

Facts & figures on palm oil

Introduction

Palm oil is a vegetable oil that is a common ingredient in a wide variety of products, ranging from biscuits, bread and noodles to shampoo, candles and detergents. It has been estimated that around half of all packaged items found in supermarkets contain it. Palm oil is also used as biofuel. The use of palm oil is expected to continue growing, with an estimated doubling of use by 2020.

The popularity of palm oil can be attributed to the fact that it is a highly productive commodity, with oil palms being capable of yielding more oil per hectare than any other vegetable oil, with relatively small inputs.

Malaysia and Indonesia are by far the largest producers of palm oil worldwide, together accounting for more than 80% of total global production. In Malaysia palm oil production comprised an estimated 8% of the national GDP in 2011. In Indonesia, this was 4,5 % of national GDP in 2010. The oil palm sector, particularly crude palm oil production, is an important source of govern-

ment revenue. The main source of this revenue is export tax; this ranges from 0% (if the export reference price is less than \$500 per tonne) to 25% (when the domestic reference price exceeds \$1,300 per tonne), according to the World Bank.

Basic facts

Palm oil production area and volume

Palm oil is currently the most produced vegetable oil in the world. The produced volume has increased from 15.2 million tons

in 1995 to 54 million tons in 2011. The area used for the production of palm oil worldwide has quadrupled from the beginning of the 1980s to 2014, growing from 4 million ha to 17 million ha. This increase was concentrated in

Malaysia (from 3.25 million ha in 2000 to 5.1 million ha in 2013) and Indonesia (from 4 million ha in 2000, to 9 million ha in 2013, with a projected 26 million ha by 2025). The top five palm oil producing countries further include Nigeria, Thailand and Colombia.

Major consuming and importing countries/regions

The main consumers of palm oil are Indonesia, India, China, and the EU, from which only Indonesia domestically produces palm oil; most of the palm oil consumed by the others is imported. In 2012, India (8.75 million tons) and China (6.6 million tons) accounted for 52% of global imports. To illustrate the enormous increase in palm oil consumption: in 1990 the EU imported 1.2 million tons of palm oil. The Netherlands currently imports about 2 million tons

Country/region	Production area	Volume (2013)
Global	17 million ha	63.2 million tons
Indonesia	9 million ha	33.5 million tons
Malaysia	5.1 million	21.25 million tons
Thailand	700,000 ha	2.25 million tons
Colombia	165,000 ha (2011)	1.07 million tons
Nigeria	169,000 ha (2011)	930,000 tons

Table 1: top five palm oil producing countries

tons (equivalent to 4% of world production).

Largest producing, trading and consuming companies

The largest palm oil producers include Wilmar, Sime Darby, IOI and Sinar Mas. Major palm oil traders include Wilmar, Cargill, Archer Daniels Midland (ADM). The largest consuming companies include Unilever, Nestlé, Procter & Gamble, and Kenkel. Unilever alone consumes 1.6 million tons of palm oil a year. However, it is important to note that up to 40% of the production comes from small holder producers. Many of them operate being 'enclaved' by larger estates (so called 'nucleus estates'). The specific needs of the crop require the palm kernels to be processed within 24 hours of being harvested. This leads to a high level of dependency of the individual small holders on the larger estate and processing mill.

Certified palm oil area and volume

In 2003, due to concerns arising from negative effects related to palm oil production, environmental and social groups, palm oil producers, and palm oil buyers joined to establish the Roundtable on Sustainable Palm Oil. The RSPO aims to transform the way that palm oil is produced, traded and consumed globally. RSPO membership



Photo: H. Kistermann (2008) Both ENDS

today includes nearly 1,500 companies and organizations including palm oil growers and traders, processors, consumer goods manufacturers, retailers, banks, social and environmental NGOs.

Certified palm oil should be grown on a plantation that has been managed and certified according to the principles and criteria of the Roundtable on Sustainable Palm Oil (RSPO). These include restrictions related to lands that contain significant biodiversity and wildlife habitat, as well as other environmental, social and economic standards. In 2013, 18% of the world's palm oil had been certified (CSPO), up from 10% in 2011. More than 8 million tonnes was grown on certified plantations, covering 2.4

million ha. However, uptake of CSPO has fallen behind, with approximately only 50% of produced CSPO consumed by the market.

Main issues and challenges

Unfortunately, palm oil production has been associated with a number of adverse impacts in both the social and environmental spheres.

Photo: H. Kistermann (2008) Both ENDS



Socio-economic

In the growing global debate surrounding land grab as the result of transnational deals for agriculture, palm oil production plays a significant role. With global consumption being so high, and still increasing, more and more land is needed to fulfil the demand. Companies buy or lease large tracks of land, often without consulting local populations. The lack of formal land titles among these communities makes them an easy target for land grabbing and consequent forcible displacement. In Indonesia alone, around 3,000 land and human rights conflicts have been connected to palm oil production.

In the majority of cases, local inhabitants are small-scale sub-

sistence farmers. When they lose their land, they also lose the ability to provide for themselves and their families, leading to food insecurity in the region. Furthermore, the emphasis on palm oil production has led to conversion of existing agricultural land under cultivation of other crops, including conversion of rice fields and orchards, which further decreases food security. Even communities that have not lost any of their land may face the impact of the sector through pollution of soils and water from the spread of agrochemicals used on oil palm plantations, leading to impacts on food production.

While it is often stated that palm oil has significant benefits in revenues for small holder producers and is responsible for a reduc-

tion in rural poverty, the economic benefits appear far from equally spread. Some recent studies even indicate that areas of intensive palm oil cultivation have actually led to a rise in overall and sustained poverty as people become depended on precarious work in the palm oil sector.

Palm oil production is furthermore tainted by poor working conditions, low wages, issues of bonded labour and abuse including migrant workers and even some reports of child labourer, and lack of health and safety regulations, especially concerning pesticide use.

Environmental

Oil palms need a rainforest climate with constant high humidity and temperatures. As a result, the production of palm oil has led to loss and deterioration of lowland rainforests, including extensive areas of former tropical peat swamp forests. Palm oil plantations are one of the main drivers of rainforest and peatland destruction in both Indonesia and Malaysia. Some scientists and NGOs indicate that in the coming decades much of the rainforests in Indonesia and Malaysia will be gone unless drastic action is taken to find ways of producing sustainable palm oil. As a result of the destruction of forests with high conservation value, the rich biodiversity in these ecosystems has become threatened. Many species are facing extinction due to loss of

habitat, including some endemic species such as the orangutan, Sumatran tiger and Sumatran rhino, and the recently discovered Borneo dwarf elephant. In addition, key ecosystem services provided by rainforests such as water provision and – regulation, and climate regulation are degrading.

The clearing and burning of land and vegetation to prepare the ground for the production of oil palm enables the emissions of vast quantities of CO₂. Tropical deforestation is responsible for 18% of greenhouse gas emissions, and as such a significant contributor to climate change. Peat soils contain even more carbon than the forests (10 to 30 times more). Peat forests are increasingly destroyed in order to make way for oil palm plantations. In fact, deforestation and peatland degradation together cause 80% of Indonesia's CO₂ emissions, making the tropical nation one of the world's largest emitters of greenhouse gases.

Besides being a leading cause for world wide deforestation, the use of fire in land clearing methods of many palm oil growers have in recent years contributed to large scale forest and peatland fires which in turn have caused haze, smog and air pollution far across the borders of its countries, severely impacting on important economic sectors and public health.

Policy and legislation

Several policy and legislative measures have enabled the rapid expansion of palm oil production. For example, many countries, including Indonesia, have taken steps to expand trade and attract investments, by liberalizing the economy and deregulating policies. Absence of sound regional planning has only further enabled the rapid expansion of oil palm plantations.

The Government of Indonesia has taken some steps to protect its forests and peatlands. It has placed a temporary moratorium on granting new concessions in primary forests and peatlands. However, as the land banks of companies do not fall under this moratorium, and it has been claimed that up to 50% of plantation developments take place without proper licenses, many more peatlands and forests are threatened with conversion. Malaysia has so far ignored peatland issues and has not taken any steps to reduce or stop their conversion. On the contrary, the Malaysian state of Sarawak has been deforesting and converting its peatlands at a rate of 8% per year per the last decade (SarVision 2011).

RSPO

The RSPO has received much criticism over the years. Its environmental protection measures have been called to lax, as the

RSPO does not rule out clearing of rainforest. Only primary and High Conservation Value (HCV) forests are considered off-limits for palm oil producers who are a member, and extensive plantation developments are not allowed on peatlands. However, there is a lack of internationally recognized definitions and criteria for HCV and primary rainforests, making the categorization blurry. New and more stringent criteria have been developed to require minimization of GHG emissions, but many stakeholders believe these measures are not yet sufficient. The RSPO also continues to be criticised that compliance with criteria is frequently not monitored adequately and that punishment for violations is rare. On the other hand much work has been done such as adopting more stringent criteria, including FPIC (Free Prior and Informed Consent) and safeguarding customary land rights and biodiversity as well as the setting up of a new Dispute Settlement Facility. The RSPO also remains the only global certification system aiming to drive sustainability into the mainstream of the sector and the only standard to offer a robust assurance mechanism. The RSPO now faces the challenge to address deforestation, GHG and land right issues and the 'implementation gap'.