BRIEFING - September 2024

RED III implementation

What can Member States do to tackle unsustainable biofuels and promote cleaner alternatives ?

Summary

Member States need to implement the third version of the Renewable Energy Directive by May 2025. It is a difficult task as the ambition for renewables in the transport sector by 2030 increased significantly. There is also still a big demand for crop biofuels, the most unsustainable energy source to decarbonise the transport sector. Hence, it is important to understand what options are available for Member States to avoid doing more damage than good.

Higher renewable target in transport still favors crop biofuels
The changes to the overall target for renewables in the transport sector (RES-T) will increase the volumes of biofuels needed by 2030 - with a new 29% energy target. It will still favor crop biofuels, not only food & feed crops like rapeseed or soy but also intermediate crops that could potentially lead to negative land use changes. The status quo on the cap for food and feed biofuels and the lack of more effective action to phase-out palm and soy before 2030 remain key issues for Member States to tackle.

A big surge for advanced and waste biofuels
A surge in demand for advanced and waste biofuels is expected as they are being incentivized not only via the RES-T target but also with the denominator expansion, more ambitious changes to sub-targets on Part A biofuels, the enlargement of the list of Annex IX feedstocks and the additional demand for these feedstocks in ReFuelEU and FuelEU Maritime. This can result in many negative environmental and climate issues as well as cases of fraud.

T&E recommendations
Member States have several lawful options, through the current REDIII, to improve the quality of renewable fuels by 2030. They need to act in parallel on limiting further crop biofuels and halting the unsustainable surge towards advanced and waste biofuels by:

- **The RES-T target can be reduced according to the limit set on food & feed crops or further.** With no food & feed crops, the target will be 22% in energy terms or 11% in carbon intensity. (section 1.1)
- Member states should **reduce the food and feed cap further, immediately phase out palm and soy biofuels** and lower their RES-T target accordingly. (sections 2.1 and 2.2)

- **Limiting single counted (non-Annex IX) intermediate crops** from counting towards the RES-T target, for example by including them in the food and feed cap (section 2.3)
- Requiring **more information from economic operators** regarding compliance on sustainability criteria on biofuels and **disclosing information per fuel supplier** to increase transparency (section 1.1)
- **Keeping the sub-target for advanced biofuels to 3.5%** and increasing the sub-target for RFNBOs to 2% (section 3.2)
- **Limiting or excluding problematic Annex IX feedstocks,** such as intermediate crops, crops grown on severely degraded land, forestry residues, etc. from counting towards sub-targets or renewables targets all together (section 3.2)
- **Exclude** animal fats category 3, Palm Fatty Acid Distillates (PFADs), molasses and soap stocks and derivatives, and imports of UCO and animal fats category 1 and 2 **from counting towards targets for renewables in transport**
- Identifying the **domestic availability of advanced and waste biofuels** with a special attention to waste hierarchy, the cascading principle, biodiversity and ecosystem services (section 3.2)
- Fighting fraud by reviewing completely the certification system for biofuels (section 3.2)
- **Direct electrification and a dedicated credit mechanism (including private charging)** for rewarding the use of renewable electricity in transport should be the priority for decarbonising the road sector. For sectors that are harder to electrify, like aviation and long-distance shipping, hydrogen-based fuels - should be further promoted. (section 3.1)

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Introduction

In 2023, the negotiations on several files of the 'Fit for 55 package' came to an end. These included important legislative pieces for the decarbonisation of the transport sector at the EU level. This briefing will focus particularly on the new provisions in relation to biofuels as part of the third revision of the Renewable Energy Directive (RED III). We will explain the main new rules of this directive in relation to biofuels and compare them with provisions in FuelEU Maritime and ReFuelEU that focus more broadly on the shipping and the aviation sectors.

The main goal of this paper is to explore the options that Member States have at their disposal to stop the trend towards unsustainable solutions such as crop biofuels and dubious waste imports, and to shift towards cleaner alternatives to decarbonise the transport sector.

1. The new RES-T target will favor unsustainable feedstocks

RED III introduced changes to the overall target for renewables in the transport sector (RES-T) for 2030. These will affect the volumes of fuels needed in the coming years and influence which options will be more favored than others. This section will explore what Member States need to take into account when transposing this target into their national laws.

1.1 Increase of overall ambition and the introduction of a GHG target

RED III saw the increase of the overall target for renewables in transport from 14% to 29% in energy terms, more than doubling the ambition from the 2018 RED (RED II). In addition to that, it adopted a parallel alternative target with a reduction in the carbon intensity of 14.5% of transport fuels. However, it is important to keep in mind that the current RED accounting rules for transport do not account for all emissions related to transport fuels, in particular land-use emissions of crop-based biofuels and indirect displacement emissions of advanced biofuels. Renewable electricity alone could play an important role in achieving the renewables targets in the transport sector. However, even with the new credit mechanism for renewable electricity, the high overall RES-T target risks driving the use of unsustainable biofuels and countries need to take measures to avoid this from happening[1].

[1] T&E recommended during the negotiations to opt for a 16% energy based target, equivalent to an 8% reduction in carbon intensity. This is based on a scenario with enhanced policies compared to today, excluding crop biofuels and fossil-based fuels such as blue hydrogen.Transport & Environment (Nov 2021): *The EU's green fuels law: A clean shift for EU transport fuels?* (Link).

The RES-T target can be reduced with a lower food and feed biofuels share

The 29% overall RES-T target expressed in energy terms (or 14.5% in carbon intensity) is not actually binding - only a target level of 22% is. This is, because a Member State can reduce it, based on the limit it will set on food & feed crops:

- If the limit on food and feed biofuels is lower than 7% in energy terms, it can reduce the overall RES-T target by the difference between the 7% cap and the limit.

Two illustrations:

- if a Member State had a 4% share of food and feed biofuels in 2020 and decides to keep the limit at that
- level, it can reduce the RES-T target by 3% in energy terms, to 26%. It can reduce by 1.5% the RES-T target if expressed in carbon intensity, assuming that food and feed based biofuels bring about 50% of GHG emission savings[2].
- if a Member State wants to reduce further or completely phase out food and feed biofuels, it can do so and accordingly deduct up to 7% in energy terms or 3.5% in carbon intensity from the overall RES-T target.

This means that a Member State can reduce the overall RES-T target from 29% to 22% in energy terms or in carbon intensity from 14.5% to 11%.

Member States can choose whether they want to opt for an overall RES-T target expressed in energy terms or in carbon intensity, but this is a complex decision to make. In past positions, T&E advocated in favor of a GHG-based target on the condition that such an approach would reward those fuels that achieve the highest emission savings.[3] For a GHG-based RES-T target to reward the best performing fuels, the RED accounting rules would need to consider all emissions related to transport fuels, in particular land-use change and deforestation emissions of crop based biofuels and indirect displacement emissions of advanced and waste biofuels. T&E called for such a change during all the past RED negotiations but it was unfortunately not adopted.[4] These loopholes not only allow biofuel companies to ignore these negative impacts, but even claim better, difficult-to-verify carbon savings. For

[2] European Commission (Oct 2023): *Renewable Energy Directive, article 26*: "Where the share of biofuels and bioliquids, as well as of biomass fuels consumed in transport, produced from food and feed crops in a Member State is limited to a share lower than 7 % or a Member State decides to limit the share further, that Member State may reduce the minimum share of renewable energy or the greenhouse gas intensity reduction target referred to in Article 25(1), first subparagraph, point (a), accordingly, in view of the contribution those fuels would have made in terms of the minimum share of renewable energy or greenhouse gas emissions savings. For the purpose of the greenhouse gas intensity reduction target, Member States shall consider those fuels to save 50 % greenhouse gas emissions." (Link).
[3] Transport and Environment. (Jan 2020). *How member states can deliver sustainable advanced transport fuels.*(Link).
[4] Transport and Environment. (Nov 2021). *The EU's green fuels law: A clean shift for EU transport fuels?* (Link).

example, average GHG emissions savings reported for rapeseed biodiesel, palm oil biodiesel and corn ethanol have increased to 70%, 80% and 88.6%, well above the typical values set out in RED II for biofuels produced from most types of vegetable oils, which are ~50% .[5,6] The Commission acknowledges that "[v]erifying compliance with the GHG emission-based approach is complex, as the emission intensity of fuels cannot be measured when the fuel is placed on the market"[7].

Because of the uncertainty around the real-life vs. claimed emissions savings from biofuels, the switch to a GHG-based target makes it more difficult to predict the volumes of biofuels likely to be placed on the market. It will require an in-depth assessment of the situation at national level taking into account technology options, their impacts (environment, climate, economics), verification systems and the availability of feedstocks at sustainable levels in the country in question. Taking these elements into account, T&E advises Member States to remain cautious and ensure that all these conditions are in place before opting for a GHG based approach.

Member States need to ensure compliance of biofuels with the sustainability and greenhouse gas emission savings criteria

To prevent fraudulent practices in relation to biofuels use for transport decarbonisation, it is essential that Member States ensure compliance of biofuels with the sustainability and greenhouse gas emissions savings criteria that are laid down in Article 29 of the Renewable Energy Directive. They need to take measures to ensure that economic operators submit reliable information regarding the compliance with these criteria and they can require additional information from economic operators if needed, such as the data that was used to develop such information. This has already been requested by France, for example[8]. In addition to this, Article 30 also requires more transparency per fuel supplier on the websites of operators, suppliers and the relevant competent authorities[9]. Member States should ensure that these provisions are well implemented and should centralise this information in their official data, per fuel supplier.

[5] European Commission (Jul 2021). *Impact Assessment accompanying the proposal for a revision of the Renewable Energy Directive* : p.104).(Link).
[6] These higher GHG emission savings values for crop-based biofuels - much higher than the typical values mentioned in the Annex V of the RED - can typically be explained as operators claim emission savings due to carbon capture and replacement measures, for example by claiming credits for emission savings due to improved agricultural practices like zero-tillage, improved crop/rotation, the use of cover crops.
[7] European Commission (Jul 2021). *Impact Assessment accompanying the proposal for a revision of the Renewable Energy Directive* (p.106). Link.
[8] Ministère de la Transition Écologique. (Dec 2021). *Guide pratique: Mise en oeuvre du système de durabilité pour les biocarburants et les bioliquides.*(Link).
[9] RED III, 2023

1.2 Denominator expansion and increased ambition for advanced and waste biofuels

Another element that changed with the new RED is the expansion of the denominator - the basis used to calculate the shares of renewable fuels that fuel suppliers need to provide to reach the RES-T targets. In RED II, the share of biofuels in the transport sector counting towards the RES-T target was calculated based on the volumes of these fuels in the road and rail sectors[10]. In 2023 with the adoption of RED III, the share of biofuels in the transport sector to count towards renewables targets is no longer calculated based on the road and rail sectors only, but the whole of transport (including also the aviation and the shipping sector).

The broader denominator has implications for volumes of advanced and waste biofuels that will count towards the RES-T target. Expanding the pool of fuels in the denominator by adding the aviation and shipping sectors will require more volumes of advanced and waste biofuels to reach their targets/limits. In addition to this, a 5.5% combined target for advanced biofuels and RFNBOs (with double counting) has been introduced. Out of this target at least 1% needs to be supplied by RFNBOs (e-fuels and green hydrogen). With a 1% RFNBO supply, the advanced biofuels can contribute to the combined target with 4.5%, an increase compared to the previous 3.5%, with double counting.

Figure 1 shows a comparison between RED II and RED III targets calculated based on 2022 biofuels consumption from SHARES, to which domestic and international aviation and shipping fuel demand has been added. The increase in volumes of advanced (Part A of Annex IX) and waste biofuels (Part B of Annex IX) will result in further pressure on these feedstocks that are very limited in sustainable quantities.

[10] For example, if the volume of food and feed biofuels in the road and rail sector in 2020 was 10.6 Mtoe, then the volumes of food and feed biofuels to count towards the RES-T target would be limited to 10.6 Mtoe by 2030 (up to 7% and with a 1% flexibility).

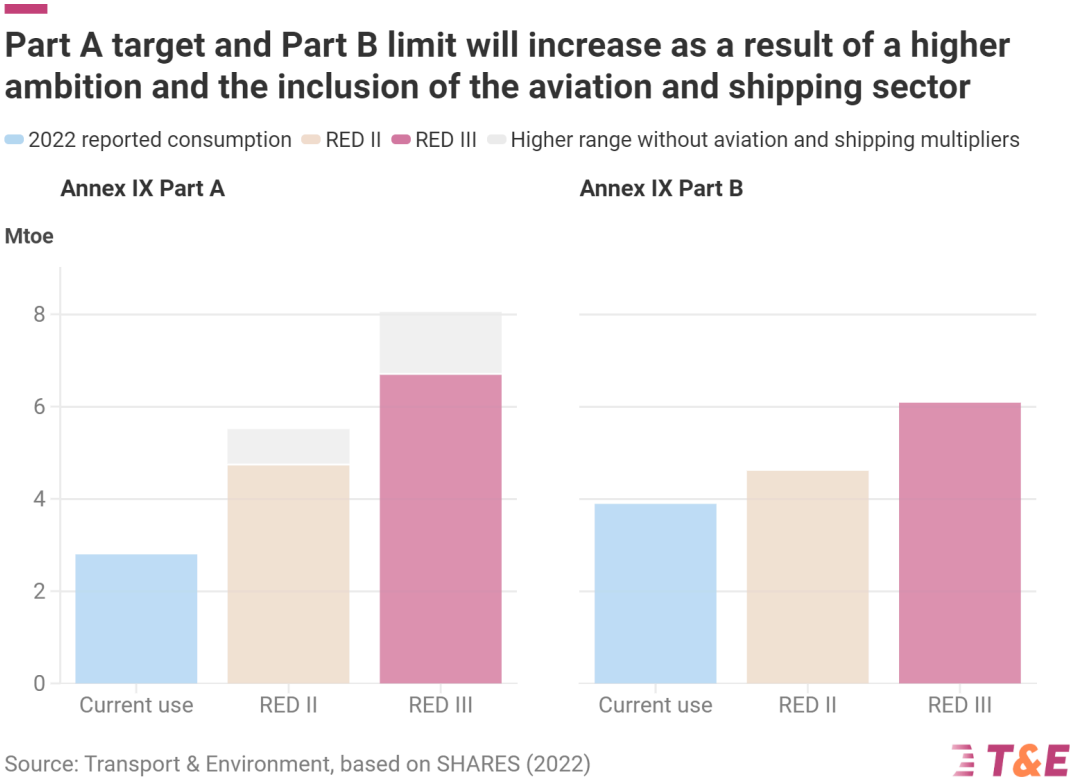

Figure 1: The impacts of denominator expansion and increased ambition for Part A biofuels on volumes of advanced and waste biofuels

However, in terms of maximum volumes of food and feed biofuels allowed, there is no big change. The cap on food and feed biofuels was already based on the volumes of fuels consumed in 2020. It's important to differentiate the notion of 'share' and the energy or volumes of biofuels allowed in practice. The volumes of food and feed biofuels will remain the same with RED III, but with the denominator expansion the EU share of food and feed biofuels will be slightly lower. The only change is that the 1% flexibility to increase the share of food and feed biofuels based on the 2020 volumes is higher than before. The 'new 1%' in real terms is higher than before because we are dealing with a larger volume of fuels, however this also will not significantly affect the volumes of biofuels.

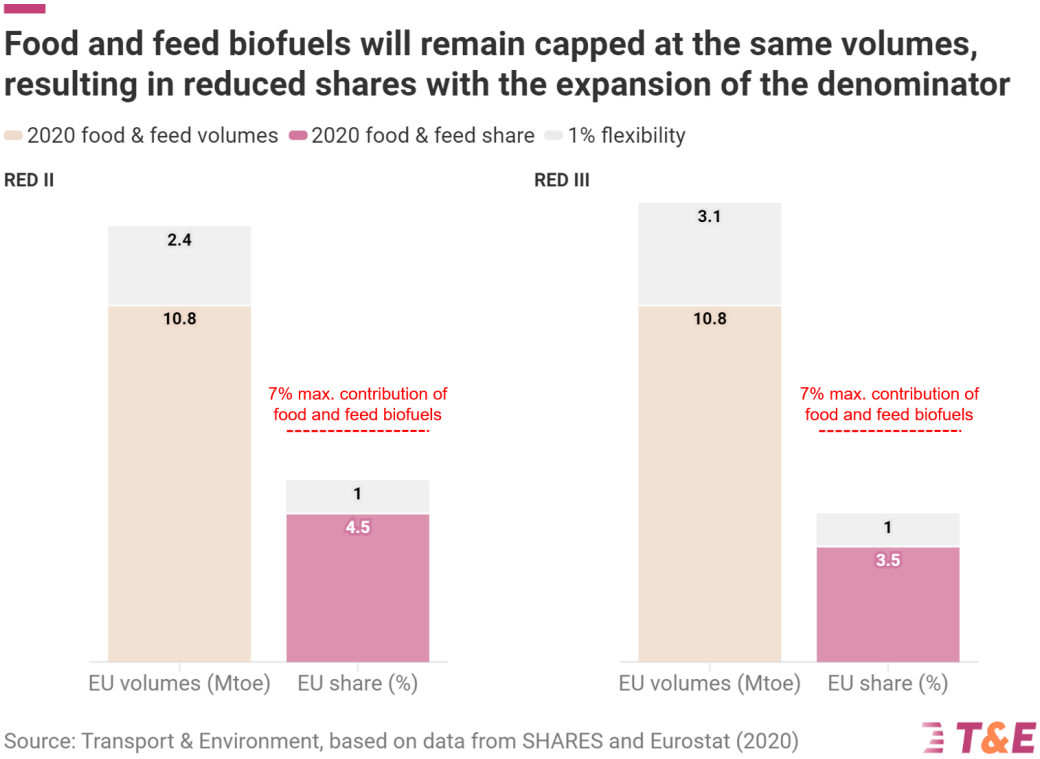

Figure 2: Food and feed biofuels volumes and shares in RED II vs RED III at EU level

2. It is still necessary to act on crop biofuels

The latest revision of the Renewable Energy Directive kept the limit on food and feed biofuels to 2020 Member State levels with a 1% flexibility and a maximum of 7%. When it comes to deforestation driving feedstocks such as palm and soy, there was some progress in the wording on the revision of the Delegated Act on high ILUC[11] risk feedstocks. However, palm oil remains the only feedstock that will be phased out by 2030. Member States need to show more ambition than the EU level and need to act further on crop biofuels. Keeping the status quo on food and feed biofuels and adjusting slightly the wording on high ILUC risk feestocks is not enough, especially with the increasing ambition on renewables targets. This can create loopholes where intermediate crops for example can increase dramatically.

2.1. Immediate phase out of palm and soy biofuels is key

RED III has made some progress on the most problematic biofuels, mainly high ILUC risk feedstocks. It included some additional language concerning the review of the Delegated Act (DA) on high-ILUC risk feedstocks stipulating that, based on the latest data, the Commission shall decide whether to lower the

[11] ILUC is a term for 'indirect land use change' - land clearance to allow for the expansion of overall agricultural area to meet additional demand for land for energy

10% threshold[12] used to classify a feedstock high-ILUC. The European Commission was required to review data on feedstock expansion by 30 June 2021 and review the Delegated Act by 1 September 2023 but to this day it still hasn't published the updated report or the reviewed DA. So far the only data published was the first phase of the update that shows the expansion of soy into high carbon stock areas until 2019, amounting to 9.5%, hence very close to the 10% threshold. Should the Commission decide to lower the 10% threshold, soy biofuels would be automatically phased out. RED III also adds that the Commission shall assess the possibility of an accelerated phase out of support for high ILUC risk feedstocks (currently palm, soy if included).

The Commission cannot hide anymore behind the WTO excuse

During the RED III negotiations, the European Commission flagged[13] that the classification of palm oil as a high ILUC risk feedstock in 2019 has resulted in Indonesia and Malaysia challenging these measures with the World Trade Organisation and that phasing out soy would not help their case with the WTO[14]. However, the delay in the revision of this important Delegated Act is concerning, and most likely linked to the wider political and trade context[15] and not only the WTO disputes.

Moreover, the WTO ruled in March 2024 in the dispute with Malaysia in favour of the EU's decison to cease classifying palm oil biodiesel as a renewable fuel. On the same day, Indonesia suspended its own complaint on the same issue.This ruling bolsters the EU's ability to take progressive, climate-based action on contentious international trade issues. It sets a strong precedent for phasing out other deforestation-driving biofuels currently used on the European market, especially soy.

However, Member States should not wait for the European Commission's sign to do the right thing and immediately phase out palm and soy biofuels. Several Member States including France and the Netherlands have already done so, and the number keeps increasing, Belgium being the most recent to make the right choice in 2023. The RED implementation, but also National Energy and Climate Plans (NECPs) are the next chance for other Member States to follow the same path and include this provision into their legislation. Spain has for example stated in their draft NECP to phase out by 2025 both palm and soy biofuels[16].

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[12] The Delegated Regulation from 2019 on high ILUC risk feedstocks has set 10% as the threshold of expansion share of the global production area of a certain feedstock into land with high-carbon stock, above which a certain feedstock is considered to have a high ILUC risk. European Commission. (Mar 2019). *Commission Delegated Regulation (EU) 2019/807*. (Link).

[13] Based on exchanges with European Commission's officials.

[14] Indonesia and Malaysia accused the European Commission within the framework of the WTO dispute settlement mechanism of discriminating against palm oil compared to other vegetable oils used for biofuels and causing unjustified and disproportionate barriers to trade. More in: World Trade Organisation. *European Union — Certain Measures Concerning Palm Oil and Oil Palm Crop-Based Biofuels* (Link).

[15] Transport and Environment (Dec 2023): *Last chance to halt deforestation-driving soy* (Link)

[16] Ministry for the Ecological Transition and the Demographic Challenge. (Jun 2023). *Draft update of the integrated 2023-2030 National Energy and Climate Plan*: p. 404 (Link).

2.2. Member States should act on the food and feed limit

Since the previous RED, national governments are allowed to immediately or progressively reduce the support for food and feed crop-based biofuels and this option has been kept in the RED III, as mentioned in section 1.1. Recently Belgium and Spain decided to reduce their 2020 limit on food and feed based biofuels. In 2022, the Spanish government issued a Ministerial Decree[17] establishing a declining trajectory of crop biofuels from the 4% in 2020 to 3.5 %, 3.0 % and 2.6 % in 2023, 2024 and 2025 respectively. Similarly, in Belgium, a new legislation was voted in 2023 that lowered food and feed based biodiesel from 7% (share of diesel) to maximum 6% in 2024, 5% in 2025 and 2.5% in 2030. Bioethanol produced from food and feed crops were reduced from 7% (share of gasoline) to maximum 6.5% in 2024, 5.5% in 2027, and 4.5% in 2030[18].

The reduction of the food and feed cap is particularly important when phasing out high ILUC risk feedstocks as it ensures that no other food and feed based feedstocks rapidly increases in volumes to fill the gap previously occupied by for example palm and/or soy. This would avoid, in particular, soy volumes increasing even further in those Member States that already phased out palm biofuels but have not yet acted on phasing out soy. Figure 3 shows how this could for instance be done for different Member States[19]. On average, the contribution of food and feed biofuels would thus decrease from 4.5% to 3.1% when 2020 palm and soy consumption is deducted from other crops. T&E recommends for Member States to progressively reduce the food and feed share to 0% and to reduce the RES-T target accordingly, by a maximum of 7%.

[17] Ministry for the Ecological Transition and the Demographic Challenge. (Dec 2022). *Orden TED/1342/2022, de 23 de diciembre, por la que se establece el límite de biocarburantes producidos a partir de cultivos alimentarios y forrajeros a efectos del objetivo de venta o consumo de biocarburantes y biogás con fines de transporte.* (Link.)
[18] Chambre des représentants de Belgique. (Jun 2023). *Projet de loi concernant les normes de produit pour l'intégration d'énergie produite à partir de sources renouvelables dans les carburants fossiles destinés au secteur du transport et modifiant la loi du 29 avril 1999 relative à l'organisation du marché de l'électricité et modifiant la loi du 12 avril 1965 relative au transport de produits gazeux et autres par canalisations:* p.86 (Link).
[19] In-house analysis based on 2020 food and feed biofuels shares from SHARES and RED II denominator, and 2020 palm and soy consumption from Stratas Advisors.

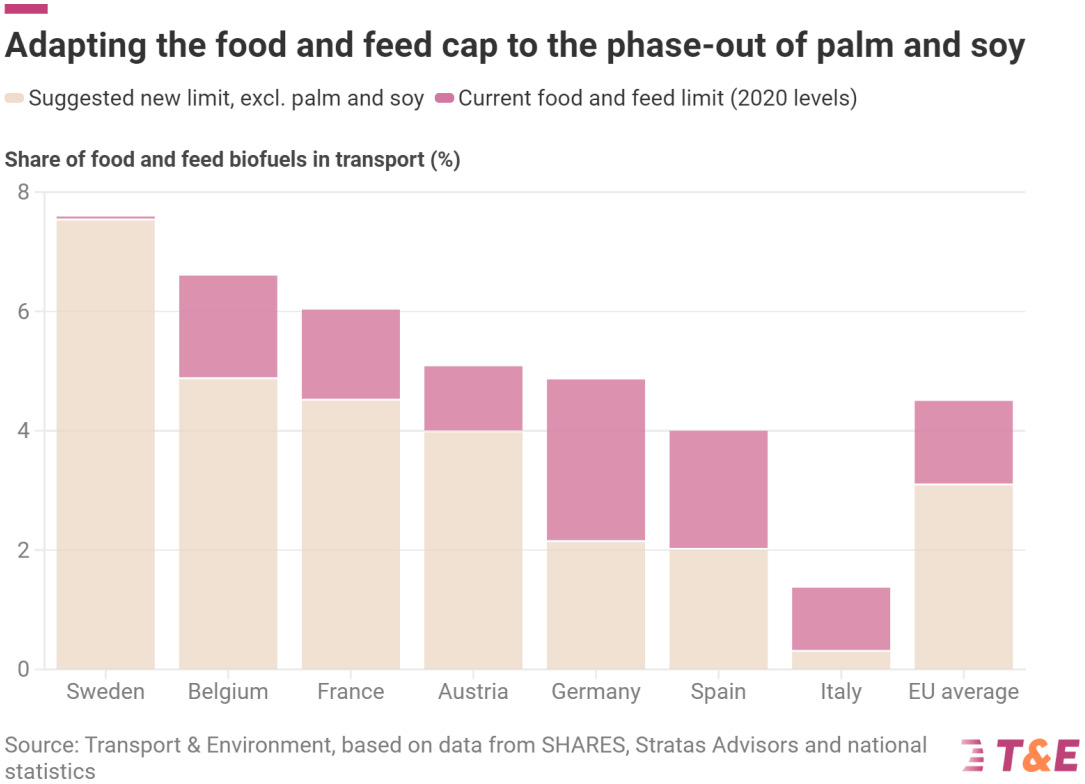

Figure 3: Food and feed biofuels consumed in 2020, with and without palm and soy

2.3. Limit the contribution of intermediate crops

With the overall increase of ambition, there is a big risk that the use of intermediate crops will grow in order to meet the higher ambition. Intermediate crops are crops that are grown outside the main growing season, such as catch crops and cover crops that are for instance cultivated during winter[20]. In Europe, these are mostly used for fodder and animal feed production as well as soil fertilising. In tropical regions with more than one growing season, such as in Brazil, intermediate crops are often food and feed crops.

Intermediate crops fall within two different categories in the RED. Some intermediate crops are single counted towards renewables targets in the RES. They are exempt from the food and feed definition[21], provided that their use does not trigger demand for additional land. T&E has already warned that the safeguard '*provided that their use does not trigger demand for additional land*' lacks clear guidelines without which it remains challenging to legally prove whether this is the case or not. In Brazil, cover cropping has risen dramatically over the last twenty years and secondary corn[22] has outpaced the supply of primary maize since 2012, now accounting for two thirds of national corn production. Diverting this

[20] Transport and Environment. (Jul 2024): *The Advanced and Waste Biofuels Paradox* (Link).
[21] European Commission. (Dec 2018). *Renewable Energy Directive, article 2:* "food and feed crops' means starch-rich crops, sugar crops or oil crops produced on agricultural land as a main crop excluding residues, waste or ligno-cellulosic material and intermediate crops, such as catch crops and cover crops, provided that the use of such intermediate crops does not trigger demand for additional land"
[22] Corn outside the main season, secondary season corn

corn from livestock feed to biofuels production will require newly converted land to compensate for the lack of corn for feed. Hence, intermediate and cover crop biofuels could also cause indirect deforestation in a similar way that food crop biofuels currently do and lead to indirect land use change (ILUC)[23].

In addition to this, there is another category of intermediate crops that has been added to Annex IX, together with crops grown on severely degraded land. They will be accounted for in Part A if used in the aviation sector or in Part B if used in road or shipping transport and subject to double counting. When adding intermediate crops to the Annex IX list the European Commission put additional safeguards in an attempt to avoid the risks mentioned in the paragraph above for single counted intermediate crops. It defined them as : "*crops that are grown in areas where due to a short vegetation period the production of food and feed crops is limited to one harvest*[24]". This should exclude de facto food and feed crops as according to this definition, only intermediate crops from climates with one harvest, such as Europe, would be eligible. However, considering that these feedstocks were added both in Part A of Annex IX (where there is no limit), and in Part B of Annex IX, the global demand for these feedstocks and market prices could quickly surge.
In addition to this, there are also other risks related to an unsustainable demand for intermediate crops such as increasing use of fertilizers, pesticides and irrigation. In general, intermediate crops should be prioritized for non-energy uses, such as production of food and feed or use in biomaterials[25].

It is hence crucial that Member States limit the contribution of intermediate crops to the RED targets (for example by including them in the food and feed cap), and ensure that these are not further incentivized via the Annex IX list.

3. Advanced and waste biofuels - the new 'illusion' ?

In recent years, advanced and several waste biofuels have been promoted through Annex IX of the Renewable Energy Directive by having the privilege to be double counted for the transport target for renewables. These feedstocks are classified either in Part A of Annex IX (materials requiring novel biofuels technologies to be converted into biofuels) or in Part B of Annex IX (feedstocks that can use mature technologies to be converted into biofuels). Since Part B feedstocks don't require novel technologies, they are generally more popular on the market and have been hence capped at 1.7% . The revision of the Renewable Energy Directive and the changes that followed to the Annex IX aim to further promote new feedstocks. Moreover, these feedstocks have been added both to ReFuelEU and FuelEU Maritime for the decarbonisation of the aviation and the shipping sectors.

[23] ICCT. (Jun 2021). *Cover crops: a cover story for business-as-usual biofuels.* (Link).
[24] European Commission. (May 2024). *Commission Delegated Directive (EU) 2024/1405 of 14 March 2024* (Link).
[25] Transport and Environment. (Jul 2024): *The Advanced and Waste Biofuels Paradox* (Link).

3.1. Annex IX biofuels widely promoted in new mandates without adequate sustainability safeguards

As previously mentioned, the binding part of the RES-T target is 22% in energy terms or 11% in carbon intensity. It should be achieved with renewable electricity, RFNBOs and advanced and waste biofuels. The latest Renewable Energy Directive has introduced a credit mechanism for electricity, which allows crediting renewable electricity as a transport fuel. Member States need to implement the credit mechanism in an ambitious way, including private charging as well[26]. In parallel, measures are needed to promote RFNBOs in the aviation and maritime sectors that are hard to electrify, and others to address the increasing reliance on advanced and waste biofuels. As shown in section 1.1. the volumes of renewables needed to reach the RES-T target increased, implying further uptake of advanced and waste biofuels. In addition to this, the combined sub-target for advanced biofuels and RFNBOs increases the minimum target for advanced biofuels from 3.5% to 4.5% with double counting. Moreover, these benefit from a 1.2 multiplier in the RED for the aviation and the shipping sectors. When it comes to Part B biofuels, they are still capped at 1.7%. In the previous RED, Member States were allowed to ask permission from the European Commission to increase the limit on Part B biofuels, based on the availability of feedstocks and with providing justification. The latest revision of the RED goes a step further and allows the Commission to increase the limit on Part B feedstocks based on an assessment of availability of feedstocks[27].

ReFuelEU Aviation does not put in place any direct mechanism to support electrification and also has several provisions that incentivise Annex IX feedstocks. Firstly, neither Part A nor Part B of Annex IX are limited to count as Sustainable Aviation Fuels (SAFs). Their limit is indirectly set by the 1.2% sub-target for RFNBOs as this allows them space for a maximum 4.8% to reach the 6% mandate by 2030 for the uptake of SAFs. However, compared to RED III, ReFuelEU goes one step further in excluding several problematic feedstocks from counting towards the targets. It excludes food and feed crops, palm and soy derivatives, single-counted (non-Annex IX) intermediate crops, soap stocks and derivatives[28] and Palm Fatty Acid Distillates (PFADs)[29].

Fuel EU Maritime incentivizes electricity by counting it as having zero emissions. It also incentivises Annex IX feedstocks by not setting any limits to how much they can count towards the GHG reduction target. It only gives a multiplier of 2 for RFNBO feedstocks by 2034 and a target of 2% for RFNBOs as of 2034. However, it is important to note that, similarly to ReFuel EU, it completely excludes food and feed crops (except for single counted, non Annex IX, intermediate crops) from counting towards the targets, which is a major improvement compared to the Renewable Energy Directive.

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[26] More in: Transport and Environment. (Sep 2023). *2023 Renewable Energy Directive Fact Sheet. From the ICE to the electric age, future proofing the RED*. (Link).
[27] European Commission (Oct 2023): *Renewable Energy Directive:* article 27, par 2 and 3. (Link).
[28] by-products of vegetable oil refining, such as palm and soy oil, currently used in other industries, such as for animal feed. Diverting them to biofuels production can cause indirect land use change emissions
[29] PFADs are by- products of palm oil refining, associated to high levels of deforestation

Comparison between targets in RED, ReFuel EU and Fuel EU Maritime

KEY PRIORITIES	RED	ReFuel EU	Fuel EU Maritime
Overall target	14.5% GHG reduction by **2030** or 29% energy share	6% energy share of SAF by **2030**	6% GHG reduction target as of **2030**
RFNBO target	1% with double counting by **2030**	1.2% by **2030**, 2% in **2032**	2% from **2034**
Crop-based biofuels	Limited to **2020** Member State volumes, max 7%, with 1% flexibility	**Non-eligible**	**Non-eligible**
Annex IX biofuels - Part A (advanced biofuels)	Mandate of 4.5% with double counting **by 2030**	**No mandate**	**No mandate**
Annex IX biofuels- Part B	1.7% cap	**Not capped**	**Not capped**
Non-Annex IX biofuels	**Eligible**	**Excluded**: PFAD, palm and soy derived materials, soap stocks & derivatives, intermediate crops; rest is limited to 3%	**Eligible**
Multipliers	1.2 for advanced biofuels and 1.5 for RFNBOs in the A&S sectors, 4 for renewable electricity	**No multipliers**	2 for RFNBOs by **2034**
Electricity	Support via the **credit mechanism**	**No direct** supporting mechanism	Electricity counted as having **zero-emissions**

Source: T&E, based on elements from RED III, ReFuel EU and Fuel EU Maritime

Table 1: Comparison between RED III, ReFuel EU and Fuel EU Maritime

3.2. Halt the demand for unsustainable advanced and waste biofuels

In May 2024, a Commission Delegated Directive was adopted, amending the Annex IX of the Renewable Energy Directive and adding 5 additional feedstocks in Part A of Annex IX and 4 additional feedstocks in Part B of Annex IX. For the first time, this list is differentiating between biofuels produced for the aviation sector (Part A) and for other transport sectors (Part B), following an intense lobbying by both fuels suppliers and the aviation industry. Most of the new feedstocks relate to some form of crops, such as intermediate crops or crops grown on severely degraded land. As explained in section 2.3., there are several issues connected with using intermediate crops for biofuels. Crops grown on severely degraded land are difficult to monitor and potentially subject to fraud, and they should be left for rewilding as this would bring more climate and biodiversity benefits. Moreover, there are also several feedstocks that were already part of the Annex IX list in RED II and that are quite problematic. These should be removed from the list (such as forestry residues) or restricted further (such as Used Cooking Oil). In addition to this, there are several feedstocks that should not count towards the renewables targets in transport, such as animal fats category 3, Palm Fatty Acid Distillates (PFADs), molasses and soap stocks and derivatives, and imports of UCO and animal fats category 1 and 2[30].

Several measures are possible at the national level to ensure that the unrealistic expectations for advanced and waste biofuels do not result in negative impacts for the environment, the biodiversity and the climate. It is essential that Member States:

- Act on the current sub-targets for advanced biofuels by increasing the share of RFNBOs to 2% and keeping the share of advanced biofuels from Annex IX Part A to 3.5%, as was set in the previous RED.
- Limit or exclude problematic Annex IX feedstocks (such as intermediate crops, crops grown on severely degraded land, forestry residues, etc) from counting towards renewable targets.
- Exclude animal fats category 3, Palm Fatty Acid Distillates (PFADs), molasses and soap stocks and derivatives, and imports of UCO and animal fats category 1 and 2 from counting towards targets for renewables in transport
- Identify the domestic availability of advanced and waste feedstocks before deciding to incentivise them for renewables targets in transport, with paying special attention to competing uses (and hence putting priority to waste hierarchy and cascading use) as well as impacts on biodiversity and ecosystem services.
- Fight fraud by reviewing completely the certification system for biofuels and moving away from industry-led voluntary schemes towards more stringent EU and national regulation[31].

[30] More in: Transport and Environment. (Jul 2024): *The Advanced and Waste Biofuels Paradox*: pp 30-32 (Link).
[31] More in: Transport and Environment. (Jun 2024). *UCO (Unknown Cooking Oil): High hopes on limited and suspicious materials*. (Link).

Legal analysis confirms it is possible to exclude or restrict Annex IX feedstocks

A recently conducted legal opinion[32] by the law firm Geulen & Klinger on behalf of Deutsche Umwelthilfe, NABU, Rainforest Foundation Norway and Transport & Environment, has looked into the possibilities of the EU Member States to exclude or limit questionable waste and residual materials from being promoted as renewable fuels. It has found that the Renewable Energy Directive does not contain any conclusive provisions that would prohibit Member States from excluding or restricting individual substances in Annex IX.

Possible measures that the legal analysis identified as having an equivalent effect to restricting problematic Annex IX feedstocks are the following:

a) Excluding individual feedstocks from counting towards minimum targets in Annex IX Part A.
b) Lowering the multiplier of certain feedstocks (Germany, for example, counts POME only once and in France tall oil pitch can only be counted once[33]).
c) Setting an upper limit for the share of individual substances in Part A of Annex IX (for example, France restricted Crude Tall Oil in Part A of Annex IX which is currently not limited at EU level. France put the limit of 0.1% for this feedstock[34]).

Conclusions

Member States have a choice to opt for cleaner and more scalable alternatives to decarbonise the transport sector. They need to focus on decreasing overall energy demand and using those renewable options that are truly sustainable, instead of focusing on biofuels which have proven to have negative impacts on the environment, climate and human rights, as well as to be very limited in sustainable quantities.

Direct electrification and an ambitious dedicated credit mechanism (including private charging) for rewarding the use of renewable electricity in transport should be the priority for decarbonising the road sector. For sectors that are harder to electrify, like aviation and long-distance shipping, hydrogen-based fuels - renewable fuels of non-biological origin (RFNBOs) - will play a key role and should be further promoted.

[32] GEULEN & KLINGER Rechtsanwälte. (Jun 2024). *Possibilities for excluding or limiting certain feedstocks from Annex IX in national implementation of amended Renewable Energy Directive (RED III)*. (Link).
[33] République Française. (Dec 2023). *Code des douanes*. (Link)
[34] *Ibid.* (Link).

Further information

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