

cpet

Annual Review

UK Consumption of Sustainable Palm Oil

December 2014

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Executive summary

In 2012, Defra published the UK Statement on Sustainable Production of Palm Oil. This statement, which was signed by trade associations for key palm oil using sectors, NGOs and Government, set out the overarching commitment that “The United Kingdom is working towards achieving 100% sourcing of credibly certified sustainable palm oil by the end of 2015.”¹

Building upon the methodology and the findings of the Defra research report “Mapping and Understanding the UK Palm Oil Supply Chain” (2011), which used 2009 data, as well as last year’s Annual Review, this analysis forms the second Annual Review to track the progress towards meeting this commitment by estimating the consumption of sustainable palm oil in the UK for subsequent years. In this context a very broad definition of ‘*consumption*’ is used as it comprises (i) volume of imports of segregated and mass balance² certified sustainable palm oil plus (ii) the volume of sustainable palm oil accounted for by purchases of GreenPalm certificates by UK purchasers of palm oil.³

The findings indicate that in 2013 UK palm oil purchases supported by RSPO certification in the UK continued to increase as highlighted in Figure 1 below. This estimate of volume of palm oil supported by the RSPO supply chain models in the UK is based upon:

- 222,204 mt of imports of Segregated and Mass Balance Certified Sustainable Palm Oil (CSPO) (excluding derivatives and finished goods) by UK refiners (equivalent to either 37.9% or 48.8% of UK import, depending on which trade data source is used) and
- 99,412 mt of palm oil supported by purchases of GreenPalm certificates by UK companies. This supported the production of certified oil which would be equivalent to either 17% or 21.8% of UK import, depending on which trade data source is used.

¹ <https://www.gov.uk/government/publications/sustainable-production-of-palm-oil-uk-statement>

² In the Mass Balance supply chain model, the volume of imports of mass balance CSPO products reflects an equivalent volume of palm products that came from RSPO-certified production units. To support the production of certificated sustainable palm oil, the mass balance system allows for mixing of RSPO and non-RSPO certified palm oil at any stage in the supply chain provided that overall facility quantities are controlled. Facilities can purchase a certain volume of segregated sustainable palm and palm kernel products and use it to match the sales of equal volumes of palm product derivatives that then carry a Mass Balance claim without requiring a physical or chemical link between the acquired segregated product and the derivative that is sold under mass balance.

³ GreenPalm certificates support the production of CSPO. The producers using sustainable business practices who are unable to access segregated or mass balance CSPO supply chains (e.g because they only produce small volumes of CSPO) earn certificates, which they then sell to users (retailers, manufacturers) so that claimed volumes are matched. The CSPO they produce is downgraded to conventional palm oil. The producers are then able to sell their credits via the GreenPalm platform and earn a premium for their CSPO. Manufacturers and retailers, who are similarly unable to access segregated CSPO supply chains, but wish to contribute to the production of CSPO, are able to cover the palm oil found within their products with credits. GreenPalm certificates are accounted for separately from Mass Balance and Segregated palm oil and the sustainable palm oil they represent has not been double-counted in this report.

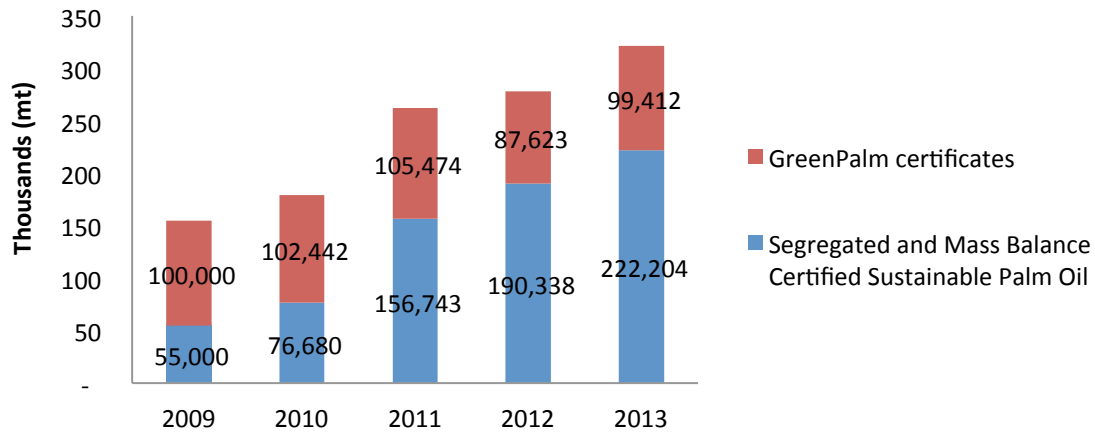


Figure 1 Certified Sustainable Palm Oil purchases in the UK supported by RSPO supply chain mechanisms, from the 2009 baseline figure (Source: CPET analysis of UK refinery data, 2014)

Collectively, imports of segregated and mass balance CSPO and purchases of GreenPalm certificates by UK companies in 2013 were equivalent to an estimated proportion of either 55% or 71% of UK palm oil imports (excluding derivatives and finished goods), depending upon the baseline trade data used.

Since the 2009 baseline, the volume and the proportion of UK palm oil imports covered by RSPO supply chain models has steadily increased. The volume and proportion of segregated and mass balance CSPO has also increased year on year. Overall, the continued increase in the volume and proportion of UK imports supported by RSPO supply chain models between 2012 and 2013 demonstrates continued progress towards achieving 100% sourcing of credibly certified sustainable palm oil by the end of 2015.

1. Introduction

1.1. Background

In 2012, Defra published the UK Statement on Sustainable Production of Palm Oil.⁴ The statement drew together new and existing specific commitments on the sourcing of sustainable palm oil made by key organisations representing businesses within the palm oil supply chain in the UK and set out that “The United Kingdom is working towards achieving 100% sourcing of credibly certified sustainable palm oil by the end of 2015”. It followed similar statements which were made in the Netherlands⁵ and Belgium⁶. Since the UK statement, France, Germany, Denmark and Sweden have also launched sustainable palm oil initiatives.

The Defra research report (2011) by Proforest “*Mapping and Understanding the UK Palm Oil Supply Chain*” highlighted that 643,300 metric tonnes (mt) of palm oil (PO) and palm kernel oil (PKO) were imported into the UK in 2009, based on Oil World data (which excludes derivatives). It also estimated the proportion of that which was Certified Sustainable Palm Oil (CSPO), using RSPO supply chain models. The report noted that:

- **55,000 mt of Segregated and Mass Balance CSPO was imported into the UK** (excluding derivatives and finished goods) equivalent to 8.5% of UK imports;
- **100,000 mt of GreenPalm certificates were purchased by UK companies.** This supported the production of certified palm oil equivalent to 15.5% of UK import.

1.2. Purpose

In order to provide an indicator of progress towards meeting this commitment Defra has commissioned the Central Point of Expertise on Timber (CPET) to conduct an Annual Review of UK purchases of palm oil supported through RSPO supply chain models (Identity Preserved, Segregated, Mass Balance, GreenPalm), building upon the methodology employed in the Defra research report (2011). This 2nd Annual Review aims to add to the estimate carried out for the subsequent years after the 2009 baseline in the initial 2011 study.

1.3. Approach

There is no single, straightforward universally-applied definition of sustainable palm oil⁸. However, collaborative efforts have been made to produce palm oil more sustainably and different schemes and approaches have been developed to meet various demands.

These include the Roundtable of Sustainable Palm Oil (RSPO), which is the main scheme delivering CSPO into the UK market, through RSPO supply chain models. A further means for distinguishing the sustainability credentials of palm is the International Sustainability & Carbon Certification (ISCC) system which is applicable for biofuel reporting under the Renewable Transport Fuel Obligation and the Renewable Obligation.

⁴ <https://www.gov.uk/government/publications/sustainable-production-of-palm-oil-uk-statement>

⁵ http://www.taskforceduurzamepalmolie.nl/Portals/4/download/Manifesto_Task_Force_Sustainable_Palm_Oil.pdf

⁶ <http://www.sustainabelpalm.be/>

⁷ Proforest (2011). Mapping and Understanding the UK Palm Oil Supply Chain and Analysis of Policy Options.

<http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&ProjectID=17170>

⁸ <http://www.cpet.org.uk/palm-oil-folder/what-is-sustainable-palm-oil-1>

There are four supply chain models for RSPO Certified Sustainable Palm Oil (CSPO) which are addressed in this report:

- **Identity preserved:** CSPO is segregated and a batch of certified palm oil can be traced from farm to factory to retailer.
- **Segregated:** CSPO is kept segregated from non-certified palm oil, but is blended with other batches of CSPO and cannot be traced back to a specific plantation.
- **Mass balance:** CSPO is mixed with conventional palm oil, but quantities are monitored administratively so that claimed volumes are matched.
- **Book and claim (GreenPalm):** CSPO is not kept apart. Instead producers using sustainable business practices who are unable to access segregated or mass balance CSPO supply chains (e.g. because they only produce small volumes of CSPO) earn certificates, which they then sell to users (retailers, manufacturers) so that claimed volumes are matched. The CSPO they produce feeds in to a normal mill with normal, uncertified palm oil. The producers are then able to sell their credits via the green palm platform and earn a premium for their CSPO. Manufacturers and retailers, who are similarly unable to access segregated CSPO supply chains, but wish to contribute to the production of CSPO, are able to cover the palm oil found within their products with credits.

In order to reflect the approach taken in the 2011 Defra report, this document focuses on UK palm oil purchases supported by RSPO certification, including import and sales of crude Segregated and Mass Balance CSPO (excluding derivatives and finished goods) by UK refiners⁹ and GreenPalm certificates purchased by UK companies and ISCC certified biofuel, as an indicator of the consumption of sustainable palm oil in the UK. A full methodology can be found in Annex 1.

⁹ The previous year's report tracked the import only of segregated and mass balance CSPO to UK refiners. This year some data tracking sales from UK refiners to UK manufacturers data was used as a proxy where import figures were not available due to commercial sensitivity around disclosing import figures.

2. Progress towards UK commitment

This analysis has focused on the purchases of UK palm oil purchases supported by RSPO certification, including the import and sale of Segregated and Mass Balance CSPO (excluding derivatives and finished goods) by UK refiners and purchase of GreenPalm certificates in the UK, as the core indicator of sustainable consumption of palm oil for the UK.

In addition to imports and GreenPalm certificates, the analysis has attempted to illustrate progress in the finished goods and biofuels sectors and provide some commentary on the consumption of palm kernel meal. Given the highly complex nature of palm oil supply chains and the risk of significant double counting of sustainable palm oil claims, the analysis presents these figures separately.

2.1. Main findings

The findings indicate that in 2013 UK purchases of palm oil supported by RSPO certification (described in section 1.3) have increased as highlighted in Figure 2 below. This estimate of purchases of UK palm oil supported by RSPO supply chain models in the UK comprises:

- 222,204 mt of imports of Segregated and Mass Balance Certified Sustainable Palm Oil (CSPO) (excluding derivatives and finished goods) by UK refiners (equivalent to either 37.9% (scenario 1, see below) or 48.8% (scenario 2, see below) of UK import, depending on which trade data source is used) and
- 99,412 mt of palm oil supported by purchases of GreenPalm certificates by UK companies. This supported the production of certified oil equivalent to either 17% (scenario 1) or 21.8% (scenario 2) of UK import, depending on which trade data source is used.

Together this accounts for 321,616 mt of palm oil. As an indicator of UK support for CSPO through RSPO supply chain models this shows a rise of nearly 166,616 mt since 2009.

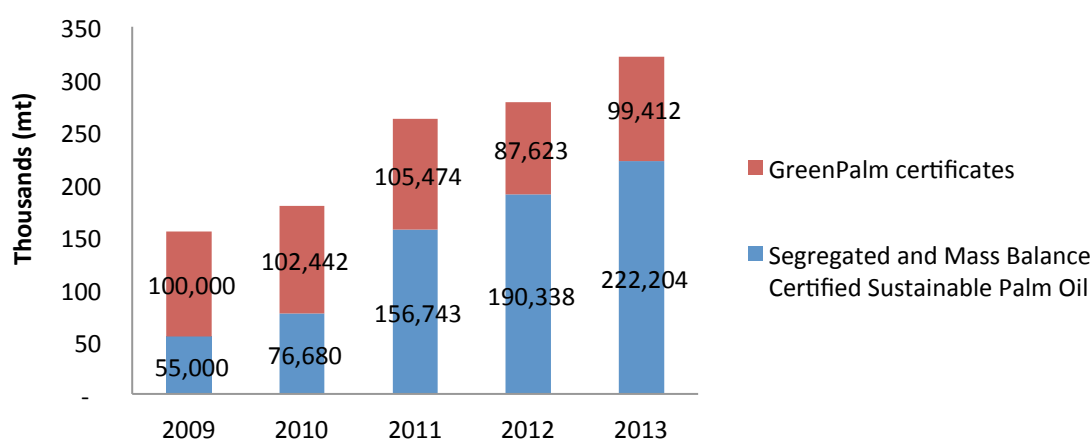


Figure 2 Certified Sustainable Palm Oil purchases in the UK supported by RSPO supply chain models, from the 2009 baseline figure in metric tonnes (Source: CPET analysis of UK refinery data, 2014)

Figure 2 shows a steadily increasing trend in imports of Segregated and Mass Balance CSPO by UK refiners, whilst purchases of GreenPalm certificates by UK companies have increased slightly from 2012 to 2013, and remained almost level since 2009.

Two scenarios have been established to calculate the proportion of total UK imports of palm oil, based upon two different data sources for total UK imports, as illustrated below (Figure 3). In Scenario 1 (Figure 3a), total UK imports have been based upon Oil World data. This shows the 2009 baseline highlighted in green as Oil World data was used in the 2011 Defra report. UK imports for Scenario 2 (Figure 3b) are based upon data provided by FEDIOL.

Scenario 1: Proportion of GreenPalm and Segregated/Mass Balance CSPO in the UK (based on Oil World data)

Scenario 2: Proportion of GreenPalm and Segregated/Mass Balance CSPO sustainable consumption in the UK (based on FEDIOL data)

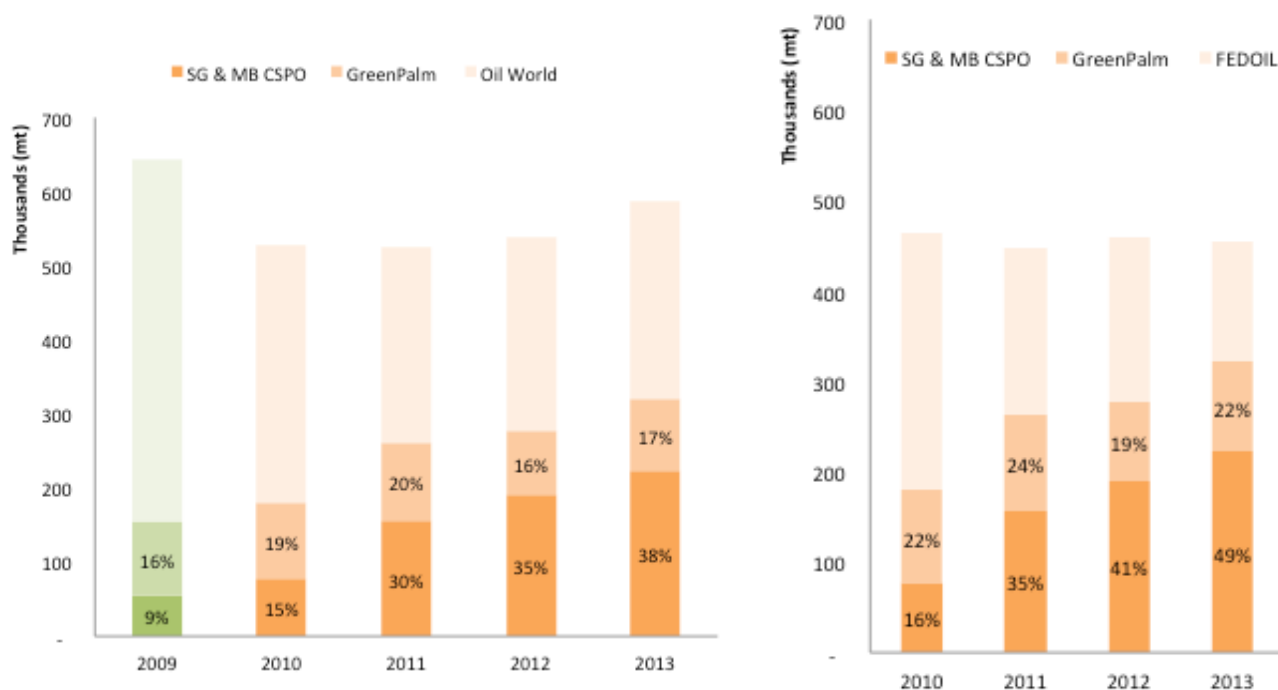


Figure 3 Proportion of palm and palm kernel oil in the UK purchased through GreenPalm Certificates and Segregated/Mass Balance supply chain models, compared to total UK imports using both a) Oil World datasets and b) FEDIOL (Source: CPET analysis of UK refinery data together with Oil World and FEDIOL data, 2014)

This analysis has included both Oil World and FEDIOL import data as opinions differ on which is the more accurate. *Question eight of the Stakeholder Survey asked stakeholders ‘Which import figures (FEDIOL, Oil World, or other data source) best reflect your experience?’ Those who responded to this question represented all major UK refiners. Three out of six respondents chose FEDIOL, two out of six chose Oil World, and 1 chose other data sources.*

In Scenario 1 Figure 3a) indicates that in 2013 UK purchases of RSPO supply chain models (Segregated and Mass Balance CSPO, or through the purchase of GreenPalm certificates) is equivalent to 55% of total imports by UK refiners (excluding derivatives and finished goods). Here the import estimate is based upon Oil World figures, which use EUROSTAT trade data and then gather additional trade data through market intelligence.

In Scenario 2 (Figure 3b), the 2013 UK import by UK refiners (excluding derivatives and finished goods) supported through purchases of RSPO supply chain models is equivalent to 71%. Here the total imports estimate of palm oil and palm kernel oil is based solely on trade data from EUROSTAT, via FEDIOL. FEDIOL collects trade data from EUROSTAT later in the year, once it has been fully updated.

Comparing the two different scenarios, the estimated proportion of palm oil imports in the UK accounted for through purchases of palm oil supported by RSPO certification is equivalent to either 55% (Scenario 1, Oil World) or 71% (Scenario 2, FEDIOL), depending upon the baseline trade data used.

2.2. Progress in finished goods

Palm oil purchased in 2012-13 by UK based consumer goods producers and retailers that was supported by RSPO certification, was estimated using information reported to the RSPO. This includes purchase of Segregated and Mass Balance CSPO products and GreenPalm certificates.

Both these figures are for finished goods and are excluded from the main findings for imports, to avoid the significant risk of 'double counting'.

In 2012-13 palm oil supported by RSPO certification purchased by **UK RSPO Retail Members**, was approximately 37,265 metric tonnes, in addition to a total 31,867 metric tonnes of both own-brand and private label palm oil purchased by the same RSPO members.

In the same year palm oil supported by RSPO certification purchased by **RSPO Consumer Goods Manufacturers Members** (identified as significant UK purchasers of palm oil), was approximately 94,961 metric tonnes, out of a total 582,411 metric tonnes of both own-brand and private label palm oil purchased by the same RSPO members.

Because RSPO could only provide aggregate data for own-brand/private label, there is a risk that some own-brand/private label palm oil was be double-counted between Retailers and Manufacturers, who may be selling private label palm oil to retailers.

This progress highlights the efforts of these two sectors to support sustainable consumption of palm oil in the UK. The RSPO ACOP data for 2013-14 was not available at the time of drafting this document.

2.3. Consumption of palm kernel meal

Imports of palm kernel meal in the UK accounted for 513,600 mt in 2013, compared to 663,300 mt in 2009, according to Oil World data. According to FEDIOL data, imports of palm kernel meal in the UK accounted for 534,000 in 2013, compared to 663,000 mt in

2009. There is little discrepancy between FEDIOL data and Oil World data for palm kernel meal.

According to the Defra report (2011), in 2009 over 80% of the imported palm kernel meal was used for animal feed, with the remaining 20% going into electricity generation.

Unfortunately, reliable data on the uptake of Segregated and Mass Balance CSPO across the animal feed sector was not available. However, it should be noted that some animal feed suppliers have made commitments to purchasing sustainable palm kernel meal, including through RSPO membership and purchase of Segregated or Mass Balance CSPO. This progress has been reflected in Section 2.2 through analysis of RSPO ACOP data for Consumer Goods Manufacturer Members.

In Section 2.4 below an estimate of progress in the biofuels sector of the use of sustainable palm kernel meal (also referred to as Palm Kernel Expeller (PKE)) and Palm Fatty Acid Distillate (PFAD) (which can be refined from both palm kernel oil and palm oil) has been made.

2.4. Progress in the biofuels sector

Sustainable consumption of palm oil within the biofuels sector is controlled by the Renewable Fuels Transport Obligation (RFTO) and the Renewable Obligation (RO).

The statistics of the RFTO are in their sixth year of reporting with the most recent running from the 15th April 2013 to the 14th April 2014. It should be noted that this RFTO reporting calendar does not directly correspond to the reporting calendar used by RSPO's Annual Communication of Progress. In year six, 100% of biofuels were sustainable, as illustrated by Figure 5 below. As the graph illustrates, biofuels have been 100% sustainable since year 5.

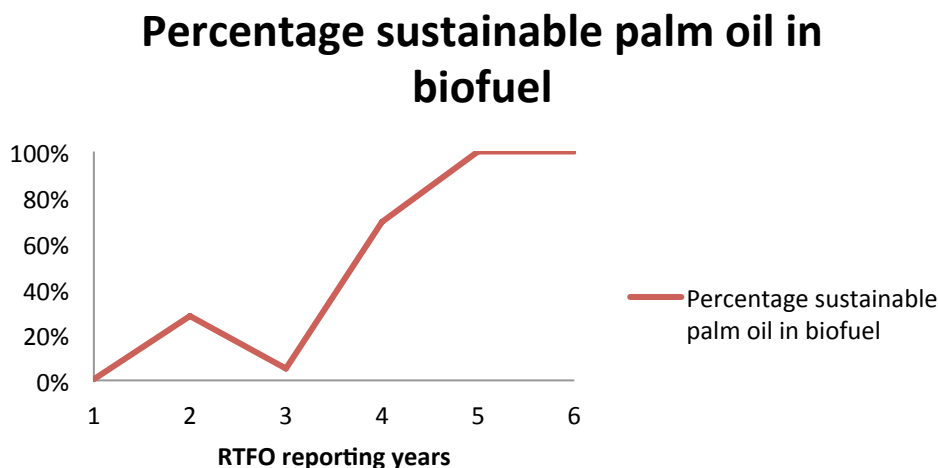


Figure 4 Proportion of palm and sustainable palm of all types of biofuels reported under the RTFO (Source: CPET analysis of UK Renewable Transport Fuel Obligation statistics, 2014)

There has been a substantial decrease in the volumes of palm oil in the last six years of reporting from 127,008,760 litres in Year 1 (2008-9), which represented 9.9% of all

biofuels, to 11,730,251 litres in Year 6 (2013-14), representing 1% of biofuels. This decline in the use of palm oil as a biofuel in the UK has been attributed to policy changes such as the introduction of the Renewable Energy Directive (RED). This was adopted by the EC in 2009 and adapted into the UK's existing Renewable Transport Fuel Obligation (RTFO).

Changes to the RTFO, as a result of the RED, included mandatory sustainability criteria such as robust Greenhouse Gas Emission targets and land criteria, to ensure the lifecycle GHG emissions of biomass are acceptable and to prevent adverse land use change such as deforestation. Some biofuel suppliers may have found it hard to purchase palm oil and palm kernel oil products which complied with these requirements, leading to a reduction in their use in the biofuels sector.

The Renewables Obligation (RO) provides incentives for large-scale renewable electricity generation by requiring UK suppliers to source a proportion of their electricity from eligible renewable sources, including palm oil plantations.

Palm Kernel Expeller (PKE, also known as palm kernel meal) and Palm Fatty Acid Distillate (PFAD) are the main palm products consumed by the electricity generators in the UK. According to Annual Sustainability Report 2012-2013 (Ofgem, 2013), in 2012-13 just PKE accounted for an equivalent of 13,026 metric tonnes, compared to a mixture of PKE and PFAD in previous years - 48,012 in 2011-12, 17,735 mt in 2010-11 and 113,090 metric tonnes in 2009-10. This fluctuation is likely to be driven by a number of factors, which could include availability of PKE and PFAD.

2.5. Conclusions

Since the 2009 baseline, the overall volume and the proportion of UK palm oil imports supported by RSPO supply chain models has steadily increased. The volume and proportion accounted for by imports of Segregated and Mass Balance CSPO has also increased year on year. There was an upward trend in the purchase of GreenPalm certificates by UK companies from 2009 to 2011, which has since slowed. This is likely to be due to more companies switching from purchase of GreenPalm certificates to purchase of Segregated and Mass Balance CSPO. These figures are echoed by stakeholder views expressed in the Stakeholder Survey.

Question nine of the Stakeholder Survey asked 'What is your experience of the demand of (sustainable) palm and palm kernel oil in the UK?'

Comments on the trend in demand for sustainable palm and palm kernel oil included:

- Most stakeholders felt that demand for sustainable palm oil was increasing, and that demand for sustainable palm kernel oil is static.

Challenges noted by stakeholders included:

- Both tracking and sourcing sustainable palm derivatives and palm oil in finished goods.
- Tracking sustainable palm oil that cannot be marked as sustainable when retailers do not have chain of custody.
- Clarifying the disparity in the data sets between FEDIOL and Oil World.

- Encouraging the foodservice industry to source sustainable palm oil. Some stakeholders suggested that government procurement standards are an important example in this area.

Overall, the continued increase in the volume and proportion of UK imports supported by RSPO supply chain models between 2012 and 2013 demonstrates continued progress towards achieving 100% sourcing of credibly certified sustainable palm oil by the end of 2015.

Annex 1. Methodology

This section describes in detail how the total of UK sustainable palm and palm kernel oil, as a percentage total of total UK consumption was calculated. This analysis builds on the methodology used to obtain estimates of UK sustainable palm oil consumption in the Defra research report (2011) 'Mapping and Understanding the UK Palm Oil Supply Chain (EV0459)', undertaken by Proforest.

That report estimated 643,400 mt of palm oil imported in 2009 including PO and PKO, including direct fractions, olein and stearin and palm fatty acid distillate. These 2009 import figures were developed using trade data. Imports of finished products, derivatives, oleochemicals and PKM were excluded from the 2009 estimate.

Consequently, to ensure that the 2009 estimate can be used as a baseline, this study also excluded imports of finished products, oleochemicals and derivatives.

A1.1. Estimating UK consumption of sustainable palm oil and palm kernel oil

The highly complex nature of palm oil (PO) and palm kernel oil (PKO) supply chains means that it is not currently possible to develop a reliable indicator of total palm oil use in the UK, including PO and PKO found in finished goods.

However, volumes of PO and PKO imported into the UK were used in the Defra research report (2011) as a reliable indicator of consumption in the UK market and consequently also been used for this Annual Review.

Based on the Defra research report (2011), UK palm oil purchases supported by RSPO certification includes Identity Preserved, Segregated and Mass Balance Certified Sustainable Palm Oil products and GreenPalm's Book and Claim system. In addition, in the context of biofuels palm oil certified under the International Sustainability and Carbon Certification system (ISCC), is for the purposes of this analysis considered as sustainable.

A1.1.1. Imports of sustainable PO and PKO

Total volumes of UK imports and sales of PO and PKO have been gathered from two data sources FEDIOL and Oil World for the years 2009, 2010, 2011, 2012 and 2013. Both FEDIOL and Oil World use trade data from EUROSTAT, taking into account the same tariff lines for palm oil and palm kernel oil. EUROSTAT relies upon submissions of trade data from individual countries.

FEDIOL uses EUROSTAT data, without any further revision, although it collects the EUROSTAT data later in the year once it has been refined. Oil World on the other hand uses trade intelligence to refine their estimates of PO and PKO data including imports into the UK. Consequently, two scenarios have been developed to reflect the different data sets.

The volume of palm oil supported by RSPO supply chain model was estimated by collating the submissions of data generously provided from GreenPalm, UK refineries with the help of the Seed Crushers and Oil Processors Association (SCOPA), together with data from RSPO's Annual Communication of Progress (ACOP)¹⁰. This was used to estimate the proportion of PO and PKO imports accounted for by Segregated and Mass Balance CSPO and purchase of GreenPalm certificates by UK companies.

A1.1.2. Consumption of sustainable PO and PKO by Consumer Goods Manufacturers and Retailers

Volumes of PO and PKO reported in the RSPO ACOP 2012-13 were used to analyse UK RSPO Retail and Consumer Goods Manufacturers Members sustainable palm oil consumption.

Purchases of CSPO for RSPO Retail and Consumer Goods Manufacturers Members, supported through RSPO supply chain models, were compared to the total PO and PKO own brand and private label purchases claimed by the same RSPO members.

This was done by collating the RSPO ACOP data for volumes of 'RSPO certified' palm oil in metric tonnes (which includes Segregated and Mass Balance CSPO and GreenPalm certificates from companies operating in the UK).

Because RSPO could only provide aggregate data for own-brand/private label, there is a risk that some own-brand/private label palm oil was be double-counted between Retailers and Manufacturers, who may be selling private label palm oil to retailers.

In the previous year, the UK market share of top international companies was added into the total, whilst the international market share of top UK companies was subtracted from the total, in order to account for palm oil used by companies with international market presence. This analysis was not included in this year's calculations due to a lack of reliable data on UK and international market shares (of the companies identified to represent over 75% of the UK RSPO Consumer Goods Manufacturers and Retail Member consumption of palm oil by volume, based upon RSPO ACOP data, as per the previous year's methodology).

It should be noted that RSPO member's data reported through the RSPO ACOP digest has been used as the only data source for estimating the consumption of sustainable PO and PKO by finished goods producers and retailers. RSPO membership accounts for a relatively high proportion of all consumer goods manufacturers and retailers, but not all. This means that the estimated total consumption and estimated sustainable consumption is likely to be an underestimate.

A1.1.3. Consumption of PO and PKO for biofuels

Volumes of total as well as sustainable palm oil used in biofuels have been gathered from the Renewable Transport Fuel Obligation statistics¹¹ for the last 6 year periods and have been used to produce an accompanying figure (see Figure 5).

¹⁰ http://www.rspo.org/en/annual_communications_of_progress

¹¹ <https://www.gov.uk/government/publications/renewable-transport-fuel-obligation-statistics-period-5-2012-13-report-4>

Volumes of total and sustainable palm oil used by electricity suppliers under the Renewable Obligation (RO) have been gathered from OFGEM Annual Sustainability Report series.

A2.3. Stakeholder consultation

An online questionnaire (found in Annex 2) was sent to key stakeholders. Questions were designed to triangulate the trade, refinery and RSPO ACOP data with stakeholder views, by asking stakeholders to select their relevant sector and choose the most accurate estimated ranges based on their industry experience.

This approach aimed to enhance the levels of stakeholder feedback from the previous study, whilst maintaining commercial confidentiality. The questionnaires also allowed the opportunity for stakeholders to comment and provide their own estimates and data where they wished.

A1.2. Final analysis

Once stakeholder feedback on the initial estimates had been gathered, figures were refined.

A1.2.1. Assumptions

Due to the complex nature of palm oil supply chains and the availability of data it has been inevitable that a number of assumptions have been made at each stage of the analysis. Where possible these have been in line with the previous research and/or informed by stakeholder engagement. This section explains what assumptions have been made during the analysis.

Calculating the total consumption of UK palm and palm kernel oil:

- Total UK consumption has been defined as the total imports in volume for a given year (metric tonnes). Two scenarios have been established to calculate the proportion of total UK imports of palm oil that the estimated volume of sustainable palm oil represents, based upon two different data sources for total UK imports, as illustrated in Figure 3. In Scenario 1 (Figure 3a), total UK imports have been based upon Oil World data, which was the data source used by Proforest for the 2009 estimate of imports of palm oil and which uses EUROSTAT trade data and then gather additional trade data through market intelligence). UK imports for Scenario 2 (Figure 3b) are based upon solely EUROSTAT data provided by FEDIOL.
- *Question eight of the Stakeholder Survey asked stakeholders ‘Which import figures (FEDIOL, Oil World, or other data source) best reflect your experience?’ Three out of six respondents chose FEDIOL, two out of six chose Oil World, and 1 chose other data sources.*
- Based upon stakeholder feedback, this analysis has included both Oil World and FEDIOL import data.
- Derivatives and finished goods have not been included in the import figures. This means that the import figures are likely to be an underestimate.

Calculating the volumes of sustainable palm and palm kernel oil:

- This analysis defines CSPO in the same way as the Defra research report (2011), which includes RSPO supply chain models Mass Balance and Segregated Certified

Sustainable Palm Oil and GreenPalm certificates. In addition this study also includes information about palm oil consumption for biofuels under the International Sustainability & Carbon Certification as sustainable for biofuels reported under the Renewable Transport Fuel Obligation (RTFO) and Renewables Obligation (RO).

- The previous Defra research report (2011)¹² identified a range of companies that imported palm oil into the UK. As the major importers of palm oil into the UK (as substantiated by stakeholder engagement) this analysis refined the original approach taken in 2011 and focused solely on the refinery data, as the most robust means to capture the upstream supply sustainable palm oil in the UK.
- It should be noted that the estimate of imports of Segregated and Mass Balance Certified Sustainable Palm Oil (CSPO) is likely to be an underestimate as it is based upon import data from UK refiners only and excludes imports by other companies. In 2012, UK refiners accounted for either 70% of all imports, based on Oil World data or 82%, based on FEDIOL data. Total import data from all 3 refiner groups was unavailable this year. As a result, a mixture of refinery import and sales figures were used. This is unlikely to make a significant impact on the result as the difference between refinery import and sales figures will likely not be very large.
- The RSPO Annual Communication of Progress data was used to assess the downstream consumption of sustainable palm oil for the UK (the 'consumer goods producers' and 'retailer' classifications), although this is likely to be an underestimate as it excludes purchases made by non-RSPO members. All UK registered companies were included in the analysis. This consumption data was not included in overall figures showing sustainable palm oil consumption in the UK.

¹² Annex A: UK importers of palm oil

Annex 2. Stakeholder questionnaire

The table below is a copy of the questionnaire used to conduct the survey of stakeholder views, to consult on the preliminary findings.

	Reviewing the 2009 baseline estimate of sustainable palm and palm kernel oil in the UK
1	Do you agree or disagree with the Defra research report estimate for 2009 that the equivalent of 155,000 metric tonnes of sustainable palm oil were consumed in the UK (24% of UK imports)?
	CPET methodology for 2012 analysis
2	Do you have any comments on the CPET method used?
3	Do you have any comment on potential non-refinery imports we should include in our analysis?
4	Do you have any general comment on the use of Oil World and FEDIOL as data sources?
5	Do you have any comment on other trade data sources that should be considered during the analysis?
	Summary findings - your views
6	Do you agree or disagree with the estimate that in 2014 approximately 321,616 metric tonnes of UK imports of palm and palm kernel oil were sustainable (either through mass balance or segregated Certified Sustainable Palm Oil, or accounted for by GreenPalm certificates)?
7	The preliminary findings indicate that volumes of mass balance and segregated Certified Sustainable Palm Oil have shown a year on year increase, however the number of GreenPalm certificates purchased in the UK have overall shown a slight downward trend since 2009. Please comment based on your experience on what you think may be driving these trends.
	Baseline import data - your views
8	Which import figures (FEDIOL, Oil World, or other data source) best reflect your experience?
9	What is your experience of the demand of (sustainable) palm and palm kernel oil in the UK?
	Meeting the 2015 Commitment
10	Are you likely to meet your commitment to source 100% CSPO by 2015?
11	If not, what are the main obstacles to sourcing 100% CSPO?
12	What actions can the private sector, NGO's, the government take to support progress towards meeting your 2015 commitment?
13	If you do not meet your commitment, how will you communicate this to your stakeholders?
14	Please feel free to make any additional comments you would like.

Annex 3. Summary of Stakeholder Survey results

The Stakeholder Survey was sent to 45 stakeholders from 33 organisations, including all major trade associations. Out of the 45 stakeholders contacted, 13 responded.

Reviewing the 2009 baseline estimate of sustainable palm and palm kernel oil in the UK

The Defra research report (2011) estimated that in 2009 the consumption of sustainable palm and palm kernel oil in the UK was equivalent to 155,000 metric tonnes or 24% of total UK imports.

1. Do you agree or disagree with the Defra research report estimate for 2009 that the equivalent of 155,000 metric tonnes of sustainable palm oil were consumed in the UK (24% of UK imports)?	
Agree	Disagree (please comment below)
8 (73%)	3 (27%)
<ul style="list-style-type: none"> The feed sector estimates differ from those of Defra's We do not track this data and so I'm not in a position to comment whether this figure is accurate or not. However, from a personal perspective I think the figure might be higher in reality? My understanding is that this figure was largely based upon the number of GreenPalm certificates purchased. A purchase of GreenPalm certificates does not ensure the palm oil actually consumed was sustainably produced, so the 2009 figure could be distorted. 	

CPET methodology for 2012 analysis

As an indicator for the consumption of sustainable palm oil in the UK this analysis has focused on the import and supply of RSPO mass balance or segregated Certified Sustainable Palm Oil (excluding derivatives and finished goods) by UK refineries and accounted for by GreenPalm certificates by UK based companies.

This has been supplemented by RSPO ACOP figures on UK retail and manufacturing for additional commentary on progress on the sustainable consumption of palm oil in the UK.

Total volumes of UK imports of palm and palm kernel oil have been gathered from the following two data sources: 1) FEDIOL (representing the EU vegetable oil and protein meal Industry) and 2) Oil World (the independent forecasting service for oilseeds, oils and meals). Both FEDIOL and Oil World use trade data and have generated significantly different figures.

2. Do you have any comments on the method CPET used?
<ul style="list-style-type: none"> I think it's problematic that the method does not include imports of palm derivatives or palm oil in finished goods as this a significant source of palm oil in the UK and so will bias the results as to progress towards the 2015 CSPO target. Derivatives and palm oil in finished products will also be some of the most difficult palm oil to source sustainably. Whilst I understand how difficult it would be to account for derivatives and palm oil in processed products, it would be good if CPET could proxy this using data from the big retailers on palm oil in own-brand processed products

and from any cleaning/other companies that track their use of derivatives. Perhaps this could be added to the end of the study when publishing results as an area that requires further exploration. Another issue when measuring imports as raised by retailers is that they cannot mark something as containing RSPO unless they have chain of custody. I think it's worth speaking to the big retailers to find out how much palm oil used in own-brand products is in fact sustainably sourced but cannot be marked as such. Finally, regarding the total imports of palm and palm kernel oil it would be useful to have more than two data sources when measuring this. Especially as FEDOIL and Oil World's stats differ so greatly.

- A purchase of GreenPalm certificates does not ensure the palm oil actually consumed was sustainably produced.
- CPET is only capturing Palm oil Crude/Refined BUT not all ingredients containing palm.
- At refinery level only, therefore not capturing the finished imports of Palm oil ingredients.

3. Do you have any comment on potential non-refinery imports we should include in our analysis?

- For palm oil used in biofuel see DfT RTFO returns
- Using either Oilworld or FEDIOL should capture all imports of oil whether bulk or in smaller packs. All missing should be palm in finished products - your survey on manufacturing and retail figures is the best you can do.
- Yes, in not capturing the bakery fats market
- A not insignificant amount of refined palm and finished products are imported from the EU
- Must be included BUT very difficult

4. Do you have any general comment on the use of Oil World and FEDIOL as data sources?

- Both use Eurostat as their source, but FEDIOL will be more accurate as they use a later set of figures from Eurostat. This data is reissued so gets more accurate over time but Oilworld use an early version.
- Ok for 'overall' estimates
- Is there another source of data from a body that tracks palm kernel derivatives? I feel it is problematic to use FEDIOL if it represents an industry rather than being an independent body but understand if there are limited data sources when tracking palm oil imports.
- Possibly one of the best sources

5. Do you have any comment on other trade data sources that should be considered during the analysis?

- We should use other trade bodies
- See response to Q2
- Take a look at <https://www.uktradeinfo.com/Pages/Home.aspx>

6. Do you agree or disagree with the estimate that in 2013 approximately 321,616 metric tonnes of UK imports of palm and palm kernel oil were sustainable (either through mass balance or segregated Certified Sustainable Palm Oil, or accounted for by GreenPalm certificates)?

Agree	Disagree (please comment below)
6 (75%)	2 (25%)
<ul style="list-style-type: none"> • I do not have the figures to comment on these aggregate figures 	

- Given that we do not track this data nor focus on this kind of analysis it is difficult for me to comment on whether this data is accurate or not.
- Again, I wouldn't necessarily class oil supplied in association with GP certs as sustainable

7. The preliminary findings indicate that volumes of mass balance and segregated Certified Sustainable Palm Oil have shown a year on year increase, however the number of GreenPalm certificates purchased in the UK have shown a slight downward trend. Please comment based on your experience on what you think may be driving these trends.

Agree	Disagree (please comment below)
9 (90%)	1 (10%)
<ul style="list-style-type: none"> • In the biofuel sector use of mass balance is mandatory • The feed industry has started to purchase a number of certificates as of Q4 2014 • I think that retailers and other companies have become aware that GreenPalm is not really a solution for sustainable palm oil in the long term, following general awareness of the issues with carbon offsetting. Also I think that possibly as the number of entrants to mass balance or segregated certification processes increase this removes any danger of being the 'first mover' in the industry and possibly reduces costs of getting certified so more companies decide to go for these certification options. As companies' competitors buy mass balance and segregated palm oil this also puts pressure on companies to do the same, due to reputational risks. • Our members feel that the GreenPalm certificates are a temporary, last ditch solution and would prefer to go palm oil free where possible, as opposed to GreenPalm certificates. • Seems to be a greater awareness that GP certs do not guarantee that the oil used was sustainably produced 	

8. Which import figures (FEDIOL, Oil World, or other data source) best reflect your experience?

FEDIOL	Oil World	Other data sources
3 (50%)	2 (33.33%)	1 (16.67%)
<ul style="list-style-type: none"> • DfT RTFO returns • Unable to comment without a suitable reference point. • Assuming you are totalling the same lines for both, then FEDIOL will be the most accurate as it uses later data. • Not in a position to know • I can't comment- this is not the kind of data or information that we track. • OIL WORLD data is widely accepted throughout the international veg oil trade 		

9. Are you likely to meet your commitment to source 100% CSPO by 2015?

- Yes - for the use of palm oil in UK produced biofuels as defined in the Renewable Energy Directive
- No, but should get a high percentage
- As a Trade Association we can only encourage our members to make a commitment and continue to communicate with them.
- For palm oil targets can be reached with physical supplies (if that's what market demands), for PKO and some derivatives physical supply more of a challenge but they have the GreenPalm option.

- Yes
- My members are all members of RSPO so I believe so
- As an organisation we could achieve this but in terms of our members this is not something we could enforce. However, we can and will encourage our members, particularly the contract caterers, cafes and universities who use a larger volume of processed palm- containing products to source sustainably where possible.
- Yes

10. If not, what are the main obstacles to sourcing 100% CSPO?

- No obstacle but customer demand would drive faster uptake.
- If including GreenPalm then no obstacles.
- In terms of the issues that our members face I think these are firstly identifying where the business is using palm oil, then the availability of price competitive suppliers' who use RSPO in their products, particularly where restaurants have to switch from popular brands in order to use RSPO.

11. What actions can the private sector, NGO's, the government take to support progress towards meeting your 2015 commitment?

- Nothing specific
- Food service is probably the biggest challenge. Government procurement standards are very important to set a lead on this.
- Be committed to the RSPO
- Speaking in terms of our members Private sector: Work towards using SPO within products that our members use so that members don't have to switch away from popular brands and have access to products with sustainably sourced palm oil NGOs: put pressure on the private sector to meet 2015 commitments. Encourage food service businesses to recognise palm oil as a sourcing issue and part of running a responsible business- this is where we come in. The government: ensure that messages on sustainably sourced palm oil are clear and understandable, ensure that they are sourcing SPO within own operations etc.
- Drive use in Foodservice

12. If you do not meet your commitment, how will you communicate this to your stakeholders?

- Communication of this sort is on a B2B and individual basis
- Our message doesn't change: we promote and encourage and facilitate use of CSPO and will supply what the market demands.

13. What is your experience of the demand of (sustainable) palm and palm kernel oil in the UK?

- It is mandatory to use sustainable palm oil in biofuels blended into UK fuel
- Demand is relatively static for palm oil. However, demand varies depending on the relative price of other oils. To date there has not been a great demand for sustainable palm oil by customers in the supply chain.
- It is increasing rapidly towards 2015. The biggest challenge is food service.
- Demand for sustainable palm oil is increasing, but demand for sustainable PKO is static
- Core business requirement

14. Please feel free to make any additional comments you would like.

- Let me know if you need any further clarification on anything! Apologies if I have been unable to answer these questions accurately- as a not-for-profit advisory body our position in the palm oil debate is one of supporting our members to make responsible decisions when sourcing rather than obliging them to or tracking data on palm oil consumption.