Sustainable Sourcing Guide for Palm Oil Users
A practical handbook for US consumer goods and retail companies
May 2015
# TABLE OF CONTENTS

## 01. About Palm Oil
- Palm oil and the palm oil supply chain ................................................................. 6
- The risks of unsustainable palm oil production ...................................................... 9
- Given the risks, why not boycott palm oil altogether? ........................................... 10
- Why business must act now ..................................................................................... 15

## 02. About Sustainable Palm Oil
- The importance of 100% industry conversion .................................................... 17
- The Roundtable on Sustainable Palm Oil (RSPO) .................................................. 18
- Sustainable palm oil initiatives .............................................................................. 22
- Smallholders in the palm oil supply chain ............................................................. 27

## 03. Palm Oil in the US Market
- The US palm oil market in context ......................................................................... 32
- How CSPO uptake can influence sustainable production at origin ....................... 33
- Key barriers to uptake in the US ............................................................................. 34

## 04. Transitioning the US Market to 100% Physical CSPO
- RSPO supply chain options for sourcing CSPO ..................................................... 36
- The RSPO supply chain options and continuous improvement ........................... 41
- Transitioning markets via sustainability tipping points .......................................... 42
- Achieving sustainability tipping points in the US .................................................. 44
# TABLE OF CONTENTS

## 05. Taking Action: Applying the Sourcing Guide to Your Business

<table>
<thead>
<tr>
<th>Step 1: Understanding your palm oil footprint and supply chain</th>
<th>47</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 2: Understanding sustainability issues</td>
<td>53</td>
</tr>
<tr>
<td>Step 3: Understanding costs and premiums</td>
<td>58</td>
</tr>
<tr>
<td>Step 4: Developing your action plan</td>
<td>61</td>
</tr>
</tbody>
</table>

## Appendices

<table>
<thead>
<tr>
<th>Abbreviations</th>
<th>70</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glossary of Terms</td>
<td>71</td>
</tr>
<tr>
<td>References &amp; Additional Resources</td>
<td>74</td>
</tr>
<tr>
<td>- Industry Reports, Data Sources, Useful Links &amp; Resources</td>
<td></td>
</tr>
<tr>
<td>- Major Suppliers to the US Market: Commitments &amp; Progress Reports</td>
<td></td>
</tr>
<tr>
<td>- Industry Initiatives</td>
<td></td>
</tr>
<tr>
<td>Checklist for palm oil users</td>
<td>81</td>
</tr>
<tr>
<td>Expectations for palm oil processors &amp; suppliers</td>
<td>82</td>
</tr>
<tr>
<td>Contacts</td>
<td>83</td>
</tr>
</tbody>
</table>
ABOUT PALM OIL

+ Palm oil and the palm oil supply chain
+ The risks of unsustainable palm oil production
+ Given the risks, why not boycott palm oil altogether?
+ Why business must act now
WHAT IS PALM OIL?

Palm oil is the most widely used vegetable oil in the world – it’s used for cooking, as a source of energy, and can be found in half the products on supermarket shelves.

Palm oil is an edible vegetable oil derived from the fruit of the oil palm tree (*Elaeis guineensis*).

Oil palm trees are planted and harvested on more than 15 million hectares (almost 40 million acres) of tropical area around the world – mostly in Indonesia and Malaysia where 86% of all palm oil is produced, but increasingly in South and Central America, Africa, as well as other parts of Asia.

Oil palm trees are incredibly efficient, yielding more oil on the same amount of land than any other leading oil crop – four to ten times more than soy, rapeseed (canola), or sunflower.

The fruit of the oil palm tree grows in bunches and consists of a fleshy outer pulp with a single seed or “kernel”. Palm oil is extracted from the pulp of the fruit and is used mainly in food products. This differs from palm kernel oil (or PKO), which comes from the seed. Derivatives of PKO are often used in personal care products.

Palm and palm kernel oil are incredibly versatile. Their many uses range from cooking oil and shortening, to specialized blends and ingredients that can be found in about half of all packaged products – snacks and baked goods, frozen foods, soaps and detergents, even toothpaste. Palm oil is also increasingly used as feedstock for biofuels.

When you consider this crop efficiency and versatility, combined with a relatively low cost of production, it’s no surprise that global demand for palm oil has more than doubled in the last ten years.

This exceptional growth has brought economic and employment benefits for millions of growers, but it has also brought unprecedented threats to forests, wildlife, and people where oil palm is grown and harvested.

For this reason, companies, NGOs, governments, and other stakeholders are working together to move the entire palm oil sector toward a more sustainable future.
Oil palm is grown by both smallholders and on large plantations. Trees begin bearing fruit after three years and have a productive life of up to 25 years. Trees produce continuously and fruit bunches are harvested every few weeks.

Fresh fruit bunches (FFBs) are then taken to a mill, where the oil is extracted with pressure and steam from both the fruit itself (which yields crude palm oil, or CPO) and the kernel or seed (which yields palm kernel oil, or PKO).

From the mill, the extracted oil is taken to refineries to be refined and/or processed into primary palm oil fractions, such as palm stearine and olein.

The refined oil and fractions are then transported to downstream ingredient manufacturers who may sell as is or process it further into more complex fractions and derivatives for use by consumer goods manufacturers. The end products containing palm oil and/or palm oil fractions are then sold by retailers to consumers.
WHY IS PALM OIL SO POPULAR?

**Versatile**
Palm oil and its derivatives can be found in approximately half the products on supermarket shelves.

**Trans-fat Free**
Palm oil has a long shelf life and doesn’t require hydrogenation - the process which can result in trans-fats.

**Economic Driver**
The palm oil industry provides millions of jobs and generates billions of dollars in export revenues for producing countries.

**Inexpensive**
Compared to other vegetable oils, palm oil is relatively inexpensive to produce.

**Highly Productive**
Oil palm produces four to ten times more oil per hectare than any other vegetable oil crop.

**Efficient**
Oil palm grows on a range of soils, requires relatively few inputs, and bears fruit year-round, making it an attractive crop for smallholders.

Palm oil is the most widely used vegetable oil in the world, representing up to 40% of total consumption.

Source: Soyatech, IFC, RSPO, Industry interviews
WHAT ARE THE MAJOR SOCIAL & ENVIRONMENTAL RISKS OF UNSUSTAINABLE PALM OIL PRODUCTION?

Deforestation
Because oil palm is only grown in the humid tropics, the development and expansion of plantation area often comes at the expense of tropical rainforest.

Climate
Forests are often cleared and burned to make way for plantations, releasing significant amounts of greenhouse gas emissions – especially when development occurs on peatlands where carbon-rich wetland soils can store even more carbon than the forests themselves.

Species
The destruction of forests may also mean the loss of important habitat area for highly threatened species like orangutans, tigers, elephants, and rhinos.

Exploitation
The development of large-scale oil palm plantations has also led to social conflict between companies, governments and communities over land tenure and usage rights, as well as numerous labor and human rights abuses including forced and child labor.
IF THE RISKS ARE SO HIGH, WHY DON’T WE JUST BOYCOTT PALM OIL ALTOGETHER?

PRICE
Over the past five years, while price fluctuations across major vegetable oils have followed similar trend patterns, palm oil has remained the lowest cost vegetable oil option. Palm oil is also a versatile ingredient, substitutes for which may be impractical or costly to produce.

EFFICIENCY
Palm oil yields more oil per hectare than any other crop. Therefore, boycotting palm oil could have unintended consequences for forest and/or communities as more land will be required to produce the same amount of oil.

INDUSTRY
If major sustainability markets in the US and Europe boycott palm oil, producers will simply turn to other markets with fewer incentives for improved social and environmental practices.

ECONOMY
Oil palm provides critical economic benefits to producing countries, generating employment and income opportunity for millions of farmers, as well as billions in export revenues for governments.

Source: IMF, Soyatech, RSPO, IFC, Industry presentations
BECAUSE ITS ONE OF THE LOWEST COST OILS.

Over the past five years, while price fluctuations across major vegetable oils have followed similar trend patterns, palm oil has remained the lowest cost vegetable oil option.

Source: IMF
BECAUSE OIL PALM IS MORE PRODUCTIVE THAN OTHER LEADING OIL CROPS.

Global demand for vegetable oils grows by about 5% each year. Substituting another oil in place of palm oil, will not solve the problem of plantation expansion; it will simply shift it to other actors and regions. As an example, for every hectare of oil palm avoided, an additional 10 hectares of soy would need to be planted to produce the same amount of oil.

**EFFICIENCY**

Yield:
Area required to produce 1 metric ton of vegetable oil for major oil crops.

<table>
<thead>
<tr>
<th>Oil Crop</th>
<th>Area (ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil Palm</td>
<td>0.27</td>
</tr>
<tr>
<td>Sunflower</td>
<td>2.08</td>
</tr>
<tr>
<td>Rapeseed</td>
<td>1.49</td>
</tr>
<tr>
<td>Soybean</td>
<td>2.63</td>
</tr>
</tbody>
</table>

**Consumption:**
Palm oil as percentage of global vegetable oil use: ~40%

**Production:**
Oil palm as percentage of global oil crop cultivation area: 5-7%
BECAUSE WE NEED SUSTAINABLE DEMAND TO TRANSITION THE PALM OIL INDUSTRY.

While the US and Europe represent just 18% of global consumption, they can play an important role in promoting industry change, as they are attractive export markets and home to globally influential companies with commitments to source only sustainable palm oil.

In the past year, the palm oil industry has made tremendous progress toward sustainability. Much of this momentum has come from consumer goods and retail companies in the US and Europe.

If these influential demand markets were to transition to alternative fats and oils, this industry-wide momentum would likely be lost. Yet, with global demand for palm oil driven largely by Asian markets, palm oil production would continue apace – only with fewer incentives for sustainability.

Therefore, concerned companies and consumers should use their market influence to advocate for sustainable palm oil.
BECAUSE PALM OIL CONTRIBUTES TO ECONOMIC DEVELOPMENT FOR PRODUCERS.

About six and a half million growers – including more than three million smallholders – rely on oil palm cultivation for their livelihoods.

**ECONOMY**

**BENEFITS TO GROWERS:**

**30 TO 1**

The number of jobs on a large oil palm plantation compared to other large-scale agriculture like soy.

**HIGHER INCOME**

Small growers regularly report earning more income from oil palm cultivation than from alternative crops.

**BENEFITS TO PRODUCER COUNTRIES:**

**$40 BILLION**

The total amount of export revenue generated from palm oil by Indonesia ($19.1B) and Malaysia ($21.9B) in 2012.

**DEVELOPMENT**

Countries in Africa, such as Liberia, are looking to oil palm to develop revenue streams and stabilize rural economies.

Source: RSPO, IFC, Industry Presentations
FOR BUSINESS, THE TIME TO ACT ON SUSTAINABLE PALM OIL IS NOW.

Consumer awareness is growing.

Advocacy and campaign organizations are increasingly targeting major consumer brands, retailers, and industry sub-sectors, like snack foods.

Labeling initiatives, like those being considered by the EU, will only bring more consumer attention to sustainability in palm oil products.

Expert analysis indicates that the costs associated with sourcing RSPO-certified palm oil are modest – especially when compared with brand value.

Shareholders are demanding answers.

In the last two years, shareholders have filed 150 resolutions related to climate change, including at least 20 resolutions specifically on palm oil.

A growing number of banks and investors are adopting “no deforestation” lending policies to minimize their own risk.

Given this success, advocacy organizations will increasingly focus on financing and shareholder initiatives.

Your supply chain may contain illegal palm oil.

Illegal palm oil development continues to be an issue in major producing countries.

In August 2014, Indonesia’s Forestry Minister Zulkifli Hasan said, “only two million of the total four million hectares of oil palm plantation [in Riau] have official permit for forest conversion.”

This means that without adequate safeguards, illegal palm oil is entering the global market and may be flowing into your supply chain.

Source: Ceres, Industry interviews, Quote via Antara News
ABOUT SUSTAINABLE PALM OIL

+ The importance of 100% industry conversion
+ The Roundtable on Sustainable Palm Oil (RSPO)
+ Sustainable palm oil initiatives
+ Smallholders in the palm oil supply chain
100% CONVERSION TO SUSTAINABLE PALM OIL IS IMPORTANT TO ALL STAKEHOLDERS

Companies, governments, investors, and NGOs are all working to address the environmental and social risks associated with unsustainable palm oil production.

Together, the US and EU currently make up just 18% of global palm oil consumption. Most of the demand is driven by China (14%), India (16%) and internal markets.

In order to achieve a more sustainable palm oil sector, real efforts are needed to transform the entire industry toward sustainability, not just a niche group of sustainable suppliers serving Western markets.

The social and environmental issues facing palm oil will not be solved by cleaning up individual supply chains and consumer products. Such an approach will not address the growing threats to forests, climate, species, and communities. And it will not mitigate risks to your business. These are industry-wide issues. Thus, there is a need for industry-wide solutions.

Recent commitments by leading producers, traders, and palm oil users are an important step toward sustainability. But these commitments rely on successful implementation based on clear and practicable action plans.

It can start today with buying certified sustainable palm oil (CSPO). The more sustainable palm oil purchased by the market, the greater the production and supply chain efficiencies, the lower the costs of sustainable sourcing for users, and the stronger the market signal sent to producers that sustainability matters.

These existing market initiatives, such as the RSPO, can be leveraged with the addition of advanced commitments that exceed RSPO standards to provide a basis for engagement and incentivize continuous improvement on the part of producers.
THE ROUNDTABLE ON SUSTAINABLE PALM OIL (RSPO)
WHAT IS THE ROUNDTABLE ON SUSTAINABLE PALM OIL (RSPO)?

The RSPO is an international, multi-stakeholder forum that aims to transform the global palm oil sector to make sustainability the industry norm.

With more than 2,000 members in 70+ countries, the RSPO represents the entire palm oil supply chain – small growers and large-scale plantation companies, processors and traders, consumer goods manufacturers, retailers, even investors and social and environmental NGOs. This broad participation is essential to achieving its stated vision.

Since certification began in 2008, RSPO has demonstrated remarkable success both in certifying the production of sustainable palm oil and in securing time-bound commitments from leading companies to produce, supply, and/or source certified sustainable palm oil (CSPO).

Major financial institutions, including the International Finance Corporation and Equator Principle Financial Institutions, have also incorporated requirements for RSPO certification into lending policies.

The RSPO’s vision is to transform markets to make sustainable palm oil the norm. Its primary tool for implementation is its certification mechanism, which is the leading certification scheme for sustainable palm oil.

To date, the RSPO has certified:

- 12.6 million metric tons of palm oil
- 2.6 million hectares – an area the size of Massachusetts
- 20% of total global palm oil production

Source: RSPO, IFC
WHAT IS THE ROUNDTABLE ON SUSTAINABLE PALM OIL (RSPO)?

To ensure palm oil is both sustainably produced and transparently traded, the RSPO established certification systems for different stakeholders of the palm oil supply chain.

RSPO certification is based on the RSPO Principles & Criteria (P&Cs), which were last revised in 2013 – see the latest version [here](#).

Producers – the growers and millers – are certified based on their application of RSPO’s eight principles and their associated criteria. Certain criteria may be adapted to local conditions through the development of a National Interpretation that reflects local laws, regulations, and best practices.

The trade of sustainable palm oil – from the mill to the retailer – is tracked and certified through RSPO’s Supply Chain Certification System. To facilitate uptake of certified sustainable palm oil (CSPO), the RSPO established four supply chain certification systems – Identity Preserved, Segregated, Mass Balance, and Book & Claim (also referred to as “Certificates”).
HOW DO RSPO PROCESSES PROMOTE CONTINUOUS IMPROVEMENT?

The RSPO Principles & Criteria (P&Cs) explicitly call for a demonstrated commitment to continuous improvement.

RSPO has also established processes and institutional infrastructure to support continuous improvement and innovation within RSPO standards.

ANNUAL COMMUNICATION OF PROGRESS (ACOP)
RSPO members are required to submit annual reports detailing their time-bound plans and interim milestones, as well as progress to date toward achieving those goals. ACOPs provide a public record of member commitments and allow for regular and transparent progress reporting.

ISSUE-SPECIFIC WORKING GROUPS
RSPO has established working groups dedicated to addressing specific, complex industry issues, such as Smallholders, Emissions Reductions and HCV & Biodiversity Working Groups, among others. These working groups allow for ongoing dialogue aimed at innovation and can help to inform the RSPO P&Cs.

REGULAR REVIEW OF PRINCIPLES & CRITERIA
RSPO reviews and updates the basis for its sustainability certification mechanism – the P&Cs – every five years. The P&C review is based on multi-stakeholder dialogue and negotiation and provides a process for strengthening sustainability criteria and incorporating innovation into RSPO certification.

SUPPLY CHAIN CERTIFICATION SYSTEMS (SCCS)
RSPO’s SCCS are independently audited and transparent to users on the RSPO website. Under mass balance, segregated, and identity preserved SCCS, the movement of palm oil along the supply chain is tracked and monitored by eTrace to assure palm oil is produced, shipped, and received as intended.
SUSTAINABLE PALM OIL INITIATIVES
### WHAT ARE THE HIGH-PROFILE SUSTAINABILITY ISSUES IN TODAY’S PALM OIL MARKET?

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
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<tr>
<td><strong>Deforestation</strong></td>
<td><strong>High Carbon Stock (HCS)</strong>&lt;br&gt;The HCS methodology, as piloted by the HCS Steering Group, identifies forest types appropriate for planting based on a combination of desktop analysis – including measurement of carbon stored per hectare – and field work. A second approach – being defined via the HCS Study – identifies above-/below-ground emissions, as well as socio-economic factors.</td>
</tr>
<tr>
<td><strong>Peatlands</strong></td>
<td><strong>Development or Expansion on Peat Soils</strong>&lt;br&gt;The draining and burning of carbon-rich peat soils can emit up to 30 times more GHGs than forest clearing. Recent commitments by producers and trading companies prohibit new plantings on peat soils, regardless of depth.</td>
</tr>
<tr>
<td><strong>Social Conflict</strong></td>
<td><strong>Land Rights</strong>&lt;br&gt;Effective stakeholder engagement and the recognition of communities’ right to freely give or withhold their free, prior, informed consent (FPIC) are critical to preventing and/or mitigating conflict with communities over land tenure and usage rights. RSPO and the approach piloted by the HCS Steering Group have requirements for FPIC.</td>
</tr>
<tr>
<td><strong>Smallholders</strong></td>
<td><strong>Sustainability &amp; Certification</strong>&lt;br&gt;Certification of small growers is proceeding more slowly than the market at large. Smallholders may require additional technical and financial resources to support productivity improvements, shifts in cultivation practices, and/or record keeping.</td>
</tr>
<tr>
<td><strong>High Conservation Value (HCV)</strong></td>
<td>HCV assessments identify areas of high ecological, social, and cultural value that must be managed to ensure those values are maintained over the long term. HCV assessments and management plans are required for RSPO certification and are included in the HCS Steering Group approach.</td>
</tr>
<tr>
<td><strong>Best Management Practices (BMPs) for Peat</strong></td>
<td>The RSPO has developed guidance on BMPs for the management of existing plantations on peat soils to help mitigate climate impacts. This guidance should be applied to all existing operations on peatlands.</td>
</tr>
<tr>
<td><strong>Labor Issues</strong></td>
<td><strong>Forced, bonded, and child labor are serious issues within the palm oil sector. Companies are urged to ensure policies reflect international conventions, such as the International Labor Organization’s Core Conventions and the UN Guiding Principles on Business &amp; Human Rights.</strong></td>
</tr>
<tr>
<td><strong>Access to Markets</strong></td>
<td>Even those smallholders able to achieve certification or meet sustainable sourcing requirements often face significant challenges in accessing markets. Specific considerations should be made to better integrate smallholders into sustainable supply chains.</td>
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*Indicates requirement under RSPO Principles & Criteria*
WHAT ARE THE KEY PROCESSES TO ENSURE ACCOUNTABILITY IN TODAY’S PALM OIL MARKET?

Traceability. Certification. Transparency. These processes are not independent concepts. Each supports and reinforces the others, and together they provide stakeholders the necessary assurance that your company and suppliers are meeting stated sustainability requirements.

**Traceability**

If you don’t know where your palm oil comes from, you can’t adequately address areas of risk or concern. For this reason, traceability is a key first step toward a more sustainable palm oil industry. However, traceability alone doesn’t equate to socially and environmentally responsible palm oil, it is only a means to improve visibility within the supply chain.

Physical RSPO supply chain options offer a degree of traceability. And many traders and processors are working with service providers to develop individual supply chain mapping programs, which begin by tracking palm oil to the mill, but ultimately aim to trace to the farm or plantation.

Industry initiatives, such as the multi-stakeholder Traceability Working Group, seek to establish a methodology for assessing environmental and social risks around mill locations that will help companies identify risks and prioritize interventions.

**Certification & Verification**

Monitoring progress and having results certified or verified via independent third parties can provide assurance to stakeholders that you’re operating according to stated sustainability standards and commitments.

Both processes assess compliance against specific sustainability criteria and can be useful tools in identifying risk, as well as performance improvement opportunities. Certification goes a step further, also assuring compliance with that sustainability criteria.

RSPO is the leading palm oil certification mechanism. RSPO offers established criteria and provides a list of accredited, third-party auditors that can certify palm oil production and monitor trade through the supply chain.

The Palm Oil Innovation Group (POIG) is currently piloting a third-party verification process for palm oil production based on trial indicators for no deforestation, no development on peat, and no exploitation.

**Transparency**

Regular, public communication of sustainability commitments, progress, and challenges is critical to ensuring accountability – as is transparency in where palm oil is produced, by whom, and according to which standard.

For RSPO members, reporting is required via the Annual Communication of Progress (ACOP), which provides a public record of commitments and documents progress toward achieving CSPO sourcing goals. The disclosure of maps for production areas is also required under the ACOP.

Producer and processor companies are also developing their own transparency and reporting mechanisms. For more information on these initiatives, please see the Appendix section on Major Suppliers to the US Market.
HOW INDUSTRY INITIATIVES ADDRESS SUSTAINABILITY THROUGHOUT THE PALM OIL SUPPLY CHAIN

<table>
<thead>
<tr>
<th>Initiative</th>
<th>RSPO</th>
<th>SPOM</th>
<th>POIG</th>
<th>ISPO</th>
<th>MSPO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td>RSPO’s certification addresses environmental and social issues throughout the supply chain, and its membership is made up of smallholders, producer companies, processors and traders, consumer goods companies, and retailers.</td>
<td>Signatories of the Sustainable Palm Oil Manifesto (SPOM) are mainly producer and trading companies working to address sustainability issues at the production and trader level.</td>
<td>Palm Oil Innovation Group (POIG) includes producers and NGOs piloting criteria for RSPO+.</td>
<td>Indonesian Sustainable Palm Oil (ISPO) is mandatory certification for producers and mills.</td>
<td>Malaysian Sustainable Palm Oil (MSPO) is voluntary certification for producers and mills.</td>
</tr>
<tr>
<td>Processing &amp; Trade</td>
<td></td>
<td></td>
<td>POIG is actively working to engage traders and end users to promote demand for palm oil verified under POIG standards.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>End-Use</td>
<td></td>
<td></td>
<td>End-users are actively participating in advancing SPOM objectives.</td>
<td></td>
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</tr>
</tbody>
</table>

Source: RSPO, SPOM, POIG, ISPO, MSPO
HOW INDUSTRY INITIATIVES ADDRESS SUSTAINABILITY ISSUES

Ensuring Legal Compliance
National initiatives to certify legality of palm oil production can provide an important framework for ensuring palm oil is produced in a manner consistent with national environmental and social regulation. It should be noted that national standards may be compulsory and/or include additional criteria beyond legal compliance.

Providing a Baseline for Sustainability
RSPO certification serves as the current industry standard for sustainable palm oil. RSPO includes legality as a basic requirement and provides a voluntary framework for incorporating fundamental social and environmental criteria above and beyond legal requirements, as well as a mechanism for third-party certification against those criteria.

RSPO’s multi-stakeholder approach and established reporting and grievance mechanisms also provide important accountability assurances. And RSPO provides a basis for establishing sustainability standards that can be applied globally.

Establishing Models for Innovation
The term “RSPO+” refers to commitments that go beyond 100% RSPO certification, building upon the requirements of the RSPO P&Cs to develop, pilot, and verify the necessary policies and practices to address key industry issues – particularly around deforestation, development of peatlands, and free, prior, and informed consent (FPIC).

Multi-stakeholder initiatives (including POIG, SPOM, and the Indonesian Palm Oil Pledge) as well as individual corporate commitments are examples of current mechanisms driving this RSPO+ innovation within the palm oil sector.
SMALLHOLDERS IN THE PALM OIL SUPPLY CHAIN
PALM OIL SMALLHOLDERS

Most sources, including RSPO, define smallholders as growers with a planted area of 50 hectares (just under 125 acres) or less, where the farm provides the majority of income to the family and, in turn, the family provides the majority of labor on the farm. The plantation size and condition of these smallholders varies widely and is often dependent on the land they hold and the structure of their relationship with the mills that buy their fruit.

**Independent Smallholders**

Independent smallholders have freedom to choose how to use their lands, which crops to plant, and how to manage them. They are not contractually bound to any mill or association and thus may be able to pursue higher prices.

However, their market access is not assured and they are on average less productive than supported smallholders. They are self-organized and self-financed, but they may receive extension services from government agencies.

**Associated Smallholders**

Associated smallholders are generally bound to specific mills and sell their fruit to that mill at set prices. This relationship may be formalized in land titles and loan contracts.

Associated smallholders generally receive some degree of support from plantation companies through access to credit or technical assistance. However, on average, their productivity remains lower than that of plantation estates. They are often not free to choose which crop they plant and may be supervised in their planting and crop management techniques by the managers of the mill or estate to which they are linked.
WHAT UNIQUE CHALLENGES DO SMALLHOLDERS FACE?

LAND RIGHTS
Disagreements and uncertainty over land tenure in many oil palm cultivation areas make it difficult for smallholders to establish and/or demonstrate legal ownership over land.

INPUT QUALITY
Smallholders, especially independent smallholders, do not have the same access to high-quality seeds as their plantation counterparts. This results in lower FFB yields, lower oil extraction rates, and thus lower income for growers and their families for the life of those trees.

FOOD SECURITY
Smallholder growers must balance the production of cash crops like oil palm with food security.

FINANCIAL
Small growers may take on sizable loans, often at high interest rates, to finance initial planting. Loan repayments combined with a three-year maturation period for oil palm trees, mean smallholders may not generate income for five to seven years after planting.

CONTRACTS
Given the limited bargaining power of smallholders, coupled with limited experience in price calculations and contract negotiation, associated small growers often face additional risks in meeting contract terms and company requirements.

Source: RSPO, IFC, ZSL
SMALLHOLDERS IN SUSTAINABLE PALM OIL SUPPLY CHAINS

Globally, there are approximately three million smallholders involved in oil palm cultivation.

In Indonesia, smallholders produce up to 33% of the country’s palm oil on 44% of the land under cultivation.

Smallholders play a critical role in the global palm oil supply chain, both in terms of area under cultivation and in the volume of FFB produced. Thus, their involvement in sustainability initiatives is crucial to driving change at origin.

However, challenges persist around the integration of smallholders into sustainable supply chains and initiatives focused on certification and verification have proceeded slowly among smallholders. Small growers often lack the resources and capacity to actively pursue certification and may only be incentivized to do so if the mill they sell to is RSPO-certified.

Even smallholders who’ve been certified may have difficulty accessing physical supply chains and, therefore, must rely on certificates as the primary mechanism for reaching sustainability markets and premiums.

To this end, suppliers need to make special effort to assess the risks and opportunities related to smallholder inclusion within their supply chains as part of ongoing traceability initiatives. These assessments can identify potential areas for intervention and help establish incentives for greater participation in sustainability efforts.

One such incentive that provides benefits to growers and processors alike is yield improvements. Smallholder productivity is on average significantly lower than plantations. In 2008, smallholders in Indonesia averaged yields 35% lower than private plantations and 40% below government plantations.

Some large companies are investing in training programs and support services for smallholders aimed at supporting agricultural best practices and yield improvements. This has the joint benefit of improving livelihood among small growers and increasing the volume of FFB available for processing, while achieving potential conservation benefits by producing more oil on the same amount of land.

These yield improvements, however, do not necessarily equate to conservation as higher incomes may also increase incentives for further expansion. Thus, to ensure higher yields don’t threaten forest areas, proper incentives for conservation must also be put in place. A potential mechanism for this is conservation agreements, under which communities agree to protect forests in return for negotiated benefits, such as technical training and services.
PALM OIL IN THE US MARKET

+ The US palm oil market in context
+ How CSPO uptake can influence sustainable production at origin
+ Key barriers to CSPO uptake in the US
WHAT DOES THE US PALM OIL MARKET LOOK LIKE?

The US is a **refined palm oil market** – meaning nearly all raw palm oil materials are processed and refined in Asia, then exported to the US. Here, refined products may be blended to achieve desired characteristics for specialized ingredients, but little to no fractionation currently takes place in the US.

In 2014, the US consumed 1.7 million metric tons of palm oil – or about 3% of total global consumption. Nearly all of the **direct palm oil usage** in the US occurs within the food sector, with bakery products representing the bulk of that usage.

The US represents a growing market for **Certified Sustainable Palm Oil (CSPO)**. In 2014, CSPO uptake in the US reached 63% of total US palm oil usage – up from just 32% in 2013. While these overall uptake numbers are certainly encouraging, the majority of US CSPO is still being purchased via GreenPalm certificates – despite current availability of physical CSPO. Some leading companies in the US are already sourcing 100% mass balance, and even segregated CSPO is available for simple palm oil products, including refined, bleached, deodorized palm oil, which is simply refined palm oil and the basis for general purpose shortening used in baked goods.

**Palm oil usage in the US:**

- **Total US usage:** 1.7 million metric tons
- 90% of US palm oil is used in food products
- 60% of palm oil used in food goes to bakery
- 63% of US palm oil is RSPO-certified
- 9-15% of CSPO coming into US is Segregated
- **CSPO Uptake**

Source: CI industry research, interviews, SDI Analysis, WWF
HOW DOES CSPO UPTAKE INFLUENCE SUSTAINABLE PRODUCTION AT ORIGIN?

In 2015, approximately 20% of all palm oil – more than 12 million metric tons – is certified sustainable by the RSPO.

Yet despite this progress, only about 50% of certified product is sold on the certified market. Of the remainder, some is sold as biofuels, and the rest is sold as conventional palm oil.

Uptake – or the purchase – of RSPO certified sustainable palm oil (CSPO) can be viewed as a proxy for market interest in sustainability.

As much as half of the palm oil certified as sustainable produced by RSPO is not being sold on the certified market. As a result, producers are becoming frustrated, claiming their efforts are not being recognized and appropriately valued by the market. This has contributed to stalled negotiations around strengthening the sustainability requirements for RSPO certification.

In the US, CSPO uptake stands at approximately 63% – up from just 32% in 2013. While this represents significant progress, there remains a need to move beyond GreenPalm certificates to physical sources of CSPO. In this respect, the US still lags behind European markets in physical uptake, where mass balance and segregated CSPO are more widely used.

Increasing demand for sustainable palm oil in the US will help to incentivize growers to increase CSPO production and pursue continuous improvement opportunities in order to maintain market advantages associated with sustainability.

As sustainable demand grows, higher volumes of CSPO coming into the US will increase efficiencies and bring down costs for sourcing physical CSPO from segregated sources.

Being a relatively small palm oil market, the US provides a learning opportunity for demonstrating a full market conversion to 100% CSPO that is fully traceable and certified by internationally accredited auditors. Because many palm oil markets rely on the same three major palm oil products (refined palm oil, palm stearine, and palm olein), the successful conversion of the US, based on the principles of this Sourcing Guide, could provide a model for converting other major consumer markets to 100% CSPO.

Source: RSPO, WWF
## FOUR KEY BARRIERS CONTRIBUTING TO SLOW UPTAKE IN THE US

<table>
<thead>
<tr>
<th>Barrier</th>
<th>Challenge to Users</th>
<th>Vision for Sourcing Guide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palm oil supply chain</td>
<td>Complexity and fragmentation in the palm oil supply chain present challenges to consumer goods manufacturers and retailers seeking to implement sustainable sourcing commitments.</td>
<td>Better understanding of the supply chain itself will contribute to clearer discussions between palm oil users and their suppliers to advance social and environmental objectives for sustainable palm oil.</td>
</tr>
<tr>
<td>RSPO certification options</td>
<td>There are four different supply chain certification options available through the RSPO, with varying levels of assurance and requirements for each step.</td>
<td>A greater understanding of the palm oil supply chain and of the sustainable sourcing options available through the RSPO will allow users to make more informed CSPO sourcing commitments and develop plans for transitioning from certificates to mass balance to segregated CSPO.</td>
</tr>
<tr>
<td>Costs and premiums</td>
<td>There remains a degree of uncertainty not just around the additional costs associated with sourcing sustainable palm oil, but also around how long those costs are expected to persist.</td>
<td>An analysis of costs and premiums will facilitate conversations between suppliers and users aimed at defining clear transition points toward 100% segregated CSPO products. Conversion to 100% segregated CSPO will contribute to achieving greater efficiency and economies of scale through supply chain tipping points.</td>
</tr>
<tr>
<td>Expectations for sustainability</td>
<td>The influx of messages coming from civil society stakeholders can contribute to greater confusion around what constitutes a credible commitment to sustainable palm oil.</td>
<td>Clear guidance will support users in working with their suppliers to develop a time-bound plan for transitioning their supply chains from current state to physical RSPO+ palm oil.</td>
</tr>
</tbody>
</table>

Source: Industry outreach and analysis
TRANSITIONING THE US MARKET TO 100% PHYSICAL CSPO

+ RSPO supply chain options for sourcing CSPO
+ The RSPO supply chain options and continuous improvement
+ Transitioning markets via sustainability tipping points
+ Achieving sustainability tipping points in the US
## WHAT ARE THE DIFFERENT SOURCING OPTIONS FOR RSPO SUPPLY CHAIN CERTIFICATION?

<table>
<thead>
<tr>
<th>RSPO Option</th>
<th>Description</th>
<th>Product Assurance</th>
<th>Costs &amp; Complexity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Identity Preserved (IP)</strong></td>
<td>Certifed sustainable palm oil (CSPO) from a single, identifiable source is kept separate from conventional palm oil and tracked throughout the supply chain.</td>
<td>IP provides the highest level of assurance – the palm oil contained in your product comes from a certified sustainable source that can be traced to a uniquely identifiable plantation.</td>
<td>IP requires CSPO from an individual source be kept separate from both CSPO and conventional palm oil, making IP logistically difficult and very costly. Thus, IP currently serves only as a niche product.</td>
</tr>
<tr>
<td><strong>Segregated (SG)</strong></td>
<td>CSPO from different, certified sources can be mixed, but must be kept separate from conventional palm oil and tracked throughout the supply chain.</td>
<td>SG sourcing ensures the palm oil contained in your product comes from a certified source. SG palm oil comes from a sustainable source, but may not be traceable to a specific mill or plantation.</td>
<td>SG allows mixing of CSPO from different sources, but requires the maintenance of separate supply lines to ensure CSPO is kept separate from conventional oil throughout the supply chain.</td>
</tr>
<tr>
<td><strong>Mass Balance (MB)</strong></td>
<td>CSPO is mixed with conventional oil. Certified volumes are tracked throughout the supply chain and an equivalent volume may be sold as CSPO to product manufacturers.</td>
<td>MB does not guarantee that your product contains certified sustainable palm oil, but does contribute to building physical volumes of CSPO within your own supply base.</td>
<td>MB allows for mixing of both CSPO and conventional oil, which offers logistical efficiencies that help to keep costs low while building physical volumes within your own supply base.</td>
</tr>
<tr>
<td><strong>Book &amp; Claim (Certificates)</strong></td>
<td>End users (manufacturers and retailers) can purchase certificates directly via GreenPalm, an online trading platform for CSPO. Certified palm oil is not monitored within the supply chain.</td>
<td>Certificates allow users to support the CSPO market, but there is no assurance of CSPO within your own supply chain.</td>
<td>Certificates offer the simplest way for end users to demonstrate demand for sustainable products until physical volumes are available.</td>
</tr>
</tbody>
</table>
RSPO SUPPLY CHAIN CERTIFICATION SYSTEMS: IDENTITY PRESERVED (IP)

**Plantation & Mill:**
Palm oil from a *single plantation* is certified as sustainably produced by the RSPO and kept separate from both conventional palm oil and certified palm oil from other plantations during milling.

**Supply Chain:**
Certified volumes (e.g. 100 tons) from a single plantation are kept separate from both conventional palm oil and certified palm oil from outside sources throughout the entire supply chain – from the mill to transport to the refinery to the end user.
RSPO SUPPLY CHAIN CERTIFICATION SYSTEMS: SEGREGATED (SG)

Plantation & Mill:
Certified palm oil can be collected from *multiple certified plantations* and combined, but must be kept separate from conventional oil throughout the supply chain.

Supply Chain:
The specific volumes collected from multiple certified plantations (e.g. two certified plantations at 100 tons each) are combined, but kept separate from conventional palm oil throughout the entire supply chain – from the mill to transport to the refinery to the end user.
RSPO SUPPLY CHAIN CERTIFICATION SYSTEMS: MASS BALANCE (MB)

Plantation & Mill:
Palm oil can be collected from multiple plantations – both those certified as sustainable by RSPO and conventional plantations. While certified and conventional oil may be combined, the volume of certified palm oil is carefully tracked.

Supply Chain:
Palm oil is collected from multiple plantations, both certified and conventional, and may be combined at any point in the supply chain. Palm oil volumes from certified plantations (e.g. 100 tons) are tracked throughout the supply chain – from the mill to transport to the refinery to the end user. Only the equivalent volume (100 tons) can be sold to users as RSPO mass balance.
RSPO SUPPLY CHAIN CERTIFICATION SYSTEMS: BOOK & CLAIM (CERTIFICATES)

Plantation & Mill:
Palm oil production is certified by RSPO and volumes are entered onto GreenPalm, an online registry and certificate trading platform.

Supply Chain:
Certified palm oil volumes (e.g. 100 tons) are not tracked within specific supply chains, but are instead listed on GreenPalm, an online trading platform which allows end users to purchase certified sustainable palm oil certificates to offset their palm oil usage. This system functions similarly to renewable energy credits or carbon offsets.

Source: RSPO
HOW DO THE RSPO SUPPLY CHAIN OPTIONS SUPPORT CONTINUOUS IMPROVEMENT TO SEGREGATED CSPO?

Companies can use each of the RSPO supply chain options to achieve a 100% certified sustainable supply chain, with a time-bound goal for sourcing segregated CSPO for all palm oil products.

**Segregated**
- offers efficiency opportunities at sufficient volumes and ensures your product contains CSPO.

**Mass Balance**
- provides an efficient way to build physical CSPO volumes within supply chain.

**Book & Claim**
- demonstrates demand for CSPO in the market.
RSPO SUPPLY CHAIN CERTIFICATION AND THE CONVERSION TO 100% CSPO

The graphic illustrates how the RSPO supply chain options are meant to support continuous improvement in sourcing commitments and can contribute to sustainability tipping points at the market level.

In the initial period, the easiest, most accessible sourcing option dominates the market, which helps to build the volume of certified product within the system. In the case of RSPO, GreenPalm certificate trading has allowed users to easily support the sustainable palm oil market as production of CSPO expands.

But as CSPO volumes have become increasingly available, users should begin to move from certificates to physical sources of CSPO – mass balance and segregated.

The mass balance sourcing option offers an efficient method for building CSPO volumes within individual supply chains, which facilitates the eventual conversion to segregated CSPO via the sustainability tipping points.

This transition pathway could be applied at the market level or even at different levels within a supply chain – from tanks, to facilities, to product lines.
USING MASS BALANCE AND SEGREGATED CSPO TO ACHIEVE SUSTAINABILITY TIPPING POINTS

Processors and traders can use the efficiencies built into the mass balance supply chain certification system to build physical volumes of CSPO within their supply chains.

At high enough volumes, there are logistical and efficiency gains to be achieved through conversion to a fully segregated CSPO supply chain. These are referred to as “tipping points” and can be applied to tanks, facilities, even specific products.

Palm oil users can help to incentivize these sustainability tipping points by working with suppliers to develop time-bound plans for transitioning to segregated CSPO via the mass balance sourcing option.

In a segregated supply chain, CSPO and conventional oil must be kept separate, which adds cost and additional logistical challenges.

In a mass balance supply chain, CSPO and conventional palm oil can be mixed to increase efficiencies and bring down costs, while building CSPO volumes in the supply chain. Once volumes reach 50-60%, processors have economic and logistical incentives to flip product lines to 100% CSPO.
HOW CAN SUSTAINABILITY TIPPING POINTS BE ACHIEVED IN THE US?

The US is a refined palm oil market – meaning that nearly all of its palm oil products are imported from Asia already refined, processed, and/or fractionated.

REFINING

Refined, Bleached, Deodorized Palm Oil (RBDPO or Refined Palm Oil)

FIRST FRACTIONATION

80% Liquid Palm Olein

20% Solid Palm Stearine

SECOND FRACTIONATION

50% Double-Fraction Olein

50% Palm Mid-Fraction

60% Palm Mid-Stearine

40% Double-Fraction Stearine

This figure illustrates some of the major palm oil products and fractions produced from crude palm oil. At each processing point, the product and supply chain complexities associated with sustainable sourcing increase.

Additionally, because there is little to no refining done in the US, broad market-level tipping points reach well into Asia and will likely be difficult to achieve without significantly higher volumes.

Yet there remain short-term opportunities to significantly increase CSPO uptake by applying the tipping point approach to specific product lines, beginning with the simplest and progressing from there.

In the US, and in many other consumer markets, the simplest products are also the most widely used – refined palm oil, palm olein and palm stearine.

This means that if sustainability tipping points can be achieved for just three product lines, there is a real opportunity to transition up to 60% of US palm oil to segregated CSPO in the next three years.
By addressing one product at a time, beginning with refined palm oil, then progressing to the first fractions palm stearine and olein, there is potential to convert an estimated 60% of the US market to segregated CSPO.

US processors and suppliers import and/or blend refined palm oil products to create specialized ingredients, the majority of which are a combination of just three products – refined palm oil, palm stearine, and palm olein.

**Refined Palm Oil**
Refined palm oil represents approximately 40-45% of the US market. It is often used as a general purpose shortening in bakery products and is the simplest palm oil product. Therefore, it is the easiest to convert. In fact, 9-15% of refined palm oil being brought into the US today is segregated CSPO.

**Palm Stearine & Palm Olein**
Palm stearine and olein, together represent an additional 40% of the US market. They are initial palm fractions often used in blending. Given lower volumes, achieving tipping points may require a bit more time. Physical CSPO volumes for these products should be built through the mass balance sourcing option.

**Complex Fractions & Derivatives**
Fractions, including oleochemicals and derivatives, represent about 15% of the US market and are often used in personal care products. There are many different fractions used in much smaller volumes, making them more difficult to convert. As such, they may require longer reliance on mass balance and/or certificates.
TAKING ACTION: APPLYING THE SOURCING GUIDE TO YOUR BUSINESS

+ Step 1: Understanding your palm oil footprint and supply chain
+ Step 2: Understanding sustainability issues
+ Step 3: Understanding costs and premiums
+ Step 4: Developing your action plan
STEP 1: UNDERSTANDING YOUR PALM OIL FOOTPRINT AND SUPPLY CHAIN
HOW IS PALM OIL PRODUCED? AND WHAT DOES THE SUPPLY CHAIN LOOK LIKE?

1. Oil palm is grown by both smallholders and on large plantations. Trees begin bearing fruit after three years and have a productive life of up to 25 years. Trees produce continuously and fruit bunches are harvested every few weeks.

2. Fresh fruit bunches (FFBs) are then taken to a mill, where the oil is extracted with pressure and steam from both the fruit itself (which yields crude palm oil, or CPO) and the kernel or seed (which yields palm kernel oil, or PKO).

3. From the mill, the extracted oil is taken to refineries to be refined and/or processed into primary palm oil fractions, such as palm stearine and olein.

4. The refined oil and fractions are then transported to downstream ingredient manufacturers who may sell as is or process it further into more complex fractions and derivatives for use by consumer goods manufacturers. The end products containing palm oil and/or palm oil fractions are then sold by retailers to consumers.

Source: RSPO
BUT IT’S NOT ALWAYS THAT SIMPLE.

In reality, the palm oil supply chain can be quite complex.

Palm oil can follow many paths, flowing through many different facilities, on its way from the plantation to the global market.
HOW DO I KNOW WHICH PRODUCTS CONTAIN PALM OIL?

About 60% of the palm oil consumed globally is in the form of derivatives. This can make it difficult to tell whether or not a specific product contains palm oil – for example, in some cases, palm oil may be listed simply as “vegetable oil” on a product’s ingredient list.

So how can you tell which products use palm oil?

Ask your suppliers.

Many manufacturers and retailers looking to understand their palm oil footprint begin with an analysis of the products in their supply chain to determine which ones are likely to use palm oil.

In some cases, they may begin by looking at product ingredient lists and comparing with common palm oil ingredient names (see next page) to determine which products might contain palm oil.

From there, they can ask their suppliers to complete a short survey to determine if their products do indeed contain palm oil, how much palm oil is used (metric tons), and whether or not they source palm oil according to RSPO’s supply chain certification systems or other sustainability criteria.

These surveys help to establish a baseline and can be repeated to demonstrate progress toward sustainable sourcing commitments.

Sample Survey Questions:

Palm Oil Usage

• Do your products contain one or more palm oil products from the list of palm oil-based ingredients and derivatives? (See following lists)
• Based on this list, which palm oil ingredients and derivatives are contained in your products?

Sustainability

• Have you made a commitment to sourcing Certified Sustainable Palm Oil (CSPO)?
• Have you purchased any CSPO via RSPO (or equivalent)?
• Which CSPO supply chain option did you purchase?
• What percentage of your total palm oil usage was certified sustainable?
WHAT ARE SOME COMMON PALM OIL-BASED INGREDIENTS IN FOOD PRODUCTS?

Palm oil and palm oil-based ingredients may be described singularly or as a blend of several components in product ingredient lists:

- Palm Oil
- RBDPO (Refined, Bleached, Deodorized Palm Oil)
- Palm Mid-Fraction
- Palm Olein
- Palm Stearin
- Partially hydrogenated palm oil
- Palm Kernel Oil (PKO)
- Palm Kernel Olein
- Palm Kernel Stearin
- Hydrogenated Palm Kernel Oil
- Hydrogenated PKO Stearin
- Modified Palm Kernel Oil
- Mono and Diglycerides (source oil undeclared)
### WHAT ARE SOME COMMON PALM OIL-BASED DERIVATIVES AND OLEOCHEMICALS?

- Alcohol Ether Sulfates
- Alcohol Ethoxylates
- Alcohol Sulfates
- Alkylpolyglycoside (APG)
- Alpha-linolenic Acid
- Ascorbic Acid
- Butyl Alcohol
- Capric Acid
- Capric Alcohol
- Capric-caprylic Acid Blend
- Caproic Acid
- Capryl Alcohol
- Caprylic Acid
- Cetyl Alcohol
- Cetyltrimethylammonium Chloride
- Caprylic/Capric Triglyceride
- Citric Acid
- Cocamide MEA
- Cocamide DEA
- Cocamidopropyl Betaine
- Diacylglycerols (DAG)
- Distilled Monoglycerides
- Elaidic Acid
- Elaidyl Alcohol
- Elaidolinoyley Alcohol
- Epichlorohydrin
- 2-Ethyl Hexanol
- Fatty Isethionates (SCI)
- Glutamic Acid
- Glycerine Esters
- Glycerols
- Heptadecyl Alcohol
- Isopropyl Myristate
- Isopropyl Palmitate
- Isostearyl Alcohol
- Lactic Acid
- Lauric Acid
- Lauryl Alcohol
- Laurylamine Oxide
- Laureth-7
- Linoleaidic Acid
- Linolic Acid
- α-Linolenic Acid
- Linoleyl Alcohol
- Methyl Alcohol
- Mono and Diglycerides
- Monoacylglycerols (MAG)
- Myristic Acid
- Myristic Acid Salts
- Myristoleic Acid
- Myristyl Alcohol
- N-butanol
- Octyl Alcohol
- Oleic Acid
- Oleyl Alcohol
- Palmitate
- Palmitic Acid
- Palmitoleic Acid
- Palmitoleyl Alcohol
- Pelargonic Alcohol
- Pentadecyl Alcohol
- Propylene Glycol
- Propylene Glycol Esters
- Quaternary Ammonium Salts
- Ricinoleyl Alcohol
- Sapienic Acid
- Sodium Lauryl Sulfate
- Sodium Laureth Sulfate
- Sodium Palmitate
- Sodium Palm Kernalate
- Sodium Stearate
- Steareth-2
- Stearamidopropyldimethylamine
- Stearic Acid
- Stearyl Alcohol
- Structured Triglycerides (TAG)
- Sugar Esters
- Sulfated or Ethoxylated Alcohols
- Tridecyl Alcohol
- Undecyl Alcohol
- Vaccenic Acid

*Source: RSPO Derivatives Working Group, SDI*
STEP 2: UNDERSTANDING SUSTAINABILITY ISSUES
SOURCING CERTIFIED SUSTAINABLE PALM OIL (CSPO)

RSPO is the leading global mechanism for certifying sustainable palm oil for food and personal care products. As a palm oil user, there are several factors to keep in mind when sourcing CSPO.

RSPO membership does not equal RSPO certification.
RSPO members make up a significant majority of global palm oil production, trade, and use, but just 20% of palm oil is certified.

So it’s important to note that just because a supplier is an RSPO member, it does not necessarily mean they are producing or supplying certified sustainable palm oil.

For palm oil users, this means that it’s not enough to simply source palm oil from an RSPO member. To source physical CSPO, you must require your suppliers to provide documentation that they are supply chain-certified and that they are sourcing palm oil from RSPO-certified producers. Alternatively, you can purchase GreenPalm certificates to source CSPO via the book & claim mechanism.

Product sustainability claims vary by sourcing option.
Because the RSPO supply chain certifications provide varying levels of assurance, the RSPO has developed credible statements for each of the RSPO sourcing options:

For Identity Preserved or Segregated sourcing, you may use the RSPO “Certified” logo and state that the product “contains certified sustainable palm oil.”

For Mass Balance, you may use the RSPO “Mixed” logo and state that the product “contributes to the production of certified sustainable palm oil.”

For Book & Claim, you may use the GreenPalm logo and state that the product “contributes to the production of certified sustainable palm oil.”

All product sustainability claims require CSPO sourcing of at least 95%.

RSPO is the leading certification, not the only one.
While RSPO is certainly the most prevalent standard for certifying palm oil production, there are a number of other credible standards that palm oil users can consider.

This includes the Sustainable Agricultural Network / Rainforest Alliance Certification (SAN/RA), which can be applied across multiple commodities, including palm oil.

For palm oil used as feedstock for bioenergy, the International Sustainability & Carbon Certification (ISCC) and Roundtable on Sustainable Biofuels (RSB) include additional carbon accounting to address greenhouse gas emission requirements under the EU’s Renewable Energy Directive.
# REQUIREMENTS FOR SOURCING PHYSICAL CSPO VIA RSPO SUPPLY CHAIN CERTIFICATION SYSTEMS

<table>
<thead>
<tr>
<th>RSPO Option</th>
<th>Description</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Segregated (SG)</td>
<td>Manufacturers of palm oil products can physically source segregated CSPO for use in their products. Under the SG system, certified palm oil from different, certified sources are kept separate from conventional palm oil and tracked throughout the supply chain.</td>
<td>Company must be an RSPO Member. Sourcing under the SG system requires management systems and documentation to establish chain of custody and ensure that all RSPO-certified sustainable palm oil is stored separately from conventional palm oil throughout the supply chain. Each member of the supply chain – from the mill to the end product manufacturer – must be SCCS certified by an accredited Certification Body (CB) and registered with RSPO’s eTrace system.</td>
</tr>
<tr>
<td>Mass Balance (MB)</td>
<td>Manufacturers of palm oil products can physically source mass balance CSPO for use in their products. Under the MB system, certified palm oil is mixed with conventional oil and certified volumes are tracked throughout the supply chain to ensure only an equivalent volume of certified palm oil is sold to the market.</td>
<td>Company must be an RSPO Member. Sourcing under the MB system requires management systems and documentation to establish chain of custody and carefully track the specific volumes of CSPO as it flows through the supply chain to prevent overselling or double-counting of CSPO. Each member of the supply chain – from the mill to the end product manufacturer – must be SCCS certified by an accredited Certification Body (CB) and registered with RSPO’s eTrace system.</td>
</tr>
</tbody>
</table>

## LINKS & RESOURCES FOR SOURCING PHYSICAL CSPO:

- Become RSPO Member: [www.rspo.org/members/apply](http://www.rspo.org/members/apply)
- About RSPO eTrace System: [www.rspo.org/certification/etrace](http://www.rspo.org/certification/etrace)
- Register with eTrace: [etrace.rspo.org/web/rspo/become-member](http://etrace.rspo.org/web/rspo/become-member)
- RSPO SCCS Accredited Certifying Bodies: [www.accreditation-services.com/archives/standards/rspo](http://www.accreditation-services.com/archives/standards/rspo)
## REQUIREMENTS FOR SOURCING CSPO VIA CERTIFICATES

<table>
<thead>
<tr>
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<th>Requirements</th>
</tr>
</thead>
</table>
| **Book & Claim (Certificates)** | Palm oil users (manufacturers and retailers) can directly purchase CSPO certificates to cover their palm oil usage via GreenPalm, an online trading platform for CSPO volumes. The supply chain is not monitored for the physical presence of certified palm oil. | Company must be GreenPalm members, but are not required to be RSPO members. Companies log on to the online trading platform to bid on CSPO certificates, which typically average between $2-3 per metric ton for CSPO. For the latest pricing information, please see links to GreenPalm Market below.  
GreenPalm certificates are also available for certified sustainable palm kernel oil (CSPKO), which can greatly fluctuate in price. In 2014, prices for CSPKO certificates were among the highest ever, ranging from $40-$80 per metric ton.  
Market transactions via the GreenPalm trading platform are typically anonymous. However, GreenPalm does offer an option for off-market deals, which allow palm oil users to partner with specific certified producers, under mutually agreed upon terms for price and quantity of certificates. A key benefit of off-market deals is that they can provide users with the opportunity to strategically target market support to small growers and farms that may fall outside of physical supply chains. |

### LINKS & RESOURCES FOR SOURCING GREENPALM CERTIFICATES:

- Become a GreenPalm Member: [greenpalm.org/about-greenpalm/join-greenpalm](greenpalm.org/about-greenpalm/join-greenpalm)
- GreenPalm Market: [greenpalm.org/the-market](greenpalm.org/the-market)
- GreenPalm Audits: [greenpalm.org/the-market/green-palm-audits](greenpalm.org/the-market/green-palm-audits)
### WHAT ARE THE OPTIONS AND ASSOCIATED REQUIREMENTS FOR RSPO+?

<table>
<thead>
<tr>
<th><strong>RSPO+</strong></th>
<th><strong>Description</strong></th>
<th><strong>Requirements</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>RSPO</td>
<td>100% RSPO certification is the basis for all RSPO+ commitments.</td>
<td>Companies must set and achieve 100% targets for RSPO as fundamental part of an “RSPO+” strategy. You cannot achieve RSPO+ without achieving 100% RSPO.</td>
</tr>
<tr>
<td>Certification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HCS</td>
<td>HCS assessments identify areas acceptable and unacceptable for planting based on forest type and/or amount of carbon stored per hectare.</td>
<td>As implementation guidance for HCS commitments is refined, producer companies must conduct HCS assessments prior to planting or expanding plantation areas according to a verifiable HCS methodology, as defined by the HCS Steering Group, or equivalent.</td>
</tr>
<tr>
<td>Peatlands</td>
<td>No peatlands are developed for oil palm cultivation, regardless of depth, and BMPs are applied to existing plantations</td>
<td>Producer companies must commit to not develop or expand oil palm cultivation on peat lands, regardless of depth. Producers must also commit to employing BMPs for existing plantations as defined by the RSPO Manuals.</td>
</tr>
<tr>
<td>Social Conflict</td>
<td>The right of community stakeholders to free, prior, informed consent (FPIC) must be respected prior to palm oil development and/or expansion.</td>
<td>FPIC, required by RSPO under Criteria 2.3, recognizes the right of communities to freely give or withhold consent for the development or expansion of plantation area on their lands. Under FPIC, community stakeholders must have access to information in a manner that is understandable (in their native language) before development begins.</td>
</tr>
<tr>
<td>Labor Rights</td>
<td>International standards for worker rights and safety must be upheld.</td>
<td>Principle 6 of the RSPO P&amp;Cs includes requirements for worker rights; a coalition of NGOs has developed Free &amp; Fair Labor Principles.</td>
</tr>
<tr>
<td>Smallholders</td>
<td>Smallholders face unique challenges in achieving certification and in accessing sustainable supply chains and markets.</td>
<td>Producer, processor, and trading companies must establish explicit targets and action plans for incorporating smallholder growers in supply chains. Larger companies should support training and extension services aimed at improving smallholder yields and implementing more sustainable growing practices.</td>
</tr>
</tbody>
</table>

**Source:** RSPO, POIG, HCS Steering Group, Oxfam, Humanity United et al

Sustainable Sourcing Guide for Palm Oil Users May 2015
STEP 3: UNDERSTANDING COSTS AND PREMIUMS
WHAT ARE THE CURRENT COSTS OF CONVENTIONAL PALM OIL COMPARED TO OTHER VEGETABLE OILS?

<table>
<thead>
<tr>
<th>Year</th>
<th>Palm</th>
<th>Soy</th>
<th>Rapeseed</th>
<th>Sunflower</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>$600</td>
<td>$400</td>
<td>$200</td>
<td>$1800</td>
</tr>
<tr>
<td>2011</td>
<td>$800</td>
<td>$200</td>
<td>$200</td>
<td>$1600</td>
</tr>
<tr>
<td>2012</td>
<td>$1000</td>
<td></td>
<td>$200</td>
<td>$1400</td>
</tr>
<tr>
<td>2013</td>
<td>$1200</td>
<td></td>
<td>$200</td>
<td>$1200</td>
</tr>
<tr>
<td>2014</td>
<td>$1400</td>
<td></td>
<td>$200</td>
<td>$1000</td>
</tr>
</tbody>
</table>

Over the past five years, while price fluctuations across major vegetable oils have followed similar trend patterns, palm oil has remained the lowest cost vegetable oil option.
WHAT ARE THE RELATIVE COSTS OF CONVERSION TO SEGREGATED CSPO?

It is often assumed that the costs of switching to 100% segregated CSPO are quite onerous. However, further analysis indicates these costs may not be as high as generally believed.

These estimates may even be overestimates, as all fat contained in these products was assumed to have been 100% palm oil and a premium estimate of $50 per metric ton was applied. Industry interviews and other indications suggest this figure may be lower for simpler products and higher for more complex products, with opportunities for further scale and efficiency over time.

It is also recognized that when applied across major product lines, these seemingly small figures can add up to significant costs. For example, a major sandwich cookie company may need to pay about $1.4 million annually to source 100% segregated.

But looking at it another way, these cost estimates pale in comparison to brand values. A 2014 study conducted by Euromonitor indicated that if just 1% of Kellogg’s customers purchased another brand, it would outweigh the costs associated with sourcing 100% CSPO for all Kellogg’s products.

It should be noted that these figures reflect current estimated costs associated with segregated CSPO. If companies are utilizing mass balance or certificates as part of a phased approach to 100% segregated, short-term costs could be brought down as CSPO volumes are built. Then, in the longer term, as product lines convert to 100% segregated and efficiencies increase, the costs for sourcing segregated could be even lower than those listed above.

<table>
<thead>
<tr>
<th>SAMPLE PRODUCT</th>
<th>Cost per Package</th>
<th>That’s $1 for every…</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sandwich Cookie</td>
<td>$0.0049</td>
<td>204 packages</td>
</tr>
<tr>
<td>Frozen French Fries</td>
<td>$0.0049</td>
<td>204 bags</td>
</tr>
<tr>
<td>Peanut Butter</td>
<td>$0.00045</td>
<td>2,222 jars</td>
</tr>
<tr>
<td>Shampoo</td>
<td>$0.003</td>
<td>333 bottles</td>
</tr>
</tbody>
</table>

Source: SDI/Industry expert analysis, Euromonitor
STEP 4: DEVELOPING YOUR ACTION PLAN
**WHAT SHOULD PALM OIL USERS BE DOING?**

<table>
<thead>
<tr>
<th><strong>BUY 100% CSPO TODAY</strong></th>
<th>Demonstrate strong demand for sustainable palm oil by sourcing 100% CSPO immediately – beginning with physical where available, and using certificates to cover all remaining volumes.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DEFINE ACTION PLAN</strong></td>
<td>Establish clear, time-bound transition plans, with interim targets and milestones, for sourcing 100% traceable, physical RSPO+ palm oil for your own products.</td>
</tr>
<tr>
<td><strong>ENGAGE SUPPLIERS</strong></td>
<td>Work with suppliers to understand their plans and timelines for offering 100% physical RSPO+ palm oil products and for transitioning their supply base – including all owned, managed and investment operations, as well as all third-party trading networks.</td>
</tr>
<tr>
<td><strong>REQUIRE TRANSPARENCY</strong></td>
<td>Provide regular, public communications of progress and performance toward your sustainable sourcing commitments. Establish agreed upon measure and reporting frameworks with your palm oil suppliers.</td>
</tr>
<tr>
<td><strong>SUPPORT INDUSTRY TRANSITION</strong></td>
<td>Become RSPO members and actively participate in initiatives aimed at promoting continuous improvement and transitioning the entire palm oil industry to sustainable sources.</td>
</tr>
</tbody>
</table>
BUY 100% RSPO-CERTIFIED SUSTAINABLE PALM OIL (CSPO) TODAY.

Source 100% CSPO through any of the RSPO supply chain options.

Demonstrate and promote market demand for sustainable palm oil by purchasing CSPO for 100% palm oil volumes immediately. Use physical CSPO (segregated and/or mass balance), where possible, and use GreenPalm certificates (book & claim) to cover any remaining volumes. When using certificates, use them strategically to support smallholders and independent producers who may lack direct access to certified supply chains.

Give preference to RSPO-certified suppliers with clear, time-bound commitments to:

- Certify 100% of production and supply chain to RSPO (or equivalent) standard;
- Halt deforestation and peat land development using verifiable HCS (or equivalent) methodology;
- Respect community and worker rights in accordance with internationally accepted principles on land tenure, labor, and human rights;
- Trace palm oil to its source, providing supply chain visibility to mill, plantation, and eventually FFB.
- Apply commitments globally across all operations, third-party suppliers, trading and investment partners;
- Develop clear transition plans with interim milestones and specific end dates; and
- Provide regular, public updates in addition to RSPO’s Annual Communication of Progress.
DEFINE YOUR CSPO CONVERSION ROAD MAP & TIMELINES FOR PALM OIL PRODUCTS

**DEFINE ACTION PLAN**

Establish time-bound transition plans to move to 100% traceable, physical RSPO+ palm oil products.

Establish your own action plan for converting to 100% physical CSPO, with interim milestones and clear end dates for transitioning from certificates to mass balance to 100% segregated CSPO.

Engage suppliers to understand current and expected availability of CSPO by RSPO supply chain option and product type. Express a clear preference for segregated CSPO, even if it’s not yet available, and define clear timelines for sourcing 100% segregated CSPO for the three major palm oil products – refined palm oil, palm olein, and palm stearine. This will demonstrate to your suppliers that demand exists for segregated CSPO products and allow them to incorporate your timelines into their own transition plans.

Consider consolidating your palm oil products and ingredients into less complex formulations. If feasible, fewer variations of basic palm oil ingredients may facilitate the transition to 100% CSPO, and may also bring down costs associated with producing highly specialized products.

In some cases, longer-term reliance on certificates may be appropriate and should be targeted to support smallholders or independent producers. Used in this way, certificates can help build volumes of CSPO at origin – a necessary step to building certified supply and helping to ensure smallholder inclusion within sustainable supply chains.
UNDERSTAND YOUR SUPPLIERS’ PLAN TO TRANSITION
PRODUCT OFFERINGS

Engage your suppliers to better understand their commitments and timelines to offering 100% traceable, physical RSPO+ palm oil to the market.

Explain your goals, targets, and timelines for transitioning palm oil products to 100% segregated CSPO to your suppliers. And work with those suppliers to understand their current product offerings, as well as their plans to offer mass balance and segregated CSPO products, specifically for refined palm oil, palm stearine, and palm olein.

Suppliers can use mass balance to build volumes of CSPO in the supply chain, which will help to achieve logistical efficiencies and keep costs down as they transition to 100% segregated CSPO. However, it is important to establish a clear end date for this transition period and to understand suppliers’ interim milestones for achieving segregated CSPO targets in order to assess supplier progress and performance.

Ask your suppliers about their implementation plans and timelines for transitioning their product offerings to 100% physical RSPO+ palm oil – or more specifically, traceable and physical CSPO, with specific considerations for no deforestation, no development or expansion on peatlands, respect for community and worker rights, and the inclusion of smallholders.
UNDERSTAND YOUR SUPPLIERS’ PLAN TO TRANSITION SUPPLIER NETWORK

Engage your suppliers to better understand their commitments and timelines to transition their third-party and trading networks to 100% traceable, physical RSPO+ palm oil.

Ask your suppliers about their timelines for transitioning their supplier networks, including third-party suppliers and trading and investment partners, to RSPO+ palm oil. Ask about their plans to establish traceability within their third-party and trading networks. It’s also critical to understand how they plan to use traceability initiatives to establish priority regions for further investment in dedicated improvement plans.

Ask your suppliers about their plans for engaging their suppliers in a process of continuous improvement to progress from conventional production, to systems such as the Indonesia and Malaysia Sustainable Palm Oil (ISPO & MSPO) Standards, to RSPO and RSPO+.

Ask your suppliers about their plans and processes for addressing instances of non-compliance in their supply chain. A clear policy and process for this is critical as it sets expectations, as well as terms and conditions, for implementation. These terms should outline specific timelines and requirements for performance improvement, provide guidance on the development of management and monitoring plans, and establish clear thresholds for the termination of business relationships.
ESTABLISH CLEAR REPORTING FRAMEWORKS WITH YOUR SUPPLIERS

Require your suppliers to regularly and publicly report on progress toward commitments.

In order to accurately and transparently report on your own performance against sustainable sourcing commitments, you will need to work with your suppliers to establish an agreed-upon reporting framework, that includes guidance on the frequency of reporting and minimum data requirements, such as palm oil volumes by product and RSPO supply chain option.

Under the terms of RSPO membership, both you and your suppliers should submit Annual Communications of Progress (ACOP) to provide regular public updates on CSPO uptake as part of total palm oil usage.

Suppliers should provide regular reports on their progress implementing sustainable palm oil commitments beyond RSPO requirements. This will help you to evaluate supplier performance with regard to your sustainable sourcing goals. Suppliers should produce comprehensive reports at least once a year with interim updates on progress. All reports should be made publicly available on their website and include updates on their progress in transitioning third-party suppliers, trading and investment networks.
SUPPORT INDUSTRY SUSTAINABILITY INITIATIVES LIKE THE RSPO

Actively support initiatives aimed at industry-wide transformation, such as the RSPO.

Without an industry-wide transformation to sustainability, the social and environmental threats associated with palm oil will persist, as will the legal, reputational, and investor risks to companies. Therefore, palm oil users should support industry-wide sustainability initiatives, such as the RSPO.

Become an RSPO member and actively participate in RSPO processes to ensure your sustainability interests are fairly and sufficiently addressed. And, as part of your commitment to the RSPO, members should report on palm oil usage – and CSPO uptake – by region to facilitate efforts in markets outside of the US and Europe.

Participate in industry initiatives and events, such as the Consumer Goods Forum and Tropical Forest Alliance 2020, and advocate for aligned positioning on sustainable palm oil that supports your company’s sustainable sourcing commitments.

Large users should invest in innovation and implementation at origin. This will support broader stakeholder efforts to transition productive landscapes toward more sustainable practices, increasing the availability of sustainable palm oil and encouraging greater inclusion of small growers.
APPENDICES

Abbreviations
Glossary of Terms
References & Additional Resources
  Industry Reports, Data Sources, Useful Links & Resources
  Major Suppliers to US Market: Commitments & Progress Reports
  Industry Initiatives
Checklist for Palm Oil Users
Expectations for Palm Oil Processors & Suppliers
Contacts
## ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACOP</td>
<td>Annual Communication of Progress</td>
</tr>
<tr>
<td>BMP</td>
<td>Best Management Practices</td>
</tr>
<tr>
<td>CPO</td>
<td>Crude Palm Oil</td>
</tr>
<tr>
<td>CSPO</td>
<td>Certified Sustainable Palm Oil (to RSPO Principles &amp; Criteria)</td>
</tr>
<tr>
<td>FFBs</td>
<td>Fresh Fruit Bunches</td>
</tr>
<tr>
<td>FPIC</td>
<td>Free, Prior, Informed Consent</td>
</tr>
<tr>
<td>Ha</td>
<td>Hectare</td>
</tr>
<tr>
<td>HCV</td>
<td>High Conservation Value</td>
</tr>
<tr>
<td>HCS</td>
<td>High Carbon Stock</td>
</tr>
<tr>
<td>ISPO</td>
<td>Indonesian Sustainable Palm Oil Standard</td>
</tr>
<tr>
<td>MSPO</td>
<td>Malaysian Sustainable Palm Oil Standard</td>
</tr>
<tr>
<td>P&amp;Cs</td>
<td>Principles &amp; Criteria (of the RSPO)</td>
</tr>
<tr>
<td>PKO</td>
<td>Palm Kernel Oil</td>
</tr>
<tr>
<td>POIG</td>
<td>Palm Oil Innovation Group</td>
</tr>
<tr>
<td>RBDPO</td>
<td>Refined, Bleached, Deodorized Palm Oil</td>
</tr>
<tr>
<td>RSPO</td>
<td>Roundtable on Sustainable Palm Oil</td>
</tr>
<tr>
<td>SCCS</td>
<td>Supply Chain Certification Systems – Identity Preserved (IP), Segregated (SG), Mass Balance (MB), Book &amp; Claim (B&amp;C)</td>
</tr>
<tr>
<td>SPOM</td>
<td>Sustainable Palm Oil Manifesto</td>
</tr>
</tbody>
</table>
## GLOSSARY OF TERMS

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Communication of Progress (ACOP)</td>
<td>RSPO requires its members to submit annual public reports documenting progress toward 100% RSPO-certified sustainable palm oil.</td>
</tr>
<tr>
<td>Crude Palm Oil (CPO)</td>
<td>The unrefined vegetable oil extracted from the mesocarp or pulp of the oil palm fruit.</td>
</tr>
<tr>
<td>Certified Sustainable Palm Oil (CSPO)</td>
<td>For the purposes of this document, CSPO refers to palm oil that has been grown on a plantation managed and certified in accordance with the RSPO Principles &amp; Criteria.</td>
</tr>
<tr>
<td>Free, Prior, Informed Consent (FPIC)</td>
<td>A principle which recognizes a community’s right to freely give or withhold its consent to proposed projects that may affect the lands they customarily own, occupy, or otherwise use. Consent must be “free” or without coercion, “prior” before the commencement of project activities, and “informed” with process and information provided in an understandable and transparent manner.</td>
</tr>
<tr>
<td>Fresh Fruit Bunch (FFB)</td>
<td>Freshly harvested, unprocessed bunches of fruit from the oil palm tree. Each bunch can weigh from 5 to 50 kilograms and can contain up to 1,500 or more individual fruits.</td>
</tr>
<tr>
<td>Hectare (ha)</td>
<td>Unit of measurement equivalent to 10,000 square meters, or approximately 2.5 acres.</td>
</tr>
<tr>
<td>High Conservation Values (HCV)</td>
<td>Biological, ecological, social, or cultural values which are considered outstandingly significant or critically important at the national, regional, or global level. HCV Areas (HCVAs) or HCV Forests (HCVFs) are areas that contain one or more HCVs.</td>
</tr>
<tr>
<td>High Carbon Stock (HCS)</td>
<td>The HCS methodology, as piloted by the HCS Steering Group, identifies forest types appropriate for planting based on a combination of desktop analysis – including measurement of carbon stored per hectare – and field work. A second approach – being defined via the HCS Study – identifies above-/below-ground emissions, as well as socio-economic factors.</td>
</tr>
<tr>
<td>Metric Ton (MT or tonne)</td>
<td>A unit of mass equivalent to 1,000 kilograms, approximately 2,200 pounds.</td>
</tr>
</tbody>
</table>
## GLOSSARY OF TERMS

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palm Kernel Oil (PKO)</td>
<td>Oil extracted from the kernel or seed of the palm fruit, often used to create complex derivatives and oleochemicals.</td>
</tr>
<tr>
<td>Palm Oil Fractions and Derivatives</td>
<td>The most basic form of palm oil processing is the fractionation (or splitting) of palm oil into palm olein and palm stearine. These fractions have a wide range of uses and can be blended or further refined to create derivatives with specialized properties and formulations.</td>
</tr>
<tr>
<td>Peat</td>
<td>Peatlands are carbon-rich wetlands, typically defined by soil with more than 65% organic matter. Peat soils store large amounts of carbon, which is released into the atmosphere when peatlands are cleared, drained, and/or burned for plantation development.</td>
</tr>
<tr>
<td>Physical CSPO</td>
<td>Certified Sustainable Palm Oil (CSPO) sourced via mass balance or segregated supply chain certification system.</td>
</tr>
<tr>
<td>Roundtable on Sustainable Palm Oil (RSPO)</td>
<td>A multi-stakeholder organization made up of members from all levels of the palm oil value chain, including producers, processors and traders, consumer goods manufacturers, retailers, financial institutions, and social and environmental NGOs. Its mission is to advance the production, procurement, and use of sustainable oil palm products through the development, implementation and verification of credible global standards and the engagement of stakeholders along the supply chain.</td>
</tr>
<tr>
<td>RSPO Principles &amp; Criteria (P&amp;Cs)</td>
<td>The criteria, associated indicators, and guidance that growers and millers are evaluated against to achieve RSPO certification. The P&amp;Cs form the basis for RSPO’s certification standard and are reviewed every five years.</td>
</tr>
</tbody>
</table>
## GLOSSARY OF TERMS

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSPO+</td>
<td>Commitments that go beyond 100% RSPO certification, building upon the requirements of the RSPO P&amp;Cs to address key industry issues – particularly around deforestation, development of peatlands, labor issues, and free, prior and informed consent (FPIC). In this report, the term “RSPO+” reflects broader industry efforts to build upon the RSPO P&amp;Cs, as opposed to any one initiative. Examples of RSPO+ initiatives include POIG, RSPO’s Voluntary Addendum, and individual company commitments, among others.</td>
</tr>
<tr>
<td>Smallholders</td>
<td>Farmers growing oil palm on a planted area of less than 50 hectares, where the family provides the majority of labor and the farm provides the principal source of income.</td>
</tr>
<tr>
<td>Traceability</td>
<td>Traceability refers to the degree of visibility into the palm oil supply chain. Improved traceability begins with understanding the various processors, traders, mills, and producers that contribute to your supply chain. Thus, traceability may initially focus more on supplier flows, as opposed to the kinds of product identity issues commonly associated with food safety initiatives.</td>
</tr>
</tbody>
</table>
REFERENCES & ADDITIONAL RESOURCES

Industry Reports, Data Sources, Useful Links & Resources (1 of 3)

Ceres - [www.ceres.org](http://www.ceres.org)

Conservation International (CI) – [www.conservation.org](http://www.conservation.org)
CI Sustainable Palm Oil Program. [www.conservation.org/palmoil](http://www.conservation.org/palmoil).

Daemeter – [www.daemeter.org](http://www.daemeter.org)

Food & Agriculture Policy Research Institute (FAPRI)

Greenpeace – [www.greenpeace.org](http://www.greenpeace.org)

HCS Steering Group – [highcarbonstock.org](http://highcarbonstock.org)
REFERENCES & ADDITIONAL RESOURCES

Industry Reports, Data Sources, Useful Links & Resources (2 of 3)

HCV Resource Network – www.hcvnetwork.org


Oxfam International – www.oxfam.org/en


RSPO – www.rspo.org


REFERENCES & ADDITIONAL RESOURCES

Industry Reports, Data Sources, Useful Links & Resources (3 of 3)

UN Food & Agriculture Organization (FAO) – www.fao.org


World Resources Institute – www.wri.org
   Global Forest Watch Commodities. commodities.globalforestwatch.org/#v=home.

WWF – www.worldwildlife.org
   WWF Palm Oil Program. www.worldwildlife.org/industries/palm-oil.

Zoological Society of London (ZSL) – www.zsl.org
REFERENCES & ADDITIONAL RESOURCES

Major Suppliers to the US Market: Commitments & Progress Reports (1 of 3)

AAK – www.aak.com/
  RSPO Member Profile & ACOP Reports. www.rspo.org/members/35/AAK-AB.

ADM – www.adm.com
  RSPO Member Profile & ACOP Reports. www.rspo.org/members/151/Archer-Daniels-Midland-ADM.

Agropalma – www.agropalma.com.br/eng/
  RSPO Member Profile & ACOP Reports. www.rspo.org/members/1/Agropalma-Group.

Bunge – www.bunge.com/
  RSPO Member Profile & ACOP Reports. www.rspo.org/members/176/bunge.
REFERENCES & ADDITIONAL RESOURCES

**Major Suppliers to the US Market: Commitments & Progress Reports (2 of 3)**


Cargill – [www.cargill.com](http://www.cargill.com)
- RSPO Member Profile & ACOP Reports. [www.rspo.org/members/811/Cargill-Incorporated](http://www.rspo.org/members/811/Cargill-Incorporated)

- RSPO Member Profile & ACOP Reports. [www.rspo.org/members/795/DAABON-Group](http://www.rspo.org/members/795/DAABON-Group)

Fuji Oil Group – [www.fujioilusa.com/](http://www.fujioilusa.com/)
- RSPO Member Profile & ACOP Reports. [www.rspo.org/members/54/Fuji-Oil-Group](http://www.rspo.org/members/54/Fuji-Oil-Group)
Major Suppliers to the US Market: Commitments & Progress Reports (3 of 3)

Golden Agri-Resources (GAR) – http://www.goldenagri.com.sg/

IOI Loders Croklaan – northamerica.croklaan.com
- RSPO Member Profile & ACOP Reports. www.rspo.org/members/62/IOI-Group

Wilmar – www.wilmar-international.com
- RSPO Member Profile & ACOP Reports. www.rspo.org/members/88/Wilmar-International-Ltd.
References & Additional Resources

Industry Initiatives (1 of 1)

Indonesian Palm Oil Pledge.


Malaysian Sustainable Palm Oil (MSPO)


Palm Oil Innovation Group (POIG) – www.poig.org


Sustainable Palm Oil Manifesto (SPOM) – http://carbonstockstudy.com/Home

A CHECKLIST FOR PALM OIL USERS

UNDERSTAND YOUR PALM OIL FOOTPRINT
- Identify products containing palm oil.
- Identify key suppliers for those products.
- Determine data necessary to achieve sustainable palm oil objectives.
- Collect data via supplier surveys, questionnaires, etc.

DEFINE ACTION PLAN FOR SOURCING 100% PHYSICAL RSPO+
- Purchase 100% CSPO for all volumes immediately.
- Review and understand sustainable sourcing options, including RSPO supply chain certification systems.
- Determine conversion timelines for transitioning from conventional to certificates to mass balance to segregated.
- Determine conversion timelines and targets for transitioning to RSPO+ palm oil that is 100% RSPO-certified, traceable, and does not contribute to deforestation, development of peat, or social conflict.

ENGAGE SUPPLIERS
- Engage suppliers to understand current availability of CSPO by supply chain certification system.
- Communicate conversion timeline for transitioning to 100% physical CSPO, as well as to RSPO+ palm oil that is 100% certified and does not contribute to deforestation, development of peat, or social conflict.
- Establish reporting framework that includes report content, format, frequency, and dissemination platform.

SUPPORT INDUSTRY-WIDE SUSTAINABILITY INITIATIVES
- Become a member of RSPO.
- Annually report on CSPO targets and progress via ACOP.
- Actively participate in RSPO processes, including but not limited to P&C review.
- Actively participate in relevant industry working groups.

EXPLORE OPPORTUNITIES FOR SUPPORTING SMALLHOLDERS
- If using certificates, direct your purchases to strategically support small and independent producers.
- Engage suppliers to understand plans for integration of smallholders within sustainable supply chain.
- Consider investments in supporting smallholder sustainability at origin, via investments in smallholder training, jurisdictional approach, conservation agreements.
EXPECTATIONS FOR PALM OIL PROCESSORS & SUPPLIERS

ESTABLISH CLEAR, TIME-BOUND COMMITMENTS TO RSPO+ PALM OIL

- Commit to halting deforestation and peatland development, based on the RSPO P&Cs and HCS (or equivalent) approach.
- Commit to respecting community and worker rights, including recognition of FPIC and international labor standards.
- Ensure RSPO+ commitments apply across all operations, including third-party suppliers, and trading and investment partners (regardless of ownership stake).
- Develop transition plans with interim milestones and clear end date.
- Provide regular, public updates on progress and performance.

ESTABLISH ACTION PLAN FOR OFFERING 100% PHYSICAL RSPO+ PALM OIL PRODUCTS

- Clarify the availability of CSPO by product type and RSPO supply chain certification option.
- Establish timelines and targets for transitioning from mass balance to segregated CSPO with clear end date.

ESTABLISH ACTION PLAN FOR IMPLEMENTING RSPO+ COMMITMENTS ACROSS ENTIRE SUPPLY BASE

- Develop action plan for implementing RSPO+ commitments across owned operations, as well as those of third-party suppliers, and trading and investment partners, that:
  - **ESTABLISHES TIMELINES** – Action plans should be time-bound, with clear end dates for implementation.
  - **ESTABLISHES TRACEABILITY** – Traceability is an important first step toward sustainability, not an endpoint.
  - **PRIORITIZES INTERVENTIONS** – Identify priority regions for targeted interventions and/or investments based on social/environmental risk, sourcing volume, opportunity, etc.
  - **SUPPORTS PERFORMANCE IMPROVEMENT** – Greater traceability and transparency will almost certainly uncover bad actors within your supply chain, thus companies must establish clear policies and practices for dealing with cases of non-compliance. These processes should first target performance improvement, using probationary periods, improvement plans, and monitoring and verification to help bring suppliers into compliance with policies and practices. However, should these options fail, the policy should also include clear thresholds for terminating business relationships.
- Establish full transparency around implementation, including regular, public updates of progress and performance.

SUPPORT INDUSTRY-WIDE TRANSITION

- Become a member of RSPO and annually report on CSPO targets and progress via ACOP.
- Engage producer country governments, supporting policy reform aimed at more sustainable palm oil production.