Department
for Environment
Food & Rural Affairs

www.gov.uk/defra

UK consumption of sustainable palm oil

Annual review

November 2013

cpet

This document/publication is also available on our website at:

https://www.gov.uk/government/policies/protecting-biodiversity-and-ecosystems-at-home-and-abroad

PB 14057

Contents

Executive summary

The United Kingdom is working towards achieving 100% sourcing of credibly certified sustainable palm oil by the end of 2015.

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, this analysis forms the first Annual Review to track the progress towards meeting this commitment by estimating the consumption of sustainable palm oil in the UK for subsequent years.

The findings indicate that by 2012 UK purchases of Certified Sustainable Palm Oil (CSPO) supported by RSPO approved supply chain mechanisms in the UK has increased significantly as highlighted in Figure 1 below. This estimate of volume of CSPO supported by RSPO approved supply chain mechanisms in the UK is based upon:

- 190,338 mt of imports of Segregated and Mass Balance Certified Sustainable Palm Oil (CSPO) (excluding derivatives and finished goods) by UK refiners (equivalent to either 35.4% or 41.4% of UK import, depending on which trade data source is used) and
- 87,623 mt of palm oil accounted for through purchases of GreenPalm certificates by UK companies. This supported the production of certified oil equivalent to either 16.3% or 19.0% of UK import, depending on which trade data source is used.

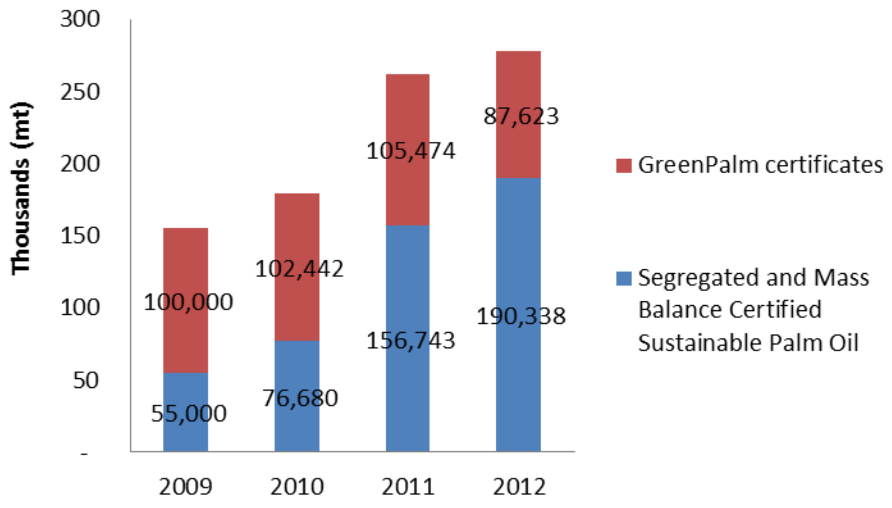


Figure 1 Certified Sustainable Palm Oil purchases in the UK supported by RSPO supply chain mechanisms, from the 2009 baseline figure (Source: CPET analysis of UK refinery data, 2013)

The estimated proportion of palm oil imports (excluding derivatives and finished goods) accounted for by purchases of CSPO supported by RSPO supply chain mechanisms is either 52% or 60%, depending upon the baseline trade data used. Since the 2009 baseline, the volume and the proportion of sustainable palm oil has steadily increased. RSPO supply chain mechanisms include imports of Segregated or Mass Balance CSPO and purchase of GreenPalm certificates by UK companies.

Overall, the significant progress made from 155,000 metric tonnes in 2009 to 277,961 (mt) in 2012 is a very encouraging indicator of the UK's commitment to achieving 100% sourcing of credibly certified sustainable palm by the end of 2015.

Introduction

Background

The United Kingdom is working towards achieving 100% sourcing of credibly certified sustainable palm oil by the end of 2015. *(UK Statement, 2012[1]).*

The commitment outlined in the above 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. It followed similar statements which were made in the Netherlands[2] and Belgium[3]. Since the UK statement, France and Germany have also launched sustainable palm oil initiatives.

The Defra research report (2011) by Proforest *"Mapping and Understanding the UK Palm Oil Supply Chain[4]"* 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 approved supply chain mechanisms. 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.

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 approved supply chain mechanisms (Identity Preserved, Segregated, Mass Balance, GreenPalm), building upon

---

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

[2] http://www.taskforceduurzamepalmolie.nl/Portals/4/download/Manifesto_Task_Force_Sustainable_Palm_Oil.pdf

[3] http://www.sustainabelpalm.be/

[4] 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

the methodology employed in the Defra research report (2011). This Annual Review aims to carry out the estimate for the subsequent years after the 2009 baseline in the initial 2011 study.

Approach

There is no single, straightforward universally-applied definition of sustainable palm oil[5]. 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 mechanisms. 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.

In order to reflect the approach taken in the 2011 Defra report, this document focuses on CSPO purchases in the UK supported through the RSPO approved supply chain mechanisms including import of crude Segregated and Mass Balance CSPO (excluding derivatives and finished goods) by UK refiners 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.

[5] http://www.cpet.org.uk/palm-oil-folder/what-is-sustainable-palm-oil-1

Progress towards the 100% target

This analysis has focused on the purchase of CSPO supported by RSPO approved supply chain mechanisms, including the import 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.

Main findings

The findings indicate that in 2012 purchases of CSPO in the UK supported through RSPO approved supply chain mechanisms has increased significantly as highlighted in Figure 2 below. This estimate of purchases of CSPO supported by RSPO approved supply chain mechanisms in the UK is based upon:

- 190,338 mt of imports of Segregated and Mass Balance Certified Sustainable Palm Oil (CSPO) (excluding derivatives and finished goods) by UK refiners (equivalent to either 35.4% (scenario 1, see below) or 41.4% (scenario 2, see below) of UK import, depending on which trade data source is used) and

- 87,623 mt of palm oil accounted for through purchases of GreenPalm certificates by UK companies. This supported the production of certified oil equivalent to either 16.3% (scenario 1) or 19.0% (scenario 2) of UK import, depending on which trade data source is used.

Together this accounts for 277,961 mt of palm oil. As an indicator of UK support for CSPO through RSPO approved supply chain mechanisms this shows a rise of nearly 123,000 mt since 2009.

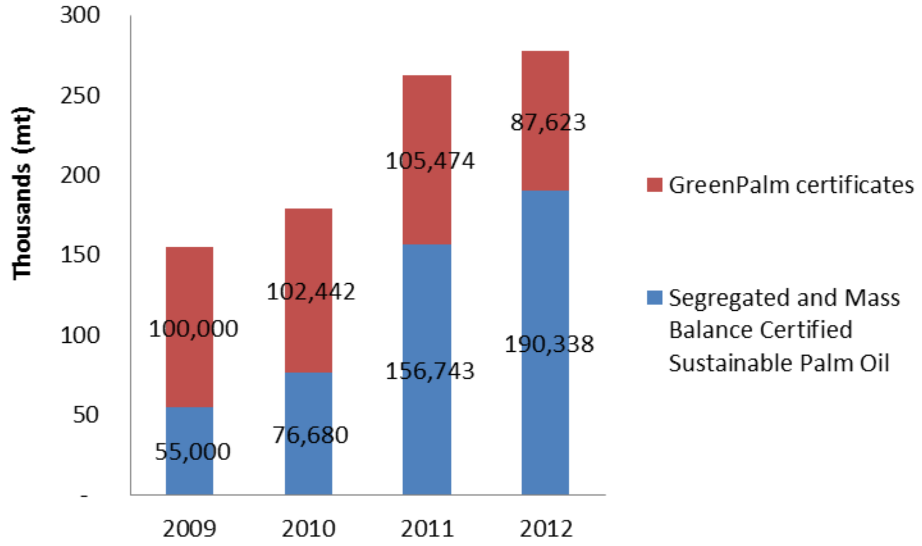
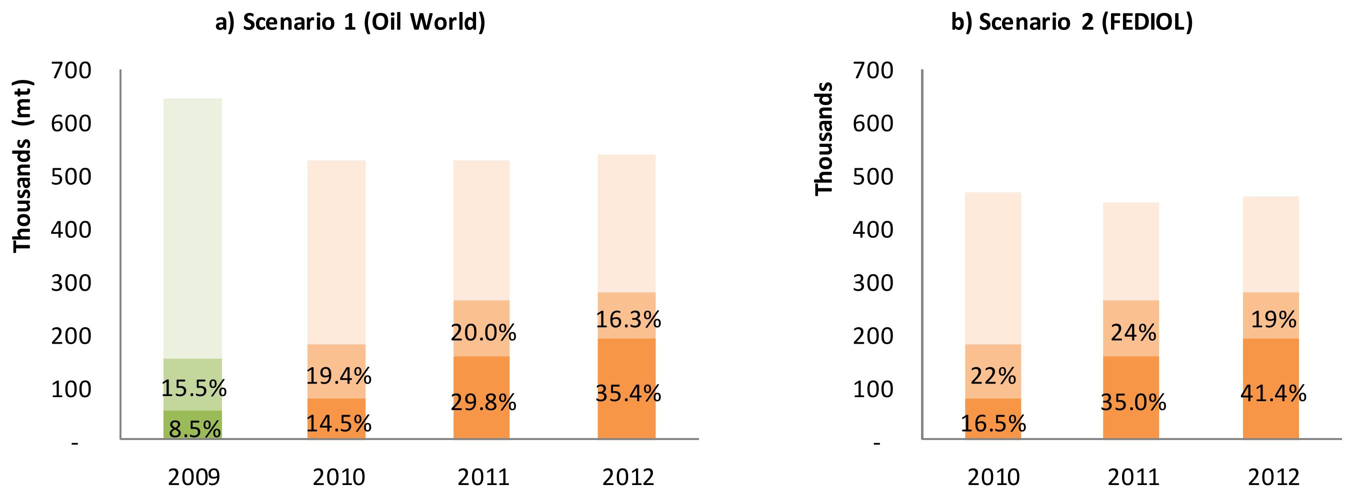


Figure 2 Certified Sustainable Palm Oil purchases in the UK supported by RSPO supply chain mechanisms, from the 2009 baseline figure in metric tonnes (Source: CPET analysis of UK refinery data, 2013)

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 decreased slightly from 2011 to 2012.

The Stakeholder Survey asked stakeholders then to comment on these trends. Five out of the six stakeholders who responded said this slight decrease in GreenPalm purchase *may be due to companies switching from GreenPalm to Mass Balance or Segregated CSPO.*

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 EUROSTAT data provided by FEDIOL.

Figure 3 Proportion of palm and palm kernel oil in the UK purchased by RSPO supply chain mechanisms, compared to total UK imports using both a) Oil World datasets and b) FEDIOL (Source: CPET analysis of UK refinery data together with FEDIOL and Oil World data, 2013)

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. Four out of seven respondents chose FEDIOL, whilst a further two out of seven chose Oil World.*

In Scenario 1 Figure 3a) indicates that in 2012 UK purchases of RSPO approved supply chain mechanisms (Segregated and Mass Balance CSPO, or through the purchase of GreenPalm certificates) is equivalent to 52% 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 2012 UK import by UK refiners (excluding derivatives and finished goods) supported through purchases of RSPO approved supply chain mechanisms is equivalent to 60% . Here the total imports estimate of palm oil and palm kernel oil is based solely on trade data from EUROSTAT, via FEDIOL.

Comparing the two different scenarios, the estimated proportion of palm oil imports in the UK accounted for through purchases of RSPO approved supply chain mechanisms is equivalent to either 52% (Scenario 1, Oil World) or 60% (Scenario 2, FEDIOL), depending upon the baseline trade data used.

Progress in finished goods

Palm oil purchased in 2011 by UK based consumer goods producers and retailers that was supported by RSPO supply chain mechanisms, was estimated using information reported to the RSPO. This includes purchase of Segregated and Mass Balance CSPO products and GreenPalm certificates.

In 2011-12 palm oil supported by RSPO supply chain mechanisms purchased by UK RSPO Retail Members, was approximately 60,144 metric tonnes, out of a total 85,173 metric tonnes of palm oil purchased by the same RSPO members.

In the same year palm oil supported by RSPO supply chain mechanisms purchased by RSPO Consumer Goods Manufacturers Members (identified as significant UK purchasers of palm oil), was approximately 169,182 metric tonnes, out of a total 354,183 metric tonnes of palm oil purchased by the same RSPO members.

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

This progress highlights the significant efforts of these two sectors to support sustainable consumption of palm oil in the UK. The RSPO ACOP data for 2012-13 was not available at the time of publication of this document.

Consumption of palm kernel meal

Imports of palm kernel meal in the UK accounted for 495,900 mt in 2012, compared to 663,300 mt in 2009, according to Oil World data. There is very 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 is 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.

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 fifth year of reporting with the most recent running from the 15th April 2012 to the 14Th April 2013. 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 five, 100% of biofuels were sustainable, as illustrated by Figure 5 below. As the graph illustrates, there has been a significant drop in the use of palm oil within the biofuels sector.

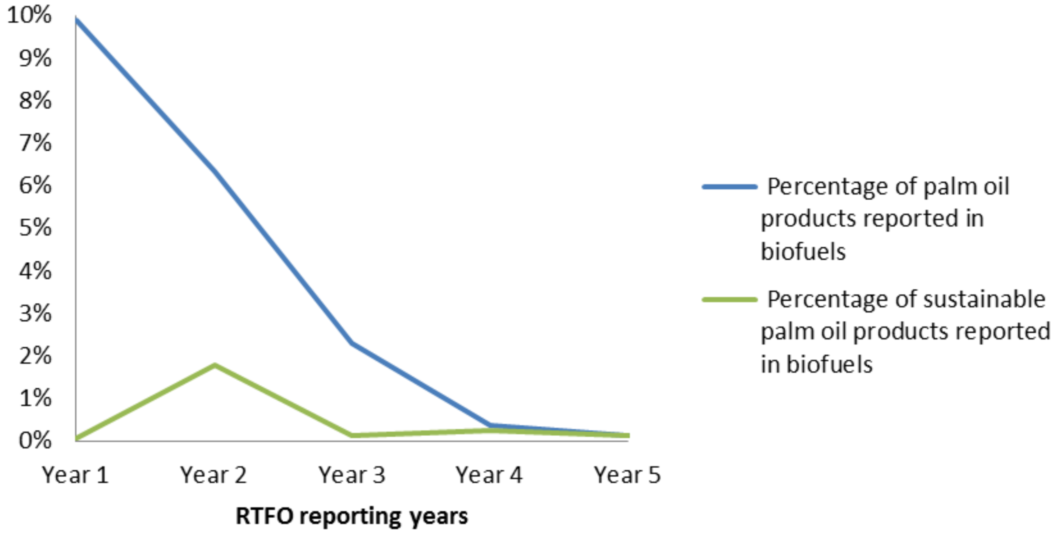


Figure 5 Proportion of palm and sustainable palm of all types of biofuels reported under the RTFO (Source: CPET analysis of UK Renewable Transport Fuel Obligation statistics, 2013)

There has been a substantial decrease in the volumes of palm oil in the last five years of reporting from 127,008,760 litres in Year 1 (2008-9), which represented 9.9% of all biofuels, to 1,315,973 litres in Year 5 (2012-13), representing 0.1% 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 RFTO, 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 2011-2012 (Ofgem, 2012). In 2011-12 PKE and PFAD accounted for an equivalent of 48,012 metric tonnes, compared to 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.

Conclusions

Since the 2009 baseline, the volume and the proportion of sustainable palm oil, of imports of Segregated and Mass Balance CSPO has steadily increased. There has been 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:

- *This is growing and is driven very much by retailer demand.*
- *We believe that Retailers own brand products use of segregated and mass balance Certified Sustainable Palm Oil (i.e. physical supply chains) has reached 75%.*
- *Increasing move to sustainable, within which the switch to physical options is increasing.*
- *It is undoubtedly growing for both Segregated and Mass Balance supply chains.*
- *Demand is active and growing fast. The exceptions to this pace are food service and public procurement.*

Challenges noted by stakeholders included

- *Zero demand in animal feed industry. Importers cannot commit to 100% supply if the end customer does not commit. Not workable in Ireland due to significant cross border trade - of which DEFRA has no influence.*
- *Challenges will be derivatives and sectors outside retail.*
- *Requirements for biofuels to only use sustainable palm oil saw a reduction in its overall use for biofuels. This is probably in part because the availability is limited but also requirements to achieve a minimum GHG threshold meant imports from*

areas such as Indonesia may not achieve these savings full stop and therefore the use in the UK has decreased almost to 0.

Overall, the significant progress made, in the purchase of CSPO through support for RSPO approved supply chain mechanisms from 155,000 metric tonnes in 2009 to 277,961 metric tonnes in 2012 is a very encouraging indicator of the UK's commitment to achieving 100% sourcing of credibly certified sustainable palm 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 CSPO purchases supported through RSPO approved supply chain mechanisms 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 of PO and PKO have been gathered from two data sources FEDIOL and Oil World for the years 2009, 2010, 2011 and 2012.Both FEDIOL and Oil World use trade data from EUORSTAT, which relies upon submissions of trade data from individual countries.

However, FEDIOL uses EUROSTAT data, without any further revision. Oil World on the other hand uses trade intelligence to further 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.

Imports of sustainable PO and PKO were 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)[6]. 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 2011-12 were used to analyse UK RSPO Retail and Consumer Goods Manufacturers Members sustainable palm oil consumption, together with top international companies with a UK market share.

Purchases of CSPO for RSPO Retail and Consumer Goods Manufacturers Members, supported through RSPO approved supply chain mechanisms, were compared to the total PO and PKO own brand 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).

RSPO membership is assigned to a specific country although the data reported by that member maybe cover purchases outside of the country of membership. Therefore, within the analysis of RSPO UK Members data, the analysis identified four companies representing over 75% of the UK RSPO Consumer Goods Manufacturers Members consumption of palm oil (by volume, based upon RSPO ACOP data). These four members' international market share information was used to discount non-UK purchases. The level of detail regarding publically available market share information is varied and it is therefore likely that the data includes an over estimate of UK consumption.

The consumption of PO and PKO by non-UK RSPO members was also considered. The analysis identified five companies representing over 75% of non-UK RSPO Consumer Goods Manufacturers Members consumption of palm oil (by volume, based upon RSPO ACOP data). These five members' international market share information was used to account for UK purchases.

Of the eight UK RSPO Retail Members who reported in the ACOP 2011-12 it was assumed that all figures represented UK purchases, although though this is likely to be an

---

[6] http://www.rspo.org/en/annual_communications_of_progress

overestimate as some members have overseas operations. One non-UK RSPO Retail Member was identified as having significant UK operations. This member's UK market share information was used to account for UK purchases.

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 statistics[7] for the last 5 year periods and have been used to produce an accompanying figure (see Figure 5).

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.

[7] https://www.gov.uk/government/publications/renewable-transport-fuel-obligation-statistics-period-5-2012-13-report-4

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?' Four out of seven respondents chose FEDIOL, whilst a further two out of seven chose Oil World.*

- 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 approved supply chain mechanisms 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)[8] identified a range of companies that imported palm oil into the UK. As the major importers of palm oil into the UK (as

---

[8] Annex A: UK importers of palm oil

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. UK refiners account for either 70% of all imports, based on Oil World data or 82%, based on FEDIOL data.

- 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, with figures adjusted for the five UK RSPO Consumer Goods Manufacturer Members who purchase potentially a high proportion of their palm oil for non-UK use. As only international market share information was available for these companies, it is likely that the total figures included are an overestimate. UK market share information was used to estimate the PO and PKO purchases for the top 75% (by volume of own brand PO and PKO purchases) of non-UK Consumer Goods Manufacturer Members. For these companies their total volume of certified palm oil was calculated based on their reported UK market share information. A similar process was used for the one non-UK RSPO Retail Member. Market information was used to provide a best estimate and is based on publically available material such as company annual reports.

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 2012 approximately 280,000 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 shown a slight downward trend. 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?
10	Please feel free to make any additional comments you would like.

Annex 3. Summary of Stakeholder Survey results

The Stakeholder Survey was sent to 41 stakeholders from 30 organisations, including all major trade associations. Out of the 41 stakeholders contacted, 18 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.

<table>
<tr><td colspan="2">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)?</td></tr>
<tr><td>Agree</td><td>Disagree (please comment below)</td></tr>
<tr><td>8 (53%)</td><td>7 (47%)</td></tr>
<tr><td colspan="2">
I think this figure includes purchases covered by GreenPalm certificates which is NOT sustainable palm oil
SCOPA compiled information should provide the best answer to this question, and is more informed than our opinion
Do not have access to any data to agree or disagree with this statement.
I wouldn't trust the number because if, as it would seem, this represents GreenPalm certs that were bought, who is verifying them or auditing the numbers or the claim?
do not know
Whilst the 155,000 might be correct - the percentage figure (of UK imports) may need review. The ProForest report originally estimated that 84,000 tonnes of palm oil and palm olein were used by the savoury snacks industry in the UK per annum, but on closer inspection the figure was actually found to be closer to 6,250 tonnes per annum.
</td></tr>
</table>

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 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 CPET method used?
• I am not convinced that FEDIOL or Oil World can trace all derivatives and product containing palm derivatives. • As discussed, the SCOPA compiled information will assist in determining which of the sources more accurately reflects the total import numbers • You will probably already have this information but the DfT will have data available on the use of palm oil in biofuels (which has decreased to almost 0% by 2013). The more recent reports (post-implementation of the RED) will also have information on the sustainability of the palm imported. Baseline 2009 data reports: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69729/Verified_data_2009-10.pdf https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69729/Verified_data_2009-10.pdf More recent statistics: https://www.gov.uk/government/organisations/department-for-transport/series/biofuels-statistics • GreenPalm certs are NOT the consumption of sustainable palm oil so should be totally excluded. A buyer of GreenPalm certs is actually and willingly using non-sustainable palm oil, by definition. • It is the most sensible approach and will give the best indication. Going to the next level would be very hard and maybe impossible.

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

- Any palm based derivative, not matter where it is found should be included in import figures. This includes in finished goods.

- Amounts will be relatively small, especially in finished products. Direct contact with major packers, distributors and 'converters', or through trade associations (e.g. NEODA, margarine producers) should identify refined oil imports.

- Ask the question of packaged fat importers/distributors. We fear it may be very hard to identify accurate palm/sus palm volumes.

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

- Both are usually regarded as reliable sources, although Oil World does take published data and amend this based on 'intelligence' regarding the market. Taking an independent cross check, such as SCOPA statistics, should help to identify and explain any differences between these two sources.

- See answer to question 2 with information about data from the Department of Transport for palm oil use in biofuels.

- We believe that the largest refiner of sustainable palm oil in the UK is not a member of FEDIOL and so would want to understand how they establish their statistics.

- FEDIOL seem the most accurate. Oilworld seems overstated.

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

- RSPO collected data, through such as ACOPs, chain of custody reviews, etc. could provide a useful additional source for cross checking.

- Please see DfT reports for biofuels: https://www.gov.uk/government/organisations/department-for-transport/series/biofuels-statistics

- Trade associations, representing sectors referenced in the reporting, should be approached and given the opportunity to comment on any figures relating to their category that are in place in the public domain.

• Eurostat seems understated.

6. Do you agree or disagree with the estimate that in 2012 approximately 280,000 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)**
4 (66%)	2 (33%)

- I fundamentally object to the inclusion of GreenPalm as a sustainable source of palm oil
- Would need to see your full report before being able to answer this question
- As above, the combined [refinery] data will provide the best estimate on physical material and GP has provided the information on certificates.
- As long as this figure has taken into account the 1,886,012 litres (approximately 1,603 metric tonnes) of sustainable palm oil used in transport in 2012.(from DfT reports RTFO Obligation Year 4 Report 6 and RTFO Obligation Year 5 Report 3)
- Greenpalm should be excluded a) because it actually means the oil isn't sustainable and b).because how do you know that the certs were to support UK volumes if a multinational bought them ?
- I do not have access to data to agree or disagree

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.		
Companies switching from GreenPalm to mass balance or segregated	**Reformulation of products to reduce palm oil content**	**Other or please comment**

6 (86%)	1 (14%)	

- The deadlines for CSPO in retailer products approach and manufacturers have to switch to MB or SG, not GreenPalm
- Undoubtedly there is a continuing transition from certificates to MB to SG
- Use in biofuels requires a mass balance approach but use in biofuels is quite minimal and not the primary driver for the use of palm oil.
- The switch to physical supply systems is the greatest driver. Reformulation is minor.

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

FEDIOL	Oil World	Other data sources
4 (57%)	2 (29%)	1 (14%)

- I would assume that FEDIOL's numbers are only made up from its members stats ; not all palm oil importers are FEDIOL members

FEDIOL match our estimates and expectations

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

- This is growing and is driven very much by retailer demand.
- We believe that Retailers own brand products use of segregated and mass balance Certified Sustainable Palm Oil (i.e. physical supply chains) has reached 75%. It would be good to see evidence of this from your report.
- Zero demand in animal feed industry. Importers cannot commit to 100% supply if the end customer does not commit. Not workable in Ireland due to significant cross border trade - of which DEFRA has no influence.
- Increasing move to sustainable, within which the switch to physical options is increasing. Challenges will be derivatives and sectors outside retail.

- Requirements for biofuels to only use sustainable palm oil saw a reduction in its overall use for biofuels. This is probably in part because the availability is limited but also requirements to achieve a minimum GHG threshold meant imports from areas such as Indonesia may not achieve these savings full stop and therefore the use in the UK has decreased almost to 0.
- It is undoubtedly growing for both SG and MB supply chains.
- Demand is active and growing fast. The exceptions to this pace are food service and public procurement.

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

- Purchase of GreenPalm certificates is no longer a credible way to support the growth of physical supply of Certified Sustainable Palm Oil, apart from smallholders and for derivatives. Certificate purchases must always be listed separately from physical supply chains in all countries' and companies' targets and progress reports.
- How does Defra or the UK Govt stop customers buying directly from other EU sources and therefore not paying a premium for green palm certs. An ill thought out commitment from Defra. No Statutory Instrument so impossible to implement.
- CPET and Defra should not confuse the purchasing of GreenPalm certs with the UK's "use" "importation" or "consumption" of sustainable palm oil. They are not the same and it is a misclaim per the RSPO rules on claims and communication to suggest that they are.