

Our Journey Toward Sustainable Oil Palm Products

Palm Progress Report 2017

A photograph of a palm oil plantation. The trees are tall and green, with their fronds hanging down. A person wearing a blue cap and a black shirt is pushing a red wheelbarrow along a dirt path in the distance. The ground is covered in green grass and some fallen palm fronds.

■ BASF

We create chemistry

Key figures

Content



by **2020**


all palm-based oils we purchase will be RSPO-certified and traceable.

What we buy:

- Palm oil
- Palm kernel oil
- Palm and palm kernel oil fractions
- Primary oleoderivatives


In our Palm Progress Report 2017, we describe our approach to sustainable palm as well as recent developments. As one of the leading processors worldwide we wish to provide information about the progress that has been made on our journey toward responsible palm kernel oil. On the following pages you will find information about:

- how we developed our roadmap;
- how we collaborate with our stakeholders along the value chain;
- the progress we have made and how we are driving physical transformation in oleoderivatives;
- what is next on our agenda.



> **800**

BASF raw materials are palm-based




21

BASF RSPO-certified sites globally




~ **785,000** hectares

the average equivalent area required for the palm kernel oil and other palm-based raw materials we use



Pulp: needs to be processed within 24 hours

One sixth of the fruit is the **palm kernels**. These are extremely hard and can be transported and processed separately from the pulp.




~ **515,000**

metric tons represents BASF's oil palm exposure in 2017

Follow these symbols to see the progress toward BASF's Palm Commitment:

 Forest conservation

 Traceability

 Timebound plan

 Physical transformation

 Stakeholder dialog

 Smallholder inclusion

 Progress

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Photo: sustentio

Letter to our stakeholders



Time for Change

BASF has a remarkable footprint in the palm industry – our oil palm exposure exceeds more than half a million metric tons, mostly palm kernel oil and its derivatives. As a proportion of the overall volume of 65 million tons of palm oil and palm kernel oil produced globally in 2016, this seems to be a moderate footprint. However, we are aware of our responsibility and share the concerns for the impact of palm cultivation on tropical forests, valuable peatland, animals and local communities. In 2017, we have therefore put great effort into tracing back our palm kernel oil: we source most of our raw materials from nine provinces - seven in Indonesia and two in Malaysia.

Palm kernel oil is just one tenth of the oil palm production. However, as a producer of ingredients for the Home and Personal Care industry, we mainly use palm kernel oil to manufacture ingredients used for example in detergents and cosmetics. This palm kernel oil is almost irreplaceable, due to its special chemistry. The industry has a double responsibility: we must conserve natural resources while also assuring consumers that they can rely on the sustainability of the products they use.

One of the best ways to ensure trust in the supply chain today is certification: The palm shaped logo of the

Roundtable on Sustainable Palm Oil, the largest international certification body, stands for a sustainable supply chain. Major players throughout the supply chain have set goals for the next few years regarding certification. Relevant NGOs concede that this certification system is currently the best we have.

However, the industry is still not on track with its commitments and timelines, as latest NGO reports show. What is keeping us from approaching these goals faster? We have decided: It is Time for Change.

In 2018, we have initiated a major shift of our specialty portfolio and will exclusively offer palm-based specialty ingredients for the personal care market that are certified as sustainable. It is the first time that a portfolio of this size and complexity is converted globally. This is an important milestone for the cosmetics industry's journey toward sustainable palm – and some of our customers already made the step together with us.

We are determined to achieve sustainable palm, and we are convinced that it is Time for Change.

Xavier Susterac
Senior Vice President
BASF Personal Care Europe

Sustainability at BASF



Photo: BASF

Our Purpose

With the “We create chemistry” strategy, BASF has set itself ambitious goals. We want to contribute to a world that provides a viable future with enhanced quality of life for everyone and have embedded this into our corporate purpose: “We create chemistry for a sustainable future.” We do so by creating chemistry for our customers and society and by making the best use of available resources. To ensure sustainability and thus the interplay between ecological, economic and social issues, an ongoing dialog and cooperation are essential.

We engage intensively with our stakeholders at all levels of the supply chain to understand their needs and help them achieve their targets: suppliers, customers, civil society, associations and employees. As a founding member of the U.N. Global Compact, we support the implementation of the United Nations’ Sustainable Development Goals with our social commitment around the world.

For the palm value chain, this means we work closely with the companies we buy our raw materials from and with our customers. Beyond this, we support small-holders as an important link within the value chain. With the end consumer in view, we address the consequences of using and selling products based on palm and palm kernel oil.

Sustainability Rankings and Ratings

Indices and rankings confirm our excellent performance concerning environmental, social and governance issues. Since 2014, BASF has participated in the CDP’s program for reporting on data relevant to climate protection. The company again achieved a score of A- in 2017, awarding it “Leadership” status. BASF has also reported on water management to CDP since 2010 and was again included in the CDP Water A List in 2017. BASF continued to be included in the MSCI ESG ratings in 2017, with a score of AA. MSCI made a special mention of BASF’s leading environmental protection programs.

Sustainalytics represents, similar to MSCI, one of the ESG ratings with the highest reputation among investors. BASF has participated in Sustainalytics since 2009 and scored well on the overall ESG rating – finishing as the leader in the Governance category.

BASF also received the highest score in the chemical industry in the ESG rating and was included in the **FTSE-4Good Global Index** again.

basf.com/sustainabilityindices

Responsible Partnering



Ranking and Rating



The palm dilemma



A raw material in high demand

Palm oil is used everywhere: Whether we buy food, use cosmetics or shampoo our hair – more than half of the products on supermarket shelves contain oil palm ingredients. The global production has been rising from approximately four million metric tons in the late 70s to more than 71 million in 2015/2016 and is expected to rise further in the coming decades.

Between 1990 and 2010, approximately 3.5 million hectares of forest in Indonesia, Malaysia, and Papua New Guinea was converted for oil palm plantations, according to publications by an international team of scientists. (1)

This increasing demand has turned success into a dilemma for the whole industry. Irreplaceable rain forests and peatlands, mainly in Indonesia, one of the key producing countries, have been and still are being destroyed to make way for new palm plantations. As a result, forest fires increasingly destroy the habitat of animals; the loss of biodiversity is accelerating; haze and pollution contaminate the lives of people in the region.

At the same time, all stakeholders unanimously acknowledge that oil palms are irreplaceable, because it is the most efficient crop among the vegetable oils. As a major manufacturer of palm-based ingredients using mainly palm kernel oil and its derivatives, we embarked on our journey to source and process palm-based raw materials responsibly. We pursue the key question: How can we turn the palm business into a responsible undertaking with sustainable growth?

Population growth continues to drive palm demand

Growth limit: 95 percent of existing palm oil plantations are located in a latitude range of 10° north and south the equator. Although productivity is growing, growth rates may fall: Scientists forecast that the climate may become unsuitable for growing oil palm in many tropical regions, especially after 2050.

2050

Growth estimates

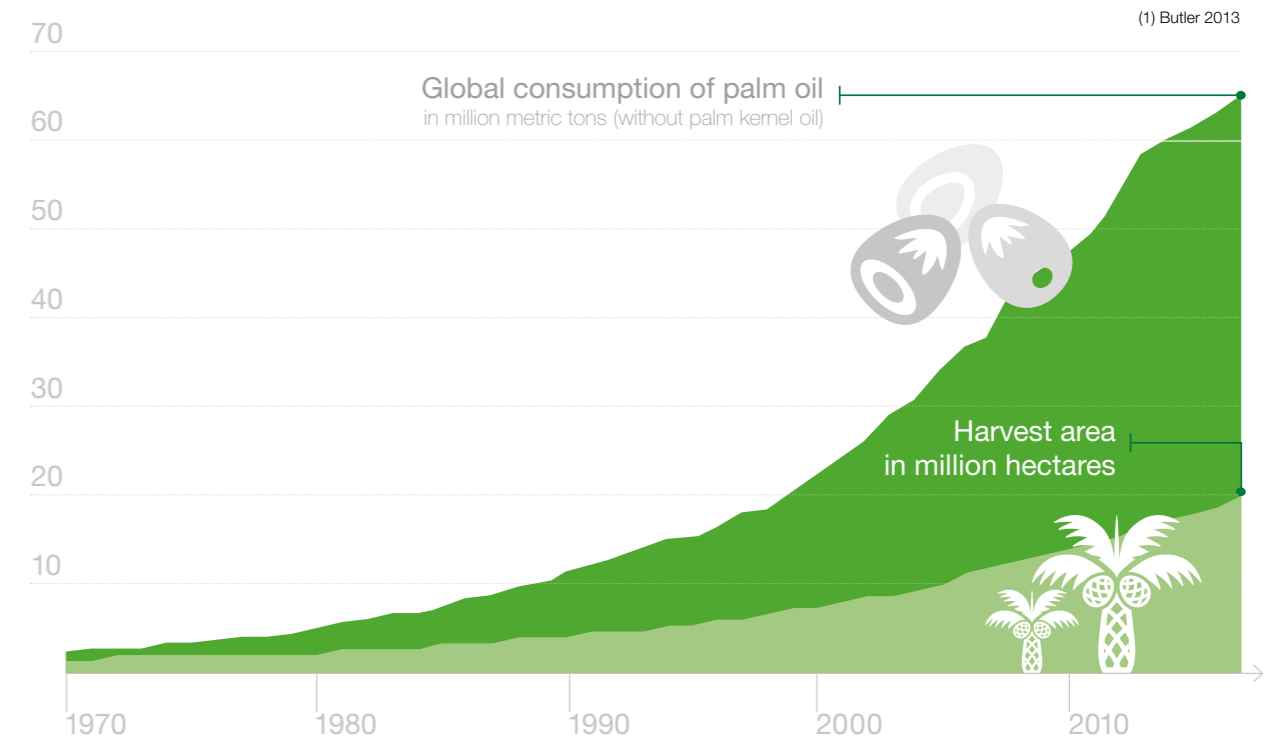
Global population: over 9 billion

Required increase in food production: 70 percent more than in 2005.

Demand for palm oil: By 2050, up to 450 million metric tons may be needed worldwide. Indonesia could cover roughly half of the demand.



Photo: susientio



(1) Butler 2013

Sources: United States Department of Agriculture; BASF estimates; RSPO impact report 2016; USDA 2011; Afriyanti et al., 2016; Paterson et al., 2017; FAO, 2009; Corley, 2009; Oil World Global Research and Analysis

Graphic: gettyimages, ASCS



New industry standard for forest conservation



Big companies have woken up to the environmental costs of the palm industry. These are nowhere more evident than in Indonesia. The question remains, is the industry doing enough?

Bagus Kusuma
Greenpeace Indonesia

Photo: Shutterstock

The High Carbon Stock Approach

Global consumption of palm oil and palm kernel oil has grown rapidly from about 4 million metric tons in the late 1970s to over 70 million tons in recent years. Major changes in consumer behavior, population growth and energy politics have been the key drivers. It is estimated that four million people work in the oil-palm sector in Malaysia and Indonesia.

Why demand for palm oil causes a dilemma

Increasing demand intensifies deforestation. In Borneo, for example, 7 million hectares of industrial palm plantations are located in areas that were covered by primary forests just 45 years ago. Tropical natural forests and peatland are critical for millions of indigenous and local peoples who depend on them for their livelihoods, as well as for food, medicine - and for their home. When these forests and peat are cleared for palm cultivation or other agricultural purposes like rubber cultivation, huge stocks of carbon are released, biodiversity is lost, and livelihoods are destroyed forever.

How the palm industry can achieve a turnaround

At BASF, we are highly committed to further reducing the impact of palm oil plantations on the environment. We collaborate closely with our suppliers to significantly improve the sustainable supply of certified palm oil, palm kernel oil and its primary derivatives. In our palm commitment we emphasize additional forest conservation requirements as defined by the High Carbon Stock Approach. We strive to fulfil our Palm Sourcing Policy based on our Supplier Code of Conduct. To underline this commitment, we joined the **High Carbon Stock (HCS) Steering Group** in 2016.

A new understanding of forests

The High Carbon Stock Approach distinguishes forest areas that must be protected from forest areas that are suitable for development. It was designed as a widely

acceptable approach that combines the commitment to stopping deforestation with transparent, scientifically credible and practical aspects, as well as ensuring the rights and livelihoods of local people, and balancing conservation requirements and development. The approach represents the first practical methodology that has been developed in active concessions in Asia and Africa with input from a variety of stakeholders. The methodology respects local community rights through its integration of enhanced Free Prior and Informed Consent (FPIC) procedures, and respects community land-use and livelihoods. It is an industry standard tool that plantation companies can use for new developments while ensuring that forests are protected.

Why BASF decided to implement the HCS Approach

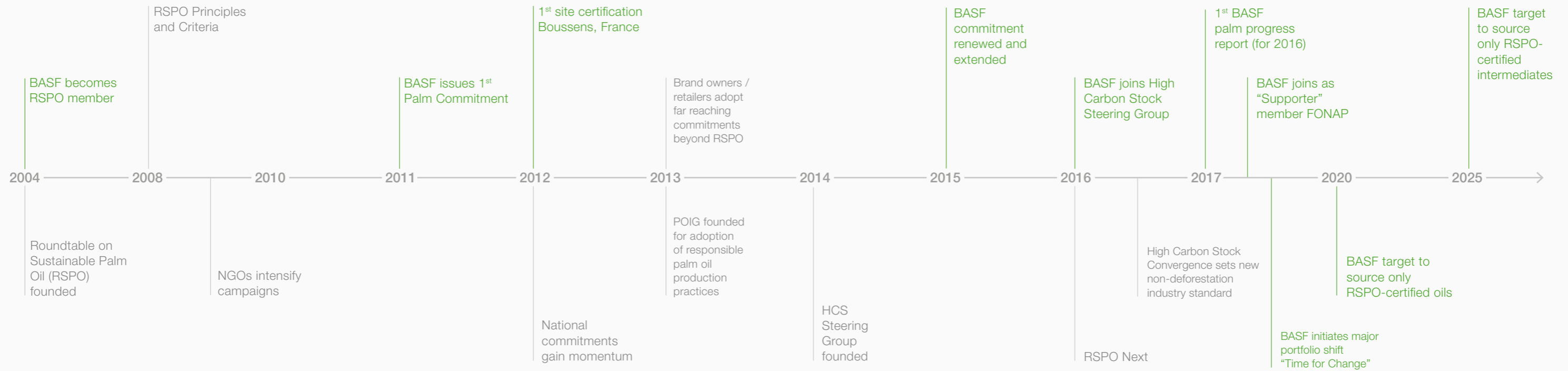
HCSA members include plantation companies, commodity users as well as NGOs and Technical Support Organizations. We at BASF appreciate and support the High Carbon Stock Approach as it represents a breakthrough for all stakeholders. BASF made progress by implementing the Palm Sourcing Policy, which includes the protection of forest and peatland and support for smallholder farmers.

More information: highcarbonstock.org

1) Gaveau, D.L.A., Sheil, D., Husnayaen, Salim, M.A., Arjasakusuma, S., Ancrenaz, M., Pacheco, P., Meijaard, E., 2016. Rapid conversions and avoided deforestation: examining four decades of industrial plantation expansion in Borneo. *Scientific Reports* 6: <https://doi.org/10.1038/srep32017>
2) Rosoman, G., Opal, C., Anderson, P., Sheun, S.S., Trapshah, R., 2017. The HCS Approach Toolkit: Putting No Deforestation into Practice. (No. Module 2), The HCS Approach Toolkit. HCS Approach Steering Group.



Timeline



BASF's Palm Commitment

BASF supports initiatives to reflect integrated land use planning for oil palm development including the conservation of high carbon stock and peatlands. We have integrated additional forest conservation requirements regarding these land types into our BASF Palm Sourcing

Policy (as defined by the High Carbon Stock Approach). Additionally, we have incorporated requirements for a Free, Prior Informed Consent (FPIC) process as well as labor and human rights into our Palm Sourcing Policy.

Building palm expertise

We have built an expert team to engage with stakeholders and implement our Palm Commitment. In 2014, the BASF team started targeting a social and economic license to operate our business linked to palm.

Supported by the consulting agency Futureye, the goal was to address the concerns of all relevant stakeholders. The discussion led to a more comprehensive and shared understanding of the issues from across the whole supply chain, including suppliers, consumer goods manufacturers, retailers, non-governmental organizations and industry associations.

The BASF Palm Commitment was first published in 2011 and extended in 2015. Key elements include stating the dilemma related to oil palm plantation development, acknowledging our palm footprint equivalent to an average of 785,000 hectares, developing a vision for how to make sustainable palm the norm for the industry, and evaluating our progress. Today, our experts continue to engage with numerous stakeholders along the value chain, including our internal stakeholders who serve as important ambassadors for sustainable palm to create transparency and collaborate on solutions.



RSPO certification provides an indicator to guide customers toward palm oil purchases associated with lower recent loss of high tree cover and primary forests, as well as fire incidence. The significant impact of certification on deforestation indicates that higher levels of certification could generate greater forest protection.

Carlson et.al 2018. Effect of oil palm sustainability certification on deforestation and fire in Indonesia. Proceedings of the National Academy of Sciences 115, 121–126.



Photo: sustentio

Participating in platforms

Our contribution to global palm initiatives



We support progress in the palm oil sector by moving the supply chain toward certified products. In this way, we take part in global palm initiatives and in networks with various stakeholders in order to drive change for oleo-derivatives.

BASF became a member of the Roundtable on Sustainable Palm Oil (RSPO) in 2004. Since then, we have actively participated in consultations within the organization, most notably in the subgroup oleochemicals and derivatives under the RSPO working group Trade & Traceability. Oleochemicals based on palm oil and palm kernel oil are in high demand, and so are their downstream derivatives. These materials are highly relevant in consumer product supply chains - and their availability is subject to significant fluctuation. While the RSPO initially

focused on the food supply chain, the subgroup oleochemicals and derivatives has now clarified supply chain issues that are relevant for other industries. This is key to ensuring that there are no barriers in the supply chain in order to maximize offtake and encourage market transformation to certified products.

In order to leverage industry activities to stop deforestation, BASF became a member of the High Carbon Stock (HCS) Steering Group in 2016 and has since integrated the criteria of the HCS Approach into our Palm Sourcing Policy. BASF stepped up its commitment to certified sustainable oil palm products in the German, Austrian and Swiss markets by joining the Forum for Sustainable Palm Oil (FONAP) in 2017 as a manufacturer of oleo derivatives (category "Supporter").

Strategic dialog with our suppliers and BASF's Palm Sourcing Policy

We connect stakeholder interests in the supply chain and mediate between upstream and downstream players within the value chain. This means we have to understand the demand of the consumer goods manufacturers and be able to translate it to our suppliers. For this reason, one of the central elements of our 2015 commitment is to engage in strategic dialog about the complexities and value specifics of palm kernel oil supply chains – and to foster collaboration for sustainability. In 2016, we launched our BASF Palm Sourcing Policy to achieve progress toward responsible palm. (Appendix III)

The Palm Sourcing Policy specifies key elements of our palm-related sourcing and is based on the BASF Supplier Code of Conduct. It also draws on feedback from an intensive stakeholder consultation process, for which we interviewed numerous external and internal stakeholders. The BASF Palm Sourcing Policy extends the Supplier Code of Conduct to include palm-specific criteria.

We also apply the Palm Sourcing Policy during strategic dialog with key suppliers. This strategic dialog aims to foster a mutual understanding of how we can work together to drive progress toward responsible palm.



Advocating for smallholder farmers



Sharing knowledge for sustainable palm

More than 900 farmers have already participated in the Farmer Field School program, a joint project from BASF, Henkel and the development organization Solidaridad. Those 900 farmers are now passing their knowledge on to family members and other farmers from their community – multiplying the impact.

The program works with Keling Kumang, a farming cooperative that unites more than 160,000 smallholder farmers in the region. Smallholder farmers cultivate an estimated 41% of the land in Indonesia that is used to grow oil palm. This means no sustainability policy can be effective without considering smallholders as a crucial part of the value chain. Sustainability certification, such as the RSPO, can be costly and difficult to achieve for smallholders.

The Farmer Field School program provides valuable agronomic and environmental knowledge, which prepares smallholders for certification and has a measurable impact on their livelihood. The courses take place in the field and are often the first farming-related training activities that

the participating smallholders have ever received. The training frequently helps participants to overcome misconceptions and address any incomplete knowledge that may have been passed on to them.

The courses place an equal focus on efficient production, sustainable farming methods and occupational health and safety standards. Farmers are taught how to make better use of their land without opening up new plantations. They learn about the role that forests and peatlands play for wildlife, indigenous people and the environment, and about the entire palm oil supply chain. Participants see their yields increase and spend less on agricultural inputs – a win-win for the farmers and the environment.

For more information:

- RSPO Smallholder Engagement Platform www.rsep.rspo.org
- Henkel, BASF and Solidaridad support around 5,500 smallholders in Indonesia on.basf.com/2qnr7bG



40% of the world's palm oil is produced by smallholder farmers



Advocating for smallholder farmers



Rising from poverty

Suwarni – or Mama Olá, as she is known by everyone in her village in West-Kalimantan – is busy setting up her new home. Together with her husband and their three children, she has moved into a newly-built house made from solid concrete. It stands next to the corrugated iron hut that they used to call home. Just six years ago, this move would have been unthinkable: Their farm covered less than two hectares, and they were struggling against poverty. Today, they farm six hectares – most of it dedicated to oil palm. The crop supports them well.

At the Farmer Field School, they learned to save on fertilizer and crop protection chemicals. “We used to fertilize every six months. We now fertilize every three to four months – using less fertilizer. We also reduce our impact on the environment by only spraying crop protection products along the harvest lane, instead of across the whole crop.”

Thanks to the Farmer Field School program, they were able to increase their yield and expand their farm. A couple of years ago they barely made 200 US Dollars per month. Their monthly income is now close to 2,000 US Dollars – a tenfold increase.

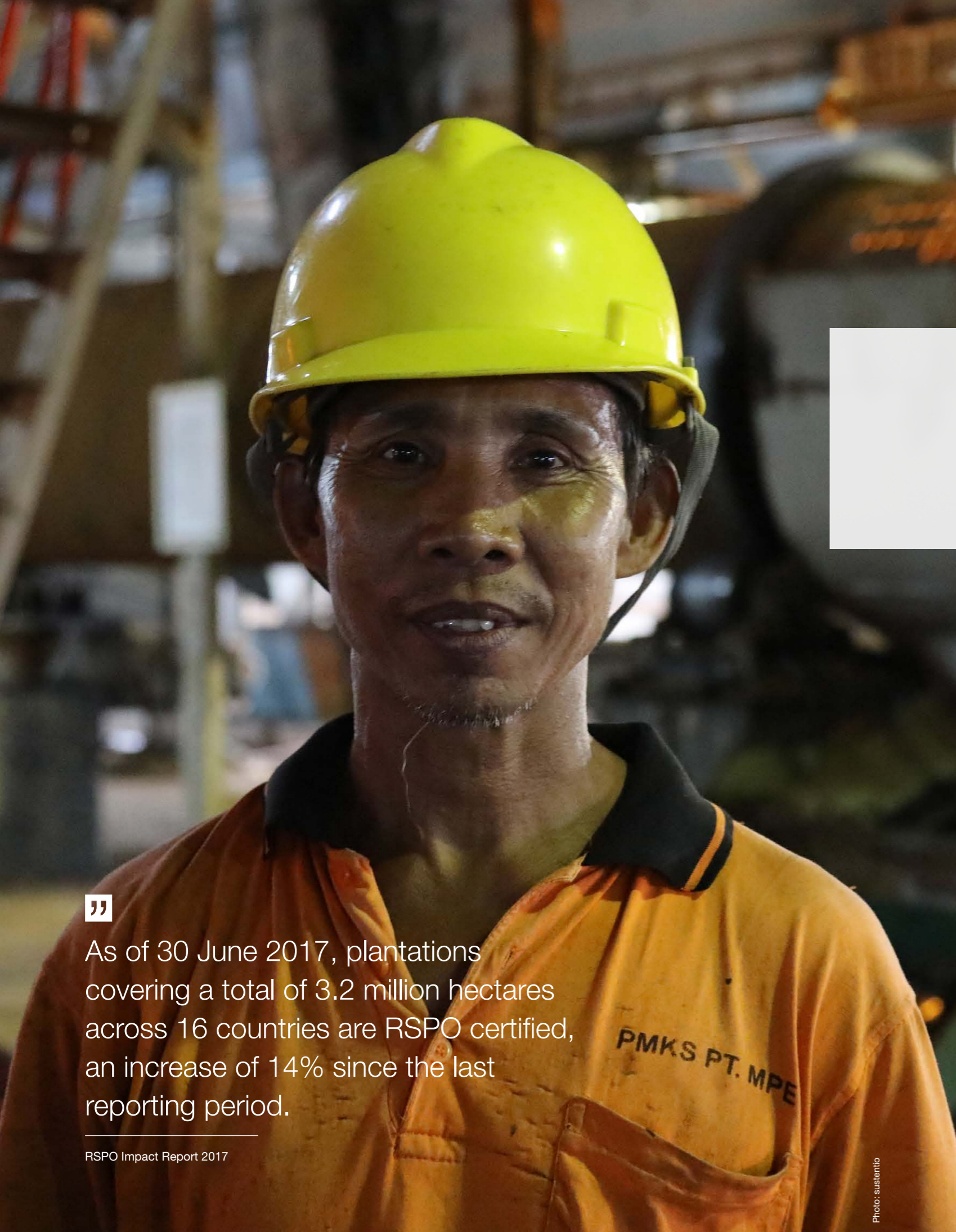
”

I feel proud that I can now provide a good living for me and my family.

Suwarni, smallholder farmer in West Kalimantan, Indonesia

Photo: sustenitio

Raw material market development & availability



”

As of 30 June 2017, plantations covering a total of 3.2 million hectares across 16 countries are RSPO certified, an increase of 14% since the last reporting period.

RSPO Impact Report 2017

Photo: sustentio

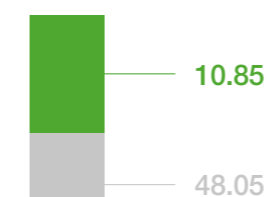
Our sourcing results

In continuation of our commitment made in 2011, BASF's goal is to source only RSPO-certified sustainable palm and palm kernel oil. In the difficult market environment of 2017, we purchased 153,000 metric tons of RSPO-certified palm kernel oil (2016: 158,000 metric tons). Our share of RSPO-certified sustainable palm kernel oil amounted to approximately 51% (2016: 56%).

Production of oil in 2016

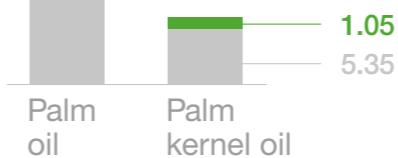
Annual global production:

58.9 million metric tons



Annual global production:

6.4 million metric tons



Availability of certified sustainable palm kernel oil

Many major corporations worldwide have committed themselves to purchasing or producing only sustainable palm oil to eliminate forest loss and social dilemmas from their supply chains. Certification is the tool most used to fulfill these procurement policies. Around 20% of global palm oil production was certified by the Roundtable on Sustainable Palm in 2017.

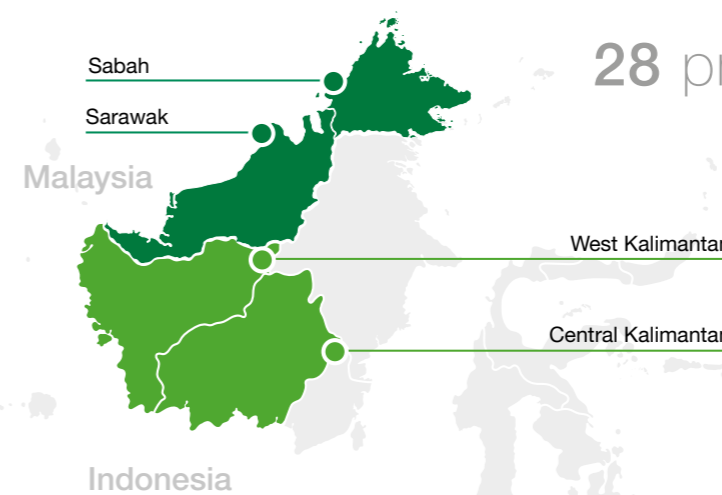
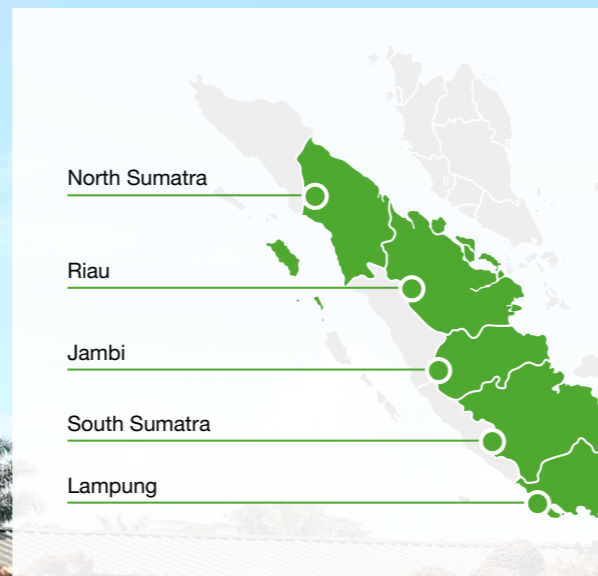
Almost eleven out of 59 million metric tons of palm oil are certified sustainable and predominantly enter the food chain. From 6.4 million metric tons of palm kernel oil, one sixth is certified as sustainable. This means the availability of certified sustainable palm kernel oil is limited.

Source: Oil World, RSPO impact report 2017

● certified sustainable
● non-certified

Traceability

BASF is connected to **28** provinces in **Indonesia** and **Malaysia**



Top 9 provinces we source from



”

The transformation in the market for palm-based oleoderivatives is finally starting to gain momentum – the key factor to achieve responsible sourcing.

Tobias Zobel, Director
Global Procurement Care Chemicals BASF
Personal Care and Nutrition GmbH

Photo: sustenitio

We need both traceability and certification

Traceability

The physical market transformation based on the RSPO certification is an important element on our journey toward sustainable palm. In addition, traceability is the tool which helps companies along the palm oil supply chain to identify the origin of the oil sourced. Knowing the potential mills and their locations make it possible to identify and monitor if sustainable practices are adopted at origin. (1)

In 2017, we were able to achieve traceability for 79% of our global palm footprint of over half a million metric tons. We source most of our raw materials from nine provinces in Indonesia and Malaysia and are connected to 28 provinces in the two countries. Beyond this, we are in the process of conducting risk assessments of our sourcing based on environmental and social criteria.

We have again achieved full traceability for certified sustainable palm kernel oil originating from 204 oil mills (2016: 128). Initially planned for 2020, we have reached this part of our palm commitment ahead of time.

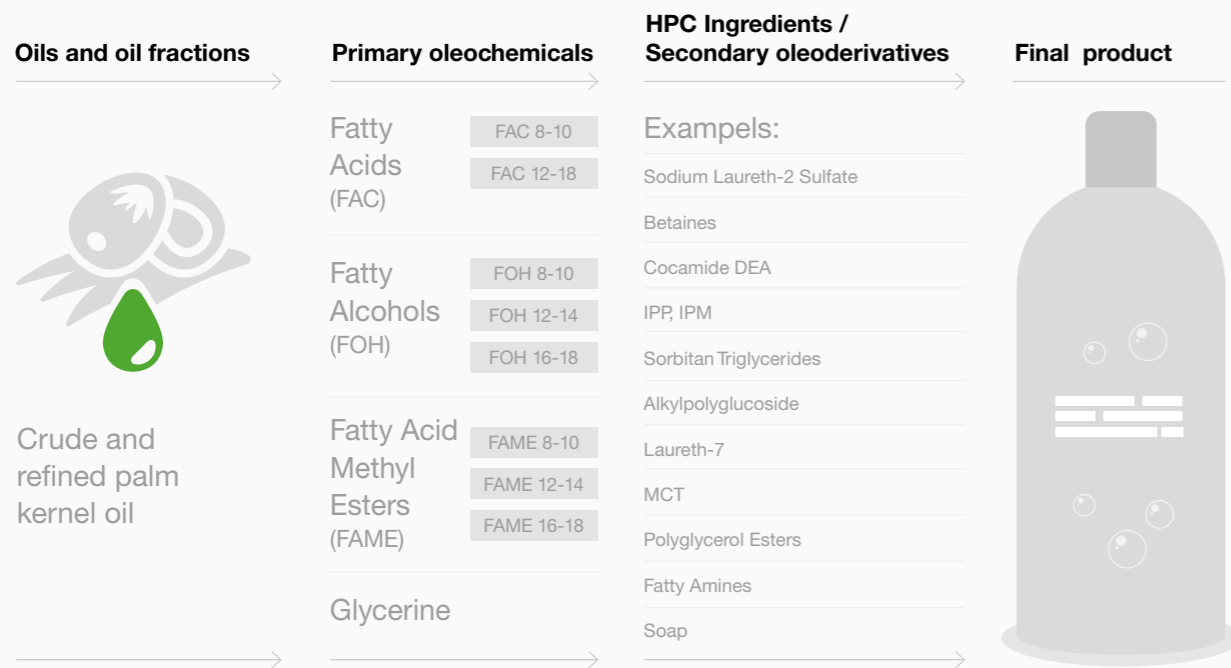
Certification

Identification of the origin of our raw materials is only the first step: We believe that traceability alone is not enough. We are convinced that only a certification scheme and a chain of custody protocol will minimize the complexity of the transformation process and will enable market participants to transparently incentivize farmers. The market transformation toward RSPO-certified sustainable materials also provides the basis for high quality traceability information.

(1) European Palm Oil Alliance (<https://www.palmoilandfood.eu/en/traceability>)

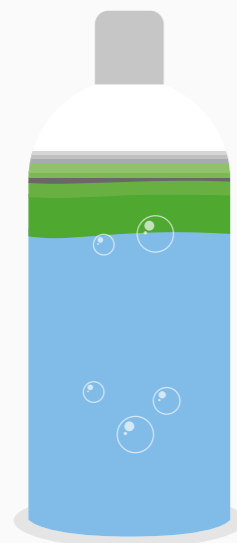
Indispensable raw material

From palm kernel oil to the final product



What's in your shampoo bottle?

Example formulation

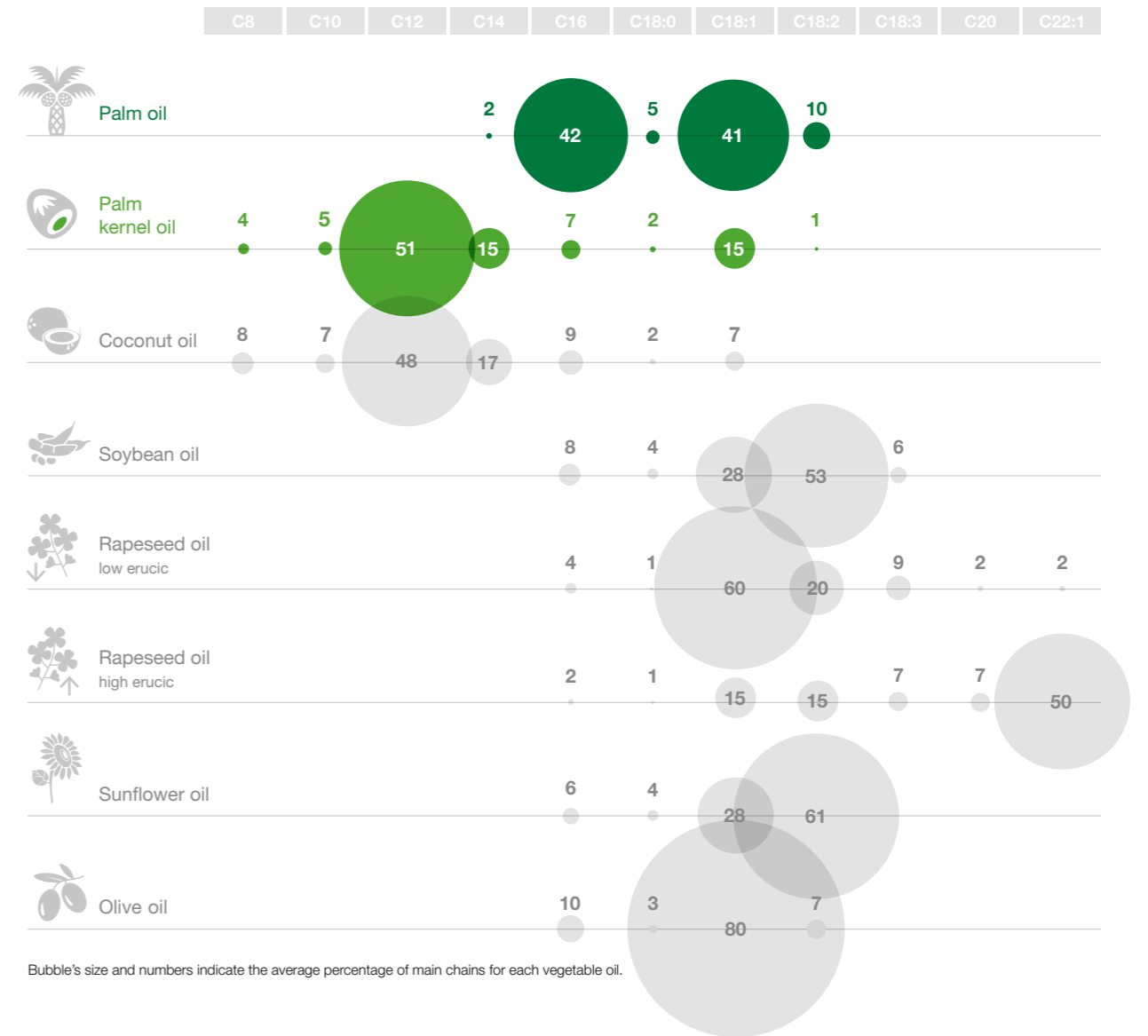


Ingredients	Function	%
Sodium Benzoate	preservative	< 1
Perfume	fragrance	< 1
Citric Acid	pH adjustment	< 1
Laureth-2	rheology modifier	< 4
Sodium Chloride	pearlizer	< 2
Glycol Distearate	conditioning agent	< 1
Guar Hydroxypropyl-trimonium Chloride	co surfactant	2-6
Cocamidopropyl Betaine	basic surfactant	7-15
Sodium Laureth Sulfate		
Aqua		add to 100

■ palm based ingredients

Source: BASF

Unique C-chain distribution of palm kernel oil



Bubble's size and numbers indicate the average percentage of main chains for each vegetable oil.

Indispensable raw material for oleoderivatives

Are there alternative raw materials to palm? Not for the foreseeable future. Oil palms have the highest yield per hectare compared to other oil producing crops, hence oil palms need significantly less land to grow the amounts of raw materials needed.

Oil palm products also reduce poverty as they provide work for millions of farmers and their families.

For the oleochemical industry there are no commercially feasible, renewable alternatives to palm and palm kernel oil foreseeable at this point of time. With its unique chemical properties, palm kernel oil is especially difficult to substitute. Together with coconut oil, palm kernel oil is the only source of C12-14 chains and thus the basis for BASF's oleochemicals.



Our ingredients

Our target industries and progress

BASF has been supporting the physical transition toward RSPO-certified sustainable oil palm products for many years. For this reason, we have been offering our customers a broad portfolio of “Mass Balance” ingredients and a selected portfolio of “Segregated” ingredients since 2012. We provide products to the home and personal care industry, the food industry and for technical applications. Our customers are large international brand manufacturers and retail producers committed to sustainable palm. During 2017, we were able to increase our sales of RSPO-certified sustainable ingredients globally by nearly 50% versus 2016.

Broad range of RSPO-certified sustainable ingredients

BASF is one of the leading global suppliers for personal care, home care, industrial & institutional cleaning, and technical applications as well as for food performance and health ingredients. A significant share of our products is based on renewable raw materials, of which a substantial ratio is oil palm-based. We are one of the major users of palm kernel oil and its derivatives and to a lesser extent palm oil. We process those products into ingredients for the above-mentioned industries. BASF offers a very broad range of ingredients based on RSPO-certified sustainable palm kernel oil in accordance with its principles and criteria. Since launching certified ingredients in 2012, BASF has been continuously moving toward a comprehensive global product range that will allow consumer goods manufacturers to develop value-added formulations that meet increasing demand for ingredients that are certified sustainable.

Continuously expanding our global network of certified sites

BASF further strengthened its operations network for certified palm products in 2017: We now manufacture certified ingredients for the cosmetic, detergent and cleaning agent industries at 21 locations around the world. This production network also includes the BASF factories at Gebze (Turkey) and Dahej (India), which have received the RSPO-Supply Chain Certificate. Ecatepec in Mexico was divested in the first quarter of 2018.

Our site in Ballerup, Denmark, is also now RSPO-certified. This site serves the Human Nutrition market.



Photo: Ekvato

Our customer industries



Personal Care



Home Care



Industrial and Institutional Cleaning



Human Nutrition



Technical Applications

Home and Personal Care

We offer a broad range of “Mass Balance” certified sustainable products that cover all major Personal Care functions: from consistency factors (Cutina[®], Lanette[®]), emollients (Cetiol[®]), emulsifiers (Eumulgin[®]), emulsion bases (Emulgade[®]), surfactants (Plantacare[®], Dehyton[®], Sulfofon[®] and Texapon[®]) and thickeners (Comperlan[®]), through to the main surfactants used in home care applications (Dehydol[®], Glucofon[®]). In total, more than 120 RSPO “Mass Balance”-certified ingredients are available globally. The product range enables formulators to create entire RSPO-certified formulations.

Our ingredients are mainly based on palm kernel oil. The C-chain distribution for palm kernel oil includes a high percentage of C12-14 chains. This composition is ideal

for ingredients used in personal and home care applications. In contrast to the food industry – where the oil is basically kept intact – the oleochemicals industry converts the oil using chemical processes, such as fractionating it into different C-chain lengths and adding different functional groups, until the final function is obtained - usually a surfactant or an emollient. This derivatization includes at least five to ten individual technology steps before the final ingredient is achieved. This is one reason why the RSPO “Mass Balance” standard for oleoderivatives used in personal and home care applications is the most common certification scheme at this point of time. The RSPO “Segregated” standard would require keeping all these steps separate, resulting in a huge amount of complexity and subsequent costs.

Human Nutrition

We offer Vitamin A and D as well as carotenoids like Lucarotin[®] that are based on palm kernel oil derivatives. These serve as health ingredients mainly in dietary supplements and food fortification, and as colorants in food and beverages. Furthermore, we offer our customers a wide range of palm oil based food performance ingredients that help to enhance the volume, taste and texture of baked goods, desserts and ice creams. Our portfolio includes emulsifiers like Lamegin[®], Lametop[®], Nutrisoft[®] and Lamemul[®], our aerating system Spongolit[®] and our whipping agent Lamequick[®]. Since 2014, we have continuously increased our RSPO certified offerings for human nutrition. All our food performance ingredients that are based on palm oil are offered certified as “Mass Balance” or “Segregated”. We observe increased demand for the “Segregated” certification of our food performance ingredients. Since 2016, we also offer the “Mass Balance” certification for a broad range of our health ingredients that are based on palm kernel oil derivatives. In 2017, we increased our offering through the RSPO certification of our site in Ballerup, Denmark.



Chapter IV

Outlook – Next on our agenda



Global businesses can use their leverage to improve practices in the palm oil industry, protecting forests and the people living and working in them. The balance between conservation and development is a delicate one, which is why we are pleased that BASF is supporting the protection of peatland and High Carbon Stock forest areas. The combination of these efforts can create positive chain reactions of further change throughout the industry.

Rachel Kent
Regional Leader Europe

The Forest Trust (Limited)

Traceability and certification will guide the palm industry in the coming years. Transparency in the palm supply chain has steadily improved thanks to innovative remote sensing technology on the ground revealing where deforestation takes place. We will continue to extend our traceability to make sustainable palm the new norm and achieve physical market transformation through certification.

We support efforts to make the supply chain more transparent and have made in-depth-dialog with our suppliers an integral part of our sourcing policy. As part of our journey toward sustainable palm we will implement a grievance procedure in 2018 that will enable us to take appropriate action in case of infringements of our Palm Sourcing Policy.

BASF will continue its engagement within the Roundtable on Sustainable Palm Oil and HCS Approach. We will also continue to implement the BASF Palm Commitment and to collaborate with key stakeholders in the value chain to achieve our targets for sustainable palm.

We have taken the decision to drive sustainable palm with a major portfolio shift in 2018. We will only offer palm-based ingredients for the personal care market that are certified as sustainable. This will help our customers to fulfil their commitments – and many of them have already made the step together with us.

We are determined to achieve sustainable palm, and we are convinced that it is Time for Change.

Appendix I

Glossary

<p>ACOP Annual Communication on Progress (RSPO)</p>	<p>OECD Organisation for Economic Cooperation and Development</p>
<p>CSR Corporate Social Responsibility</p>	<p>PO Palm Oil</p>
<p>CSPO Certified Sustainable Palm Oil</p>	<p>PKO Palm Kernel Oil</p>
<p>CSPKO Certified Sustainable Palm Kernel Oil</p>	<p>POIG Palm Oil Innovation Group</p>
<p>FAO Food and Agriculture Organization of the United Nations</p>	<p>RSPO Roundtable on Sustainable Palm Oil</p>
<p>FFB Fresh Fruit Bunches</p>	<p>Supply chain modules</p> <p>“Identity Preserved” Palm oil is separated from oil that is not RSPO-certified. This oil can be physically traced back to its plantation of origin.</p>
<p>FONAP Forum Nachhaltiges Palmöl</p>	<p>“Segregated” CSPO and CSPKO from multiple estates is mixed in batches. Oil traded in this model is guaranteed to be physically traceable to a certified source.</p>
<p>FPIC Free, Prior and Informed Consent</p>	<p>“Mass balance” CSPO and CSPKO is mixed with palm oil that has not been certified. The oil may be mixed at different sources and the percentage is known.</p>
<p>GAP Good Agricultural Practices</p>	<p>UN United Nations</p>
<p>GRI Global Reporting Initiative</p>	<p>WHO World Health Organization</p>
<p>HCSA High Carbon Stock Approach</p>	<p>WWF World Wide Fund For Nature</p>
<p>HCV High Conservation Value</p>	
<p>NGO Non-Governmental Organization</p>	

Appendix II

BASF Palm Commitment (2015)



Forest conservation

We will integrate additional forest conservation requirements regarding high carbon stock and peatland into our Palm Sourcing Policy (defined by High Carbon Stock Approach*). Additionally, we will incorporate requirements for a Free, Prior Informed Consent (FPIC) process into our sourcing policy.



Traceability

We will work with key stakeholders and stakeholder forums to define traceability in a way that supports reduction of unsustainable palm oil and thus helps to stop deforestation.



Timebound plan

We commit ourselves to using raw materials that are both RSPO-certified (MB/SG) and traceable – this applies to palm oil and palm kernel oil, as well as palm fractions and derivatives.

1. In continuation of our commitment made in 2011, BASF's goal is to source only RSPO-certified sustainable palm oil and palm kernel oil.
2. BASF will establish and incorporate upstream traceability for palm oil and palm kernel oil by 2020.
3. BASF will expand its commitment to only source RSPO-certified sustainable raw materials with upstream traceability for palm oil and palm kernel oil fractions and primary palm and palm kernel oleochemical derivatives** and edible oil esters by 2025.



Physical transformation

We will support the physical transformation of the market toward sustainable palm oil and palm kernel oil in our supply chain and in the market.



Stakeholder dialog

We will use our resources to provide forums on the complexities of palm oil for our partners and stakeholders to highlight the need to work together to achieve sustainability.



Smallholder inclusion

We are targeting smallholder inclusion by supporting appropriate smallholder projects.



Progress report

We will continuously report on our progress based on the defined timetable.

renewed and extended in 2015

* new plantings shall be done in accordance with the HCS Approach Toolkit (<http://highcarbonstock.org/>)

** primary derivatives are fatty acid methyl esters, fatty alcohols, fatty acids, glycerine; the secondary derivative is ascorbyl-palmitate.

Appendix III

BASF Palm Sourcing Policy

The BASF Palm Sourcing Policy further specifies key elements of our palm-related sourcing and is based on our [Supplier Code of Conduct*](#).

We live our corporate purpose “We create chemistry for a sustainable future” by sourcing and producing responsibly, acting as a fair and reliable partner and connecting creative minds to find the best solutions for market needs. Palm oil, palm kernel oil, and their derivatives are some of our most important renewable raw materials. We want to ensure that the raw materials we use stem from sustainable, certified sources and actively support the Roundtable on Sustainable Palm Oil (RSPO). In 2015, BASF revised and expanded the voluntary commitment to the sustainable procurement of oil palm products.

The development of oil palm plantations can contribute significantly to deforestation, loss of biodiversity and force climate change from the loss of peat land. BASF shares the widespread concern about these issues and BASF is committed to reducing the impact on the environment.

We strive to collaborate with our suppliers to address the disconnects in the system to enable significant improvement in the sustainable supply of certified sustainable palm and palm kernel oil and its derivatives and co-create a shared solution to the palm dilemma.

We want you as our supplier to work with us toward those improvements in the palm and palm kernel-based supply chain. We expect you as a supplier to BASF to increasingly address the key elements below in your supply chain.

Forest Conservation

- You support the process toward convergence to reach an enhanced industry standard to conserve and restore High Conservation Value (HCV) and High Carbon Stock (HCS) Areas.
- You develop new plantings in accordance with the HCS Approach Toolkit until convergence is found. Upon completion of the convergence process you will support the new toolkit.
- You promote the dialog toward a landscaping approach.

Peat Conservation

- You abstain from development of peatland and you maintain palm plantations on peatland in accordance with the RSPO Manual of Best Management Practices for Existing Oil Palm Cultivation on Peat.

*<https://www.basf.com/en/company/about-us/suppliers-and-partners/sustainability-in-procurement/supplier-code-of-conduct.html>

Appendix III

BASF Palm Sourcing Policy

Free-Prior-Informed Consent, Social Impact Assessment, Human and Labor Rights

- You support the rigorous implementation of a free-prior-informed consent process and social impact assessments with regard to the development of plantings.
- You engage in a continuous enhancement process toward free and fair labor specific to oil palm.

Physical Transformation to Certified Products

- You promote certification toward credible standards.
- You develop certification in your area of responsibility and promote physical transformation.

Transparency and Upstream Traceability

- You support upstream traceability to oil mill level and ultimately to plantation level for certified products to break the link between oil palm and deforestation.

Smallholder Inclusion

- You promote smallholder inclusion into certified supply chains.
- You ensure fair smallholder treatment.

Conflict resolution

- You engage in a consultative and transparent process for conflict resolution.

Our relationship with you is based on mutual trust and respect. You may demonstrate your commitment to these goals through compliance with your own palm policy that embraces these goals. You will work with us in a regular strategic dialog to address progress on the key elements above.

However, BASF may ask you to verify your compliance through third-party assessments in on-site audits.

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Certified sites & world map

Europe

1. Antwerp (Belgium)
2. Ballerup (Denmark)
3. Boussens (France)
4. Düsseldorf (Germany)
5. Fino Mornasco (Italy)
6. Gebze (Turkey)
7. Illertissen (Germany)
8. Ludwigshafen (Germany)
9. Meaux (France)
10. Moscow (Russia)
11. Zona Franca (Spain)

AsiaPacific

12. Jinshan (China)
13. Kitatone (Japan)
14. Bangpakong (Thailand)
15. Cimanggis (Indonesia)
16. Dahej (India)

North America

17. Mauldin (USA)
18. Cincinnati (USA)
19. Kankakee (USA)
20. Ecatepec (Mexico)

South America

21. Jacarei (Brazil)



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