Sustainable PALM Newsletter

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DISCOVER THE ECO-FRIENDLY QUALITIES OF MALAYSIAN PALM OIL

SUSTAINABLE
Palm Oil And The Environment

EU MOVES TOWARDS RED III

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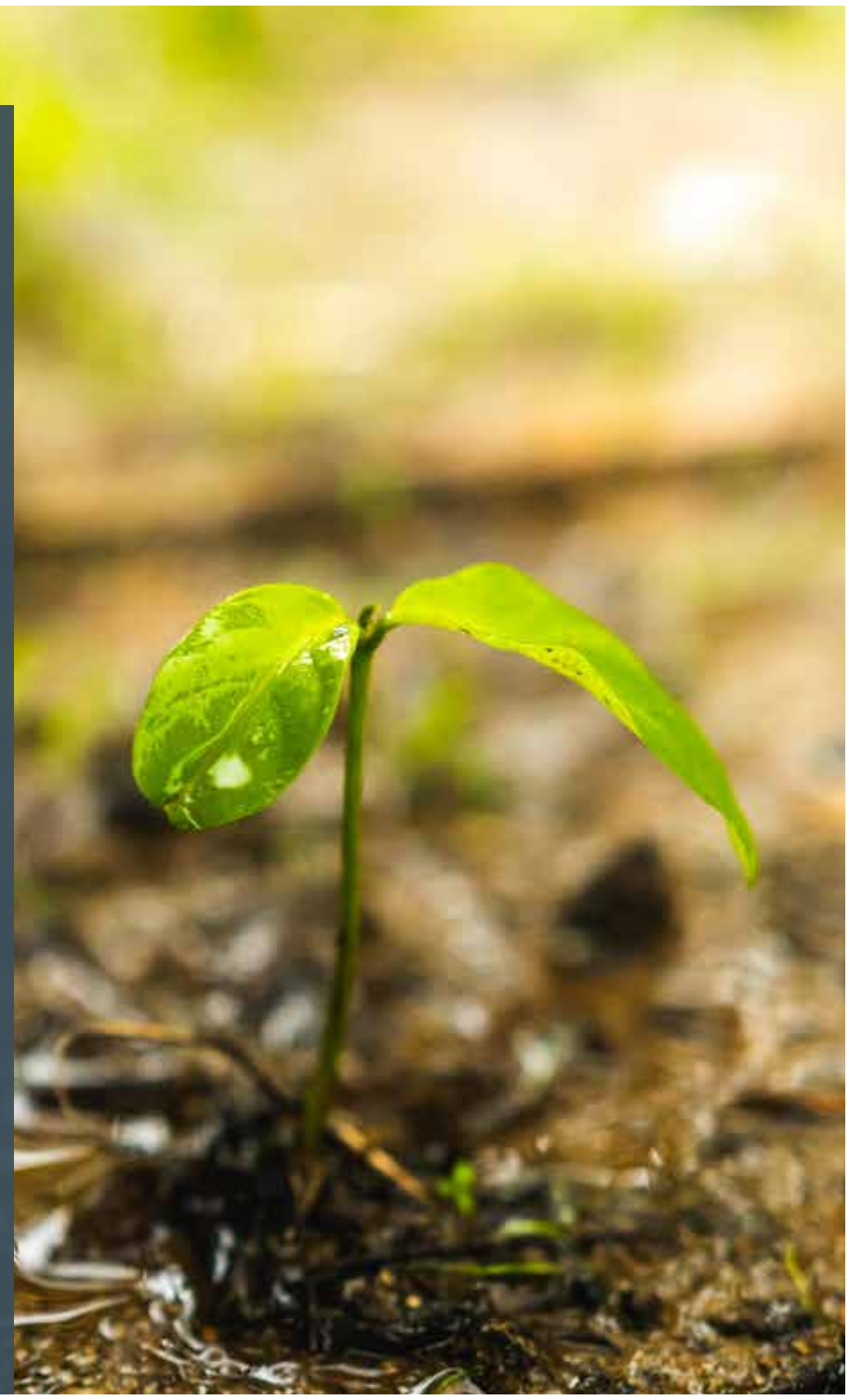
Sustainable Palm Oil and The Environment

The Malaysian palm oil industry and its R&D arm are committed to improving its environmental performance through various innovative approaches and technologies in oil palm plantations, palm oil mills, and refineries.

THE Malaysian palm oil industry is highly regulated. The industry and its R&D arm are continuously working to improve the industry's environmental performance. Various approaches and technologies aimed at reducing the industry's impact on the environment have been converted to successful practices in oil palm plantations, palm oil mills, and refineries. The industry envisions achieving the highest standards of sustainability of palm oil.

Alleviating Global Warming
An oil palm plantation with its perennial green cover and closed canopy display the main features of a tropical rainforest. It is also a more efficient carbon sink than a tropical rainforest and helps absorb greenhouse gases. A study has shown that an oil palm plantation assimilates 44.0 tonnes of dry matter per hectare per year compared to 25.7 tonnes of dry matter per hectare per year a rainforest assimilates.

In Malaysia, oil palm is grown on about **56% of agricultural land,** occupying **11.75% of the country's total land area.** However, the current areas under oil palm plantations are within the limit of the allocated hectares permitted under the National Agricultural Plan 3 (NAP 3) 2000-2010.



Conserving Soil And Water Quality

Several measures are taken during planting to prevent soil degradation and conserve soil fertility. On hilly land, contour terracing is carried along steep slopes. Silt pits help reduce the slope length while trapping soil and plant nutrients. Pruned fronds placed along the slope minimise soil erosion and fertiliser loss. Very often, hilly forest areas with slopes greater than 250 are left untouched.

Leguminous cover crops fix nitrogen in the soil, recycle organic matter, improve soil structure, keep out weeds, reduce soil compaction and erosion, and promote rainfall acceptance. In oil palm plantations, at least six species of leguminous crops are planted for the benefits they provide. In coastal plantings, emphasis is placed on proper drainage and water management. This prevents over-draining and deterioration of fragile acids, sulphate, and peat soils.

Oxygen To The Air

Oil palm trees are unique because they have a higher leaf area index, which allows them to have better photosynthetic efficiency. This results in palm trees producing more oxygen in the air and absorbing more carbon dioxide from the atmosphere. A study has shown that an oil palm tree has a leaf area index of 5.6, comparable to rainforests.

Efficient Land Utilisation

Inarguably, oil palm provides the highest yield of oil per hectare per year compared to other oil-bearing crops. A comparison study has shown that a hectare of oil palm yields ten times more oil than other major oil crops. An average yield of 4 – 5 tonnes of crude oil per hectare of land, with the best fields, gives as high as 7 – 8 tonnes of crude oil per hectare, making oil palm the most efficient oil-bearing crop in the world.

Positive Energy Balance

Compared to other major oilseed crops, the cultivation and processing of oil palm require less fertilisers, pesticides, and fuel energy input to produce one tonne of oil. A study has shown that oil palm requires about 19.2 GJ of energy per hectare per year to produce one tonne of oil, which in turn gives back 182.1 GJ of energy per hectare per year through its products. (Note: GJ = Giga joules). This gives oil palm a favourable input-output energy ratio of 9.5 compared to 2.5 for soybean and 3.0 for oilseed ripe.

EU Moves Towards Red III

The EU has begun reviewing its revised Renewable Energy Directive (RED II) in view of expanded ambitions for its 2030 greenhouse gas (GHG) emissions reduction target and its path toward climate neutrality.

IN July 2021, the European Commission (EC) published its 'Proposal for a Directive of the European Parliament and of the Council amending Directive (EU) 2018/2001 of the European Parliament and of the Council, Regulation (EU) 2018/1999 of the European Parliament and the Council and Directive 98/70/ EC of the European Parliament and the Council as regards the promotion of energy from renewable sources, and repealing Council Directive (EU) 2015/652' (RED III).

The Proposal is part of the EC's 'Fit for 55: Delivering the EU's 2030 climate target on the way to climate neutrality communication'. The EC, the Council of the EU (the Council) and the European Parliament have begun formulating their positions to reach a commonly agreed text. As with current EU rules on renewable energy, RED III is poised to affect palm oil as a biofuel feedstock.

The EC has been pursuing a number of sustainability-related objectives through various initiatives and legal instruments. In December 2019, the EC presented the European Green Deal, a set of policy initiatives that aim to make the EU's economy sustainable and climate neutral by 2050.

To achieve the objectives of the European Green Deal and reduce GHG emissions, the EU now intends to update RED II, notably by increasing the target of renewable energy sources in its integrated energy system.

UPCOMING REGULATION

According to the EC, RED III pursues three overall objectives:

To achieve an increase in the use of energy from renewable sources by 2030

To foster better energy system integration

To contribute to climate and environmental objectives, including the protection of biodiversity

RED II established a common framework for promoting energy from renewable sources. It set a bidding target of 32% for the overall share of energy from renewable sources in the EU's gross final energy consumption in 2030.

RED III would increase the binding target for renewable energy to 40%. However, this target is anticipated to be set at 45%, as proposed by the European Parliament and the EC's REPowerEU plan, presented in May 2022.

Accelerated phase-out?

The EC's Proposal for RED III contains amendments to Article 26 of RED II, which provides specific rules for biofuels, bioliquids and biomass fuel produced from food and feed crops, including oil palm. The amendments aim at reflecting the new GHG reduction target set for the transport sector.

This means that the calculation of a member state's gross final energy consumption from renewable sources would consider the GHG reduction target – and not the minimum share of biofuels and bioliquids as well as of biomass fuels consumed in transport as established in RED II.

Article 26(1)(3) of RED II provides that member-states 'may set a lower limit and may distinguish, for the purposes of Article 29(1), between different biofuels, bioliquids and biomass fuels produced from food and feed crops, taking into account best available evidence on indirect land-use change impact'. The EC's Proposal would not change this approach.

Recital 31 of RED III reconfirms that 'in order not to create an incentive to use biofuels and biogas produced from food and feed crops in transport, member-states should continue to be able to choose whether to count them or not towards the transport target'.

Thus, member-states will likely continue adopting legislation that excludes certain feedstocks, such as palm oil, from being counted towards the renewable energy targets or even from being used as biofuel at all.

A worrying example lies in Belgium's approach. From Jan 1, 2023, it will prohibit the placing on the market of biofuels and biogases based on palm oil or other products directly or indirectly derived from oil palm. From July 2023, it will also prohibit the placing on the market of biofuels and biogases based on soybean oil or other products directly or indirectly derived from the soybean plant. Rather than perpetuate discriminatory practices, revising RED II should address these unfortunate aspects of EU legislation.

Article 26 (2) of RED II states that for the calculation of a member state's gross final consumption of energy from renewable sources, 'the share of high indirect land-use change-risk biofuels, bioliquids or biomass fuels produced from food and feed crops shall not exceed the level of consumption of such fuels in that member- state in 2019, unless they are certified to be low indirect land-use change-risk biofuels, bioliquids or biomass fuels pursuant to this paragraph' and that from Dec 31, 2023 until Dec 31, 2030 at the latest, 'that limit shall gradually decrease to 0%'.

Used cooking oil (UCO)

A notable change proposed by the EC concerns the double counting system. Under RED II, UCO is considered waste-based and is double counted for the decarbonisation of the EU's transport sector. For instance, if the consumption of UCO amounts to 2%, it will be calculated as 4% of the total energy used in transport, providing an incentive to use such oils to reach renewable energy targets.

Palm oil that has been used for frying foods can be converted for the production of biodiesel. In 2019, over 1 million tonnes of palm-based UCO were exported from Malaysia alone to the EU.

But in its Proposal for RED III, the EC eliminates the reference to 'double counting' for advanced and waste-based biofuels. This removes the additional incentive and could discourage using UCO as a biofuel feedstock.

RED III would increase the binging target for renewal energy to 40%.

Used cooking oil can be converted for the production of biodiesel.

The European Parliament proposes to amend paragraph 3 of Article 30 on 'Verification of compliance with the sustainability and greenhouse gas emissions saving criteria'. It states that 'auditing shall verify that the systems used by economic operators are accurate, reliable and protected against fraud, including verification ensuring that materials are not intentionally modified or discarded so that the consignment or part thereof could become waste or residue'.

Discriminatory rules

The rules adopted under RED II and the EU's Delegated Regulations discriminate against certain biofuel feedstocks, notably those not produced in the EU, such as palm oil.

Indonesia and Malaysia, as the world's biggest palm oil-producing countries, have, therefore, embarked on dispute settlement proceedings with the EU at the World Trade Organisation (WTO). The two countries argue that the EU rules discriminate against palm-based biofuels. The revision of RED II would be the ideal opportunity to correct discriminatory practices. Instead, the European Parliament's proposal would make things worse.

Malaysia must continue to engage with the EU and formally reiterate, both bilaterally and within the WTO framework, its special development, financial and trade needs as a developing country. It is highly dependent on the production and export of palm oil to the EU as a biofuel feedstock.

A single approach by the EU that does not recognise Malaysia's efforts vis-à-vis sustainability, GHG emission reduction and the protection of high carbon stock land is not only discriminatory but also profoundly unfair and counter-productive in efforts to curb climate change.

By: MPOC Brussels

Discover the Eco-Friendly Qualities of Malaysian Palm Oil

Malaysia's proactive efforts to preserve sustainability in its palm oil industry - Embrace a changing world without compromising the environment.

THE Malaysian palm oil industry is one of the most highly organised sectors of any national agricultural system in the world. The oil palm has been fulfilling sustainability indicators due to its high productivity and efficient carbon sequestration.

Moreover, the second half of the 20th century saw research and development activities and technological advances. These activities helped raise yields and reduce inputs, thus maximising oil production from minimal use of land.

This green canopy over Malaysia's land area provides habitats for diverse forms of flora and fauna. Malaysia also does the world a huge service in reducing global warming by holding so much of its land as permanent forest and keeping less than 24% for agriculture, most of which are tree crops, providing tree cover.

Did You Know?

The oil palm is the most productive oilseed crop, with an average yield of 4.03 tonnes per hectare, compared to 0.74, 0.61 and 0.41 tonnes of oil from rapeseed, sunflower seed and soybean.

The land area for vegetable oil production can be reduced by 5 to 10 times if palm oil replaces other oils.

Malaysia's century-old plantations are professionally managed through good agricultural practices in compliance with corporate governance and social responsibility. This minimises the impact of plantation activities on the environment and biodiversity. **Oil palm plantations in Malaysia are often cited as the best model of tropical agriculture and Malaysian standards are usually referred to as an industry benchmark.**

Highlights of MPOWCF Programmes

MPOC established the Malaysian Palm Oil Wildlife Conservation Fund (MPOWCF) with an initial funding of RM20 million in 2006. It has also initiated several wildlife and biodiversity conservation programmes, examining highly pertinent issues faced by the industry, from orang utan and elephant conservation to the country's first Wildlife Rescue Centre. These initiatives sent strong messages to stakeholders that the Malaysian palm oil industry is indeed committed to the conservation of the environment and wildlife while at the same time managing the industry's activities sustainably.

1. Jungle Patrol

MPOWCF sponsors an active Jungle Patrol, in collaboration with the Sabah Forestry Department, to protect wildlife in forest reserves bordering oil palm plantations. It is to secure and safeguard wildlife and its habitat at the Tangkulap-Pinangah Forest Reserve in Sabah.

2. Orang Utan Island Infant Care Unit

MPOWCF provided funding to establish and operate the Orang Utan Island's infant care unit in Bukit Merah Lake Resort, Perak. This facility has resulted in the survival and well-being of the orang utans born in captivity. The facility has also attracted a number of academic research studying orang utan behaviour and nutrition.

3. Sabah Wildlife Rescue Centre (WRC)

Officially launched in May 2010, the WRC rescues and translocates distressed wildlife within the Sabah landscapes. The Sabah Wildlife Department operates this centre, and it is a unique concept contributing towards wildlife conservation through a generous endowment from MPOWCF and partners.

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