Basic Information About the Palm Oil Issue

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Intensive cultivation of oil palm is currently one of the leading causes of tropical rainforest devastation. It is perhaps the most important contribution of developed countries to the destruction of tropical forests, the source of the greatest biodiversity on the planet and home to millions of people.

Palm oil

Palm oil, derived from oil palm (Elaeisguineensis) originating from Guinea in West Africa, has become one of the most widely used crop products in the last thirty years.

It is present in about half of all food products (margarine, frying fat, mayonnaise, sauces, French fries, chips, cookies, pastries, ice cream, chocolate, hydrogenated vegetable fats, instant soups and milk, sweets, infant formulas), in cosmetics (shampoos, creams, shaving foams and soaps), in animal feed, industrial lubricants and agrofuels.

On 13 December 2014, a new EU regulation came into effect, requiring an exact labelling of oil type in food products and giving buyers a choice.

Palm plantations

Oil palms thrive between the latitudes of 10° north and 10° south of the equator. It is currently grown in Southeast Asia, Africa and South America, a home to the most of the world's tropical rainforests.

In Southeast Asia, the species has been intensively cultivated for 30 years. While in 1984 the oil palm plantations accounted for 1.5 thousand square kilometres, today it is estimated to be 150,000 square kilometres, of which more than half was former rainforest. In recent years, the demand for palm oil has increased rapidly making the plantations grow larger.

85% of global palm oil production takes place in Indonesia and Malaysia. In 2016, the total production is estimated at 64.5 million tons of palm oil. The largest producers of palm oil are Indonesia, Malaysia, Thailand, Colombia, Nigeria, Papua New Guinea and Ecuador respectively.

Pollution

One hectare of rainforest is capable of retaining 10 times more carbon than one hectare of oil palm plantation. A large amount of greenhouse gasses is released from peatlands when they are converted to plantations. Large quantities of carbon and methane are stored in peat bogs and are released upon contact with air.

A further release of greenhouse gasses occurs when forests and peat bogs are burnt. Dry peat bogs are highly flammable and, when ignited, they may burn and pollute the air for years. During the production of one ton of palm oil from oil palms growing in drained peat bogs, 15 to 70 tons of carbon dioxide is released, mainly due to deforestation and consequent drying of peatlands (studies S. Page, Leicester University, 2007). Agrofuels, which are produced from oil palms growing on the drained peat bogs, represent much greater burden on our atmosphere than conventional fossil fuels.

Huge demand creates the need for new oil palms and thus larger and new areas of plantations. Since oil palm can be grown only in the zone of tropical forests it causes massive deforestation of rainforests across South America, Africa, and Asia. Loss of tropical forests disrupts the climatic balance. Right now we are losing the whole ecosystem with rare animals and plants. Plantations also change the structure of soil and pollute groundwater resources by the use of fertilizers, pesticides, and herbicides. Pollution affects primarily the locals, who are on top of that exploited by large, profit-seeking corporations.

Loss of species and diversity

Tropical forests, no matter if in Indonesia, Malaysia, Africa or South America, are areas with extremely high biodiversity (species richness). There are many rare species that live only there and nowhere else in the world. After deforestation, 80% of animal species dies due to the loss of their environment. The natural food chain is broken down. Among some of those seriously affected animals are Sumatran tigers, clouded leopards, fishing and flat-headed cats, Sumatran rhinos and Borneo elephants. Elephants are also often victims of traps laid by plantation employees. The most infamous victims of palm oil production are, however, orang-utans – apes who share 97 % of our DNA.

Oil orphans

It is estimated that due to oil palms plantations 5,000 orang-utans die each year. The latest population estimate for the Sumatran orang-utan is around 7,300 living animals and for Bornean orang-utan from 45,000 to 69,000 individuals (data from the IUCN Red List 2004-2005).

Current population collapse (not entirely caused by palm oil) represents the loss of more than 50 % of an entire population of Bornean orang-utan over the last 60 years and around 80 % of an entire population of Sumatran orang-utan over the past 75 years.

Not only are orang-utans losing their homes, they are also the subject of cruel persecution by plantation workers (there are frequent findings of orang-utans beaten to death with wooden planks and iron bars, chopped by machetes, buried alive or poured with kerosene and then lit). Roughly one in eight orang-utans is saved, they are mostly young under three years of age, nicknamed “oil orphans”. They have nowhere to return from rescue centres because their natural habitat has been converted to oil palm plantations.

Social impacts

Local people are very often victims of palm oil business. Oil palm plantations are mostly founded on municipal or private lands without the consent of the traditional owners (i. e. by land grab).

Purchase or lease agreements are often signed by the individual local officials, which opens many opportunities for corruption. Therefore, when new plantations are being established, violent clashes with the original owners are common. Palm oil companies routinely cooperate with the soldiers to suppress the resistance of the rightful owners. Parts of this process are terror and intimidation, torture, murders, and arrests.

Health impacts

Excessive consumption of palm oil has negative effects on our health. Palm oil contains many unhealthy fatty acids and few with health benefit. Its consumption promotes immune disorders, heart, and vascular problems. During its industrial refinement, many substances causing cancer and genetic damage are produced in it.

Although fats are an extremely important part of our nourishment, the problem today rests mainly in their excessive consumption. Palm oil contains a high percentage of saturated fatty acids and this percentage is comparable for example with pork lard or other animal fats. Palm especially palm kernel oil belongs to the least appropriate vegetable oil, comparable to generally widespread coconut oil. Even though palm oil was until recently recommended as healthier alternative hardened vegetable oil which contain harmful trans-fatty acids. Nowadays already exist more modern methods for hardening vegetable oil, in which trans-fatty acids are not created (100% hydrogenation and subsequent mixing of 100% hardened fat with original unhardened oil in a suitable ratio). It is not true, that one-sided consumption of palm oil is not harmful. For example, a recent study from American Journal of Clinical Nutrition of June 2014, which summarized many sub-studies, showed that diet with palm oil caused the same amount of different vegetable oil increased

indications in comparison with, which are connected with higher risks of disease, like increased blood pressure, heart attack or stroke. Especially children are more vulnerable due to their low weight and amount of palm oil in food (in addition often in combination with a high dose of glucose-fructose syrup and other not healthy added substances).

Is it possible to replace palm oil in food? Even where it provides the function of structural fat?

Yes and yes. Palm oil can be replaced in other food products with other oils, in most cases even oils of European origin. The most basic foods are, for example, ordinary pastries, where immediate substitution is possible for healthier types of oils without the development of technological complications. The same goes for cold meals or frying, but it is generally appropriate to reduce them for health reasons. For many companies is profitable to leave the "well-known water" of the world's cheapest oil technology and start developing new recipes quiz without ecological footprint.. Even strengthening is no longer a problem today; because the so-called solid stiffening does not produce trans fatty acids (see above).

Where palm oil performs the function of structural fat (especially margarines, chocolate coatings, filling), we can replace it with, for example, domestic (the best option is bio) butter or more often other exotic oils (shea butter, cocoa butter or coconut oil). Until recently, we have heard from companies that palm oil (for example biscuits or confectionery products) "can not" be replaced by anything suitable. Some domestic companies (such as Zemanka Biobakery) or food schools (such as SPS, SOŠ and SOU Nové Město nad Metují) have already proved that the problem is rather that they "do not want“.

Is palm oil a problem, which can anybody somehow affect?

Yes. At the beginning of each change for the better stands an individual, who can identify, concretize, and share with the problem with others. The moment of awareness of the problem is crucial, since it represents hope to save. Transformation into actions leads to the remedy concerning receiving clearer outlines. On the contrary, apathy and indifference is effectively killing all the hope and, unfortunately, the apathy and indifference is being raised by contemporary mass consumer public.

However, this is unsustainable. We are convinced that indelicate palm oil production has a crucial negative impact not only on the nature and inhabitants of the tropical regions, but also on the climate in our home. **And we mean, how an effect on our weather due to climate change, changes in policy or in consumer behaviour.** The founding of the RSPO, which is supposed to be a guarantee of sustainable production of palm oil and is supposed to provide customers with a feeling that is not involved in the environmental disaster, was in fact a response to a consumer campaign. Countries like Indonesia today are finally introducing the first strict measures for the production of palm oil. An Indonesian president Joko Widodo, for example, this year released a moratorium on the granting of new licences for the establishment of plantations of the oil palm trees. Although this measure was introduced in direct response to last year's disastrous fires, it probably would not exist if the Indonesian and global public don´t step out against it.

The catastrophic fires in Indonesia occurred for the third time, the palm trees had been guilty in the two previous cases (80s and 90s) but no actions against further spreading of palm oil trees plantations as there was not the public pressure.

Czech Republic, France, Australia, Netherlands and Great Britain are nowadays in the lead of effort in limitation negative influence of palm oil on our planet. This could radically change the way of mixing the environmentally-unfriendly palm oil with eco-fuels alongside with guarantee economically and environmentally-friendly sustainable status, when the local oils are used only locally – that implies that oil doesn´t have to be transported with producing extra pollution.

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