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Palm oil briefing

This publication summarises information and research considered during the development of the University of Edinburgh's Palm Oil Policy.

What is palm oil?

Palm oil is a vegetable oil that is extracted from the fruit of the oil palm. The kernel of the palm fruit can also be crushed to produce palm kernel oil. Both of these oils are further processed into numerous derivatives with specific properties and applications in the food, personal care and cleaning industries (Mba et al., 2015). For example, refined palm oil can be transformed into a hard baking fat, a spreadable margarine, a liquid frying oil and a non-dairy cream used in everything from stock cubes to ice cream to pastries (Pande et al., 2012). Many cleaning products also contain palm oil-derived surfactants, which are a by-product of refining palm oil (CPET, 2015). Palm oil, in one form or another, is now estimated to exist in around 50% of packaged supermarket products¹.

The impact of palm oil

Global demand for palm oil has boomed in the last several decades due to its low price and versatility. As oil palms only grow in tropical regions, global appetite for palm oil has led to significant deforestation in producer countries, particularly Indonesia and Malaysia where 85% of the world's oil palm plantations are found. In Malaysia, oil palm plantations have been the primary cause of deforestation over the last five decades (Meijaard et al., 2018). Between 1972 and 2015, half of all palm oil expansion worldwide is thought to have occurred on deforested land (Meijaard et al., 2018).

The loss of tropical forests is particularly damaging for biodiversity and the climate because these ecosystems are carbon sinks and habitats for critically endangered species (Barthel et al., 2018). The fires that are often used to clear land for planting also release greenhouse gases and harm the health of people and wildlife.

Whilst the environmental consequences of palm oil cultivation that are most widely reported, poor working conditions and human rights abuses have been found on some oil palm plantations (Amnesty International, 2016). The palm oil industry has also been accused of 'land grabbing'; planting plantations on customary lands without the consent of local and indigenous communities (Colchester et al., 2006).

¹ For simplicity, 'palm oil' is often used as a catch-all term to describe the vast array products and derivatives that are made from the fruit and kernel of the oil palm.

Certified sustainable palm oil

Since the early 2000s, a number of certification schemes have arisen in response to the significant environmental and social impacts of the palm oil industry (McInnes, 2017). These include the Sustainable Agriculture Standard, implemented by Rainforest Alliance, as well as biofuel-specific standards operated by the Roundtable on Sustainable Biofuels and the International Sustainability and Carbon Certification.

The most widely used certification scheme is operated by the Roundtable on Sustainable Palm Oil (RSPO), which now certifies 19% of all palm oil produced globally. RSPO-certified growers must comply with a set of Principles & Criteria that cover “environmental conservation, preservation of biodiversity and responsible consideration of workers and affected communities” (RSPO, 2018).

The RSPO also operates a chain of custody certification to safeguard the integrity of the supply chains through which RSPO-certified oil is bought and sold (summarised in table 1 below). Organisations that claim to purchase and use certified oil must be members of the organisation and undergo regular supply chain audits. There are now roughly 4000 RSPO members worldwide representing all stages of the palm oil value chain.

Table 1: Palm oil supply chains		
Fresh fruit bunches are harvested from oil palm trees on plantations. Bunches are taken to mills, where their outer fruit pulp and inner pits are pressed to extract palm oil and palm kernel oil, respectively. Mills typically process fruit bunches from a wide variety of growers, including from their own plantations and independent smallholders. The resulting oils may be exported and further refined, or processed into hundreds of derivatives with specific properties and applications for use in a vast array of consumer products.		
RSPO Supply Chain Models		WWF guidance
Physical Supply Chains	Identity Preserved: Certified oil from a single certified source is kept separately from ordinary oil throughout the supply chain. End products contain 100% certified palm oil from one grower.	Identity preserved, segregated and mass balance oil is now widely available in Europe and should be used in preference to Book and Claim. These supply chain models guarantee, to varying degrees, the presence of physical certified sustainable palm oil in the supply chain. They also enable greater transparency and communication between actors. Segregated oil is preferred, as this pathway ensures that uncertified oil is completely excluded from the supply chain.
	Segregated: Certified oil is kept separate from ordinary oil throughout the supply chain. End products contain 100% certified oil from a variety of growers.	
	Mass Balance: Sustainable oil from several certified sources is mixed with uncertified product, to avoid the cost of keeping the two separate. The end result is a mixture of certified and uncertified oil in varying proportions (at least 50% certified).	
Book and Claim	Manufacturers and retailers buy Credits from certified mills, crushers or independent smallholders, equivalent to the amount of ordinary oil used in the product.	Credits can be beneficial when certified options are not available, for example in underdeveloped markets and for oleochemicals (used to make cleaning products and cosmetics).

Table produced using information from WWF’s *Responsible Purchasing of Palm Oil: A Guide for Manufacturers and Retailers* (2014) and WWF and Conservation international’s *Responsible Sourcing Guide for Palm Oil Users* (2015).

Developing the University's Palm Oil Policy

In 2016/17, the Department for Social Responsibility and Sustainability (SRS) and the Procurement Office used the Scottish Public Procurement Prioritisation Tool (SPPPT) to identify and prioritise supply chain sustainability risks associated with key product categories bought by the University. The purpose of this exercise was to build on previous achievements and fulfil new statutory duties for public bodies included in the Procurement Reform (Scotland) Act 2014.

Palm oil emerged as a priority risk in both the catering and estates assessments, due to the serious environmental and social problems associated with palm oil production. While the University does not purchase palm oil directly, it does buy spreads, baked goods, confectionary and cleaning products that are known to contain palm oil.

With palm oil production continuing to expand in South East Asia, as well as new frontiers such as Sub-Saharan Africa and Central America, it is critically important to prevent further destruction of forests. It was agreed that a policy would help reduce the risk of unsustainable palm oil in University supply chains.

In line with the Department for SRS's commitment to embed sustainability into learning and teaching activities, we worked with students to further understand this issue. An MSc student looked at procurement options for the University and Edinburgh University Student Association in summer 2016. A group of students from the Masters course Case Studies in Sustainable Development further examined how the University could respond in spring 2017.

Following exploratory research, a Palm Oil Policy was developed and presented to the University's Social Responsibility and Sustainability Committee and then the University Executive. Central to the policy is a commitment to source products that contain sustainable palm oil from a rigorous and independently verified certification scheme with multi-stakeholder participation, such as RSPO, or an equivalent or more stringent standard.

Palm oil in food products should be from a certified physical supply chain, preferably segregated, wherever possible. This means that purchasing credits to offset the use of uncertified palm oil is not generally be considered an acceptable approach.

Alongside this we aim to support further research and teaching around this topic, and to engage with investors via the University's membership to the UN Principles of Responsible Investment. We will continue to explore how the University can support the highest standards of palm oil production, such as those defined by best-practice initiatives like the Palm Oil Innovation Group (POIG).

The Department for SRS, the Procurement Office, the Estates Department and the Department for Accommodation Catering and Events (ACE) jointly own the policy and are responsible for implementing commitments relevant to their operational areas.

Why not a boycott?

For a number of reasons, banning or boycotting palm oil is not considered to be an appropriate or sustainable course of action at this point in time.

Oil palms are a high yielding crop, producing much more oil per a given area of land than other oil crops (Barthel et. al, 2018). Although palm oil makes up 35% of all vegetable oils, it occupies 10% of the total land used for oil crops (Meijaard et al., 2018). A palm oil ban could increase demand for less productive crops like soy, displacing deforestation and other environmental impacts onto other regions. It has been argued that this could lead to greater overall biodiversity and habitat loss (Meijaard et al., 2018). Furthermore, millions of people now rely on palm oil production for their livelihoods.

There are legitimate critiques the scope, effectiveness and enforcement of certifications standards, with RSPO (as the largest scheme) receiving the most scrutiny (Lindberg, 2018; Eyes on the Forest, 2016; Morgans et al., 2018; Greenpeace, 2013). Despite this, many researchers and conservation charities agree that banning palm oil would simply shift the problem elsewhere, threatening other habitats and species (WWF, 2019; POIG 2018; Greenpeace, 2018). Instead of a boycott, they advocate for more engagement with smallholders, stricter requirements, more supply chain transparency and better enforcement of standards, with a focus on ensuring that no new production on primary forests or other High Carbon Stock land. For its part, the RSPO released new Principles and Criteria in 2018 that prohibit all forms of deforestation and planting on peat, and have stricter social requirements.

Finally, while Europe consumes a small percentage of world's palm oil, it is the largest consumer of certified sustainable palm oil. With demand for palm oil expected to rise significantly in the coming decades, it is critically important to support the market for sustainably produced palm oil when this ingredient is used.

Further research required

Our policy lays out a position that is believed to represent the best sustainable option at the moment. More research is needed, however, into the complex environmental, social and economic trade-offs associated with this issue. In particular, further research into the biodiversity, climate and land use impacts of growing different oil crops, to understand where using palm alternatives may be more sustainable (Noleppa and Cartsberg, 2016; Meijaard and Shield, 2019).

It may also be possible to decrease the overall demand for palm oil by encouraging the adoption of healthier diets and influencing broader shifts in the food system. The consumption of fewer processed foods would lower the demand for palm oil without displacing the negative impacts onto other oil crops. These dietary changes, combined with the sustainable production of palm oil, could have positive outcomes for both health and the environment (Garnett et al., 2015). There may also be opportunities to entirely eliminate added oil from certain products like nut butter.

We aim to explore these questions and opportunities in partnership with students and academic colleagues.

Next steps for the University of Edinburgh

Over the next year, we will work to put our policy commitments into action. A number of activities are planned:

Catering and cleaning products: The Department for SRS, ACE and Estates will work to verify our suppliers' palm oil sourcing practices. If we cannot verify that the palm oil in an item comes from a certified source that meets our requirements, then this item will be replaced with a certified alternative, or removed,

wherever possible. Imports of physical certified palm oil by UK refiners (excluding derivatives and finished goods) were equivalent to either 62% or 77% of total UK imports in 2015 (CPET, 2017). This indicates a good uptake of sustainable palm oil by the UK food industry, although there is considerable variability across different industries (CPET, 2016). Uptake within the cleaning products industry has been slower due to the complexity of oleo-chemical supply chains (CPET, 2015).

Purchasing: The Procurement Office will work to embed our sourcing requirements into future supplier contracts. We also aim to collaborate with other universities and purchasing groups who are working on this issue.

Learning, teaching and research: The Department for SRS will continue to work with students and academic colleagues to improve our understanding of this complex topic and to help inform further purchasing strategies. In response to staff and student interest in this topic, the Department for Social Responsibility and Sustainability, in partnership with the Global Academy of Agriculture and Food Security, hosted a public event in February 2019 exploring sustainability issues in palm oil supply chains.

Sources of further information

The following articles provide further information about the issues raised in this briefing:

- **International Union for Conservation of Nature (IUCN)** - Issues Brief: Palm Oil and Biodiversity - <https://www.iucn.org/resources/issues-briefs/palm-oil-and-biodiversity>
- **WWF** – Which Everyday Products Contain Palm Oil - <https://www.worldwildlife.org/pages/which-everyday-products-contain-palm-oil>
- **The Guardian** – How the World Got Hooked on Palm Oil - <https://www.theguardian.com/news/2019/feb/19/palm-oil-ingredient-biscuits-shampoo-environmental>
- **For an in-depth review see** - Oil palm and biodiversity: A situation analysis by the IUCN Oil Palm Task Force - <https://portals.iucn.org/library/sites/library/files/documents/2018-027-En.pdf>

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