

The BASF logo consists of a white square with a smaller white square inside it, followed by the letters "BASF" in a bold, white, sans-serif font.

We create chemistry

A group of people are gathered in a palm oil plantation. One man in a grey polo shirt is standing and talking to a group of people sitting on the ground. Another man in a yellow t-shirt is standing and looking at a phone. The background shows palm trees and a wooden fence.

# Our Journey Towards Sustainable Oil Palm Products

Palm Progress Report 2016

# by 2020

procurement of all palm-based oils will be RSPO-certified sustainable with upstream traceability

# 19

BASF RSPO-certified sites globally



# >800

BASF raw materials are palm-based

~508,000 metric tons represents BASF's oil palm exposure

# ~785,000 hectares

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

## Content

In our Palm Progress Report 2016 we describe our approach to sustainable palm and recent developments. As one of the leading processors globally we wish to provide information about the progress that has been made on our journey towards responsible palm kernel oil. On the following pages you will find answers to:

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

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

-  Forest conservation
-  Traceability
-  Timebound plan
-  Physical transformation
-  Stakeholder dialog
-  Smallholder inclusion
-  Progress

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## Letters to our stakeholders

### Dialog on Sustainability

We wish to contribute to a world that provides a viable future with enhanced quality of life for everyone. We do so by creating chemistry for our customers and society and by making the best use of available resources. 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.

To ensure sustainability, it is important for different social groupings to cooperate. BASF engages in UN Global Compact, econsense, CSR Europe and many other initiatives. For example, BASF has contributed to the international discussion about the UN Sustainable Development Goals (SDGs) in numerous working groups. The SDGs are of great importance to BASF, as a globally active company that contributes to a sustainable future with its innovations.

Collaboration with various stakeholders along the value chain is key for pursuing our ambitious goals on our journey towards responsible palm sourcing. Collaboration and dialog on a global scale are especially important when we want to make a difference in the palm industry to make palm sustainable. We will be successful in protecting natural resources in the producing countries only in collaboration with all members of the value chain.

### Working together towards sustainable palm products

In more than a decade, the increasing demand for palm-based products and the expansion of palm plantations especially in Indonesia and Malaysia have destroyed high-value forests, peatland and biodiversity. At the same time, palm kernel oil is irreplaceable for the oleoderivate business due to its specific traits. This dilemma means a huge responsibility for our industry. Oil palm products are among BASF’s key renewable raw materials: We use mainly palm kernel oil and its derivatives to produce home and personal care ingredients and, to a lesser extent, food ingredients.

We believe sustainable palm is possible. A reliable certification system and a maximum of transparency as well as social measures for local communities, especially for smallholders are key steps towards protecting high carbon stock forests. However, the way in which palm oil is produced and sourced needs to become more sustainable and transparent. In this first Palm Progress Report, we make our contribution transparent.

As a strategic supplier and a connecting link between raw material producers and manufacturers, we decided early on to invest in responsible palm sourcing. Already now more than 56 percent of the oil we procure is RSPO certified. A team of dedicated experts at BASF is working closely with our partners in the supply chain to transform the market towards responsible palm. Consumers care about the environmental impact of the products they use. So do we.



Margret Suckale  
Member of the Board of Executive Directors of BASF SE



Jan Peter Sander  
Senior Vice President BASF Personal Care Europe



# Introduction Sustainability at BASF

## Our Purpose

Sustainability is an integral part of the “We create chemistry” strategy. We aim to achieve profitable growth and take on social and environmental responsibility, focusing on issues where we can make a significant contribution. 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. 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 smallholders 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. BASF is one of the top 10 companies in terms of corporate sustainability leadership according to the GlobeScan SustainAbility expert survey. BASF has been included in the Dow Jones Sustainability World Index (DJSI World) for the 16th consecutive year. Our company has been recognized in particular for its engagement in the areas of materiality assessment, climate strategy and product stewardship. BASF has been awarded the Silver Class medal distinction for its sustainability performance by RobecoSAM. BASF has qualified for the Carbon Disclosure Leadership Index (CDLI) for the twelfth time and has been included in the CDP Water A list for the first time. BASF received the highest score in the chemical industry with its ESG rating and has been included again in the FTSE4 Good Global Index.

 [basf.com/sustainabilityindices](https://www.basf.com/sustainabilityindices)

### Responsible Partnering

### Ranking and Rating



# Chapter I

## Our approach to responsible palm

### The palm dilemma

#### A turning point needed

Palm oil is used everywhere: Whether we buy food, use cosmetics or shampoo our hair – one of two products on the shelf 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<sup>1</sup> and is expected to rise further in the coming decades.

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.

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.<sup>2</sup>

At the same time, all stakeholders unanimously acknowledge: oil palms are irreplaceable, being 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 have early on embarked on our journey to source and process oil palm products responsibly while pursuing the key question: How can we turn the palm business into a responsible undertaking with sustainable growth?

Source:

1) BASF estimates; RSPO Impact report 2016 <http://www.rspo.org/about/impacts>

2) Butler, Rhett A. (2013): 3.5 million ha of Indonesian and Malaysian forest converted for palm oil in 20 years. Mongabay. (<https://news.mongabay.com/2013/11/3-5-million-ha-of-indonesian-and-malaysian-forest-converted-for-palm-oil-in-20-years/>), 2013-11-12. Last accessed 2017-03-09



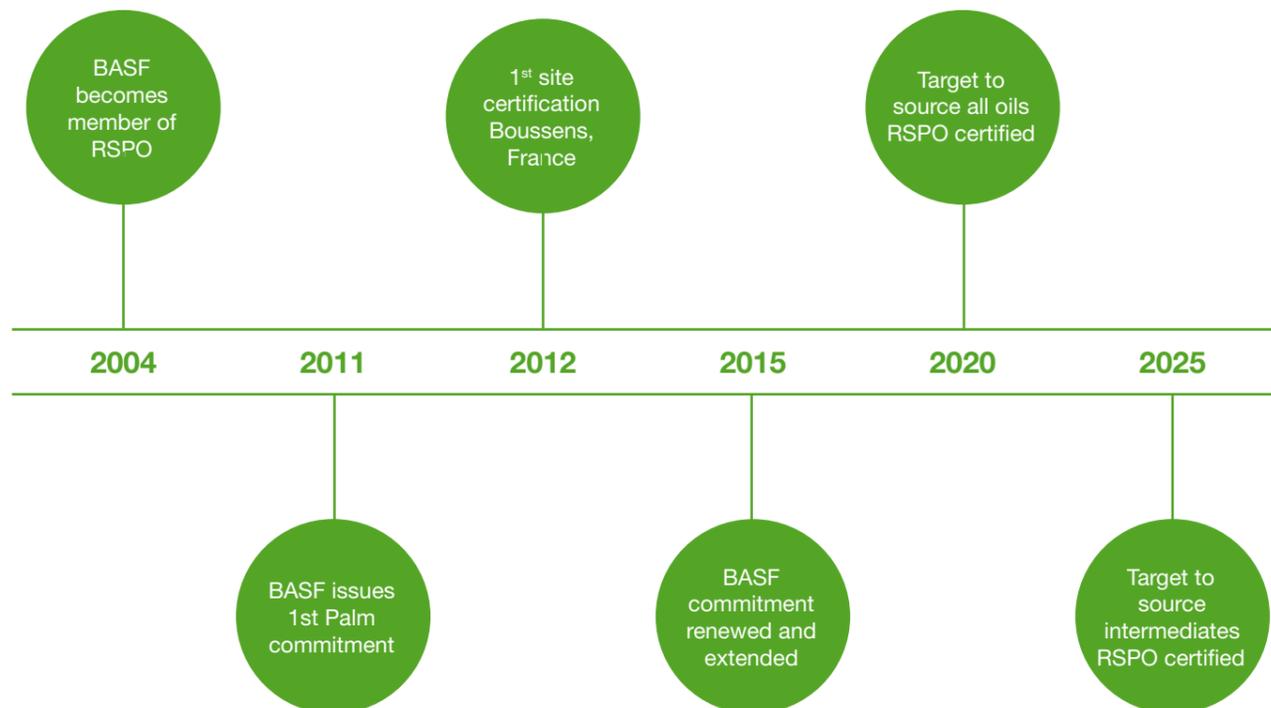
# Chapter I

## Our approach to responsible palm

### Our responsibility as a buyer

We acknowledge that as a buyer of oil palm products, we are responsible for the environmental and social impact of their production.

BASF Global Sustainability  
Palm Products Team



# Chapter I

## Our approach to responsible palm

### Driving transformation

#### Social and economic license to operate

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

Supported by the consulting agency Futureye, the goal was to address concerns of all relevant stakeholders. The discussion led to a more comprehensive and shared understanding of the issues 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 are stating our dilemma in oil palm plantation development, acknowledging our palm footprint equivalent to an average of 785,000 hectares, developing a vision on how to make sustainable palm the norm for the industry and evaluating the 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 to collaborate on solutions.



#### BASF's Palm Commitment

BASF supports initiatives to reflect an integrated land use planning for oil palm development that includes the conservation of high carbon stock and peatlands. We have started to integrate additional forest conservation requirements regarding high carbon stock and peatland 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.

#### Our time bound plans

- By 2020: Source only sustainable palm and palm kernel oil certified by the Roundtable on Sustainable Palm Oil (RSPO) – as far as available on the market. Establish processes that allow an upstream traceability for the palm oil and palm kernel oil purchased by BASF back to the oil mill;
- By 2025: Expand these commitments to the significant intermediates based on palm oil and palm kernel oil. These include fractions as well as primary oleochemical derivatives plus vegetable oil esters.



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## Chapter I

# Our approach to responsible palm

## New industry standard for forest conservation

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### Landmark for the palm industry

Our palm commitment puts special emphasis on additional forest conservation requirements as defined by High Carbon Stock Approach. BASF became a member in the HCS Steering Group (HCS) in 2016.

In late 2016, a new industry standard was reached for forest conservation, converging the two main existing methodologies on forest conservation – HCSA and HCS+ – into one single unified industry standard. The so-called Convergence Agreement means that there will be one methodology for putting forest conservation into practice including forest stratification, decision-making processes and social requirements. There are still issues to be solved and a roadmap for collaborative processes was drawn. It includes among other things rules for applying an HCS methodology in high forest cover regions and the application of the HCS methodology by small producers and communities.

We consider this new industry standard for forest conservation a landmark for the palm industry, which all partners in the value chain need to respect. This will help us follow a clear path towards forest conservation and landscape development from now on. We have meanwhile integrated the criteria of the HCS Approach into our BASF Palm Sourcing Policy, and our customers can expect BASF to check our suppliers for compliance.

More information: [highcarbonstock.org](http://highcarbonstock.org)



After the convergence of the high carbon stock processes we have a clear methodology for putting no deforestation into practice. It's great to see that BASF supports our work and has committed to implement the HCS Approach through their supply chains.

Grant Rosoman, Co-Chair High  
Carbon Stock Approach



Mexico:  
Ecatepec

USA:  
Kankakee

USA:  
Cincinnati

USA:  
Mauldin

Brazil:  
Jacareí

Spain:  
Zona Franca

Belgium:  
Antwerp

France:  
Boussens

France:  
Meaux

Germany:  
Düsseldorf

Germany:  
Ludwigshafen

Germany:  
Illertissen

Italy:  
Fino  
Mornasco

Turkey:  
Gebze

Russia:  
Moscow

Thailand:  
Bangpakong

Indonesia:  
Cimanggis

China:  
Jinshan

Japan:  
Kitatone



Photo: Good Return



## Chapter II

# Our collaborations

## Upstream

### Our participation in platforms

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

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 Standing Committee Trade & Traceability. Oleochemicals based on palm oil (PO) and palm kernel oil (PKO) and their downstream derivatives are important demand elements with a strong relevance in end-consumer product supply chains and strongly depend on availability at the same time. While the initial focus of RSPO has been on the food supply chain, the subgroup oleochemicals and derivatives has now clarified supply chain issues which 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 new Palm Sourcing Policy.



RSPO-2-0010-04-100-00

It's time to push RSPO certification progress also on oleoderivatives: making RSPO-certified palm and palm kernel oil derivatives the norm will strongly foster market transformation.

Datuk Darrel Webber  
Chief Executive Officer (CEO)  
Roundtable on Sustainable Palm Oil (RSPO)



## Smallholder farmers ... ... produce around 40 percent of palm oil



Indonesia is the world's leading palm oil producer, and is responsible for approximately half of the global production of this commodity. Since the year 2000, the area of smallholder oil palm cultivation more than tripled to over 3.6 million hectares in 2011. The smallholder share in total Indonesian palm oil production increased between 2000 and 2011 from 27 percent to 38 percent (with 8.6 million metric tons of smallholder-based crude palm oil production). Oil palm cultivation has become an important livelihood element in rural Indonesia.

Source:

- 1) Molenaar, J. W., et al. "Diagnostic study on Indonesian Oil Palm Smallholders: developing a better understanding of their performance and potential." International Finance Corporation, World Bank Group (2013).
- 2) Euler, Michael, et al. "Oil palm expansion among smallholder farmers in Sumatra, Indonesia." Journal of Agricultural Economics 67.3 (2016): 658-676.
- 3) <http://www.rspo.org/smallholders/>



## Chapter II Our collaborations Advocating for smallholder farmers

### How we co-create for better quality of life

Smallholder farmers produce around 40 percent of the world's palm oil; their families depend on palm oil for their livelihood. As the connecting link between suppliers of palm kernel oil and our customers, we work with civil society organizations and other partners in the supply chain to support smallholder projects. An important question for the oil producing countries is how to increase the yields from the land already under cultivation. This is why BASF and Henkel, the manufacturer of well-known brands such as Persil, Schwarzkopf and Loctite, are collaborating with the development organization Solidaridad to support a project in Indonesia and advocate for smallholders and local initiatives.

Sustainable farming methods, efficient production and high occupational health and safety standards are some of the most important conditions for certified palm oil production. Smallholders can learn how to fulfill these requirements locally in dedicated training programs. Through this project, Solidaridad and its partners want to establish sustainable supply chains for palm and palm kernel oil that both effectively improve smallholders' living conditions and are eligible for certification according to the criteria of the Roundtable on Sustainable Palm Oil (RSPO) reaching out to about 5,500 smallholders.



**3,400**  
farmers

completed financial literacy training (58% of which were women).

**2,400**  
farmers

have access to high quality seedlings and products for plant protection through an associated cooperative of Credit Union Keling Kumang (CUKK), the second largest local credit organization in Indonesia.

**1,700**

Farmer Field School certificates have been awarded.

Source: Solidaridad Factsheet Kalimantan, September 2016.

[www.solidaridadnetwork.org/palmoil](http://www.solidaridadnetwork.org/palmoil)



## Chapter II Our collaborations Upstream

### 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 of 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. A centerpiece in our 2015 commitment is therefore facilitating strategic dialogs on the complexities and value specifics of palm kernel oil supply chains and collaborating for sustainability. In 2016, we launched our BASF Palm Sourcing Policy to achieve progress in responsible palm. (Appendix III)

Based on the BASF Supplier Code of Conduct and feedback from an intensive stakeholder consultation process, the Palm Sourcing Policy specifies key elements of our palm-related sourcing. For this, we have interviewed numerous external and internal stakeholders. The BASF Palm Sourcing Policy extends the Supplier Code of Conduct to include palm-specific criteria.

We have also started a strategic dialog with key suppliers applying the new Palm Sourcing Policy. This strategic dialog shall help foster our mutual understanding on how we work together towards responsible palm.



## Chapter II Our collaborations Downstream

### Exchange along the supply chain

Our direct contact with numerous players along the supply chain gives us a handle on their needs and concerns, as well as recent developments in the markets. Our priority is to help our customers deal with the complexity of oleoderivatives and gain a better understanding of how to approach physical transformation towards sustainable palm.

In 2015, BASF conducted customer web conferences in North America and Europe with more than 120 participants each. In 2016, BASF hosted its first Palm Dialog during the in-cosmetics tradeshow in Paris. 75 representatives from brand and retail manufacturers, retailers, NGOs and associations participated in a constructive workshop discussion. The Palm Dialog continues with a series of webinars for various stakeholders.

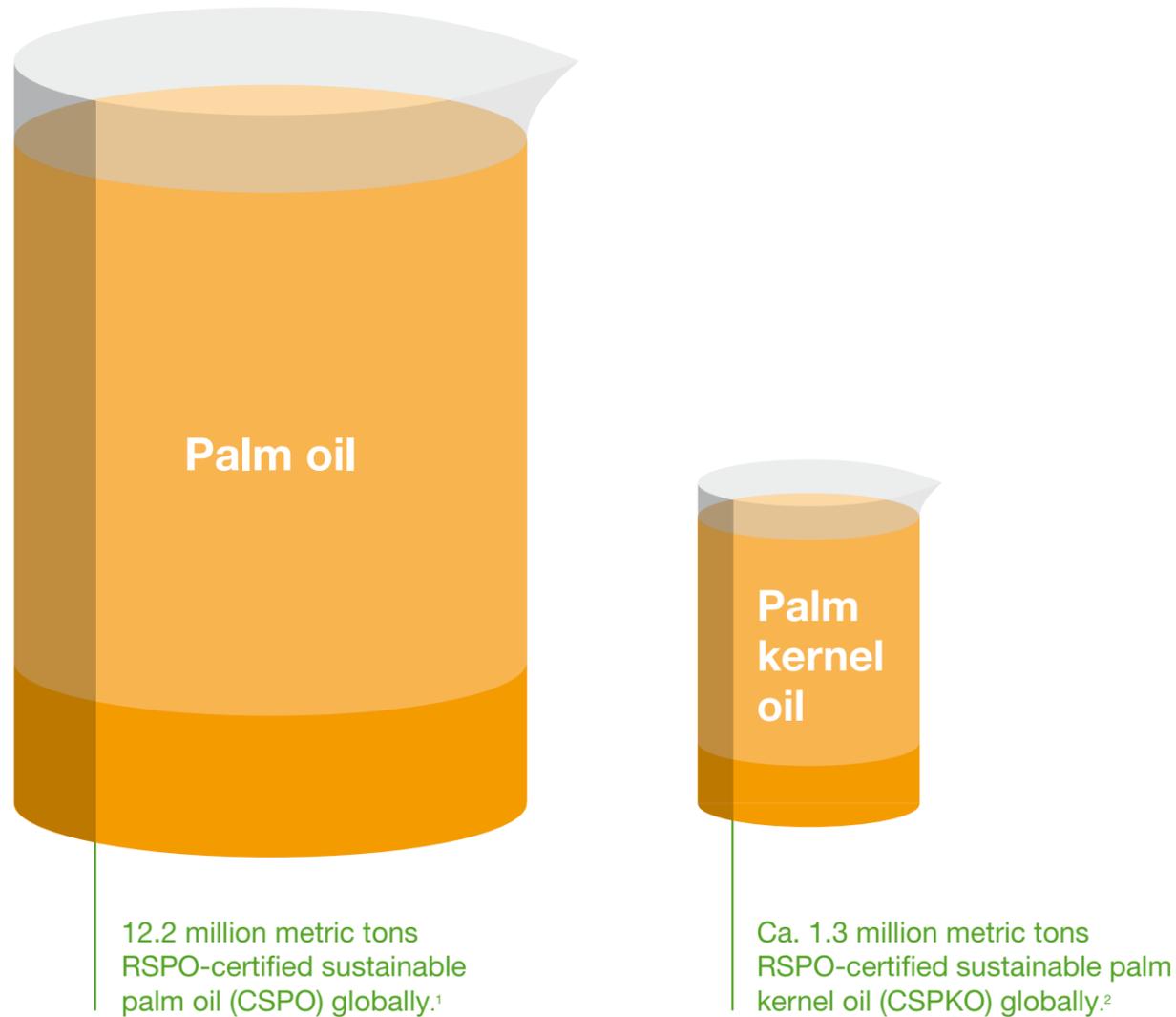
BASF's Global Sustainability Palm Products team has given numerous lectures at customer symposia, workshops and conferences, and maintains close contacts with all relevant associations throughout the palm industry, as well as other retailer associations. Beyond this, BASF regularly exchanges ideas with NGOs at various levels. Internally, we are continuously gaining competency in our sales team in supporting our customers' progress towards physical transformation.



## Chapter III

### Our progress as an oleoderivative producer

#### Availability of certified oil



The annual palm production globally amounts to 71 million metric tons. Roughly one fifth is certified sustainable material: 12.2 out of 64 million metric tons palm oil are certified sustainable and predominantly enter the food chain. The share of palm kernel oil is considerably smaller: out of the 7 million metric tons only approximately 1.3 million tons are certified sustainable – making CSPKO a raw material with limited availability.

Source:

1) RSPO impact report 2016, last update January 31st, 2017;

2) BASF estimates



## Chapter III

### Our progress as an oleoderivative producer

#### Raw material market development

##### High volatility for certified sustainable palm kernel oil in 2016

The market for RSPO-certified sustainable palm kernel oil is volatile and material availability is limited. Overall, the market constitutes about one tenth of the certified oil palm market. BASF estimates that about 1.3 million metric tons of RSPO-certified sustainable palm kernel oil were produced in 2015, of which only one third is being traded on the merchant market.

Since the second quarter in 2016, the market for certified sustainable palm kernel oil has further tightened: the oil palm production was impacted by the El Nino phenomenon. The warming of the waters of the Eastern Pacific Ocean brought dry weather across Southeast Asia, lowering palm yields in the top producing countries - Indonesia and Malaysia.

Secondly, major plantation companies discontinued supply of RSPO-certified sustainable products, further limiting its availability, while demand continued to grow. Now that retailers, brand owners and European national commitments have set timelines for physical market transformation, we expect further expanding demand in 2017.

Nevertheless, BASF is well positioned to fulfill its customers' commitments on RSPO-certified sustainable palm products, as we can base our certified portfolio offers on longer term sourcing contracts.

Our goal is to purchase only RSPO-certified sustainable oil palm products. Therefore we support the increase of sustainable production.

Harald Sauthoff

Vice President Global Procurement Care Chemicals

BASF Personal Care and Nutrition GmbH



# Chapter III

## Our progress as an oleoderivative producer

### Upstream – Sourcing sustainably

#### Our sourcing progress

In continuation of our commitment made in 2011, BASF's goal is to source only RSPO-certified sustainable palm oil and palm kernel oil.

In 2015, we had made good progress in our physical transition towards RSPO-certified sustainable palm kernel oil, increasing our share by more than 50% year-on-year.

In 2016, however, availability of RSPO-certified palm kernel oil has further tightened. Nevertheless, we were able as a reliable buyer to increase our purchasing volume 2016 by 32,000 to 158,000 metric tons. Our share of RSPO-certified sustainable palm kernel oil amounted to approximately 56% and we will continue our path forward.

#### What we buy:

- Palm oil (PO)
- Palm kernel oil (PKO)
- Palm and palm kernel oil fractions
- Primary oleoderivatives



Smallholder inclusion



reporting progress transparently



tracing back to the mill



# Chapter III

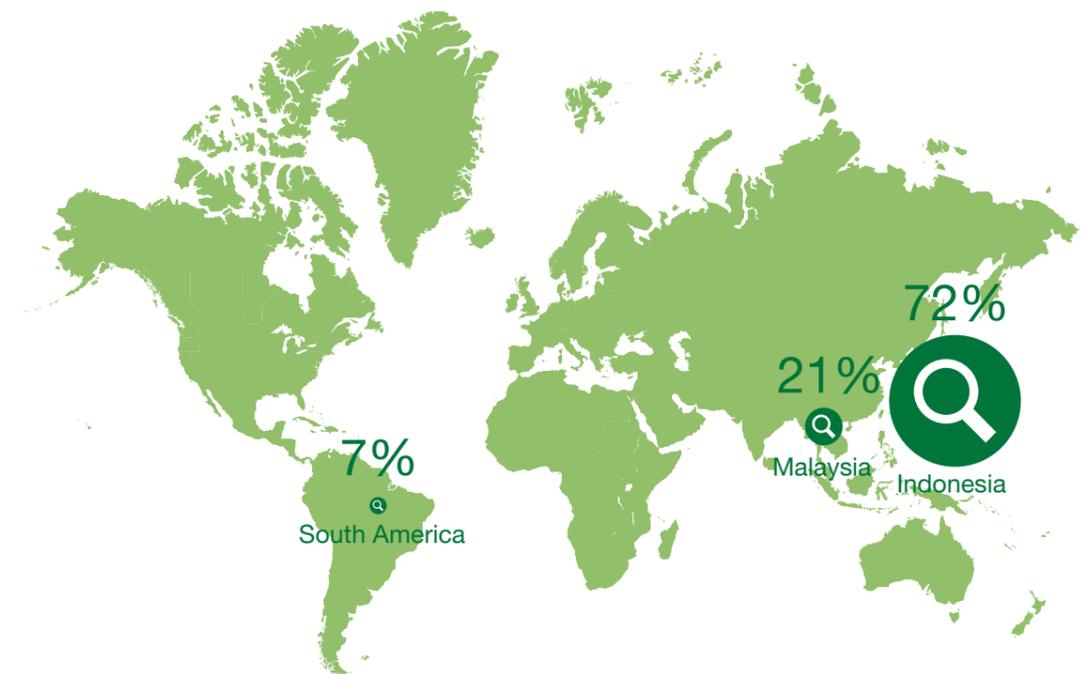
## Our progress as an oleoderivative producer

### Upstream – Traceability

#### Traceability comes with certification

The physical market transformation based on the RSPO infrastructure remains an important element in our journey. Our RSPO-certified sustainable palm kernel oil is traceable back to the oil mill level, thereby reaching part of our palm commitment ahead of time. In 2016, our certified sustainable palm kernel oil originated from 128 oil mills (see map). More than two thirds of the mills are located in Indonesia, one third in Malaysia and other countries.

However, 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 towards RSPO-certified sustainable materials also provides the basis for qualitative traceability information.



Mills distribution according to BASF traceability data



# Chapter III

## Our progress as an oleoderivative producer

### Indispensable raw material

#### 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 12-14 C-chains and thus the basis for BASF's oleochemicals.

No to palm oil cannot be the solution. The uncritical exchange of palm oil by other vegetable oils does not solve problems, but relocates and aggravates them.

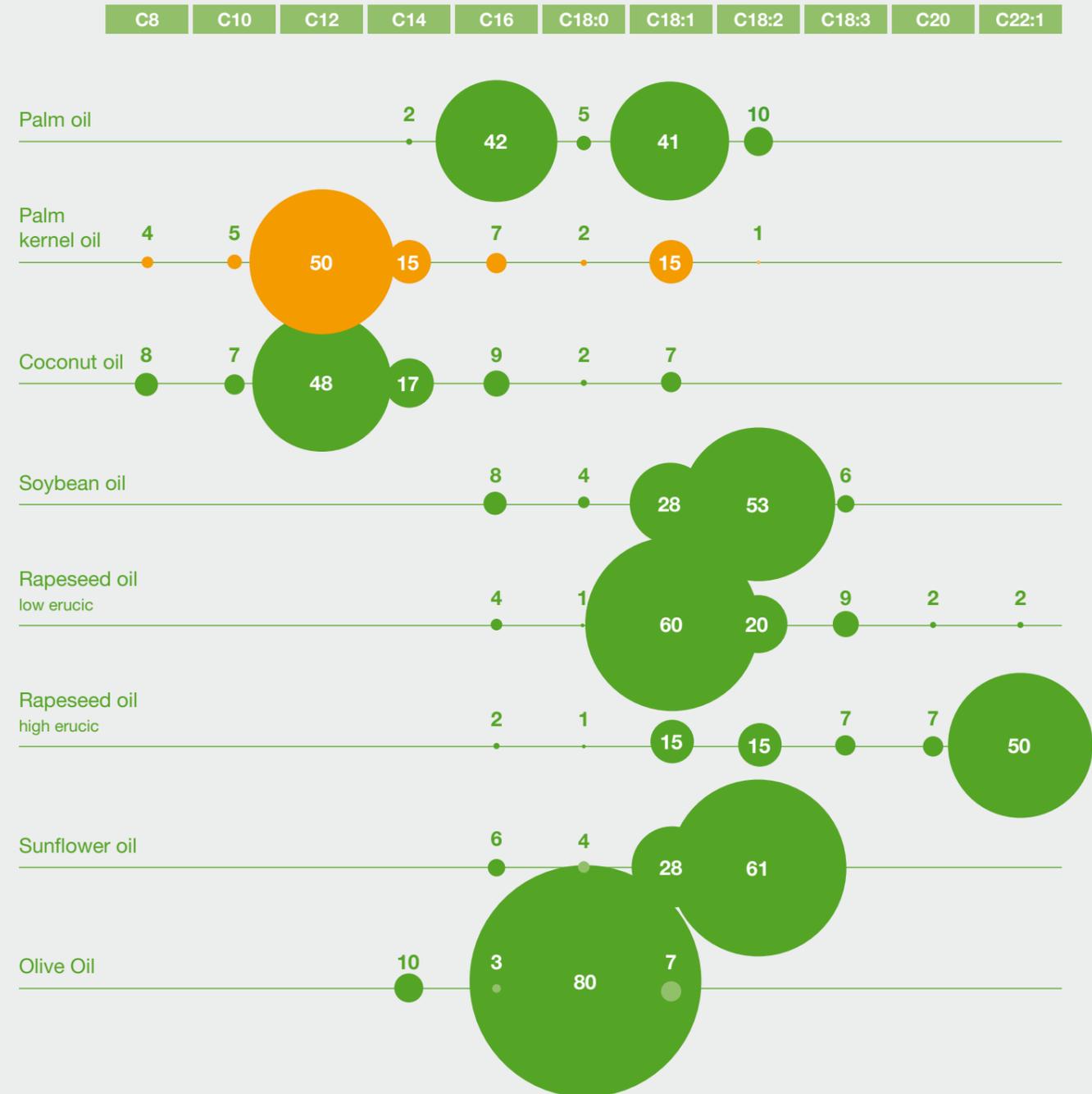
WWF Deutschland (2016, July): Auf der Ölspur - Berechnungen zu einer palmölfreieren Welt. Berlin. (p 74)



# Chapter III

## Our progress as an oleoderivative producer

### Unique C-chain distribution of palm kernel oil



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



## Chapter III

# Our progress as an oleoderivative producer

### Downstream – our ingredients

#### Our target industries and progress since 2011

For several years, BASF has already supported the physical transition towards RSPO-certified sustainable oil palm products. 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 the past year, we were able to almost double our sales of RSPO-certified sustainable ingredients.

#### Continuously expanding our global network of certified sites

BASF is also making progress with regard to the RSPO certification of its global production sites. In Asia, a certification for the RSPO “Mass Balance” module has been obtained not only by Jinshan (China) but also Kitatone (Japan) and Bangpakong (Thailand). In North America, Mauldin, Cincinnati, Kankakee (USA) and Ecatepec (Mexico) already satisfy the respective criteria. In Europe, Düsseldorf (Germany), Boussens (France), Fino Mornasco (Italy), Zona Franca (Spain), Gebze (Turkey) and Moscow (Russia) obtained multi-site certification. Further locations will follow in 2017.

#### 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 share 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 and process those products into ingredients for the above-mentioned industries.

We offer a very broad range of ingredients based on RSPO-certified sustainable palm kernel oil in accordance with its principles and criteria. Since starting the launch of certified ingredients in 2012, BASF is continuously moving towards a comprehensive global product range that will allow consumer goods manufacturers to develop value-added formulations to satisfy the increase in market demand for certified sustainable ingredients.



## Chapter III

# Our progress as an oleoderivative producer

### Downstream – our customer industries

#### Where our ingredients are used



#### Home and Personal Care

Our range of products is based on the RSPO supply chain module “Mass Balance”, and covers all major Personal Care functions: from consistency factors (Cutina®), emollients (Cetio®), emulsifiers (Eumulgin®), emulsion bases (Emulgade®), surfactants (Dehyton®, Plantacare®, Sulfofon® and Texapon®) to thickeners (Comperlan®), as well as the main surfactants used in home care applications (Dehydol®, Glucopon®). In total, more than 120 RSPO “Mass Balance”-certified ingredients are available globally. The product range enables formulators to create entire formulations based on RSPO “Mass Balance” certified ingredients.

The 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 disaggregates the oil using chemical processes, such as cutting it into different C-chain lengths and adding different functional groups, until the final function, whether a surfactant or an emollient, is obtained. This derivatization easily includes 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 module 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 inefficiencies and costs.

#### RSPO “Mass Balance” supply chain module

The RSPO “Mass Balance” module allows claim transfer from one oil palm product to another either through physical blending or administratively under strictly controlled circumstances. The RSPO “Mass Balance” module permits RSPO-certified material and conventional material to be mixed at various points in the supply chain, provided that the RSPO “Mass Balance” material inputs and outputs (volume or weight) are strictly balanced. This includes control of purchases and sales of RSPO-certified goods and is independently verified by 3rd party RSPO-accredited auditors.

#### Human Nutrition

In 2014, BASF switched its food performance ingredients portfolio completely to the RSPO supply chain module “Mass Balance”. Moreover, since 2016, we offer selected food performance ingredients according to the RSPO supply chain module “Segregated.” We are continuously making progress with respect to the RSPO certification of our respective production sites in order to offer our customers in the future also RSPO-certified products that contain palm derivatives, e.g., vitamins and carotenoids.

## Chapter IV Outlook – Next on our agenda

The palm oil and palm kernel oil industry are facing a continuously volatile market environment with new topics emerging rapidly from various stakeholder perspectives. We are committed to support the collaboration with all stakeholders in the value chain and to shape this industry upstream as well as downstream. In this way, we will translate the latest developments into sustainable business practices and help our customers to be more successful.

Among the most relevant topics gaining momentum in 2017 and beyond are the landscape approach and labor rights of plantation workers. The improvement of their working conditions and living standards and a guarantee of their civil rights will be a cornerstone for the whole industry. We will address some of these issues by expanding our work with smallholders and doing suitable projects in the producing countries.

BASF will continue its engagement within the Roundtable on Sustainable Palm Oil. While the RSPO is still predominantly working on palm oil, we will help to foster an RSPO strategy for sustainable palm kernel oil.

Moreover, we will expand knowledge sharing activities into the market, e.g., with web conferences and symposia to deepen the understanding of palm-based oleoderivatives.

Thus, we will make sure that our oil palm business will remain one of the important pillars of BASF's commitment to sustainability.

Palm oil is the world's most produced, consumed and traded vegetable oil, accounting for 38 percent of global vegetable oil consumption in 2014/15.

United States Department of Agriculture. August 2016.  
Oilseeds: World Markets and Trade.

Source: qtd. in WWF - World Wide Fund For Nature (2016, September):  
Palm Oil Buyers Scorecard. Measuring the Progress of Palm Oil Buyers. Switzerland



# Appendix I Glossary

**ACOP**  
Annual Communication on Progress (RSPO)

**CSR**  
Corporate Social Responsibility

**CSPO**  
Certified Sustainable Palm Oil

**CSPKO**  
Certified Sustainable Palm Kernel Oil

**FAO**  
Food and Agriculture Organization of the United Nations

**FFB**  
Fresh Fruit Bunches

**FPIC**  
Free, Prior and Informed Consent

**GAP**  
Good Agricultural Practice

**GRI**  
Global Reporting Initiative

**HCSA**  
High Carbon Stock Approach

**HCV**  
High Conservation Value

**NGO**  
Non-Governmental Organisation

**OECD**  
Organisation for Economic Cooperation and Development

**PO**  
Palm Oil

**PKO**  
Palm Kernel Oil

**RSPO**  
Roundtable on Sustainable Palm Oil

**Supply chain modules**  
**“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.  
**“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.  
**“Mass balance”**  
CSPO and CSPKO is mixed with palm oil that has not been certified. The oil may be mixed at different sources but the percentage is known.

**UN**  
United Nations

**WHO**  
World Health Organization

**WWF**  
World Wide Fund For Nature

# Appendix II BASF Palm Commitment



**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 help 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 towards 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.

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\* 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 towards 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 towards 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.

## 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 towards free and fair labor specific to oil palm.

### Physical Transformation to Certified Products

- You promote certification towards 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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