elephants, lowland gorillas, rediscovered hippo habitats, and archaeological artefacts found in a cave that Indiana Jones would have been proud of. The story of Olam Palm Gabon (OPG) – a joint venture between Singapore's Olam International (RSPO Membership ID: 1-0114-12-000-00) and the Republic of Gabon – is a testament to how a strong commitment to sustainable palm oil can translate into true impact.

Covering three mills and associated plantations, OPG's total concession is over 200,000 ha in size and fully RSPO certified as of June 2022. More than half is conserved as HCV areas or HCS forests (over 100,000 ha, including the Dola CPO Mill certified in June 2022). Beyond just scale, the nature of these areas is also strategic as the conservation areas within the Olam concessions are contiguous, connected to natural habitats and national parks, therefore playing an important role in landscape connectivity and integrity on a national level in Gabon. Significant populations of endangered flora and fauna thrive in these areas, including recently-spotted hippopotamus in a region where no sightings had been reported since 1949. Advanced instruments for the monitoring and prevention of human-wildlife conflict are in place, while local communities are actively engaged.

In 2019, another exciting discovery was made while Olam was investing in documenting cave networks in its patrimonial enhancement programme: the Iroungou Cave. Containing over 500 artefacts from the 14th century (including knives, axes, bracelets and human remains), the burial site is a unique insight into the largely unrecorded and little-known anthropological history of Central Africa.



Credit: Olam Palm Gabon

## A conservation conversation

Over four iterations of the P&C, RSPO's approach to halting deforestation has evolved, adding rigour and clarity at every stage. In current usage are the High Conservation Value (HCV) and High Carbon Stock (HCS) approaches. HCV has been a mainstay since the 2005 P&C pilot, while HCS was introduced in P&C 2018. These assessments are mandatory for new plantings under the NPP, with the addition of HCS components to protect forests that may not be covered by HCV. Combined, the two complementary approaches strengthen the ability of RSPO members to identify, conserve and protect forests, landscapes, ecosystems and areas important to traditional livelihoods and cultural identity.

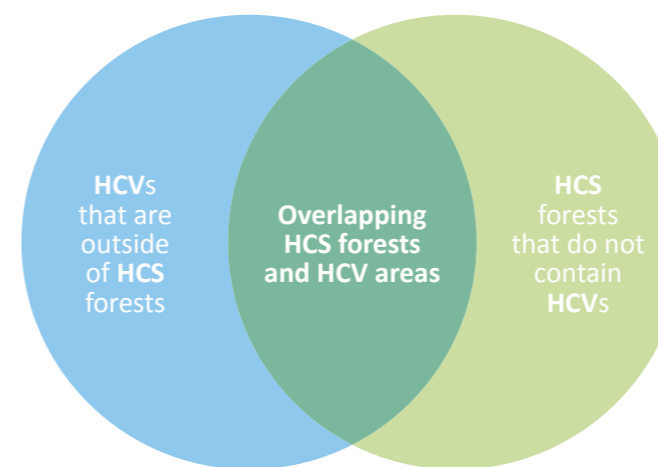


Figure 3: Land profile of areas approved for oil palm development under NPP (2015-2021)

The HCV approach was first developed by the Forest Stewardship Council (FSC), and is now widely used in certification standards and conservation planning. An HCV area is of biological, ecological, social or cultural outstanding significance or of critical importance at global, regional or national levels, and is broken down into six categories:

**HCV1 (Species diversity):** Areas with concentrations of biological diversity including endemic species, and rare, threatened or endangered (RTE) species, including temporal importance (e.g., breeding, feeding or migration grounds).  
*Example: Sundaland tropical rainforests in East Kalimantan, Indonesia that support at least three endangered species (Bornean Orangutans, Proboscis Monkeys, False Gharials), two of which are endemic to Borneo.*

**HCV2 (Landscape ecosystems):** Large landscape-level ecosystems and ecosystem mosaics that contain viable populations of the great majority of naturally occurring species in natural patterns of distribution and abundance.

*Example: The boreal forests of Mistik Forest Management Area in Saskatchewan, Canada.*

**HCV3 (Vulnerable ecosystems):** Rare, threatened, or endangered (RTE) ecosystems, habitats or refugia.

*Example: Humid and semi-arid Pampas ecoregions in the La Plata basin of Argentina, as grasslands that support unique communities of over 550 grass and 500 bird species.*

**HCV4 (Ecosystem services):** Basic ecosystem services in critical situations including protection of water catchments and control of erosion of vulnerable soils and slopes.

*Example: Cork and holm oak woodlands (montados) and water catchments in the Low Tejo Basin, southern Portugal.*

**HCV5 (Community services):** Sites and resources fundamental for satisfying the basic necessities of local communities or indigenous peoples, identified through engagement with these peoples.

*Example: Mosaic landscape in Cabo Delgado Province, Mozambique.*

**HCV6 (Cultural values):** Sites, resources, habitats and landscapes of critical cultural, ecological, archaeological, historical, economic or religious/sacred importance for the traditional cultures of local communities or indigenous peoples, identified through engagement with these peoples.

*Example: Culturally and spiritually significant Pesaguan Dayak small settlements (dohas) in Tumbang Titi, West Kalimantan, Indonesia.*

The High Carbon Stock approach (HCSA) is a methodology and toolkit that sets an internationally recognised approach for implementing No Deforestation in tropical forest landscapes. It identifies and distinguishes between carbon-rich natural forests that must be protected, and areas of scrub and degraded lands with low carbon and biodiversity values that may be developed, whilst ensuring that the rights and livelihoods of communities and workers are respected.

<sup>2</sup> An additional 68,453 ha were assessed to be excluded from the NPP development plan due to the presence of existing agriculture or infrastructure.

<sup>3</sup> Larrea, C., Leal, S., Sarmiento, F., & Voora, V. (2021). *Voluntary Sustainability Standards, Forest Conservation, and Environmental Provisions in International Trade Policy*. IISD.

# ENVIRONMENTAL SUSTAINABILITY INDEX



**Principle 7 of the RSPO Principles and Criteria (P&C) 2018 sets out requirements intended to conserve, protect and enhance ecosystems that provide for the next generation. These include a number of criteria on environmentally sustainable practices for the operation of plantations and mills, including pest control, pesticide use, waste management, fertiliser input and renewable energy. The RSPO's current dataset on these aspects is incomplete. However, we do have enough data from a sample of 206 P&C Metrics Templates<sup>1</sup> submitted by Units of Certification (units) to establish a general baseline for pesticide usage.**

Using pesticides to control disease (prophylactic use) is found, on average, in 2% of certified units, with all cases audited by independent third-party Certification Bodies (CBs) as being under controlled circumstances as directed by Integrated Pest Management (IPM) plans required by P&C Criteria 7.1. Using restricted herbicides and pesticides to control weeds or pests<sup>2</sup> is found, on average, in 5.4% of certified units. P&C Criteria 7.2.5 prohibits the use of such pesticides and paraquat unless in exceptional circumstances that is validated by a due diligence process or when authorised by government authorities. Of the reported incidences of usage, independent auditors found only one case of negligent usage of paraquat where a Non-Compliance was issued. All other usages were supported by due diligence with advice from agronomists and/or with approval from government authorities. Analysis on a sample of audit reports indicates that a number of certified units had already eliminated the prophylactic use of pesticides, restricted pesticides and paraquat in preparation for RSPO certification in favour of natural pest control techniques. This data will be used to continually engage with certified units on the risk factors to guide our members towards better environmentally sustainable practices.

At this point, metricated data on other aspects of environmental sustainable practices in RSPO certified units is not yet fully available. However, through data from the RSPO Complaints System, we can assess an indicative level of risk associated with environmental issues. Of the 165 cases submitted since 2009, 62 concern environmental issues, with cases primarily concerning allegations on deforestation, High Conservation Value (HCV) assessments, pollution/ fire and New Planting Procedures (NPP). On a

Category	Percentage	Region	Percentage
Prophylactic Use of Pesticides	2.0%	Indonesia	0.0%
		Malaysia	4.6%
		Latin America	0.0%
		Africa	8.3%
		ROW	0.0%
WHO 1A or 1B or Stockholm/ Rotterdam Convention pesticides, or paraquat	5.4%	Indonesia	6.5%
		Malaysia	6.2%
		Latin America	0.0%
		Africa	0.0%
		ROW	2.0%

Figure 1: Pesticide usage in a sampling of RSPO Certified Units (2021)

regional level, the incidence of such cases is highest in Indonesia (44% of all cases), followed by Latin America (40%) and Malaysia (33%). This provides a rough geographical sketch of risk levels associated with environmental issues that can be used by RSPO to assist members and provide guidance to independent Certification Bodies on specific issues to focus on during audits. Some 79% of all environment-related cases have been closed, although closures vary by region with open cases indicating a broader level of environmental risk in Africa (33% of cases remain open), Indonesia (21%) and Malaysia (20%).

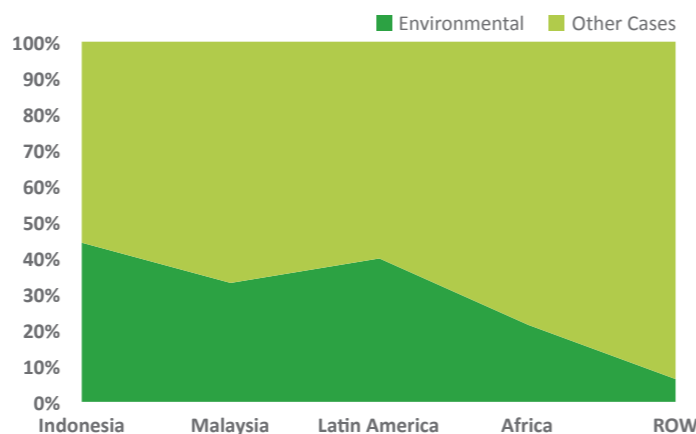


Figure 2: Environmental-related cases as a percentage of total complaints cases

Going forward, we intend to refine our datasets to include other aspects such as the extent of planting on vulnerable areas, fertiliser inputs and operational adherence to the standard through non-compliances related to relevant criteria as identified

through certification audits. When ready, the data will be compiled, codified and calculated into an Environmental Sustainability Index to assess the overall progress on responsible operations by RSPO members.

## Responsible usage of pesticides

According to the United Nations Environment Programme, pesticides can persist in the environment for decades after application, posing threats to entire ecological systems that food production depends on. Excessive use and misuse of pesticides result in contamination of surrounding soil and water sources, loss of biodiversity, destruction of beneficial insect populations and reduction in food nutritional values. Under P&C Criteria 7.2, pesticides must be used in ways that do not endanger the health of workers, families, communities or the environment. This

includes no prophylactic use of pesticides (7.2.4), i.e., not used to pre-emptively eradicate pests or disease, unless under exceptional circumstances. Use of pesticides categorised as World Health Organization (WHO) Class 1A or 1B or listed by the Stockholm or Rotterdam Conventions, and paraquat (7.2.5) must be avoided unless there are extenuating circumstances, as they are Highly Hazardous Pesticides (HHP) that can cause severe environmental harm and chronic toxicity to human health.

## Tackling pests, diseases and alien species

An effective yet environmentally sensitive approach through Integrated Pest Management (IPM) is required under P&C Criteria 7.1 to manage pests, diseases, weeds and invasive introduced species. IPM generally consists of four steps: setting action thresholds (the level at which pests become an economic threat), monitoring and identification (beneficial vs. harmful organisms), prevention (cost-efficient methods as first line defences including crop rotation or use of pest-resistant varieties) and active control (starting with less risky approaches such as mating-disruption pheromones or mechanical trapping). In oil palm plantations, particularly in Southeast Asia, the most



Credit: RSPO and Sayan Chuenudomsavad

common pests are insects like bagworm moths, and rats. For bagworms, options include targeted control through endemic insects (Sycanus sp. also known as assassin bugs) as natural predators. For rats, the Common Barn Owl (Tyto Alba) can hunt up to five rats a night, as well as being a naturally-occurring species across most of the equator.

<sup>1</sup> Introduced in May 2021 as a prerequisite for certification, as stipulated in the P&C 2018. P&C Metrics Templates are verified as part of the RSPO's independent certification audit process.

<sup>2</sup> Defined in P&C 2018 as pesticides categorised as World Health Organization Class 1A or 1B, that are listed by the Stockholm or Rotterdam Conventions, and paraquat.

# WATER STEWARDSHIP



Water is crucial in palm oil, both as a production input and as a resource affected by the industry's operations. Not only is water a necessity in ensuring the growth of healthy oil palms, it is also a vital part of the process of extracting palm oil from Fresh Fruit Bunches (FFB) at a mill, which essentially involves cooking the palm fruit with high-pressure steam to separate its orange fleshy mesocarp from its sturdy

brown kernel, then pressing the extracted flesh to obtain the oil within. The remaining liquid by-product - known as Palm Oil Mill Effluent - is also deeply connected with water treatment and freshwater ecosystems (See "POME and Why It Is Important"). Our RSPO Principles & Criteria (2018) cover all these aspects, with the goal of making our members exemplary water stewards.

	Indonesia	Malaysia	Latin America	Africa	ROW	Global Average
<b>Freshwater Usage per CSPO produced (m3/MT)</b>	5.120	5.180	4.680	4.200	5.310	5.050
<b>Freshwater Usage per CSPO produced (m3/kg)</b>	0.005	0.005	0.005	0.004	0.005	0.005

Figure 1: Estimated freshwater usage per MT/kg of CSPO produced by region and global average

To date, there has been limited research on the impact of certification on palm oil's water footprint. SDG 6 specifically addresses water issues, to ensure availability and sustainable management of water and sanitation for all. A sample analysis of 206 P&C Metrics Templates shows the average freshwater use by certified mills to be 5.05 cubic metres (m<sup>3</sup>) per metric

tonne (MT) of crude palm oil produced, or 0.005 m<sup>3</sup>/kg in 2021 (Figure 1). Water footprints are fairly similar across all producing regions, but notably lower in certified mills located in Africa and Latin America. Due to an incomplete dataset, we note that this initial freshwater usage footprint is not definitive but may be used as an indicative baseline.

	Cultivation (Foreground)	Cultivation (Background)	Transport/Collection	Extraction (Foreground)	Extraction (Background)
Oil Palm - Colombia	0.0000	0.0007	0.0010	0.0055	0.0090
Oil Palm - Malaysia	0.0064	0.0006	0.0013	0.0034	0.0003
Soybean - Argentina	0.1700	0.0023	0.0031	-	-
Soybean - Brazil	0.1400	0.0027	0.0078	-	-
Soybean - USA	0.0076	0.0013	0.0048	-	-
Rapeseed - Germany	0.0860	0.0060	0.0040	-	-
Rapeseed - France	0.2100	0.0060	0.0023	-	-
Rapeseed - Spain	1.1100	0.0077	0.0017	-	-
Rapeseed - Canada	0.0130	0.0100	0.0048	-	-
Rapeseed - USA	0.0600	0.0140	0.0021	-	-

Figure 2: Inventory of freshwater consumed by various vegetable oils (cubic metres per kg of oil, m3/kg)<sup>1</sup>

<sup>1</sup> Adapted from Water footprint profile of crop-based vegetable oils and waste cooking oil: Comparing two water scarcity footprint methods, by Caldeira, C., Quinteiro, P., Castanheira, E., Boulay, A., Dias, A., Arroja, L., & Freire, F., 2018, Journal of Cleaner Production, 195. Copyright 2022 by Elsevier. Adapted with permission.

A 2018 study led by the University of Coimbra, Portugal, compared the water footprint of crop-based vegetable oils using two different impact assessment methods<sup>2</sup>. The study concluded that the footprint of various oils (calculated as a Life Cycle Assessment covering cultivation, transport, collection, extraction and refining) was highest for rapeseed in Spain and soybean in Argentina, and lowest for palm in Malaysia and Colombia under both methods. Palm oil was noted to be less "thirsty" due to its lesser irrigation requirements and reliance on natural rainfall. However, even focusing specifically on the study's analysis on freshwater consumed in extraction aspects of palm oil as the closest possible parallel (Figure 2), a comparison with RSPO data is not possible due to differences in metrics and methodology, though our data from certified mills appears to be relatively in line with the study's findings. This implies that the water footprint of certified mills might not be significantly different from non-certified mills due to water being a fixed operational input. However sustainability may be improved through other techniques.

Going forward, RSPO will look into research on the relationship between certification and palm oil water footprints to derive more conclusive insights. While a mill's water footprint may be constant due to

Certified palm oil mills have an average **water footprint of 0.005 m<sup>3</sup>/kg** lower than other vegetable oils such as soybean and rapeseed

operational reasons, we will also explore ways in which we can guide our members to efficiently improve their water footprint, through alternative water sources (grey/waste water, rainwater capture), optimising the use of water in oil extraction processes, and waste water treatment.

## POME and why it is important

The processing of oil palm FFB into crude palm oil at a mill involves steam. Lots and lots of steam. Lots of steam requires lots of water, and the resulting effluent is known as Palm Oil Mill Effluent (POME). Although non-toxic, POME can be highly polluting if released directly into waterways due to its high biological oxygen demand (BOD) and high temperature, which can adversely affect aquatic wildlife, as well as being a major source of greenhouse gases (GHG) (See Emissions Management - Mitigation pg 60). The days of simply discarding POME into nearby waterways are over; P&C 2018 requires POME to be properly treated as part of a water management plan (Criteria 7.8) to avoid negative effects on surface and groundwater.

The basic treatment approach involves containing POME within a series of demarcated pools designed

specifically to prevent leaching into the soil and groundwater while the POME is progressively treated biologically through anaerobic digestion (using bacteria to break down organic matter). Once the water is sufficiently clean and nutrient free, it can be released. Depending on the member, the treated water can be re-used as an input in the mill, recycled for other uses (e.g., irrigation, sanitation) or safely released into waterways. The methane emitted as part of the organic treatment process can be captured and converted into biogas, to be used for onsite power generation or plugged into an external electricity grid, while reducing GHG emissions simultaneously. Treated POME can also be used as biodiesel feedstock or as liquid fertiliser, providing additional economic incentives for palm oil mills to responsibly treat POME.

## Down by the river: Riparian buffer zones

Riparian buffer zones – or lands alongside rivers and streams – are critical environments to be conserved. Planting oil palm in such fragile zones will not only adversely affect the soil and the water, but also the palm itself, with risks of erosion, landslides and pollution. P&C 2018 Criteria 7.6 (soil surveys) and 7.8 (water practices) indicate that riparian zones should be protected, or restored if degraded. Rehabilitation of riparian buffer zones (See Remediation, pg 46)

generally involve the removal of oil palms planted in the area, to be replaced with native natural vegetation such as Putat Nasi shrubs (Malaysia), Guadua bamboos (Latin America) or Afzelia Mahogany trees (West Africa). The ultimate goal is to restore the physical functions of the riparian zone, including water filtration, river bank stabilisation, erosion prevention, flood management and biodiversity conservation.

<sup>2</sup> Caldeira, C., Quinteiro, P., Castanheira, E., Boulay, A., Dias, A., Arroja, L., & Freire, F. (2018). Water footprint profile of crop-based vegetable oils and waste cooking oil: Comparing two water scarcity footprint methods. Journal Of Cleaner Production, 195, 1190-1202. doi: 10.1016/j.jclepro.2018.05.221



# REMEDIATION



To become an oil palm grower member of RSPO is to assume a responsibility. That responsibility involves not just protecting and conserving existing areas of critical natural and social value, but to also rehabilitate, restore and remediate past environmental degradation. Within Voluntary

Sustainability Standards (VSS) for agricultural commodities, it is common to establish a cut-off date to halt clearing of forests for development. For RSPO, that cut-off date is November 2005, corresponding to the release of the pilot set of Principles and Criteria (P&C).

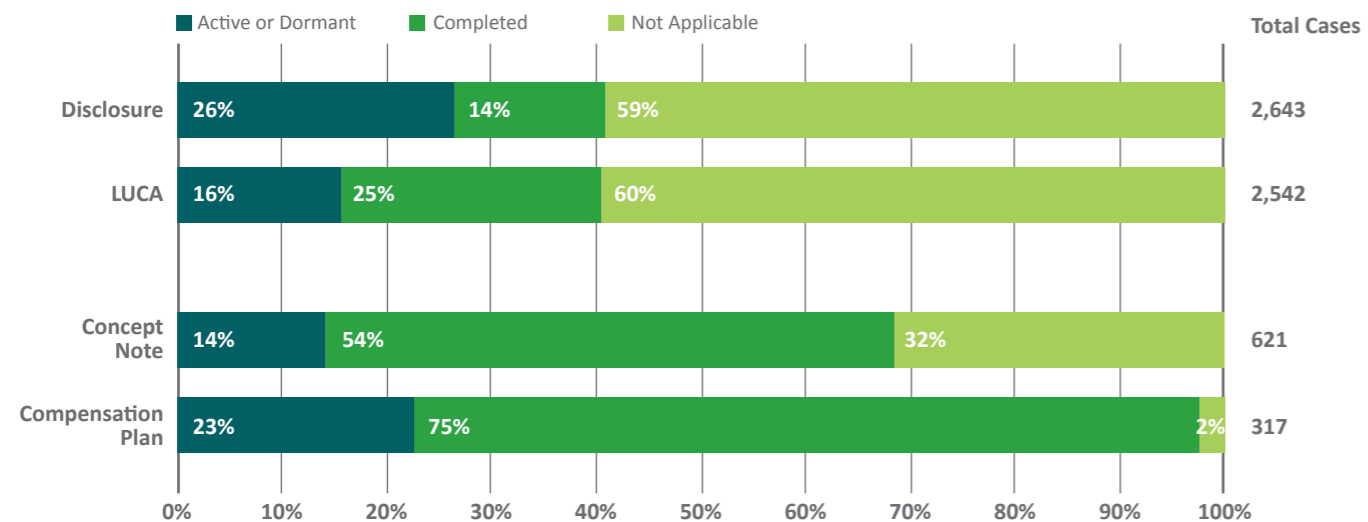


Figure 1: RaCP case progress/completion at each step of RaCP process (as of Dec 2021)

Given our ambition to improve environmental and social standards in the global palm oil industry, while not being exclusionary in membership or certification, the Remediation and Compensation Procedure (RaCP) was adopted in 2015 to address land clearance that had been undertaken since November 2005 without prior environmental assessment (using the High Conservation Value approach). The process begins with members disclosing historical land clearance fitting that criteria. A Land Use Change Analysis (LUCA) must then be conducted to ascertain if the clearance incurred any environmental or social liability. If liability is determined, then onsite or offsite remediation must be carried out to compensate for the loss of conservation areas or negative social impact. This procedure provides RSPO members with an avenue to restore and/or compensate for previous non-RSPO compliant land clearing and transition towards certification as responsible growers.

Up to December 2021, RSPO has received 2,643 disclosures from existing members, new membership applications and group membership consolidation (Figure 1). Of these disclosures, LUCA reviews established that 59% did not involve non-RSPO

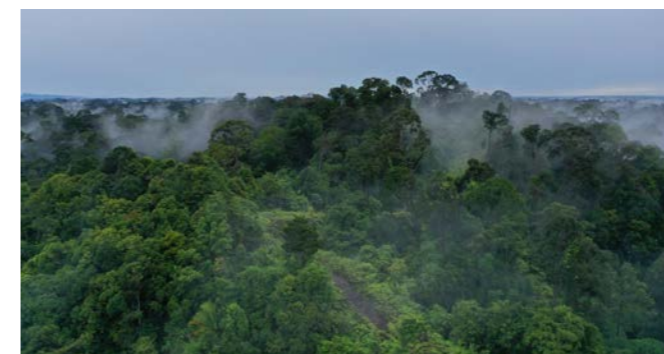
compliant land clearing. The remaining cases with established liabilities as identified through the LUCA review must then submit a Concept Note and Compensation Plan for a remediation and compensation project, which is reviewed by external evaluators and approved by a Compensation Panel before implementation.

The area of non-RSPO compliant land cleared after November 2005 (also known as Non-Compliant Land Clearance or NCLC) is 1.09 million hectares (ha) across 24 countries, which translates into a Final Conservation Liability (FCL) of 154,923 ha. In simple terms, this means that 919 of the 2,643 disclosures received involved non-compliant land clearing that requires a total area of 154,923 ha to be covered through remediation and compensation projects. Of these 919 cases, 391 have been closed and proceeded to project implementation while 528 are still ongoing. The difference between the 1.09 million ha of non-compliant land clearing and the 154,923 ha of non-compliant conservation liability is linked to the substantial amount of historic land clearing done on degraded or existing agro-forestry areas, with only a smaller portion involving HCV areas.

Progress on RaCP has faced inertia in the past due to resource constraints, but we are improving. The pace of case closures has accelerated, with 81.1% of all closures achieved between 2019 and 2021. Some 238 Compensation Plans are currently underway with a timeline of 25 years each<sup>1</sup>, remediating for an area (71,397 ha) equivalent in size to Singapore. An additional 64,165 ha will be remediated through current ongoing cases. Through RaCP, RSPO members do not just conserve valuable environments and ecosystems, they restore them as well. Each RaCP signals a member's intention to generate positive impacts for People and Planet by recognising the past. Reparation for past actions is an important element of trust and transparency, paving the way toward a more responsible future for all.

Since 2015, 238 RaCP Compensation Plans have been implemented remediating for an area the size of Singapore

## RaCP Case Study: North Barito, Central Kalimantan



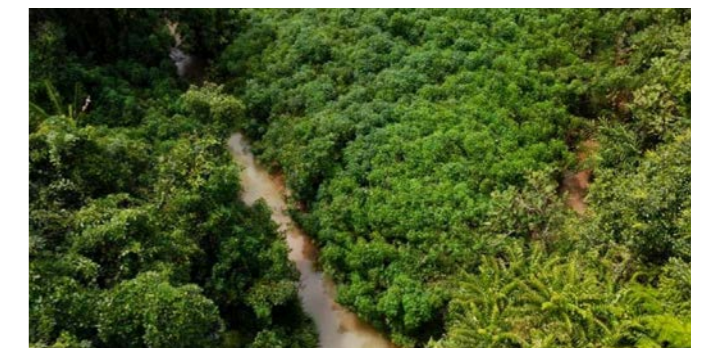
Since 2014, our project has led to significant documented biodiversity increases, including new observations of 83 birds, 41 small mammals, 26 reptiles and amphibians, 27 fish and 41 butterfly species as the forest patches grew in size and connectivity. More importantly, our impact has also been socially and economically beneficial for local communities, e.g., more abundant fish populations in rivers led to livelihood creation and income generation. By virtue of this RaCP, our efforts generate long-lasting and equitable social benefits.

We are committed to maintain and manage these areas beyond the project timeline of 2040. Our success here can be attributed to close and continuous engagement with key stakeholders such as local communities, local governments, universities and NGOs."

RSPO Member: Musim Mas Holdings Pte. Ltd.  
RSPO Member ID: 2-0907-18-000-00

"RaCP is a practical and fair mechanism to address past liabilities. It is particularly valuable for new members previously operating outside the RSPO framework and existing members acquiring estates from non-members that include areas historically cleared. The focus on impacts challenges us to design the best possible compensation projects.

This RaCP project is under PT Multipersada Gatramegah (PT MPG) in Central Kalimantan, Indonesia. Due to indiscriminate land clearing by previous owners, PT MPG is situated in a heavily degraded and fragmented landscape. Our liability was derived following acquisition of the land, and we have assumed responsibility for land clearing without prior HCV assessment, in line with RSPO rules. PT MPG adopted the in-situ RaCP mechanism, allowing direct management control to maximise impact. Our project aims to enhance the connectivity of surrounding forests at a landscape level, in order to maintain and expand pockets of wildlife habitats. Another important intervention was the widening and reforestation of riparian zones.



Credit: Musim Mas Holdings

<sup>1</sup> Equivalent to the average lifespan of an oil palm

## Statement from the RSPO Secretariat on RaCP and operational efficiency

“We, the RSPO Secretariat, recognise that our members have faced difficulties over the efficiency of the RaCP process since it was first introduced in 2015. As part of the Secretariat’s organisational restructuring in 2021, a major focus has been placed on improving momentum over the entire RaCP process, from LUCA reviews to Compensation Plan approvals. Our internal resources dedicated to RaCP has expanded and the number of LUCA reviewers has also been increased. An internal control tool is in place to monitor timelines,

while communication is carefully tracked to avoid omissions. In terms of systemic improvements, we are developing frameworks to better assess social HCV liabilities, and to introduce structured reporting of RaCP projects and their impacts in a consistent and effective manner.”

**Wan Muqtadir Wan Abdul Fatah, Head of Integrity**  
**Khing Su Li, Head of Biodiversity**

## RaCP Case Study: Southeast Laguna del Tigre National Park



individuals in Guatemala. The national park also provides critical habitats for over 120 mammals and 350 bird species, including IUCN Red List species such as the jaguar (*Panthera onca*), Yucatán black howler monkey (*Alouatta pigra*), Baird’s tapir (*Tapirus bairdii*) and Central American river turtle (*Dermatemys mawii*).

The Paso Caballos community participates through a forest fire alert system controlled by 144 people, and has been instrumental in controlling 273 recorded agricultural burnings in the area. This has contributed to alleviating poverty and mitigating climate change to remediate previous negative environmental and social impacts.”

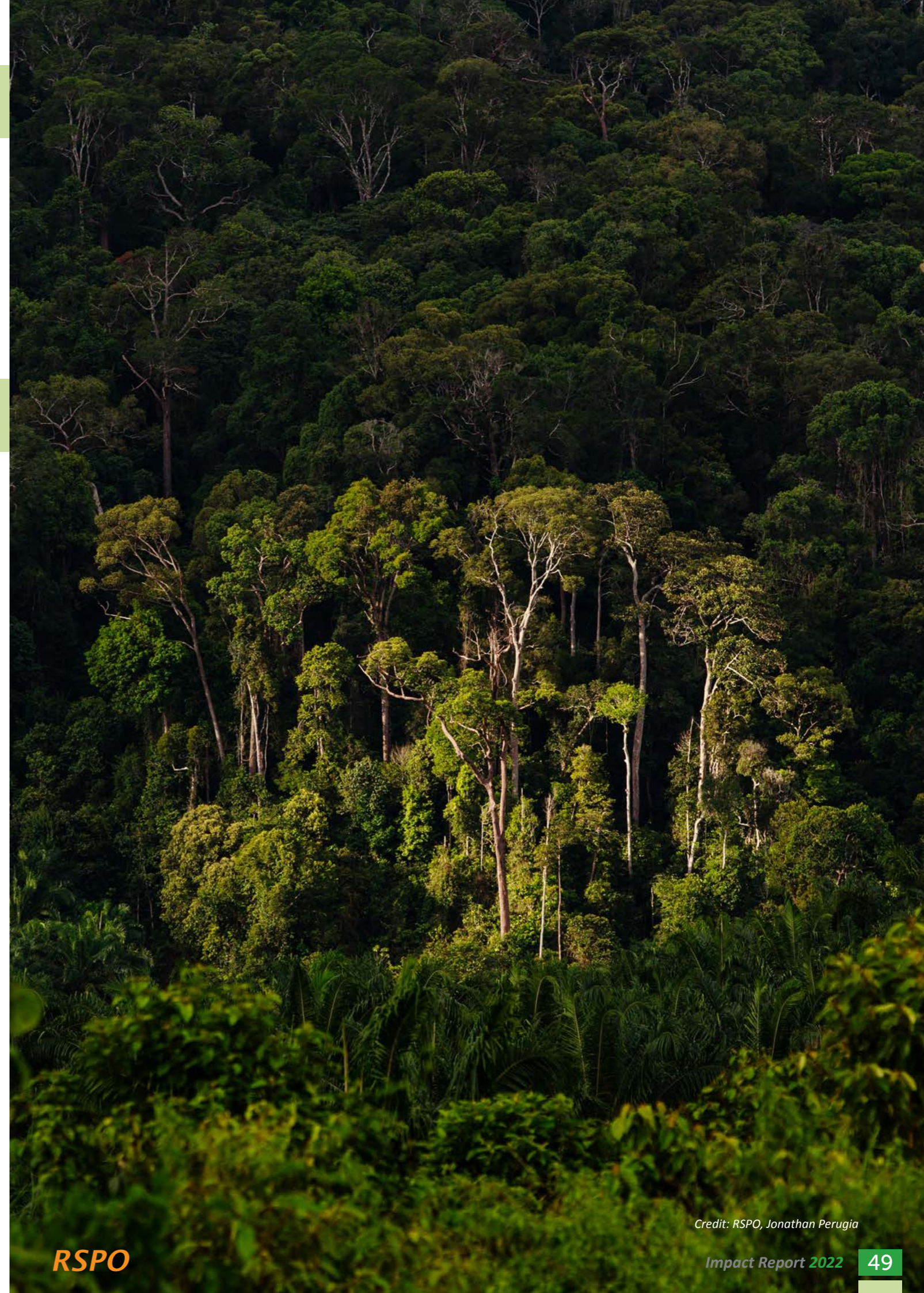
**RSPO Member: Agroamerica Tropical Oil Holding Corp (formerly Agrocaribe)**  
**RSPO Member ID: 1-0374-22-000-00 (formerly 1-0069-08-000-00)**

“We are supporting the biodiversity conservation project in southeast Laguna del Tigre National Park (LTNP), part of the Maya Biosphere Reserve (MBR) in Petén, Guatemala, with a total area of 19,098 ha. Our objectives are to conserve biodiversity by protecting endangered species and natural ecosystems, and to promote the alliance between the Paso Caballos community and public institutions through socio-environmental initiatives. Our total investment is US\$1.195 million for 25 years, starting in 2018.

The LTNP contains 13 of the 16 ecosystems identified with the MBR. There are unique landscapes in the project area, including the source of the San Pedro River, Peñón de Buena Vista, as well as critical cultural features such as the ancient Mayan cities of La Corona and El Perú. It also contains the most significant remaining nesting population of the critically endangered Central American scarlet macaw (*Ara macao cyanoptera*), estimated to be only 300



Credit: Agroamerica Tropical Oil



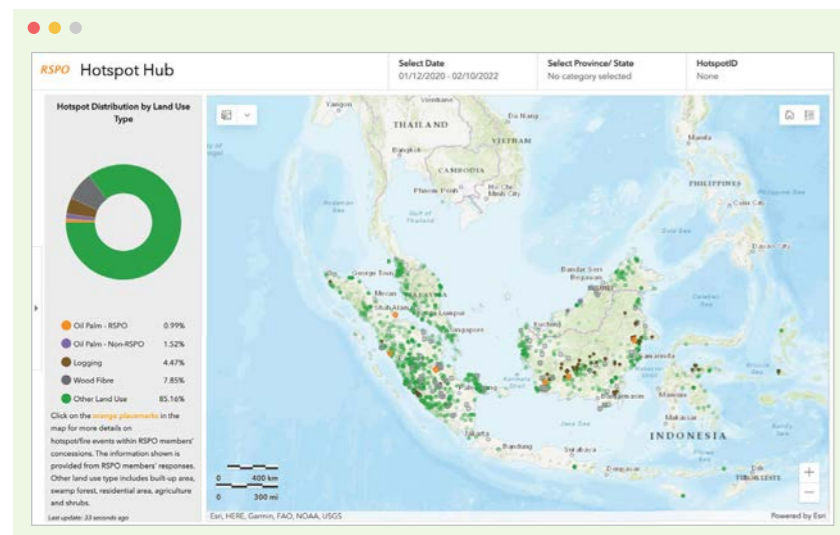
Credit: RSPO, Jonathan Perugia

# PREVENTING FIRE

One of the catalysts that led to the formation of RSPO in 2004 was the severe haze that blanketed Southeast Asia in 1997. This was the result of an extreme El Niño weather cycle causing extremely dry conditions in the region, ignited by traditional slash-and-burn land clearing techniques for agriculture (including oil palm) and exacerbated by dried peatlands drained for oil palm development. Since the first iteration of RSPO Principles and Criteria (P&C) in 2005, we have taken a zero tolerance approach to fire. Criteria 7.11 under P&C 2018 states that “fire (must not be) used for preparing land and is prevented in the managed area”. However, transboundary haze and other negative aspects of fire remain a risk, as it may occur unintentionally or spread from outside the RSPO’s sphere of influence. Our mechanisms are therefore geared towards minimising the risks of fire occurring and persisting, as well as mitigating fires when they do happen. Through a combination of advanced geospatial analysis and constant communication with our members, RSPO intends to minimise fire risk within our members’ concessions to eliminate the threat of creating pollution and causing deforestation.

## Introducing the RSPO Hotspot Hub

Launched in July 2021, the RSPO Hotspot Hub is designed to bring greater transparency and accountability to address the issues of forest fire, open fire and the use of fire for pest control within the framework of the RSPO Principles & Criteria (P&C) 2018 and the RSPO Independent Smallholder (ISH) standards. This interactive digital platform provides information on verified hotspots and potential fires within RSPO certified and non-certified concessions, and highlights the actions carried out by members to remedy the situation. Under the RSPO Internal Hotspot and Fire Monitoring procedure, the discovery of a hotspot in, or near, an RSPO concession, will trigger a Hotspot Alert by RSPO to the member for their verification and action. Information on the date, cause, persistence of fire, size of the affected area and preventive actions taken by the member is captured. The Hotspot Hub publishes this data publicly, providing transparency on ensuring that potential fires have been reported, prevented and extinguished. Coverage of our fire hotspot monitoring is global across certified and uncertified concessions owned by RSPO members.



Credit: RSPO, Jonathan Perugia

# FIRE RISK



Fire is primordial. And the vision of flames razing hundreds of hectares of land to the ground is apocalyptic. Unfortunately, due to climate change this scenario is becoming more frequent. RSPO takes fire seriously, in our standards and in our systems, and there is evidence from independent research that this approach is working.

A 2016 study<sup>1</sup> found that fire activity in Indonesia was significantly lower in RSPO certified concessions than non-certified ones when the likelihood of fire is low (i.e., non-peatlands during wet years) but equal in occurrence when the likelihood is high (on peat, and non-peatlands during dry years). A 2017 study<sup>2</sup> with a larger sample size<sup>3</sup> found a stronger correlation: RSPO certified concessions in Indonesia had lower fire-driven deforestation than non-certified concessions, including accounting for El Niño events (weather patterns that cause dry-to-drought conditions in Southeast Asia). Fire activity in the 2002, 2004 and 2006 El Niño events were similar in all concessions sampled, including those that would later become RSPO certified. In the 2009 and 2015 El Niño events, however, fire activity was 75% and 66% lower in RSPO certified concessions. The last data point is very significant, as the 2015 El Niño was the latest occurrence of the extreme super El Niño (estimated to recur in a 15-20 year cycle) and the cause of the second-worst Asian transboundary haze crisis (after 1997/98, during the previous super El Niño).

If there is a fire hotspot detected in Indonesia or Malaysia, there is a **less than 1.5% probability** that the fire hotspot is within an RSPO certified concession



2021		
<b>Total hotspots</b>	<b>85,471</b>	
<b>Hotspots (RSPO certified concession)</b>	1,216	1.4%
<b>Hotspots (RSPO member concession, uncertified)</b>	10,107	11.8%
<b>Peat Hotspots (RSPO certified concession on peat)</b>	98	0.1%
<b>Peat Hotspots (RSPO member concession, uncertified, on peat)</b>	3579	4.2%

Figure 1: Fire Hotspots in RSPO member concessions (2021)

Beyond requirements in the P&C (see “How does RSPO mitigate fire risk?”), we also address fire risk directly. RSPO has been empowered to collect digital concession maps of all members planting oil palm, publicly available on GeoRSPO. Mapped against monitoring data sources such as the NASA Fire Information for Resource Management System (FIRMS) and Global Forest Watch Pro platform, we monitor for fire hotspots daily within all RSPO concessions, certified and non-certified. Any detection of a hotspot will prompt an alert for verification, investigation and action with a recommended response time of five days.

In 2021, over 85,000 fire hotspots were detected in Indonesia and Malaysia alone (Figure 1), including those associated with other industries such as timber and non-oil palm agriculture. Of these hotspots, 11.8% were within RSPO member concessions and only 1.4% in RSPO certified concessions. This is consistent with the very low fire hotspot probability in certified concessions recorded in previous years, with the chance of fire hotspots detected in certified concessions being close to 1%, including during the last El Niño in 2019 when over 450,000 hotspots were detected. Only 0.1% of 2021 hotspots were detected in RSPO certified concessions on peat.

■ Fire - Within Concession ■ Fire - Outside Concession  
■ Fire - Uncertain Cause ■ No Response ■ No Fire

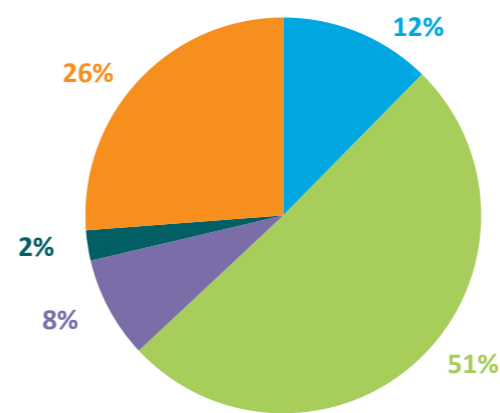


Figure 2: Responses to RSPO Hotspot Alert (certified concessions, 2021)

If a fire hotspot is detected, 74% of RSPO certified concessions responded to the Hotspot Alert (Figure 2). In 2021, 12% of alerts were confirmed to be false alarms, while 51% were actual in-concession fires that were acted upon and 10% were undetermined or found to be beyond the concession. Similar patterns were noted in Hotspot Alerts issued to non-certified concessions of RSPO members. If a Hotspot Alert response was received, 56% of certified concessions replied within the recommended 5 working days, with an average of 11 working days for all responses. For non-certified member concessions, 71% responded within the recommended time frame, with an average of almost 14 working days in total. The most common cause of in-concession fires was spread from off-concession burning by local communities (86%), with sporadic occurrences of spontaneous fires from extreme dry conditions and to control bud rot (in Latin America).

## How does RSPO mitigate fire risk?

Fire prevention elements are distributed across several criteria in the P&C 2018. Beyond the obvious prohibition on fire for planting or replanting (P&C Indicator 7.11.1), certified units must establish fire prevention and control measures (7.11.2) and work with neighbouring stakeholders on fire prevention (7.11.3). The ban on new plantings on peat (7.7.1) is crucial as desiccated peatlands drained for agriculture are a major fire risk. Particularly since peat burns incompletely with low oxygen levels, leading to the formation of thick haze containing noxious chemicals. Best Management Practices for water management (7.8.2) require water courses to be protected to ensure appropriate groundwater levels that prevent unintentional drying of peat, and to maintain buffer zones (riparian or terrestrial), which prevent fires that do occur from spreading unchecked. Water management plans that avoid negative effects within the catchment area (7.8.1) may broaden that scope to vulnerable areas adjacent to concessions. Existing plantations on peat must undergo drainability assessments (7.7.5), with a plan to eventually phase out oil palm and replace it with paludiculture or natural vegetation. Fire must also be avoided for waste disposal (7.3.3) or pest control unless under exceptional circumstances (7.1.3).

Protection of marginal/fragile soils (7.5.1), use of soil surveys for planned plantings (7.6.1), topographical information to guide land and water infrastructure (7.6.3), and protection of natural surface vegetation under HCV 4 (7.12) can help design a blueprint for future oil palm planting that accounts for current areas of known fire risk. Within the oil palm industry, this is of major significance in Southeast Asia, especially in Indonesia and Malaysia, with at least two crisis-level transboundary haze events (1997 and 2015) since records began in 1972. It is also equally important to consider in Latin America, where fire risk associated with oil palm is less, but overall fire risk linked to agriculture is high. The 2019 Amazon rainforest wildfires were particularly destructive. It is also pertinent to oil palm in Africa, where some fire risk factors from Indonesia and Malaysia are present, including being home to the world’s largest tropical peatland – the Cuvette Centrale that straddles the Democratic Republic of the Congo and the Republic of Congo. This is an area larger than Bangladesh (16.7 million hectares) and stores almost 28% of global tropical peat carbon. Only 8% is under national-level protection by either government, and several oil palm concessions already exist within the basin’s boundaries<sup>4</sup>.

<sup>1</sup> Cattau, M., Marlier, M., & DeFries, R. (2016). Effectiveness of Roundtable on Sustainable Palm Oil (RSPO) for reducing fires on oil palm concessions in Indonesia from 2012 to 2015. *Environmental Research Letters*, 11(10), 105007. doi: 10.1088/1748-9326/11/10/105007  
<sup>2</sup> Noojipady, P., Morton, D., Schroeder, W., Carlson, K., Huang, C., & Gibbs, H. et al. (2017). Managing fire risk during drought: the influence of certification and El Niño on fire-driven forest conversion for oil palm in Southeast Asia. *Earth System Dynamics*, 8(3), 749-771. doi: 10.5194/esd-8-749-2017  
<sup>3</sup> 2016 (Cattau et al) sampled 28 RSPO certified (4 on peat) and 25 non-RSPO certified concessions (11 on peat). 2017 (Noojipady et al) sampled 154 RSPO certified and 1,536 non-certified concessions, 119 in Malaysia and 10 in Papua New Guinea, with a broader coverage for peat.  
<sup>4</sup> Crezee, B., Dargie, G., Ewango, C., Mitchard, E., Emba B., O., & Kanyama T., J. et al. (2022). Mapping peat thickness and carbon stocks of the central Congo Basin using field data. *Nature Geoscience*, 15(8), 639-644. doi: 10.1038/s41561-022-00966-7

## In action: The RSPO internal hotspot & fire monitoring

**Hotspot Hub Case:** Jan2021\_057

**RSPO Member:** Daabon Group

**RSPO Membership ID:** 1-0132-12-000-00

**Subsidiary, Plantation:** Palma y Trabajo S.A.S,  
Oleyuma Plantation

**Country, State/Region:** Colombia, Santander

**Actual Fire?:** Yes, in concession

**Affected Area:** 1.5 ha

**Cause of Fire:** Suspected arson (police report filed)

**Hotspot reported:** 12 January 2021

**Visual Confirmation of Fire Extinguishing:**  
20 January 2021



*Credit: Daabon Group*



**Hotspot Hub Case:** Sept2021\_596

**RSPO Member:** PT Austindo Nusantara Jaya Agri

**RSPO Membership ID:** Desa Laman Satong

**Subsidiary, Plantation:** PT Kayung Agro Lestari,  
Sungai Gemilang Teduh 1

**Country, State/Region:** Indonesia, West Kalimantan

**Actual Fire?:** Yes, in concession

**Affected Area:** 0.5 ha

**Cause of Fire:** Land clearing by fire for rice cultivation  
spread from adjacent Laman Satong village  
(community fire awareness has been conducted)

**Hotspot reported:** 24 September 2021

**Visual Confirmation of Fire Extinguishing:** 24  
September 2021 (self-detection through plantation  
daily fire report)



*Credit: PT Austindo Nusantara Jaya Agri*

**Hotspot Hub Case:** Oct2021\_030

**RSPO Member:** IOI Corporation Bhd

**RSPO Membership ID:** IOI Corporation Bhd

**Subsidiary, Plantation:** Pamol (Sabah) Grouping

**Country, State/Region:** Sabah, Malaysia

**Actual Fire?:** Yes, outside concession (approximately  
900m from estate boundary)

**Affected Area:** 0.5 ha

**Cause of Fire:** Burning by local communities  
(engagement with communities initiated)

**Hotspot reported:** 6 October 2021

**Visual Confirmation of Fire Extinguishing:**  
7 October 2021



*Credit: IOI Corporation Bhd*



*Credit: RSPO, Jonathan Perugia*

# LIMITING CLIMATE CHANGE

Agricultural activities, including oil palm, not only contribute to climate change, but are also affected by it. In the almost two decades since RSPO was formed, we have seen how the cyclical effects of climate change on extreme weather - from droughts and heatwaves to torrential rainfall and flooding - have had tremendous effects, and disruptions, on palm oil supply and prices. Addressing this is paramount, both through adapting production systems to cope with climate change impacts and hastening efforts to reduce the greenhouse gas (GHG) emissions that contribute to it.

Our approach to this is broad-based:

**Avoidance** - To avoid potential climate change emissions, growers are required to identify, assess and estimate carbon stocks thoroughly prior to any new oil palm development.

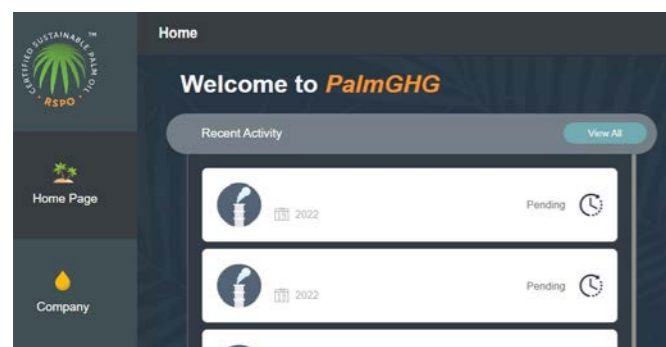
**Sequestration** - To sequester potential emissions from risky new developments, we have taken a zero tolerance approach to planting on tropical peatlands.

**Mitigation** - To reduce the risk of potential emissions, RSPO prohibits the use of fire in land preparation, and constantly monitors fire hotspots (on a daily basis) in member concessions (see Preventing Fire chapter, pg 50).

**Mitigation** - To minimise emissions arising from operations in areas already developed, we work together with certified members to identify and calculate GHG emissions risk, and implement plans to lower those levels.

## The RSPO PalmGHG calculator

Developed by the RSPO's Greenhouse Gas Working Group 2 (GHG-WG2) between 2009 and 2011, PalmGHG is a GHG calculator specific to oil palm that allows RSPO members to estimate and monitor their risks associated with net GHG emissions. Criteria 7.10 of the Principles & Criteria (P&C) 2018 requires certified plantations and mills [known as Units of Certification (UoC) or units] to implement and monitor plans to reduce pollution and emissions, including GHG levels. PalmGHG is used to meet this criteria of the standard, with net GHG emission levels reported publicly in a certified unit's audit report. PalmGHG is intended to allow crucial areas of GHG emissions within a unit's concession and operations to be identified and to direct reduction opportunities. It is primarily a risk tool, calculating the most significant aspects that contribute to emissions based on the concession and operational profile of the unit - including fertiliser use, fossil fuel consumption, peat oxidation and POME, while offsetting savings from crop and conservation sequestration. The current version of PalmGHG is v4.0, which introduced options for online/offline reporting. Member feedback on PalmGHG v4.0 has been noted and will be used to guide the development of PalmGHG v5.0.



# EMISSIONS MANAGEMENT - AVOIDANCE



Since the Industrial Revolution began, human economic activity has emitted carbon dioxide in trillions of metrics tonnes (MT), raising the atmospheric concentration of CO<sub>2</sub> from 275 parts per million (ppm) in 1750 to 421 ppm in May 2022<sup>1</sup>. In 2015, 196 countries negotiated the Paris Climate Accords, which aims to contain the rise in average global temperatures to 1.5°C above pre-industrial levels and substantially reduce the worst effects of climate change. Reducing emission levels from production processes is one aspect of reaching that goal, but avoiding the potential release of stored carbon is also very crucial.

In 2010, RSPO introduced the New Planting Procedure (NPP) to address the subject of avoiding emissions. Embedded within NPP - which applies to any new land clearing for oil palm - is the GHG Assessment Procedure for New Development. This is used to estimate the carbon stock and major potential emissions sources that may result from proposed development, and directing the conservation of critical areas<sup>2</sup>. From this, we have identified that maximum emissions savings are from land use, and maximum sequestration from conserved forested areas and peatlands. RSPO has also enhanced our stance on No Deforestation, No Peat, No Exploitation (NDPE) corporate commitments, now embedded in P&C 2018<sup>3</sup> which includes a prohibition of any new planting on peat, regardless of depth.

Since 2015, a cumulative total of 7,743 hectares (ha) of peatlands has been preserved through NPP,

Cumulative GHG emissions avoided through RSPO procedures equivalent to **395,289 cars** driven per year, more than the motor vehicle fleet of Macau and Brunei Darussalam combined<sup>5</sup>

entirely within Asia. Through HCV, HCS and HCV-HCS assessments, an area of 78,026 ha (primarily in Asia and Africa) has also been conserved, acting as a carbon sink and avoiding emissions associated with land use change. In combination, RSPO has avoided a cumulative 1.83 million MT of CO<sub>2</sub> equivalent per year (tCO<sub>2</sub>e/year) as of 2021 (Figure 1), corresponding to nearly 400,000 passenger cars driven annually. Which is a figure larger than the motor vehicle fleet of at least 56 countries<sup>4</sup>.

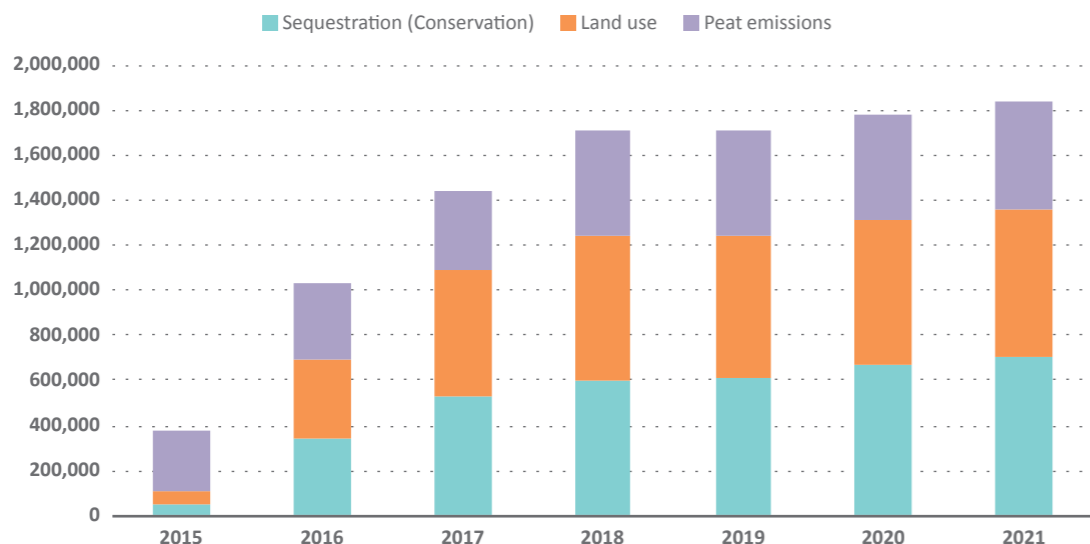


Figure 1: Cumulative GHG emissions avoided through RSPO procedures for New Development

We see this progress - which has been growing every year - as an assurance that RSPO standards are generating our intended positive impacts. But what if RSPO did not exist, or there was no compliance to NPP requirements? Scenario analysis (Figure 2) shows

that the absence of RSPO (or RSPO procedures) could actually result in a net growth of emissions, with a worst case scenario of 104,660 tCO<sub>2</sub>e/year emitted in totality from areas that are now conserved and protected through RSPO certification.

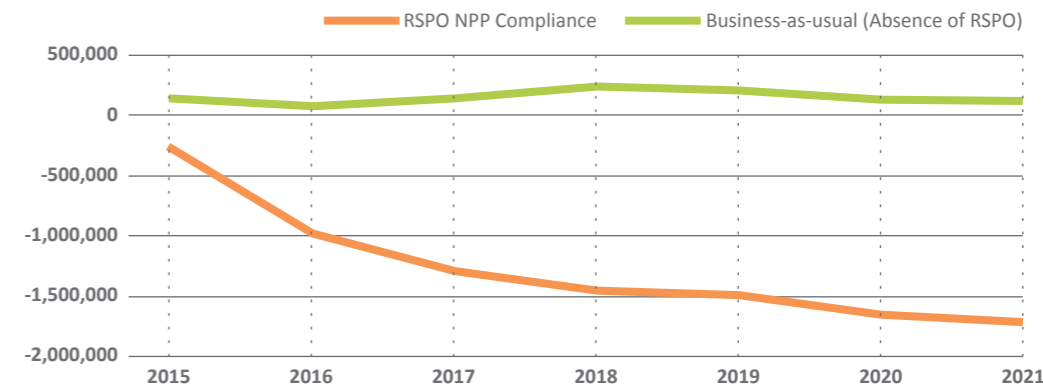


Figure 2: Scenarios on cumulative GHG emissions: RSPO NPP compliance vs Business-as-usual

## The importance of tropical peatlands

They don't look like much, but peat forests and swamps are environmental jewels. Water-logged ecosystems formed by the accumulation of partially decayed organic matter, peatlands are highly efficient carbon sinks that cover 3% of the world's land surface (~400 million hectares) but store nearly 30% of global below-ground carbon (~550 Gigatonnes)<sup>6</sup>. Specifically, tropical peatlands are very adept at hoarding carbon, storing more than 102 Gigatonnes of below-ground carbon over some 42 million hectares (mainly in Southeast Asia and the Central Congo Basin)<sup>7</sup>.

In the 1980s, oil palm plantations in Southeast Asia began expanding into peatlands, lowering the water table through controlled draining to create suitable conditions for agriculture. While this did expand Fresh Fruit Bunches (FFB) output, such plantations faced issues of low yields and increased operational costs. Beyond this, large-scale peat conversion turned a major carbon sink into a major carbon emissions source, affecting unique biodiversity and increasing fire risk. In some RSPO certified units, converted peatlands account for less than 25% of production area but are linked to more than 80% of GHG emissions. For that reason, there is a major focus on peatlands in RSPO standards. P&C 2013 introduced conditions to minimise peat conversion, and P&C 2018 went further to prohibit any new planting on peat regardless of depth.

In place are new procedures to responsibly manage existing plantations on peat, and to begin rehabilitating degraded peatlands, which will have

positive impacts on reducing emissions and restoring biodiversity. These include:

- **Peat Inventory**, documenting all areas of peat (planted or otherwise) within RSPO member concessions, submitted to the RSPO Secretariat for centralised monitoring.
- **Peat Best Management Practices (BMP)**, Peat Audit Guidance, through updated RSPO guidelines and manuals for existing cultivation on peat. The Peat Audit Guidance highlights minimum requirements to ensure compliance against peat-related requirements in P&C 2018.
- **Peat Drainability Assessment (DA)**, to assess future subsidence and flood risks of converted peatlands. DAs must be conducted five years prior to any replanting on peat, to allow sufficient time for informed decisions on either extending the plantation's workable lifespan on peat or to phase out oil palm in the assessed areas for restoration.



Credit: RSPO

<sup>1</sup> US National Oceanic and Atmospheric Administration (NOAA).

<sup>2</sup> As assessed through High Conservation Value (HCV), High Carbon Stock (HCS) or integrated HCV-HCS.

<sup>3</sup> Chain Reaction Research. (2019, February 6). The chain: NDPE uptake impacts list of top 10 deforesters in Southeast Asia.

<sup>4</sup> List of countries by vehicles per capita. (2022, September 2). In Wikipedia. [https://en.wikipedia.org/wiki/List\\_of\\_countries\\_by\\_vehicles\\_per\\_capita](https://en.wikipedia.org/wiki/List_of_countries_by_vehicles_per_capita)

<sup>5</sup> Macau = 120,075 passenger cars, Brunei Darussalam = 268,801 passenger cars. From national sources.

<sup>6</sup> Estimates from International Union for Conservation of Nature (IUCN).

<sup>7</sup> Cole, L., Åkesson, C., Hapsari, K., Hawthorne, D., Roucoux, K., & Girkin, N. et al. (2022). Tropical peatlands in the anthropocene: Lessons from the past. *Anthropocene*, 37, 100324. doi: 10.1016/j.ancene.2022.100324.

# EMISSIONS MANAGEMENT - MITIGATION



In 2019, 2,-0 LCA Consultants conducted an independent Life Cycle Assessment (LCA) on the environmental impact of RSPO certified and non-certified palm oil. Covering 634 estates and 165 mills in Indonesia and Malaysia (58% of which were RSPO certified), the study concluded that RSPO certification has a 35% lower global warming impact and a 20% lower biodiversity impact. RSPO can, and already has, played a key role in reducing GHG emissions through certification, and we must continue to build on this as decarbonisation takes prominence.

Based on ACOP reporting, average GHG emissions in 2021 from RSPO oil palm grower members with at least one P&C certified unit was an estimated 3.2 tCO<sub>2</sub>e/metric tonne (MT) of crude palm oil, considerably lower than emissions from all RSPO grower members (certified or otherwise). An analysis on a sample of PalmGHG emissions risk profiles of certified units showed a median of 1.8 tCO<sub>2</sub>e/MT, with significant outliers (positive double digits or slight negative levels). The main swing factor is Palm Oil Mill Effluent (POME), where biogas capture and treatment leads to much lower emissions. POME is, in fact, identified as the main source of emissions within RSPO grower members (Figure 1), with 65% of growers citing it as a key emissions source, followed by fertiliser application (53%) and land use change (38%).

In general, RSPO grower members have made major progress in identifying emissions sources and mitigating those through targeted solutions. Certified growers are also more likely to have established a GHG baseline (67% of certified growers vs 26% of uncertified growers), a necessity to create a GHG reduction plan with targets and timelines. Once a baseline has been established, a large proportion of certified and uncertified growers (67% and 88%) have already implemented emissions reduction plans and targets, inferring that baselines are an important step that should be encouraged.

Emissions targets vary, but some of our members and certified units appear to have the potential to be net zero in Scope 1 terms (see "Scope for thought?"). The sample of PalmGHG calculations shows that at least 30 RSPO certified units have a net negative emissions risk level (mainly in Latin America, but also in Africa and Southeast Asia), associated with a higher proportion of conservation areas and/or thorough treatment of POME. A few more are near-net zero risk. While reporting emissions levels by GHG scope is left to individual members, RSPO requires (through PalmGHG) certified units to identify, gather and calculate most of the necessary elements for emissions accounting by scope that can be used by members to address their own commitments and plans towards decarbonisation.

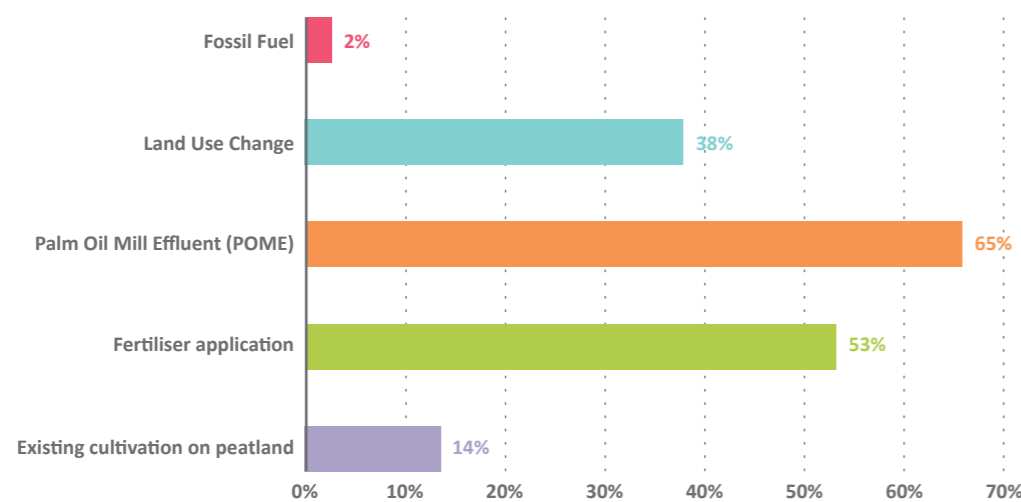


Figure 1: Key GHG emission sources identified by RSPO Grower Members (ACOP 2021)



## Scope for thought? RSPO and GHG emissions scopes

The Greenhouse Gas Protocol (GHGP), the most widely used GHG accounting standard, categorises GHG emissions into three scopes, based on sources:

- **Scope 1** refers to direct emissions from sources owned or controlled by an organisation
- **Scope 2** refers to indirect emissions associated with purchased electricity, steam, heat or cooling for an organisation's use
- **Scope 3** refers to all other indirect emissions not included in Scope 2 that occur within an organisation's value chain, both upstream and downstream

In a palm oil context, a plantation and mill's Scope 1 emissions encompasses any activity associated with the planting of oil palm, harvesting of FFB and extraction of palm oil, including fertiliser application, fossil fuel usage and POME treatment. Scope 2 covers energy from off-site sources, including grid electricity (and the associated energy mix such as coal, oil, gas, solar, wind, etc.) and renewable energy offsets. Scope 3 is the broadest, including any and all emissions beyond the plantation and mill, such as production of fertiliser raw materials, manufacture of fixed assets like machinery (leased or owned), land or seaborne logistics, processing of derivatives, packaging and distribution, end-of-life treatment of waste products, even down to flights for business travel and workforce transport.

The current RSPO approach to emissions (through PalmGHG) is aligned with Scope 1 and partial elements of Scope 2, though the values are not comparable due to differing objectives. A 2016 paper<sup>1</sup> determined PalmGHG to be mostly in line with international GHG accounting standards but does not include some elements of a full Life Cycle Assessment (e.g., eutrophication, biogenic materials). The paper concludes that PalmGHG should not be considered an indicator of global environmental impact but of global warming potential, and provides useful information for certified units to reduce emissions. Further alignment may be possible in the development of PalmGHG v5.0, but we note that a full inclusion of Scope 3 elements is highly challenging, although there is potential for limited inclusion up to the refinery level on an optional basis. The feasibility of Scope 3 alignment could increase in the long run as governments move to meet national pledges linked to the Paris Climate Accords, reiterated at COP26 in 2021 through the Glasgow Climate Pact.

## Case Study: Comparative levels of GHG emissions in palm and other vegetable oils

United Plantations (UP) - the first-ever RSPO member to receive P&C certification in 2008 - has commissioned Denmark's 2,-0 LCA Consultants to conduct an annual LCA of its palm oil production since 2004. The results of the latest study<sup>2</sup> shows that UP's RSPO certified palm oil has far lower GHG emissions than non-certified palm oil, sunflower oil from Europe and rapeseed oil from Ukraine<sup>4</sup>. Average emissions from UP's RSPO certified palm oil were also lower than for the average for RSPO certified palm oil<sup>3</sup>.

We note two key insights from the results of the study. The first is that GHG emissions from RSPO certified palm oil is 36% lower than conventional palm oil, with the data for UP inferring a wide variance in emission levels even within RSPO certification that is in line with other available RSPO data. The second is that a rigorous and systemic approach to certification could be associated with lower emissions; all five of UP's mills have biogas capture facilities, with the four sites in Malaysia being Identity Preserved (IP) certified and its site in Indonesia being Mass Balance (MB) certified.

Soybean oil, the second largest vegetable oil crop in the world, was not included in the UP study (2022). However, other studies do provide insights. Though methodological differences mean direct comparisons of the values obtained are not possible, a 2022 study by Alcock, Salt, Wilson and Ramsden<sup>5</sup> calculated that median GHG emissions associated with refined soybean oil were 4.25 kgCO<sub>2</sub>e/kg, and higher than 3.81 kgCO<sub>2</sub>e/kg average for all other oils analysed (palm, soy, rapeseed and sunflower). Conventional palm oil was assessed at 3.73 kgCO<sub>2</sub>e/kg, and higher than that for rapeseed and sunflower. These relative values are in line with the UP study (2022). Crucially, this second study also pointed out that oil palm emissions are highly dependent on soil type, rising to as high as 34 kgCO<sub>2</sub>e/kg for plantations on peat, while noting that methane (biogas) capture/treatment from POME can reduce emissions by over 50%.

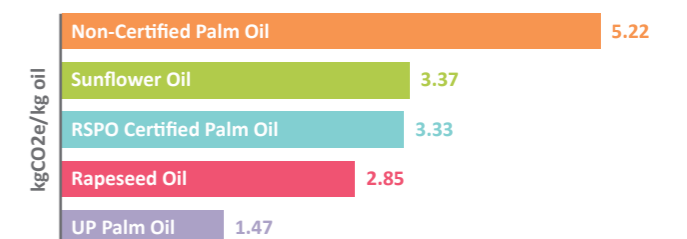


Figure 2: GHG emissions for United Plantations, RSPO and non-certified palm oil, and other vegetable oils

<sup>1</sup> Bessou, C. (2019). PalmGHG, RSPO greenhouse gas calculator, scientific background. SMART Research Institute.  
<sup>2</sup> Schmidt J & De Rosa M (2022), Life Cycle Assessment of Palm Oil at United Plantations Berhad 2021, Results for 2004-2021. Summary report. United Plantations Berhad, Teluk Intan, Malaysia.  
<sup>3</sup> Schmidt, J., & De Rosa, M. (2020). Certified palm oil reduces greenhouse gas emissions compared to non-certified. Journal Of Cleaner Production, 277, 124045. doi: 10.1016/j.jclepro.2020.124045  
<sup>4</sup> Schmidt, J. (2015). Life cycle assessment of five vegetable oils. Journal Of Cleaner Production, 87, 130-138. doi: 10.1016/j.jclepro.2014.10.011 mills have biogas capture facilities, with the four sites in Malaysia being Identity Preserved (IP) certified and its site in Indonesia being Mass Balance (MB) certified.  
<sup>5</sup> Alcock, T., Salt, D., Wilson, P., & Ramsden, S. (2022). More sustainable vegetable oil: Balancing productivity with carbon storage opportunities. Science Of The Total Environment, 829, 154539. doi: 10.1016/j.scitotenv.2022.154539

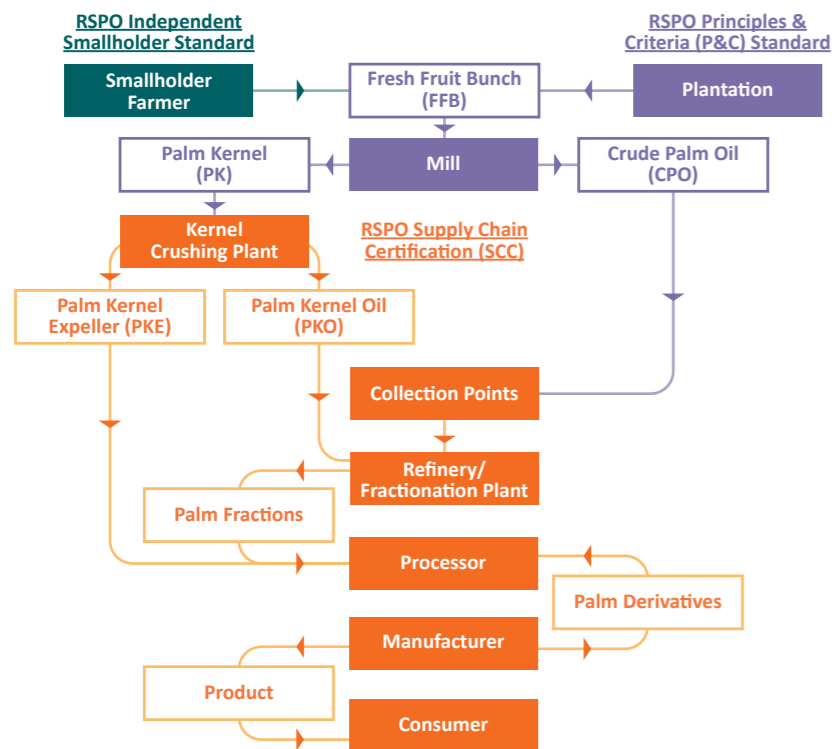


# ADVANCING CERTIFICATION

Certification is at the heart of RSPO's ability to create positive impacts. As a voluntary sustainability standard and as a membership organisation, our vision can only be achieved by the willingness of our members to collectively set an ambitious agenda for sustainability in the palm oil industry, and to live up to those standards. Sustainability is now embedded into the vocabulary of the global palm oil supply chain, because RSPO has defined and continues to define what sustainability in palm oil means. Continued growth in the reach and extent of RSPO certification shows an established acceptance of the RSPO standards by the industry at large. But more than just motivational numbers, RSPO certification drives our ability to create and perpetuate positive impacts as a means to enforce the Principles & Criteria (P&C) and its various social, environmental and ethical ambitions. From a foundation of strong certification and credible assurance, we can also initiate new approaches to certification such as Jurisdictional Approaches (JA) and explore the use of technology to improve traceability across the supply chain to meet evolving expectations of sustainability.

## Certifying the palm oil supply chain

From fruit to oil to ingredient to product, the entirety of the palm oil supply chain is long and complex. RSPO's standards and certification cover the entire sustainability journey of palm oil, ensuring traceability and providing assurance that our palm oil, and its many fractions and derivatives, are sustainable. Upstream, the P&C and RSPO Independent Smallholder (ISH) Standard ensure that FFB is sustainably grown and processed into palm oil at certified mills. Downstream, the Supply Chain Certification (SCC) standard provides traceability over the whole chain of custody, with the option of using the RSPO Trademark as a visible emblem of certification.



Simplified palm oil supply chain



Credit: RSPO, Jonathan Perugia

# CERTIFICATION TRENDS



In 2008, RSPO certified area covered some 125,000 hectares (ha) in three countries. In 2009, it more than doubled to over 300,000 ha. Since crossing the 1 million ha mark in 2012, the global RSPO certified area reached 4.5 million ha as of December 2021 and spans 21 countries, maintaining an upward trajectory in spite of worldwide supply chain disruptions caused by the coronavirus disease (COVID-19). Indonesia and Malaysia account for almost 80% of certified areas, but the most significant growth in recent years has come from Africa and Latin America. Between 2017 and 2021, the certified area in Africa more than quadrupled to over 220,000 ha (expanding into Cameroon, Nigeria and Sierra Leone for the first time), while Latin America nearly doubled to almost 470,000 ha (expanding into Mexico).

Of the 4.5 million ha of certified area, 3.3 million ha is devoted to production<sup>1</sup>. This is the area where mature oil palms are grown and harvested for Fresh Fruit Bunches (FFB) that are processed in a palm oil mill. There are over 462 RSPO certified mills, representing 22.8% of the 2,032 mills tracked in the Universal Mill List<sup>2</sup>. The number of certified mills also continues to rise, from 34 in 2009 to 462 in 2021 (Figure 2). These additions cover a broad geographical range. In 2020 and 2021, 29 mills in Latin America and 5 mills in Africa obtained their first P&C certificates, while the strongholds of Indonesia and Malaysia added 19 and 7 mills, respectively, with the impetus for certification remaining strong and broad.

RSPO's certified plantation and mill base now include pioneers such as United Plantations in Malaysia<sup>3</sup>, medium-sized growers such as The Natural Palm Group in Thailand, and new members such as Palmeras Santana in Colombia. But the impact of RSPO certification goes beyond these headline numbers. To become certified, plantations and mills must meet the rigorous set of criteria prescribed by the P&C (e.g., environmental/social impacts assessments, legality of operations, remediation). To maintain certification, they must adopt best practices and monitor continual improvement as required by the standard [e.g., greenhouse gas emissions monitoring, occupational health and safety procedures]. More than just a series of increasing numbers, certification is the avenue through which RSPO can provide assurance that each drop of certified palm oil has been produced ethically, responsibly and sustainably.

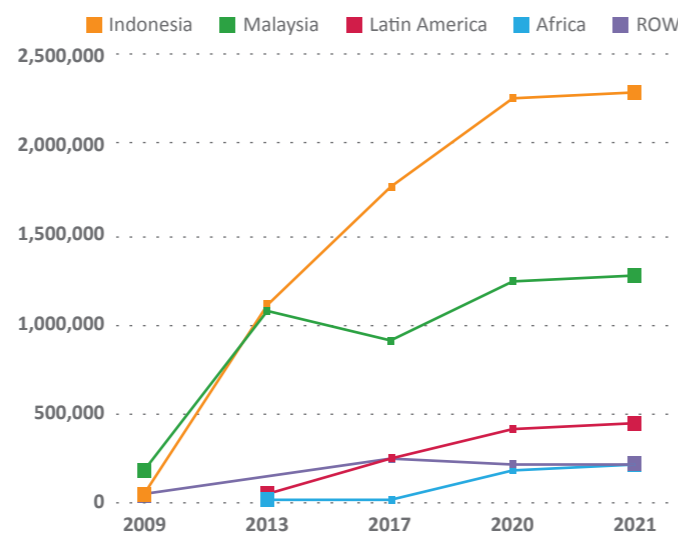


Figure 1: Evolution of RSPO Certified area by country or region

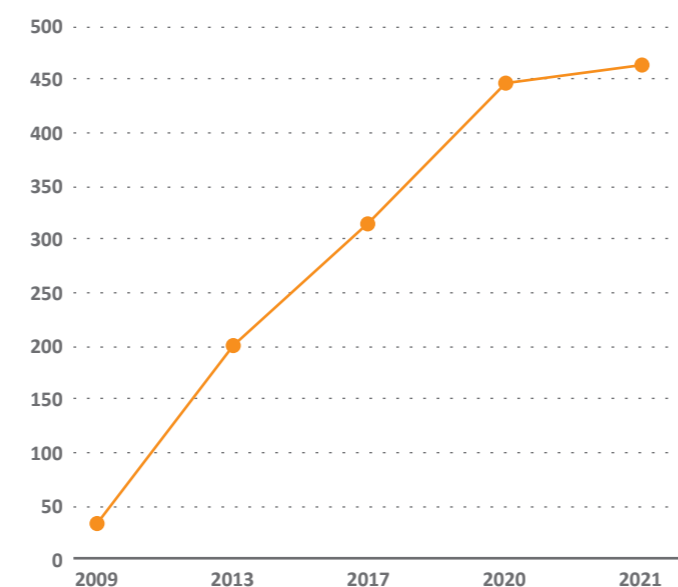


Figure 2: Evolution of RSPO certified mills (global)

<sup>1</sup> The difference between certified and production area is hectareage dedicated to conservation and infrastructure (eg. buildings such as mills, offices, storage, or infrastructure such as roads, water treatment areas, etc.).

<sup>2</sup> The 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.

<sup>3</sup> United Plantations received the inaugural RSPO P&C certification in August 2008.

“

RSPO Standards continue to make progress in generating positive environmental and social impacts. The Assurance Standing Committee (ASC) will continue to focus on our pathway for rigorous standards implementation while preserving our integrity by addressing the complexity of sustainability challenges. We will scale up and accelerate our actions, but for this to happen we need stronger collaboration in the spirit of shared responsibility.

**Agus Purnomo**

Co-chair of the RSPO Assurance Standing Committee (ASC) representing the Indonesian Growers Caucus and Golden Agri-Resources



”

## Traceability and Productivity

The number of certified mills is important, as it illustrates the reach of RSPO certification. How these mills produce palm oil is just as important. RSPO certification provides different levels of traceability. Identity Preserved (IP) certification has a high level of traceability as the FFB can be identified from only certified sources, while Mass Balance (MB) is a mix of certified and conventional FFB.

Of the 462 certified mills (Figure 3), 287 were MB certified and 156 were IP certified (a further 19 being dual IP-MB certified). Proportionally, MB is the highest in Africa, Indonesia and Malaysia, while IP is more common in Latin America and the rest of the world (ROW). However, this is only part of the story. Up until 2020, IP mills formed a majority of Certified Volumes<sup>4</sup>. Since then, MB Certified Volumes have exceeded IP, continuing an acceleration in MB certification that dates back to 2016.

This trend is replicated downstream, with the supply chain beyond mills also showing similar trends in growing MB volumes. We attribute this to a geographical diversification of certified sustainable palm oil (CSPO). Growth in CSPO demand is increasingly coming from developing markets such as Japan, Turkey, India and China, where MB may be in use as a first step towards sustainability, while mature markets like Europe and North America, which value high levels of traceability but have lesser growth potential, already largely served by existing IP mills (e.g., in Papua New Guinea and Latin America).

**4.5 MT/ha Average oil yield of RSPO certified plantations and mills in 2021**

Country	Certification Model			Total
	IP	MB	IP/MB	
Indonesia	55	168	11	234
Malaysia	54	83	0	137
Latin America	30	21	3	54
Africa	1	10	1	12
ROW	16	5	4	25
<b>Total</b>	<b>156</b>	<b>287</b>	<b>19</b>	<b>462</b>

Figure 3: RSPO certified mills by country/region and Supply Chain Model

This pivot is notable, and underscores the need for RSPO certification to be inclusive to all markets and adaptable to shifts in demand.

In terms of productivity, there is considerable variation even within RSPO certification, being as high as 7 metric tonnes (MT) of palm oil per hectare or as low as below 2 MT/ha. Weather, soil fertility, labour efficiency, seed varieties, and other factors play a clear role in determining yields. A 2017 research study<sup>5</sup> calculated that potential yields could be higher than 8 MT/ha in most regions, but average actual yields were 3.3 MT/ha. This is in line with RSPO estimates that current global yields are 3.2 MT/ha, with RSPO certification showing higher average yields at 4.5 MT/ha<sup>6</sup>. The study highlighted that the key factors impacting yields are pest and disease pressure, water limitations, and sub-optimal nutrient application rates (estimated at 40-90% of recommended rates in Southeast Asia).

These constraints are crucial for RSPO to understand in order to refine our standards and guidance to boost productivity. If we can guide our members to produce more oil from the same amount of land, this will magnify impacts, especially for smaller plantations. Plantations and smallholder farmers could benefit from additional prosperity, while simultaneously easing pressure on land expansion at a global scale to meet growing demand.

<sup>4</sup> Certified Volume is the aggregated projected volume of production based on the capacity of each mill, taking into consideration maturity of the oil palms, extent of production area, and the oil extraction rate.

<sup>5</sup> Woittiez, L., van Wijk, M., Slingerland, M., van Noordwijk, M., & Giller, K. (2017). *Yield gaps in oil palm: A quantitative review of contributing factors*. *European Journal Of Agronomy*, 83, 57-77. doi: 10.1016/j.eja.2016.11.002.

<sup>6</sup> RSPO yields calculated from RSPO Assurance data. Global yield calculated from RSPO estimates for total palm oil production (Source: USDA) and total palm oil hectareage (using national sources, industry bodies or available research studies).

## Jurisdictional approach to certification

The conventional approach to certification involves individual entities being audited for compliance with a sustainability standard. Jurisdictional Approach (JA) works on a wider landscape level, involving all key stakeholders within a government jurisdiction. In 2015, RSPO made a JA commitment at the 13th RSPO General Assembly, recognising that the involvement of governments could provide elements of legislation, strategy and leadership that conventional certification is unable to deliver. The JA Working Group was established in March 2018, tasked with developing a jurisdiction-level certification system document in sync with current RSPO certification. RSPO has taken a stepwise approach to JA, consisting of four steps: pilot,

application, implementation and certification. There are currently three RSPO-supported JA pilots:

- Seruyan in Central Kalimantan, Indonesia at a district level
- Sabah in Malaysia at a state level
- Ecuador at a country level, starting first at the Amazonian region.

All three pilots are in the process of advancing to the application step. RSPO will provide more information on these JA pilots as they develop. As the JA pilots move into implementation and certification, we will develop a separate Impact Indicator to specifically examine the outputs and outcomes of jurisdictional-level certification.

## Traceability and Productivity

To ensure the credibility of sustainability claims throughout the supply chain, all RSPO members downstream beyond mills that take legal ownership and physically handle RSPO certified products need to be supply chain certified. This is possible through the RSPO Supply Chain Certification (SCC) Standard, which ensures that what has been produced as sustainable is then traded, distributed, refined or processed as sustainable, and presented to consumers as trustworthy.

The SCC is based on a quality management system, in which production identification and control are key objectives. Four supply chain models apply: Identity Preserved, Segregated (SG) and Mass Balance for physical products, and RSPO Credits. SG certification refers to products sourced from different IP mills, while IP comes from a single IP certified mill. MB is a mixture of certified and conventional mill sources. RSPO Credits are a virtual trading scheme where downstream RSPO members can purchase credits from certified mills without physically sourcing certified products. RSPO Credits are generally seen as a “stepping stone” option, or in regions where the infrastructure for handling physical certified volumes is not fully developed, or to cover instances where specific grades or types of certified products are unavailable.

As the market for RSPO certified products matures and expands, the number of SCC certified facilities has seen significant growth, rising from 612 sites in 2013 to 6,086 sites in 2021 (Figure 4). Most SCC sites are located in North America and Europe (Figure 5), but there has also been a certification acceleration in key manufacturing hubs such as China, Japan, Thailand, Malaysia, Indonesia, Poland and Hungary in recent years.

For consumers, the most visible sign of certification is the RSPO Trademark, an ecolabel that signals the use of RSPO certified palm oil in a product. Launched in 2011, the RSPO Trademark has grown from 181 licences covering 27 countries in 2013 to 1,676 licences covering over 100 countries and territories in 2021 (Figure 4), with usage for general communications claims and on-pack labelling. As with SCC certification, use of the Trademark is mainly concentrated in Europe and North America, but is increasing in other regions, particularly Asia. However, less than a third of RSPO downstream members are using or have expressed interest to use the Trademark as per the ACOP 2021 reporting cycle. Common reasons cited for non-usage include a lack of consumer demand and a lack of consumer awareness.

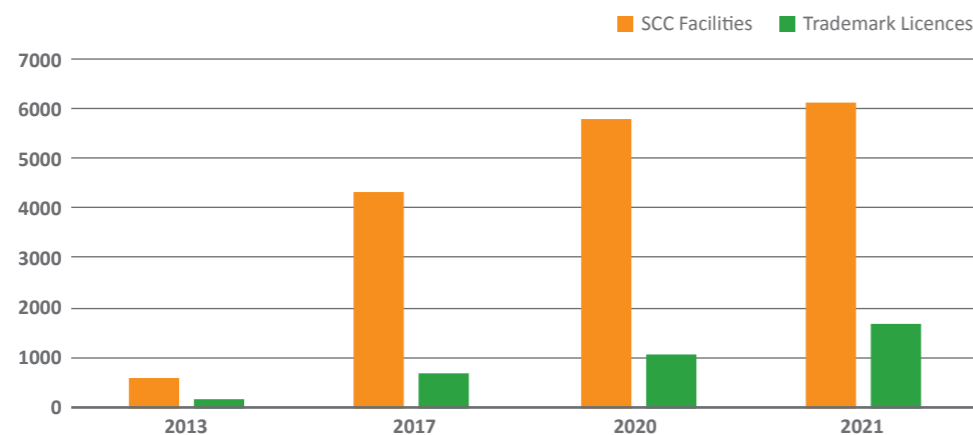


Figure 4: Evolution of RSPO SCC certified facilities and Trademark licences

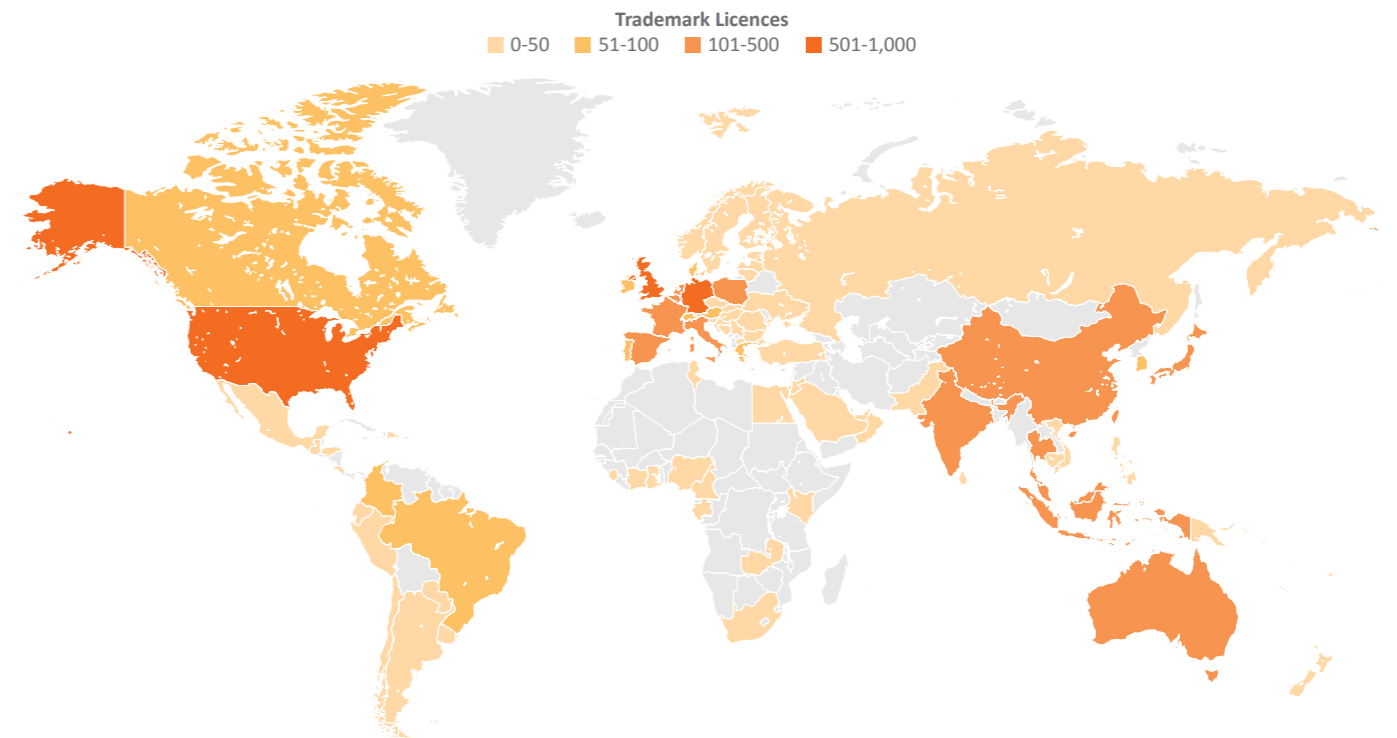


Figure 5: Global distribution of RSPO SCC certified facilities

## Gaining visibility - Recognition for the RSPO Trademark

In 2022, Dutch independent information organisation Milieu Centraal published its Keurmerkwijzer, a quality guide that provides information on sustainability labels in the Netherlands. Twelve food ecolabels were named by Milieu Centraal as indicators for Dutch consumers to shop more sustainably. The RSPO Trademark was one of them. Assessment for the Keurmerkwijzer was based on three criteria, that the ecolabel is:

- Ambitious (strict), going much further than the usual practice in its industry in aspects of environment, people, work, or animal welfare.
- Transparent, with requirements easy to find publicly and easily understood to ensure consumers know what it stands for.
- Reliable through inspection, with sustainability claims seen as credible through independent certification or being ISEAL Code Compliant.

Assessed ecolabels were ranked on a scale of 0 (Very Low) to 5 (Very High) for each criteria. All ecolabels in the Top 12 must have scored at least 4 or 5 in each criteria to qualify as a topkeurmerk (top quality mark). Milieu Centraal notes that a topkeurmerk sets the strictest requirements within its product category at the time of assessment and by buying such products, consumers contribute to a more sustainable food chain. As a signal that

Certified Sustainable Palm Oil (CSPO) has been used in a product, the RSPO Trademark is seen as the leading indication of sustainable palm oil use in the Netherlands. The RSPO Trademark can be found on products available in the Dutch market manufactured by at least 30 RSPO members (based on ACOP 2021 reporting), from vegetable spreads to chocolate, frozen chicken wings to the country's iconic stroopwafel. All RSPO members can apply for a licence to use the RSPO Trademark.



# TRANSFORMING MARKETS

RSPO creates a marketplace ecosystem for sustainable palm oil to thrive worldwide. We set credible standards, convene members from across the value chain and lead the dialogue on sustainability issues. Our role is to facilitate and monitor that market, and to direct our outreach and development strategies towards making sustainable palm oil the norm. We have achieved much already. Nearly 20% of the world's palm oil is now produced under RSPO standards, and certified consumption has accelerated as well. However, due to various velocities across different regions, supply and consumption may be misaligned. While RSPO is not able to directly intervene in markets, it is our role to energise, encourage and enlarge our membership – especially in key consuming regions – to ensure that the market for RSPO certified grown, refined and processed oil palm products remains balanced, relevant and transformative.

## Developing markets, Building recognition

In September 2021, the largest supermarket chain in Indonesia, Super Indo, launched its eco-labelled Palm Cooking Oil 365. This product is manufactured from RSPO certified palm oil, refined in Indonesia, and carries the RSPO Trademark. In a product category that is highly price sensitive and in a market where RSPO downstream penetration is still in its infancy, developments such as this show that there is room to embrace sustainability everywhere. A 2020 survey conducted by MarkPlus with WWF Indonesia<sup>1</sup> revealed that as many as 82% of Indonesian consumers expressed a willingness to switch their daily palm oil-based products with sustainable palm oil if an option is available. The launch follows three years of engagement with WWF Indonesia and was promoted with the theme "A New Way of Cooking: 365 Days with Sustainable Palm Oil", entreatng consumers to use certified palm oil all year round.



Credit: PT Lion Super Indo

<sup>1</sup> <https://www.wwf-scp.org/sustainable-cooking-oil-indonesia/>



# CERTIFIED SUPPLY



In 2021, actual production of Certified Sustainable Palm Oil (CSPO) reached a new peak of 14.7 million metric tonnes (MT). This represents a 6.3% year-on-year growth from 2020, or an annual increase of nearly 900,000 MT. Against an estimated global production of 75.9 million MT, the CSPO share of global palm oil is over 19% (Figure 1). Indonesia and Malaysia remain the largest producers, collectively

accounting for over 80% of CSPO volumes, while we also note accelerating production in other regions. With the exception of Malaysia where both total palm oil and CSPO production declined in 2021 due to labour shortages, CSPO volumes have increased in all producing regions. Two landmarks have been reached: Latin America crossed the 1 million MT mark in 2020, and Africa reached 300,000 mt in 2021.

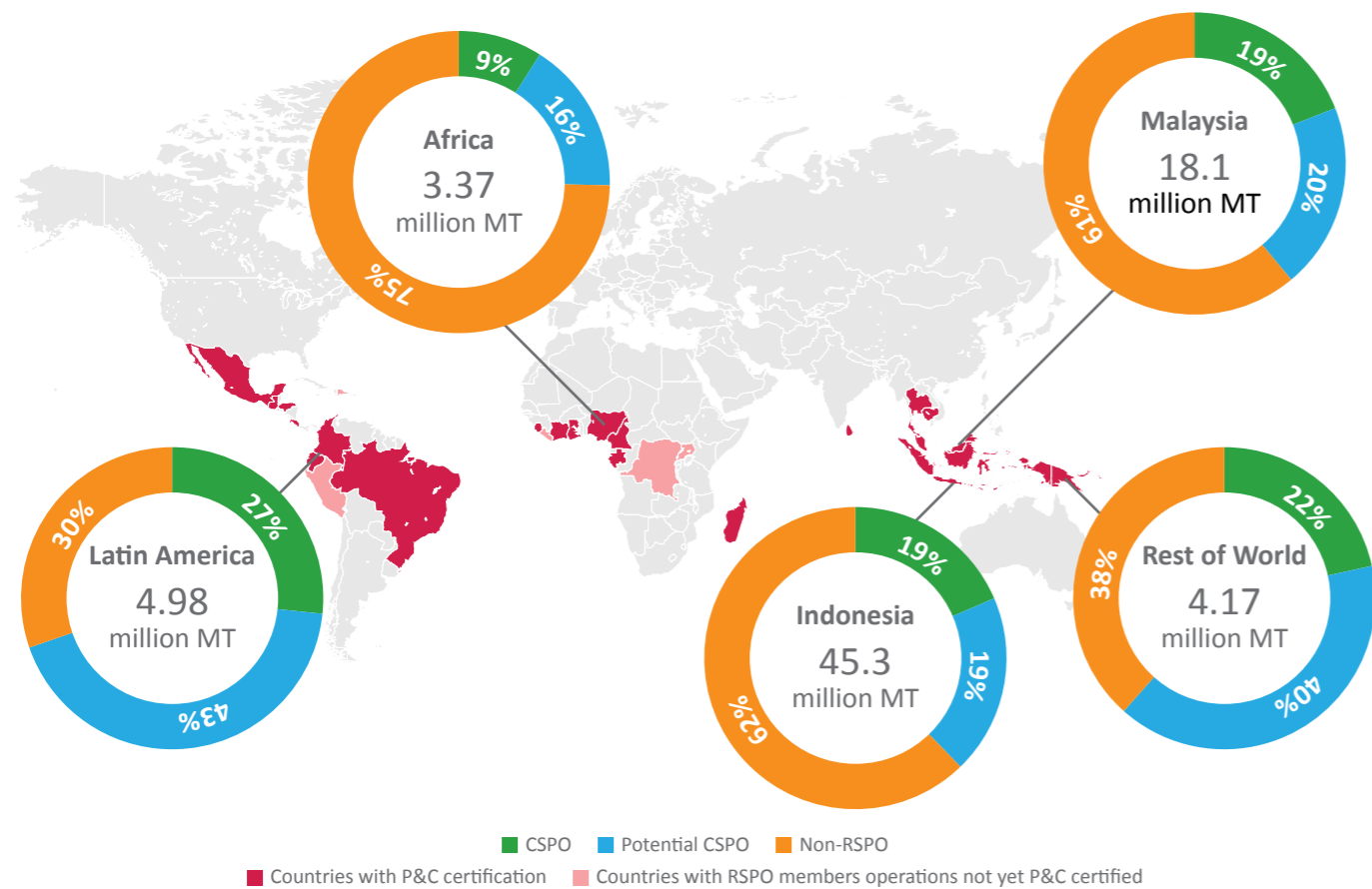


Figure 1: Global distribution of CSPO, potential CSPO and palm oil production (2021)<sup>1</sup>

This trend of annual growth in both volume and percentage of global production is more apparent when looking at the historical evolution of CSPO supply (Figure 2). In 2009, CSPO actual production was an estimated 1.2 million MT, or 3% of global production, rising to nearly 7 million MT in 2013, or 12% of global production. Since 2013, CSPO volumes have more than doubled to 14.7 million MT, outpacing growth in the

overall industry. Our geographical coverage has also expanded significantly. Between 2009 and 2021, the number of countries with P&C certification rose from 4 to 21 (Figure 3) with key expansions in Latin America and Africa. This trend continues to expand, with the first plantations in Peru, São Tomé and Príncipe, and the Democratic Republic of Congo receiving P&C certification in 2022.

Our continued growth is encouraging, but the actual scope for CSPO supply is greater. Accounting for RSPO members with currently uncertified plantations, as well as new oil palm grower members, the CSPO production ceiling within our current membership is actually much higher at 31.4 million MT or 41% of global production (Figure 1). This potential supply also shows the full extent of the current RSPO grower membership base; for example, our Latin American

members now represent more than two-thirds of their region's palm oil production in the 12 years since the first P&C certification in Latin America (Colombia) was achieved in 2010. As the RSPO's ability to transform markets is rooted in CSPO production and its supply, we must continue to assist our members to accelerate certification while maintaining the credibility of our standards.

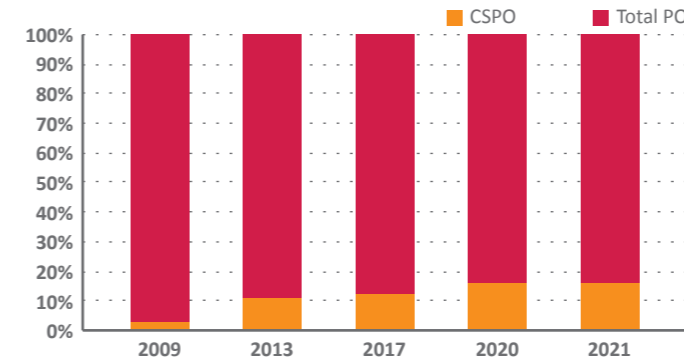


Figure 2: Evolution of global CSPO and total palm oil production

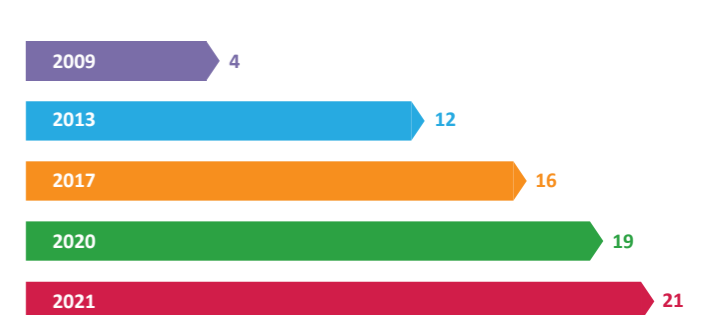


Figure 3: Number of countries with P&C certification



## Savonnerie Tropicale

RSPO Membership ID: 1-0149-14-000-00  
Country: Madagascar  
Member since: 2014  
P&C certified since: 2015 (Identity Preserved)

The only RSPO P&C certified oil palm grower in East Africa<sup>2</sup>. Savonnerie Tropicale is a family-run, 100% Malagasy oil palm operation founded in 1967, producing palm oil and finished soap/personal care products. The entire concession of 2,784 ha (including 1,180 ha of production and 1,234 ha of HCV/conservation areas) has been RSPO certified since 2015 under the IP model, with a supply base that includes five smallholder cooperatives. Savonnerie Tropicale's palm oil and palm products are sold in Madagascar, and also exported to Europe (entirely to Switzerland since 2009).



## Mong Reththy Investment Cambodia Oil Palm Co. Ltd (MRICOP)

RSPO Membership ID: 1-0109-11-000-00  
Country: Cambodia  
Member since: 2011  
P&C certified since: 2012 (Identity Preserved)

The largest oil palm grower in Cambodia, with two mills and a 20,000 ha concession, Mong Reththy has been RSPO certified since 2012. Its approach to marketing its palm oil has evolved, first targeting exports to Southeast Asia before switching focus to supplying IP volumes to Europe. ACOP submissions show that limited market access resulted in only about a third of Mong Reththy's CSPO being sold as RSPO volumes, the remainder was downgraded to conventional. In 2020, it pivoted to RSPO Credits with success. In 2021, 100% of Mong Reththy CSPO was sold as RSPO Credits, almost entirely to buyers in Europe, North America and Japan.

<sup>1</sup> 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.  
<sup>2</sup> Hillside Agriculture Limited (1-0295-20-000-00) in Uganda is an RSPO oil palm grower member but has not yet received P&C certification. Membership is currently suspended due to non-submission of ACOP.

# CERTIFIED CONSUMPTION



As certified sustainable palm oil (CSPO) travels downstream along the supply chain, it is refined and processed into dozens of fractions and hundreds of derivatives, each with slight differences in market dynamics. This can make it challenging to match supply and consumption, as strong demand in one product (e.g. liquid fats or olein) may not be matched in another (e.g. fat solids or stearin). Palm oil produced under the RSPO P&C standard can also be sold downstream under other sustainability schemes (e.g., International Sustainability and Carbon Certification, ISCC) by RSPO members holding multiple certifications.

Of the 14.7 million metric tonnes of CSPO produced in 2021, approximately 61% was sold by RSPO certified mills as RSPO physical material [under the Identity Preserved (IP), Segregated (SG) and Mass Balance (MB) supply chain models] or as RSPO Credits (Figure 1). A further 19% was reported as being sold under other sustainability schemes, for a total of 80% of CSPO sold by mills under sustainable certification. The remaining 20% is downgraded to conventional palm oil. The overall RSPO sales as a percentage of CSPO supply has improved considerably, from 29% in 2009 and 55% in 2020. Further downstream beyond refining, supply chain inefficiencies are estimated to reduce the RSPO share to 58%, or 8.53 million MT.

The regular surplus in CSPO supply is a recognised issue that RSPO is working on with its members through initiatives such as the Shared Responsibility framework (see Shared Responsibility, pg 74) and increasing membership in key consuming regions. Market dynamics can be shifted, as they have been before. The rapid market adoption of CSPO saw RSPO Credits and physical volumes go from 1% of estimated global consumption in 2009 to 12% in 2021 (Figure 2). As traceability expectations evolved, CSPO moved from being predominantly Credits (71% of CSPO volumes in 2009) to predominantly physical certified volumes. The entrenched positions and requirements of RSPO members in Europe and North America have driven this shift, where regional CSPO uptake now exceeds 80% (Figure 3). Encouraging uptake growth is also being reported in key markets like China, Malaysia and India, as we expand our global outreach.

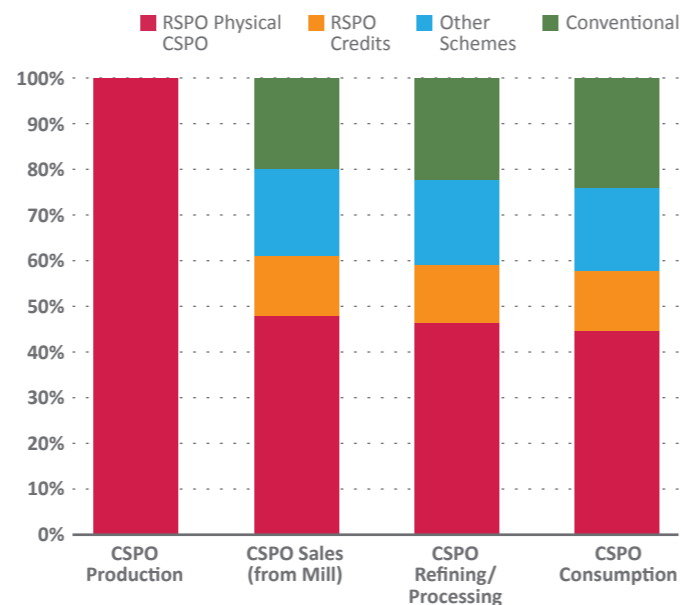


Figure 1: CSPO Supply/Consumption flow through the supply chain<sup>1</sup>

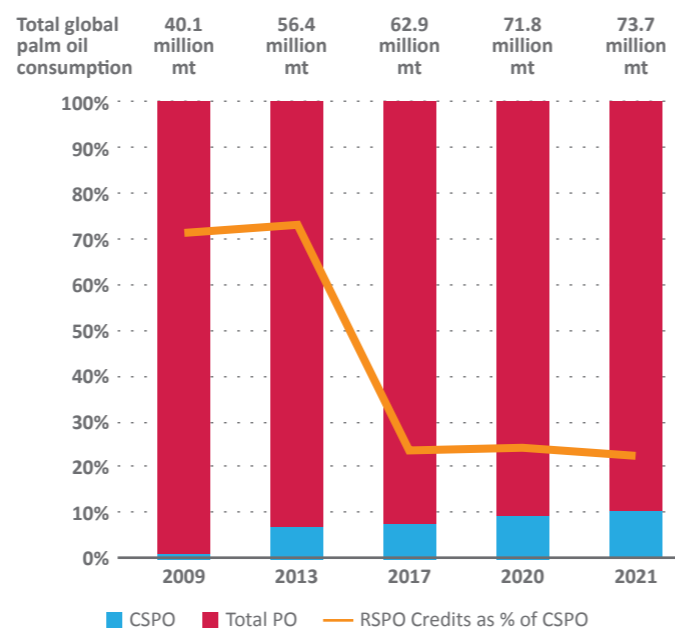


Figure 2: Evolution of global CSPO and total palm oil consumption, share of RSPO Credits<sup>2</sup>

Growth in certified consumption is reassuring, but challenges remain. Through the ability and will of our members and other stakeholders, RSPO has already

transformed the market for sustainable palm oil. Moving ahead, we must continue to do so, working together towards our common vision.

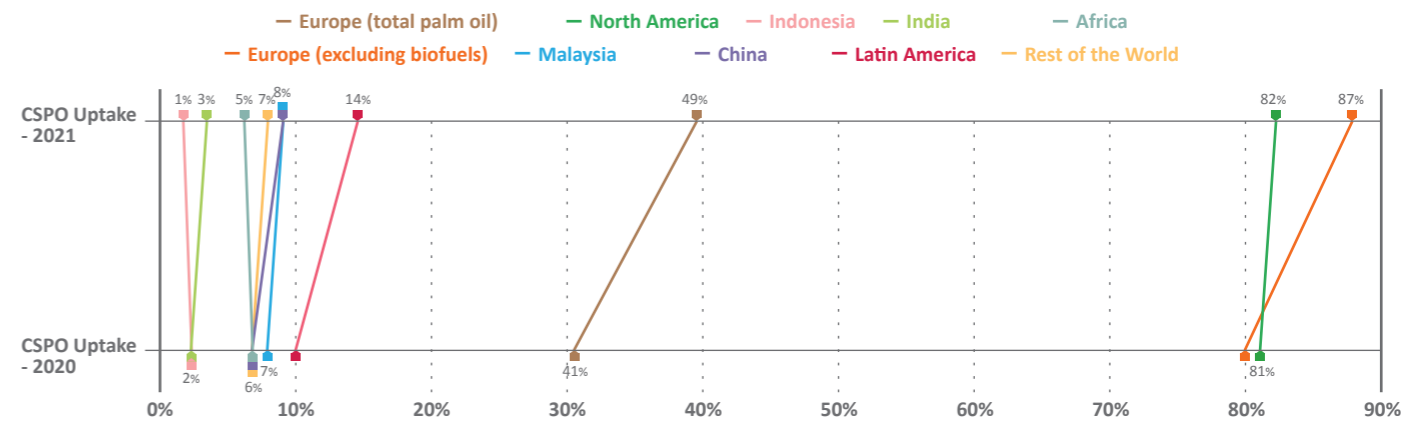


Figure 3: CSPO Uptake by key countries and regions

## Market Dynamics in CSPKO and CSPKE

While there is a general surplus of supply in CSPO, market fundamentals are markedly different in the two related palm (seed-based) products certified by RSPO: Certified Sustainable Palm Kernel Oil (CSPKO) and Certified Sustainable Palm Kernel Expeller (CSPKE), used generally for animal feed.

In CSPKO, supply and consumption are estimated to be almost equal at 13% of the global market<sup>3</sup>. Since 2020, RSPO members have been reporting that the tightness in CSPKO has become disruptive, due to barriers in converting Certified Sustainable Palm Kernel (CSPK) from mills into CSPKO by certified kernel crushers,

as well as a reduction in the availability of CSPKO Credits. RSPO is working together with its members on solutions to address this issue over the short-, medium- and long-term.

In CSPKE, only a tiny amount of supply is sold as RSPO (1.2%) with the remaining volumes sold as conventional by-product. Consumption is almost entirely from Europe, mainly for large-scale animal feed. As the three markets are interconnected, developing a value proposition for CSPKE to increase potential consumption (simultaneously with efforts to accelerate CSPO) could assist in rebalancing CSPKO.



RSPO has an important mission: making sustainable palm oil the norm. To make this happen, true willingness and collaboration amongst supply chain actors is crucial. The Market Development Standing Committee (MDSC) is tasked to align demand, commitment, and uptake worldwide. We are looking at regional market development including true engagement of companies and other stakeholders. Everyone has a role to play and as such the principles of shared responsibility have to become commonplace.

**Eddy Esselink**  
Co-Chair of the RSPO Market Development Standing Committee (MDSC) representing the Netherlands Oils and Fats Organisation (MVO)

<sup>1</sup> 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.

<sup>2</sup> Total palm oil consumption estimated from USDA Oilseeds: World Market and Trade reports.

<sup>3</sup> Total global palm kernel oil production and consumption of 8.9 million MT and 8.6 million MT, respectively, in 2021. Source: USDA Oilseeds: World Market and Trade reports.

# SHARED RESPONSIBILITY



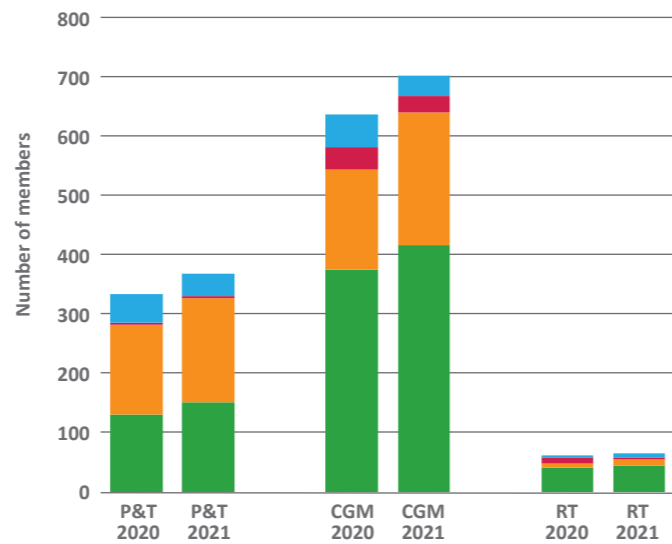
**Shared Responsibility (SR) is a framework adopted by RSPO members to 'make sustainable palm oil the norm'. It is an innovative way for members to demonstrate leadership in each of their sectors, while also driving uptake. Within the framework, all members collaborate and commit their contribution with agreed accountability for results.**

SR Requirements and Implementation came into effect October 2019 and applies to non-grower members, covering the thematic areas of Transparency & Legality, Social, Environmental, and Uptake & Resourcing (Figure 2). Though a shared obligation, specific requirements may vary from one member category to the next, reflecting their unique roles. Members report SR commitments through self-reporting during Annual Communication of Progress (ACOP) cycles and in their MyRSPO profile on the RSPO website.

In March 2021, the RSPO Secretariat's SR Unit rolled out a new reporting mechanism for SR requirements. Within four months, 11% of members had reported commitments. After a year of socialisation, reporting has nearly doubled to 20%. These public commitments are made either by providing evidence<sup>1</sup> or a declaration of support, available on the member's public RSPO profile.

In order to drive demand, the SR volume requirement for supply chain members includes annual uptake targets expressed in percentage points. 'Matching supply and demand' is one of our key strategies and this has been a priority given a general market surplus of CSPO (see Certified Consumption, pg 72). SR uptake targets for 2021 were a 2% increase for Processors and Traders (P&T) and a 12% increase for Consumer Goods Manufacturers (CGM) and Retailers. Analysis of ACOP 2021 data shows a broad range of results (Figure 1).

In 2021, Retailers continued to perform well, with 72% increasing their CSPO uptake by 12 percentage points or more. CGMs showed broadly positive results, with a majority (59% in both 2020 and 2021) meeting SR targets, while P&Ts were mixed with 41% meeting targets in 2021. However, we do note that as intermediate nodes in the supply chain, the ability of P&Ts to meet targets is dependent on their CGM and Retailer clients, which can vary by scale and region.



Shared Responsibility Uptake Targets		
Year	Target for P&T	Target for CGM and RT
2020	2%	15%
2021	2%	12%

Uptake Target Performance Category	
Performance 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 (2021 vs 2020)

We also note that while the percentage of members meeting targets seems stable, the actual number of those members has grown, contributing to a 914,000 MT increase in CSPO consumption for 2021, in the midst of a global pandemic. We will be reaching out to members that did not meet targets to engage, and understand their situation and issues.

	Transparency and Legality	Social	Environmental	Resourcing	Uptake targets
Processors and Traders	✓	✓	✓	✓	✓
Consumer Goods Manufacturer	✓	✓	✓	✓	✓
Retailers	✓	✓	✓	✓	✓
Banks and Investors	✓	✓	✓	✓	
eNGOs	✓	✓	✓	✓	
sNGOs	✓	✓	✓	✓	

Figure 2: The RSPO Shared Responsibility thematic areas and applicability

As we are at the start of this transformative journey to encourage all RSPO members to be leaders of change, we will continue to work on improving the credibility

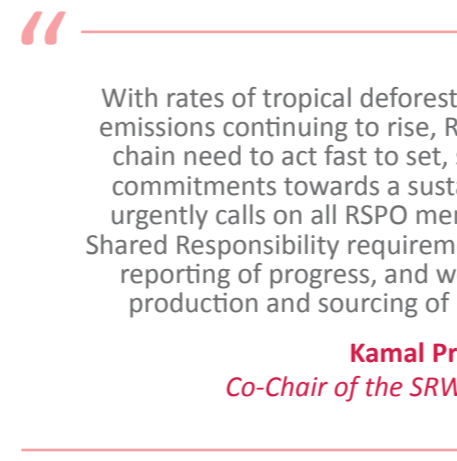
of SR reporting and its implementation mechanisms. Sustainability is a shared responsibility, and making it the norm in palm oil can only be achieved together.

## Testimonials from the Shared Responsibility Working Group



Shared Responsibility plays a key role in driving environmental and social standards, and the uptake of certified products. RSPO expects high standards of its grower members in meeting the P&C and we should expect similar commitments from other RSPO members to ensure equity. Transforming the industry requires all members to contribute their fair share through creation of demand from end users, and supply from growers, millers and processors, thus creating a virtuous cycle towards the RSPO vision of making sustainable palm the norm.

**Girish Deshpande**  
Co-Chair of the SRWG representing The Procter and Gamble Company



With rates of tropical deforestation, biodiversity loss and GHG emissions continuing to rise, RSPO members across the supply chain need to act fast to set, strengthen and deliver on their commitments towards a sustainable palm oil industry. WWF urgently calls on all RSPO members to improve awareness of Shared Responsibility requirements and targets, ensure accurate reporting of progress, and work collectively to increase the production and sourcing of 100% RSPO-certified palm oil.

**Kamal Prakash Seth**  
Co-Chair of the SRWG representing WWF

<sup>1</sup> For example, uploading a public labour policy to meet the RSPO SR requirement on Labour and Labour Rights.

# APPENDIX 1 - MAPPING RSPO IMPACTS AND UN SDGs

In creating the new RSPO Impact Framework, we have mapped our available metrics and data against the 17 UN SDG goals, 169 targets and 248 indicators. This analysis has allowed us to refine our linkages to the SDGs, improve our focus and report on where we are making direct and indirect contributions to SDG target indicators, rather than use the SDG goals identified in the previous Impact Reports.

The resulting mapping shows how each one of the SDG contributing targets and indicators is associated with the RSPO Impact Themes. As part of the mapping, we assessed what indicators were important to measure either in terms of the risk of not doing so, or the opportunity it presented for RSPO as an extra measure, or for consideration beyond what is delivered by compliance with P&C 2018 requirements.

This mapping considered three levels of linkages: Level 1 - where RSPO can show a direct contribution with existing data sources; Level 2 - where RSPO could make a contribution but where more data or research support is needed, and Level 3 - SDG indicators that may be important for RSPO to contribute towards but further discussion is needed before they are considered for inclusion within our standards, systems or processes.

From the initial mapping, we have identified 21 Level 1, 38 Level 2 and 7 Level 3 linkages between our RSPO Impact Themes and the SDGs, for a total of 66 linkages. A summary representation of the mapping is presented here. The full indicator mapping linkage list and analysis is available in the supplementary data file that accompanies this Impact Report. We already identified two additional Impact Indicators that could be developed, on the RSPO Grievance System and on RSPO itself as an organisation for sustainability leadership. It should be noted that this mapping is intended to be evolutionary, with linkage levels adjusting as RSPO standards, systems and processes evolve.





Global Indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development

Sustainable Development Goal indicators should be disaggregated, where relevant, by income, sex, age, race, ethnicity, migratory status, disability and geographic location, or other characteristics, in accordance with the Fundamental Principles of Official Statistics.

Legend for RSPD Linkage Level

1 = Direct contribution with current or in-development data sources

2 = Direct contribution (or input source) without current or in-development data sources, indirect contribution with adapted external data sources, and/or requires research and evidence to substantiate

3 = Important indirect linkages that could be considered for future inclusion within RSPD

TARGETS	INDICATOR	RSPD LINKAGE LEVEL			RSPD IMPACT THEME							RSPD IMPACT PILLAR			
		1	2	3	Respecting Human Rights	Including Smallholders	Safeguarding Nature	Preventing Fire	Limiting Climate Change	Advancing Certification	Transforming Markets	RSPD Governance	People	Planet	Prosperity
1.1 Reduce extreme poverty	1.1.1 Population under international poverty line		●		●								●		●
	1.2 Reduce poverty by half		●		●								●		●
1.4 Equal rights and equal access	1.4.1 Access to basic services		●		●								●		●
	1.4.2 Secure rights to land	●			●	●				●			●		●
	1.5 Climate disaster impact on the poor		●				●	●					●	●	●
2.1 End hunger	2.1.1 Undernourishment		●		●	●							●		●
	2.3 Double agricultural productivity	●				●				●			●		●
2.4 Ensure sustainable food production	2.3.1 Agricultural production volume		●			●							●		●
	2.3.2 Smallholder farmer income		●			●							●		●
2.4.1 Sustainable agriculture area	2.4.1 Sustainable agriculture area	●				●							●	●	●
	3.8 Universal health coverage			●	●								●		●
3.9 Death/illness from chemicals or pollution	3.9.3 Unintentional mortality poisoning		●		●		●		●				●	●	●
4.3 Equal access to education and training	4.3.1 Education/Training participation	●			●								●		●
4.5 Eliminate gender disparities	4.5.1 Education/Training gender parity	●			●								●		●
5.1 No discrimination	5.1.1 Monitoring discrimination	●			●								●		●
5.2 No violence	5.2.2 Gender violence	●			●								●		●
5.3 Equal opportunities	5.5.2 Women empowerment	●			●								●		●
5.a Women access to resources	5.a.1 Secure ownership and land rights		●		●	●				●			●		●
5.b Empowerment through technology	5.b.1 Access to mobile telephone		●	●	●								●		●
6.3 Improve water quality	6.3.1 Safe treatment of wastewater		●					●					●	●	●
6.4 Increase water efficiency	6.4.1 Water efficiency	●						●					●	●	●
	6.4.2 Water stress		●					●					●	●	●
6.6 Protect and restore water ecosystems	6.6.1 Water ecosystems over time	●			●								●	●	●
7.1 Universal access to energy	7.1.1 Population with access to electricity			●						●			●		●
7.2 Increase renewables	7.2.1 Renewable energy share		●							●			●		●
7.b Expand sustainable energy	7.b.1 Installed renewable energy capacity		●			●							●		●
8.1 Sustained economic growth	8.1.1 Real GDP per capita growth		●		●	●							●		●
8.3 Development-oriented policies	8.3.1 Informal employment		●			●							●	●	●
8.4 Global resource efficiency	8.4.1 Global resource material footprint		●			●				●			●	●	●
	8.4.2 Domestic resource material footprint		●			●				●			●	●	●
8.5 Full and productive employment	8.5.1 Average hourly earnings		●		●								●		●
8.7 Forced Labour	8.7.1 Child Labour		●		●								●		●
8.8 Labour rights and safe work	8.8.1 Occupational injuries	●			●								●		●
	8.8.2 Compliance with labour rights		●		●								●		●
9.1 Develop sustainable infrastructure	9.1.1 Rural access to roads			●		●							●		●
9.3 Small-scale industry access to finance	9.3.1 Proportion of financing	●								●			●		●
9.4 Upgrade to sustainable industries	9.4.1 Carbon Dioxide emissions per unit		●		●				●				●	●	●
10.2 Empower equality and inclusion	10.2.1 People below 50% median income		●		●								●		●
10.3 Equal opportunities	10.3.1 Discrimination & harassment		●		●								●		●
10.7 Responsible migration and mobility	10.7.1 Recruitment costs		●		●								●		●
11.4 Safeguard and protect cultural and natural heritage	11.4.1 Spend on preservation, protection and conservation		●					●					●	●	●
12.1 Sustainable consumption and production	12.1.1 Shift to sustainable practices		●							●	●	●	●	●	●
	12.2 Sustainable use of natural resources		●							●	●	●	●	●	●
12.4 Waste management	12.2.1 Global material footprint	●								●	●	●	●	●	●
	12.2.2 Domestic material footprint	●						●					●	●	●
12.4.2 (a) Hazardous waste treatment	12.4.2 (a) Hazardous waste treatment		●				●						●	●	●
12.5.1 Recycling rates	12.5.1 Recycling rates		●										●	●	●
12.6 Sustainability reporting	12.6.1 Publication of sustainability reports		●										●	●	●
12.7 Sustainable public procurement	12.7.1 Degree of sustainable policies		●										●	●	●
12.a Technological support	12.a.1 Installed renewable energy capacity		●										●	●	●
13.1 Adapt to climate hazards	13.1.1 Deaths from climate disasters		●				●	●					●	●	●
13.2 Integrate climate change measures	13.2.2 Total GHG emissions per year	●						●		●			●	●	●
15.1 Conserve and restore ecosystems	15.1.1 Forest area coverage	●						●		●	●		●	●	●
	15.1.2 Protected ecosystems	●						●		●	●		●	●	●
15.2 Sustainable management of forests	15.2.1 Progress on sustainable management	●					●	●		●	●		●	●	●
15.2 Combat land degradation	15.3.1 Degraded land area	●					●	●	●	●			●	●	●
15.5 Protect threatened species	15.5.1 Red List Index		●				●	●	●	●			●	●	●
15.8 Control and eradicate alien species	15.8.1 Action on invasive alien species		●				●						●	●	●
15.c Supporting communities to combat poaching	15.c.1 Poached or illicitly trafficked wildlife		●			●							●	●	●
16.1 Reduce violence	16.1.3 Population subject to violence		●			●							●		●
16.3 Rule of law and justice for all	16.3.1 Victimisation reporting	●				●							●		●
	16.3.3 Access to dispute resolution mechanisms	●				●							●		●
16.7 Inclusive and participatory decision-making	16.7.2 Inclusive and responsive decision-making		●			●							●		●
16.8 Broaden and strengthen developing country participation	16.8.1 Proportional voting rights		●			●					●		●	●	●
16.b Promote and enforce non-discrimination	16.b.1 Discrimination and harassment		●			●							●		●
17.8 Technology, science and innovation	17.8.1 Use of internet			●		●							●		●
17.16 Global Partnership for Sustainable Development	17.16.1 Multi-stakeholder development progress		●								●		●	●	●



# APPENDIX 2 - BASE DATA AND GLOSSARY

With the introduction of the new RSPo Impact Framework in Impact Report 2021, some data on the outputs and outcomes of RSPo standards and systems previously reported in the main Impact Report have been excluded. We have moved the associated datasets into this Appendix for reference and continuity, as progress in these areas of RSPo membership, certification coverage, efficiency of the RSPo grievance system and trademark usage are also indicative of RSPo's overall impact.

Unless otherwise stated, all data presented here is representative of the calendar year (1 January to 31 December). Only data from the three most recent years (2019, 2020, 2021) is shown in this section. Expanded historical data is available in the supplementary data file that accompanies this Impact Report.

## Membership

BREAKDOWN		UNIT	2021	2020	2021
Total		Number of Members	5,233	4,991	4,577
By Country	United States		622	610	540
	Germany		486	487	477
	United Kingdom		465	455	452
	Japan		262	229	177
	Italy		236	225	216
	Netherlands		221	222	233
	China		205	169	129
	France	Number of Members	179	184	187
	Australia		158	160	147
	Belgium		157	160	161
	Malaysia		157	155	145
	Spain		155	157	164
	Indonesia		138	126	106
	Thailand		127	97	88
Others		1,665	1,555	1,355	
By Membership Type	Ordinary		2,022	1,931	1,840
	Associate	Number of Members	3,130	2,948	2,632
	Affiliate		108	112	105

Note to data:  
 • Membership as of 31 December for each respective year.

## Certified Hectarage, Production, Sales and Uptake

ASPECT	BREAKDOWN	UNIT	2021	2020	2021
Area	Production Area		3,353,641	3,260,356	3,051,930
	Certified Area	ha	4,564,086	4,434,670	4,160,924
	HCV Area		301,020	250,304	230,195*
Annual Certified Volume	CSPO	MT	18,883,353	17,206,790	15,192,356
	CSPK		4,222,323	3,845,036	3,383,788
Estimated CSPO Actual Production	Total CSPO		14,731,725	13,925,222	12,989,686
	% SG/IP (+ISH) of CSPO	MT	49%	49%	52%
	% MB of CSPO		51%	51%	48%
CSPO Sales	CSPO Sales through IP,SG,MB		7,108,255	6,153,025	5,525,660
	CSPO through Book and Claim (RSPO Credits)		1,910,184	1,787,703	1,293,807
	Total CSPO sold as RSPO (Physical and Credits)	MT	9,018,439	7,940,728	6,819,467
	Estimated sales through other Schemes		2,730,183	3,211,011	3,335,493
CSPO Uptake	Total CSPO sold as RSPO/Estimated CSPO Actual Production	%	61%	57%	52%

Area and Annual Certified Volume as of 31 December for each respective year, covering data from member mills certified within the 12 months to 31 December.  
 Annual Certified Volume is the projected volume based on the capacity of the mill, maturity of the oil palms and production area, and the oil extraction rate. The Annual Certified Volume is determined and audited in the annual audit process.  
 Data for Estimated CSPO Actual Production and CSPO Sales is extrapolated from member Annual Communication of Progress (ACOP) reports and available certification/audit data of certified mills recorded in the annual audit process.  
 Actual Production is the physical volume generated by mills. Monitoring and assessment of certified mills shows that the Actual Production is approximately 20% lower than the Certified Volume on average. Certified Volume is observed to be generally overestimated due to agronomic/operational issues, climate conditions, force majeure, etc.  
 All data is inclusive of scheme smallholders certified as part of a mill's supply base and independent smallholders certified under RSPO Independent Smallholder Standard.  
 HCV figure marked with an asterisk (\*) excludes set-aside conservation areas.  
 RSPO also reports estimated volumes sold through 'other schemes' for RSPO mills that hold multiple certifications through other palm oil sustainability schemes (eg. ISCC).

## Certified Hectarage, Production, Sales and Uptake

RSPO STANDARD	TOTAL CERTIFIED AREA (HA)	TOTAL PRODUCTION AREA (HA)	TOTAL FFB PRODUCED (MT)	CSPO CERTIFIED VOLUME (MT)	CSPK CERTIFIED VOLUME (MT)
RSPO PRINCIPLES & CRITERIA (P&C) - MILLS AND SUPPLY BASE(S)	4,500,315	3,290,778	83,326,287	18,753,593	4,222,323
RSPO INDEPENDENT SMALLHOLDER STANDARD (RISS) - INDEPENDENT SMALLHOLDERS (ISH) GROUP(S)	63,771	62,863	1,174,551	129,760	0

Note to data:  
 • All Certification data as of 31 December 2021 from available certification/audit data of certified mills, covering member mills certified within the past 12 months.

## Countries with P&C Certification

RSPO STANDARD	TOTAL CERTIFIED AREA (HA)	TOTAL PRODUCTION AREA (HA)	TOTAL FFB PRODUCED (MT)	CSPO CERTIFIED VOLUME (MT)	CSPK CERTIFIED VOLUME (MT)
Brazil	122,634	49,193	775,246	157,562	31,512
Cambodia	20,218	16,464	283,220	55,940	14,160
Cameroon	3,993	958	14,604	3,160	682
Colombia	130,343	94,934	1,975,720	404,948	79,209
Costa Rica	48,632	44,758	839,530	160,819	33,598
Cote D'ivoire	6,069	1,999	40,176	9,040	1,647
Ecuador	22,787	12,967	158,789	23,712	8,181
Gabon	144,255	55,802	443,122	106,349	19,940
Ghana	26,705	18,781	277,881	59,130	13,603
Guatemala	99,384	74,650	1,838,303	435,751	78,280
Honduras	27,663	26,130	346,528	72,119	17,821
Indonesia	2,307,057	1,768,592	49,545,759	11,375,189	2,537,478
Madagascar	2,234	1,087	7,650	825	377
Malaysia	1,260,166	922,785	22,589,826	4,975,080	1,162,115
Mexico	17,712	11,476	156,817	35,016	9,328
Nigeria	36,350	22,843	254,700	51,085	13,112
Papua New Guinea	198,470	144,959	3,305,024	724,261	176,641
Sierra Leone	898	698	6,925	1,390	416
Solomon Islands	9,738	7,509	159,410	38,010	9,086
Sri Lanka	1,977	1,955	35,443	8,435	804
Thailand	13,029	12,237	27,1614	55,772	14,334

Note to data:  
 • All figures exclude independent smallholders groups certified under the RSPO Independent Smallholder Standard (RISS), but include outgrower and scheme smallholders certified as part of a mill's supply base. All figures as of 31 December 2021.

## New Planting Procedure

The RSPO New Planting Procedure (NPP) comprises a set of assessments and verification activities to be conducted by growers and Certification Bodies (CBs) prior to any new oil palm development, to provide guidance on responsible planting. The intention is to ensure that new oil palm development by members complies with the new planting criteria in the RSPO standards and does not negatively impact primary forest, HCV areas, HCS forests, fragile and marginal soils, or local people's land.

COUNTRY	UNIT	2021	2020	2019	2010-2018
Brazil					7,980
Cambodia					10,719
Gabon					163,889
Ghana				1,388	2,240
Guatemala			461	407	2,917
Indonesia		14,159	27,690	14,719	1,120,779
Liberia	ha				146,955
Malaysia				1,700	6,877
Mexico					1,019
Nigeria					22,398
Papua New Guinea			200		47,625
Sierra Leone					10,000
Solomon Islands					2,677
Togo					4,144

## Remediation and Compensation Procedure (RaCP)

The Remediation and Compensation Procedure (RaCP) was established to address land clearance and plantation development undertaken since November 2005 (ie. the release of the first RSPO Principles & Criteria standard) without prior HCV assessment. The procedure requires growers to disclose any new land development that took place without conducting HCV assessment, to calculate environmental liabilities through a Land Use Change Analysis (LUCA), and to carry out onsite or offsite remediation for the affected sites or remediation with the affected parties.

COUNTRY	UNITS	NCLC AREA			FCL AREA		
		2021	2020	2019	2021	2020	2019
Brazil		24,847	24,847	1,014	1,111	1,111	166
Cameroon		5,034	5,034	8,281	4,445	4,445	4,351
Colombia		56,025	51,415	45,444	1,661	1,645	1,528
Congo		3,255	3,255	6,647	71	71	-
Costa Rica		338	338	173	4	4	3
Côte d'Ivoire		4,903	4,903	2,165	0	0	786
Dominican Republic		773	773	7,447	0	0	74
Ecuador		12,315	12,154	14,093	2,514	2,514	2,514
Ghana		6,006	6,006	6,103	183	183	684
Guatemala		41,960	41,960	42,018	7,123	7,123	7,090
Honduras		11,282	11,282	10,619	279	279	274
Indonesia		767,795	740,528	601,833	113,513	112,224	49,756
Malaysia	ha	90,981	72,469	63,217	11,577	11,498	7,833
Mexico		14,258	14,258	14,924	1,494	1,494	1,243
Myanmar		3,620	3,620	-	0	0	-
Nigeria		5,583	5,583	2,048	378	378	8
Panama		0	-	-	0	-	-
Papua New Guinea		4,018	4,018	9,864	1,977	1,977	1,025
Peru		20,572	20,572	20,431	7,113	7,113	2,998
Philippines		0	0	-	0	0	-
São Tomé and Príncipe		1,313	1,313	1,331	452	452	483
Sierra Leone		12,885	12,885	14,289	464.77	465	236
Sri Lanka		1,224.9	1,224.9	-	0	0	-
Thailand		0	0	2,278	564.16	564.16	533

Note to data:

- NCLC: Non-Compliant Land Clearance or land clearance without prior HCV assessment since November 2005.
- FCL: Final Conservation Liability calculated based on the NCLC.
- All figures as of 31 December for each respective year.

## Grievance

The RSPO Grievance System is an impartial and transparent process providing stakeholders with an avenue to address complaints against RSPO members. It provides a framework and mechanism for RSPO to handle complaints but is not a replacement for legal requirements and mechanisms that are in place. In 2017, the Complaints and Appeals Procedure (CAP) was adopted, as a procedure for dealing with complaints arising from a breach of RSPO Key Documents, and appeals against the decision of the Complaints Panel in relation to such Complaints.

BREAKDOWN	UNITS	2021	2020	2019
Total complaints received (cumulative)	Number of Complaints	165	153	137
Total complaints closed (cumulative)		131	119	95
Total complaints open at year-end (cumulative)		34	34	42
Complaints managed by year		46	62	65
Complaints closed by year		12	28	23
Percentage of complaints closed each year	%	26%	45%	35%
Average time for closure of complaints (pre- and post-CAP)	Working days	459	470	496
Average time for closure of complaints (post-CAP)		273	288	299

Note to data:

- Complaints managed/closed by year include cases filed in previous years.

## Trademark

The RSPO Trademark is a globally recognised ecolabel that signals the use of RSPO certified sustainable palm oil. Licences to use the RSPO Trademark are issued to RSPO members for two purposes: on-pack labeling or general communications.

ASPECT	BREAKDOWN	UNITS	2021	2020	2019
Total trademark usage	Licences	Number of licences	1,676	1,055	958
By stakeholder group	CGM	Number of licences	410	327	346
	P&T		337	211	202
	SCA		847	461	363
	SCGM		7	5	2
	Retailers		13	11	7
	Growers		62	40	38
By country	Germany	Number of licences	180	144	152
	United States		167	111	76
	United Kingdom		124	77	71
	France		74	51	63
	Belgium		60	46	59
	Netherlands		61	46	56
	Italy		90	52	53
	Malaysia		64	51	50
	Spain		65	41	44
	Austria		14	13	26
	Others		809	445	308

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# 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 their progress towards producing, processing, consuming or supporting 100% RSPO certified sustainable palm oil. These reports are 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 crusher from palm kernels derived from FFB grown on a plantation that has been managed and certified in accordance with the RSPO Principles & Criteria.

## Certified Sustainable Palm Kernel Oil (CSPKO)

Palm kernel oil produced by RSPO Supply Chain Certified kernel crusher from palm kernels derived from FFB grown on a plantation that has been managed and certified in accordance with the RSPO Principles & Criteria.

## Certified Sustainable Palm Oil (CSPO)

Palm oil that has been grown on a plantation that has been managed and certified in accordance with the RSPO Principles & Criteria.

## Crude palm oil (CPO)

A type of unrefined vegetable oil obtained from the fruit of the oil palm tree.

## Decent Living Wage (DLW)

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 her or his family.

## 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 incurred by RSPO members as a result of clearance without prior HCV assessment since November 2005. 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 Bunch (FFB)

Bunch harvested from the oil palm tree. Each bunch can weigh from 5 to 50 kilogrammes and can contain 1,500 or more individual fruits.

## Greenhouse gas (GHG)

Term for gases that 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)

The concept of High Conservation Value Forest (HCVF) was first developed by the Forest Stewardship Council (FSC) in 1999 as their 9th Principle. The FSC defined HCVF as forests of outstanding and critical importance due to its environmental, socio-economic, cultural, biodiversity and landscape value.

## 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)

Landscapes having >60% forest cover (based on recent, trusted REDD+ and national data); <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 >80% forest cover. Landscape as defined under HCSA Toolkit (Module 5): "The size of a landscape may be determined by (a) identifying the watershed or the geographical land unit containing a cluster of interacting ecosystems; (b) selecting a unit size that encompasses the plantation concession and a buffer of the surrounding area (e.g. 50,000 ha or 100,000 ha); or (c) using a radius of 5 km from the area of interest (for instance, the planned concession)."

## 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. This includes environmental Human Rights Defenders, whistleblowers, complainants and community spokespersons. The definition does not include those individuals who commit or propagate violence.

## Identity Preserved (IP)

The Identity Preserved supply chain model 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)

In the context of sustainable palm oil, the jurisdictional approach involves the certification of palm oil production at the provincial level, utilising a particular model of rural development. 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 such as slash-and-burn clearing, 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.

## Mass balance (MB)

Supply chain model that 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)

Provides guidance on how and under what conditions new oil palm plantings should be carried out.

## Oil palm

A species of palm (*Elaeis guineensis*) and the principal source of palm oil. It is native to west and southwest Africa, but is now cultivated in over 26 countries. Ideal growing conditions occur up to 10 degrees either side of the equator.

## Ordinary members

RSPO membership category consisting of organisations that have either direct involvement, or have activities around, the palm oil supply chain. Only ordinary members are allowed to submit resolutions and vote at the annual General Assembly.

## PalmGHG

A 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 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. It remains semi-solid at room temperature and is suitable for a wide variety of applications. Palm oil is an ingredient in a large number of products, including margarine, baked goods, chocolate, ice cream, soaps and cosmetics. It is also used as fuel for vehicles and power plants.

### **PalmTrace**

RSPO's traceability system for certified oil palm products. Certified members use PalmTrace to register their physical sales and processing activities - from mill level to refineries - under the IP, SG and MB supply chain models. PalmTrace also supports RSPO's Book and Claim model by enabling the trade of RSPO Credits.

### **Peat**

Peat is an 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 comprised of 32 RSPO members, representing each of the seven RSPO membership categories and designated by the General Assembly for two years.

### **RSPO Complaints and Appeals Procedure (CAP)**

RSPO 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 where 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 growers, crushers and independent smallholders.

### **RSPO Drainability Assessment (DA) Procedure**

The RSPO DA Procedure has been developed to support growers to assess future subsidence and flood risks of peatlands and adjust their management processes to reduce subsidence rates and prolong the workable lifetime of their plantations.

### **RSPO Principles & Criteria (P&C)**

Guidelines on how palm oil companies and growers should produce palm oil sustainably. It forms the basis of all company assessments for certification and is reviewed every five years.

### **RSPO Smallholder Support Fund (RSSF)**

A fund established by the RSPO to help small, independent operators secure sustainable palm oil certification while minimising costs. The RSSF is funded from 10% of income generated through the trading of CSPO.

### **Segregated (SG)**

The Segregated supply chain model maintains 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 come 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 members from the BoG and RSPO members. Four Standing Committees have been appointed to lead: Standards & Certification, Trade & Traceability, Communications & Claims and Finance.

### **Supply Chain Associates**

RSPO membership category consisting of companies that procure, use or trade less than 500 MT of CSPO 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. The goals build on the successes of the Millennium Development Goals, while including new areas such as climate change, economic inequality, innovation, sustainable consumption, peace and justice, among other priorities.