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Consumer-Oriented Approaches to a Sustainable Supply of Palm Oil

WP 1: Situation Analyses

Summary for political decision makers

Overview of sustainability issues in the palm oil sector

For German Environment Agency

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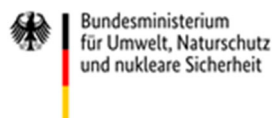
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Overview of sustainability issues in the palm oil sector

Summary for political decision makers

This paper from the UBA/BMU-funded R&D project "Consumer-Oriented Approaches to A Sustainable Supply of Palm Oil" describes the main developments in palm oil and thus provides an overview of the sustainability issues in the palm oil sector.

In 2017, more than 18.7 million hectares of oil palms were planted world-wide, equalling a tripling since 1990. The yield (76.1 million tons of palm oil and 8.81 million tons of palm kernel oil) covers 39 percent of the world-wide demand for vegetable oil using only 7 percent of the global arable land for oilseeds. The two largest producers, Indonesia and Malaysia together produce 85 percent of the oil used worldwide. Africa and South America tend to produce for the local market, with Africa relying on imports to meet its demand. After India (19 percent), the European Union is the world's second largest import market for palm oil with 15 percent and 7.3 million tons, ahead of China (14 percent). In a global comparison, most palm oil is consumed directly through food in India (9.4 million tons) and Indonesia (6 million tons). Here, palm oil is traditionally used primarily for frying and cooking. The EU is the third largest consumer of palm oil in the world.

Palm (kernel) oil is versatile and is used world-wide for food, industrial purposes (including detergents and cleaning agents, cosmetics), as animal feed and for the production of biofuels. Its versatile technical applicability, its low price, combined with changing consumption habits, but also the use of palm oil by producing nations (in terms of energy and consumption habits), have led to its rapid spread over the past fifty years.

The cultivation of oil palms takes place in many different systems and forms - from industrial monoculture to small-scale subsistence farming. Small-scale production can vary greatly in terms of size and characteristics depending on the country and region. For example, there is no generally binding definition of small farmers - in terms of size alone, the range is from 0.5 to 50 hectares, depending on the country. Ecologically and socially destructive modes of production cannot be clearly assigned to individual categories of producers and production systems, either.

On global average, oil palm can yield between 3.5-4 t/ha depending on the year. Currently, the highest yields are achieved in South America, followed by the main producers Indonesia and Malaysia. The African continent ranks last with average yields of 1-2 t/ha.

The household income of an estimated three to five million smallholders and medium-sized plantation operators worldwide (no reliable figures are currently available) is mainly based on income from palm oil cultivation. These producers contribute about 40 percent of global palm oil production. Smallholders traditionally use more extensive cultivation methods (e.g. agroforestry systems), which, compared to industrial monocultures, have more species richness on the plantations. They have the potential to increase their yields on existing land and can contribute to environmentally friendly production.

The cultivation of oil palms is repeatedly accompanied by human rights violations as well as social grievances on the plantations or land conflicts. Deforestation and the destruction of valuable natural habitats lead to a decline in biodiversity and massive GHG emissions. To counteract the negative environmental and social impacts of palm oil cultivation, curb ongoing deforestation, and ensure a positive GHG balance for the climate, numerous sustainability standards, self-commitment initiatives, and voluntary certification schemes have been developed. Some standards have evolved from systems for

certifying agricultural commodities for specific use pathways such as bioenergy, such as ISCC (International Sustainability and Carbon Certification) and RSB (Roundtable on Sustainable Biomaterials), while others certify fair trade or compliance with organic standards. In 2004, the RSPO (Roundtable on Sustainable Palm Oil), the first certification standard specifically for palm (kernel) oil, was launched as a multi-stakeholder initiative.

However, actors, demands and progress differ, and there is no uniform monitoring of the various actors. Production countries have introduced national standards for palm oil. National initiatives and associations have emerged in consumer countries to direct demand towards more sustainable palm oil. Declarations have also been adopted, such as the New York Declaration on Forests (2014) to self-commit to eliminating deforestation from the supply chains of global agricultural commodities by 2020, or the Amsterdam Declarations (2015) to promote sustainable supply chains of agricultural commodities including sustainable palm oil, as well as the Amsterdam Partnership. However, many of the initiatives fall short of expectations and it is clear that the global problems in the production of palm oil and other (agricultural) raw materials cannot be overcome with voluntary certification systems and initiatives alone.

The long known and still existing problems of palm oil production were and are the cause for practical efforts to prove sustainable production for certain quantities of palm oil. As a rule, proof is provided through the use of various certification systems that have been developed specifically for this purpose. So far, fewer small farmers have been certified than large-scale producers. Even though some certifiers have introduced smallholder programs, it remains difficult to persuade those involved to apply for certification. Apart from a lack of financial resources, this is largely due to high costs, too low premiums for the certified goods, lack of knowledge or the lack of links to international supply chains or mills that accept certified palm oil fruits. Especially independent small-scale farmers who want to get certified are confronted with high costs in advance. Further efforts are needed here. There is also a lack of precise information on the areas cultivated by smallholders worldwide as well as their impact or share in the ongoing deforestation.

One problem for the broader implementation of strict and demanding sustainability requirements, even outside certification systems, is the low or non-existent willingness of buyers and processors of palm oil to pay the costs of implementing higher environmental and social standards.

For some years now, alternative or rediscovered forms of cultivation have been increasingly used with the aim of achieving more sustainable palm oil cultivation. These include new smallholder cooperatives, chemical-free production and sustainability efforts for landscapes and jurisdictions. There is a need for research on holistic analyses of the advantages and disadvantages of these forms of cultivation. Initial studies show, for example, that a mixed cultivation of oil palms with other raw materials such as cocoa can have positive effects both for the environment and for producers. Landscape and jurisdictional approaches go beyond the area of a palm oil plantation and enable a more holistic landscape planning. Initial analyses show that deforestation in regions with these approaches has decreased further than predicted, along with the avoidance of large amounts of CO₂ emissions. At the same time, the regions were able to continue to grow economically.

Despite increased public awareness of the topic of palm oil, there is considerable uncertainty in the available statistical data material, which must be taken into account when interpreting data and calculation results. Data, especially on quantities and paths of use, fluctuate, and the time periods and geographical scope of the studies vary greatly, making it difficult to analyze the palm oil sector. It is currently difficult to trace globally in which sectors and in what quantities palm (kernel) oil is processed. More transparency, including in all certification systems, with regard to certified quantities,

areas and flows of goods, could easily close some knowledge gaps. As in many other sectors, the long-term consequences of pesticide use in the palm oil sector and the possible consequential damage are still largely unexplored.

Most of the binding rules and regulations regarding the cultivation conditions of plant-based raw materials exist in the field of energy use, especially in the EU (Renewable Energies Directive). No country has yet introduced mandatory sustainability criteria for other paths of use. RED-II foresees a phase-out of palm oil in biofuel use in the EU by 2030. Despite this, there are more and more calls for a ban on the use of palm oil in the legally promoted energy use of palm oil, as the significance and quantitative share of energy use of palm oil is increasing globally. In Europe, 65 percent of the palm oil imported into the EU was used for energy purposes and Indonesia has increased the blending quota from 20 to 30 percent since January 2020.

Decisive ecological contributions are not to be expected from the replacement of one raw material by another, but rather a drastic reduction in demand and binding regulations on a ban on the use of palm oil and other vegetable oils as biofuels are required. The calculations to date on sustainable palm oil substitution cannot do without this, because in particular the sustainably usable cultivable land for agricultural raw materials, whether for palm oil or another oil, is only available to a limited extent. Options being discussed are a reduction in the consumption of meat and convenience products, the increased consumption of fresh food, the avoidance of food waste and environmentally friendly transport without the use of biodiesel or biokerosene based on palm oil.

Political and social solutions are needed to solve the numerous problems that arise in palm oil production. A first step could be to link all imports of palm oil - as well as all other (vegetable) oils - in the EU to binding, strict ecological and social sustainability criteria, regardless of the path of use. A currently discussed approach to this is the Supply Chain Act.

For palm oil consumers at the end of the supply chain, the implementation of programmes to ensure sustainability in the palm oil sector currently appears to be the only realistic approach to reducing the environmental impact of production. To this end, it is essential to go beyond existing voluntary certification schemes and take into account the complexity of the supply chain and socio-political requirements.

The second work package of the R&D project "Consumer-oriented approaches to sustainable palm oil supply" analyses and evaluates approaches, initiatives and regulatory options to effectively address the identified sustainability deficits (from WP1) on the supply and demand side. Furthermore, in Work Package 1 - Overview of Sustainability Issues in the Palm Oil Sector - discussion points were identified that go beyond a description of the factual situation in palm oil supply and use, and thus continue to be part of the ongoing investigations in the project.