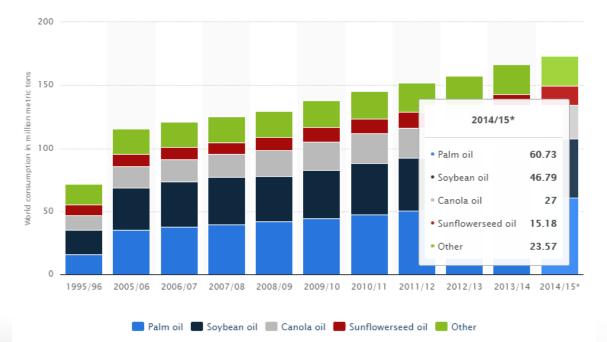


Five Most Common Misjudgements of the Advocates of Intensive Palm Oil Production

The first and major mistake – the production of palm oil is the most efficient, and therefore environmentally friendliest of all oils

Producers and palm oil proponents argue that the cultivation of oil palm gives the highest yield per hectare compared to other oil crops, and thus requires up to ten times less land. Palm plantations occupy only 4.8 % of the global agricultural areas designated for the production of edible oils; yet produce 60 % of the total world's production of edible oils. This argument, however, is very misleading and basically wrong for several reasons.

The calculation only includes the plants that are at the peak of their production. What is not taken into consideration is that an oil palm begins to bear fruit after 5-7 years, having the peak yields at the age of 15. After that, it gradually decreases. The typical commercial lifespan of an oil palm is approximately 25 years while the tree dies at around 30 years of age.



Graf © Statista 2015

Moreover, it does not reflect the effectiveness of oil palm in pumping of groundwater and soil nutrients.

The argument also ignores the fact that a hectare of tropical rainforest and a hectare of temperate zone forest are two incomparable units. In terms of the land value, tropical rainforests carpet less Earth's land surface than temperate forests, but they host considerably larger number of animal and plant species. Rainforests play more important role in the ecology of the entire Earth's ecosystem, especially in maintaining hydrologic cycle. Losing one hectare of rainforest has much greater negative impact than losing one hectare of forest or steppe in temperate zone. The second and perhaps more serious difference is related to a long-term deforestation of rainforest compared to the temperate zone forest. The temperate zone is surfaced with quality soil (evolved during the Ice Age). This one has enabled maintaining of the current type of agriculture for several centuries. The climatic zone with tropical forests is very different. Unlike the temperate zone, it never faced winds that help create the layers of fertile soil. Local rainforest soils are often millions of years old, leached of nutrients by intense rains, consisting primarily of coarse silica sand. This type does not include tropical soils of volcanic origin that are found in e.g. Java. But for such high-quality soils oil palm production would not be effective - such lands are understandably used for more demanding and more valuable crops, such as grains, fruits or vegetables. Oil palm is mostly grown on poor soils and peat bogs, which had only been used occasionally for nomadic type of agriculture when the soil is left fallow for most of the time to allow the constant renewal of the forest.

Now, what's going to happen, if these, already poor, soils are planted with highly yielding oil palm? Of course – the soil will get completely exhausted in20 to 60 years.

The underground water reserves will be drained (one palm tree consumes about 15 litres of water per a day). And in the end, palm oil plantations will turn into a barren steppe without any function, either for the whole ecosystem, or for local people. Now, let's compare again: one hectare of sunflower or other oilseeds that can be grown in the temperate zone for hundreds of years, versus one hectare of intensively cultivated oil palm plantation in tropics, which provides eight times the revenue for just over 15 years! Which of these options poses a greater burden on the environment?

The second mistake – palm oil is vital for the employment of people in developing countries

At the beginning there was a good idea of help in local people with their livelihood. In Indonesia, 45 million people live in the forests. Many local residents depend on palm oil as their source of livelihood. While the global market with palm oil creates a potential opportunity for raising many communities out of poverty, it actually negatively influences a great number of local residents.

There are ruthless suppressions of traditional and sustainable forms of land use, and, in many cases, oil corporations act against the law. Roughly half of the land that is used for oil palm cultivation was formerly a forest land, the other half was an agricultural land – various plantations with rice, vegetables, fruit or rubber trees – managed by the locals. But as they apply the system where a field is left fallow for several years to allow the regrowth of secondary forest before it is cultivated again, and as this system is not grounded in Indonesian law, it is very easy for an oil palm company to seize the agricultural land right at the time the field lies fallow.

Reports of displaced communities and illegal land use are common. Plantations are usually established on municipal or private land without the consent of their rightful owners. Purchase or lease agreements are often signed by the local officials, which opens room for corruption. If the affected people protest, they are often displaced violently. In order to suppress the resistance, oil palm companies routinely cooperate with soldiers. Intimidation, arrests, torture and murders are daily parts of terror. Palm oil industry has been responsible for about 5,000 land and human rights conflicts.

Some villagers embarked on planting oil palm trees by themselves, because they were convinced it's an easy source of income. Hundreds of small producers purchased forest land from the government. They had abandoned the cultivation of fruits and vegetables as the palm business seemed more profitable. Unfortunately, many of them have run into debt and now deeply regret their decision.

On the bottom rung of the social ladder are collectors of palm fruit who never profit from the earnings of their owners. They collect palm fruits 7 days a week, 5-8 tons each morning. According to the UN, these palm oil plantations constantly flout trade union rights. Working conditions are often close to modern-day slavery. Monthly salary for this physically demanding job is 40 euro.

Even the people in the villages surrounding the plantations frequently lose their livelihood. They rely on the forest as a natural source of water and food and the protection against landslides and flooding. Local residents are also the first who suffer the consequences of the use of fertilizers. The chemicals used on plantations pollute soil and water, which threatens the health of humans and animals and disables other forms of agriculture. The sources of water are highly limited and many of them are health damaging or even undrinkable.

The third mistake – palm oil is presently irreplaceable

In most types of food (depending on the nature of the products), palm oil can be replaced by any other oil or fat e.g. by sunflower, rapeseed, olive, coconut, hemp, flax, or animal fat. Europeans, for example, could wisely use oils produced in Europe where there is currently a surplus of agricultural land for food.

Special frying oils based on sunflower or rapeseed oil can be used for frying, olive and other oils such as hemp, flax or pumpkin oil can be used in cold dishes. The substitute for palm oil in crackers, margarine, chocolate toppings and similar products seems to be fairly problematic, providing that we wish to preserve their original taste and price. Yet, some alternative options do exist. A Czech bakery (Biopekárna Zemanka) replaced palm oil in biscuits with the combination of cocoa butter and organic sunflower oil. Broadly speaking, a combination of different oils with officially certified palm oil is more environmentally friendly solution.

According to the latest researches, the process of industrial oil thickening, which had initially been rightly rejected for being unhealthy, has advanced enormously so that it disposes any health risks today. Obviously, any industrial thickening should be seen as a lesser evil only until we manage to develop nutritionally and environmentally more friendly alternatives.

Palm oil derivatives used in cosmetics, pharmaceutics, candles, cleaning products, detergents and industrial lubricants can be replaced by any other oil derivatives. However, this technique requires the development of new processes and technologies. These alternatives are already offered in cleaning products by companies such as Frosch, Ecover, Czech Feel Eco and Tierra Verde.

The fourth mistake – deer mortality in European rapeseed fields is more alarming

An overwhelming majority of immense vast fields of rapeseed in the EU is not used for food, but for the production of first generation agrofuels. This production is environmentally and economically absurd (if we take into account its serious impact on the environment and human health). Thought initially wellintentioned, this experiment should be stopped worldwide as soon as possible. We should focus on promoting friendlier alternatives. They do exist. Of course, these alternatives must be carefully monitored in terms of direct and indirect environmental and social impacts, but this approach should be applied to all human activities in general.

If we terminate the production of agrofuels, the quantity of poisoned deer in Europe will drop dramatically. Food processing industry can use older cultivars of rape with higher content of bitter substances. These are not sought after by deer. An ideal solution for the production of rapeseed oil is organic farming, which is the sector that generally needs more attention in order to disprove various myths such as the one of being unable to sustain the whole human population.

Without downplaying the issue of deer, at least from the ethical point of view, this problem is absolutely incomparable with the issue of rainforest devastation. The destruction of the entire tropical forest leads not only to the direct death of animals, but toan irreversible disappearance of animal and plant species as well. The consequences are far more catastrophic than the deaths of game animals whose population, despite the poisoning incidents in rape fields, has been increasing in recent decades.

The fifth mistake – consumers won't change anything

Numerous examples from the Czech Republic and other countries have proven that the pressure from consumers is the fastest way to help make things better and often worse at the same time. The current extent of "consumerism" is still by many people perceived as desired by today's society. One of the key solutions lies in the decrease in demand for the products that cause extensive environmental and economic damage.

Industrial production of palm oil is however only one out of many pressing issues the world is facing today. Large-scale industrial production of meat or overfishing poses a wide range of environmental risks, regardless of their ethical aspects. It is much easier to convince an average consumer to avoid palm oil than persuade him to reduce the consumption of meat, milk and eggs from factory farms, although the latter one would greatly contribute to solving the issue of palm oil, as it is vastly used for feeding animals.

On the contrary, this may be the first step forward for every citizen who has not so far considered his or her daily behaviour in broader context of the outside world. It may eventually lead to a new direction of our society from the carefree consumerism to a more responsible lifestyle.

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Additional sources: Palm oil – a piece of forest in our homes. Available from: https://youtu.be/wQBgUJhkPyE | Indonesia: The destruction for palm oil. Available from: https://youtu.be/7H9G_j7JATg | www.mongabay.com | www.rainforest-rescue.org | www.wwf.org | www.orangutan.org.au | www.ethicalconsumer.org



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