Pigs do fly !

Growing demand for animal fats biofuels to power Europe's transport system raises concerns over climate impacts and potential fraud

May 2023

Summary

Growing use of animal fats to power Europe's cars and planes

Rendered animal fats are a by-product of industrial meat production and have a number of surprising and less surprising uses. Most notably animal fats have been used so far in pet food and in the oleochemicals (e.g. soap, cosmetics) industries. Less well known, however, is their use as transport fuels, currently mostly in cars and trucks. Major airlines like Ryanair and Wizz Air have recently struck big deals with oil suppliers for what are termed 'sustainable aviation fuels' (SAF). Even if the detail of the exact feedstocks used in SAFs is mostly vague, they often include animal fats.

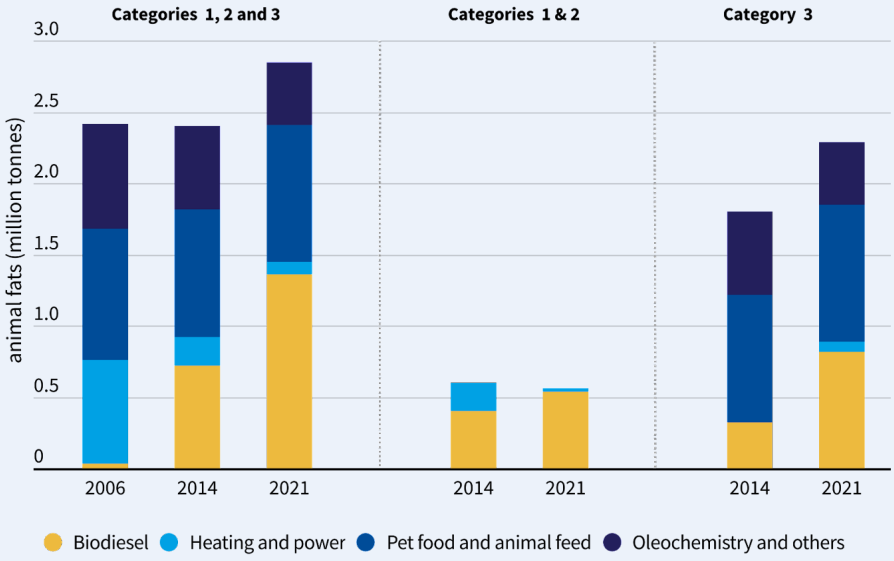
As the study carried out by Cerulogy on behalf of T&E shows, there is already significant pressure on supplies of animal fat as its use in biodiesel has grown **fortyfold since 2006**. Demand for animal fats in biofuels is also projected to **triple by 2030** compared to 2021 according to data collected by T&E from Stratas Advisors. This feedstock is expected to be the most used material in SAFs after used cooking oil (UCO), with fuel suppliers investing heavily in the processing of animal fats for biodiesel and other fuels.

Already Europe burns **46% of all animal fat feedstocks as biodiesel**, the study shows, making transport the biggest user of such fats. However, like any product, the availability of animal fats is limited. Simply killing more animals is not an option. T&E's calculations show that to entirely fuel a transatlantic flight between Paris and New York, you would need **8,800 dead pigs** each way.

Competing uses and unsustainability

EU rules classify three types of animal fats depending on their risk levels for human consumption and disease transmission. The three categories have different uses outside of transport. Categories 1 and 2 can be used in heating applications whereas category 3 has much more uses, including in pet food and oleochemical industries. The increased demand for animal fats for transport is putting pressure on supplies of all categories, leading to displacement effects when industries replace animal fats by other materials, usually cheap available oils.

If unsustainable materials are replacing the current uses of animal fats, the shift in uses can therefore significantly undermine the climate benefits of using animal fats biofuels. In the oleochemicals industry and pet food industry for example, **palm oil is considered as the most likely substitute** because of it having the most similar properties to animal fats and being the cheapest option available. If virgin palm oil were to substitute animal fats, **CO_2 emissions of animal fats biofuels could be up to 1.7 times worse than conventional diesel**.



Source: Cerulogy, based on EFPRA data

Increasing use of animal fats in biodiesel and competition with other uses

Potential fraud in labelling?

Laws like the EU's Renewable Energy Directive (RED) and ReFuelEU for aviation encourage the production of animal fats for transport fuels by allowing fuel suppliers to meet targets with them. The RED prioritises category 1 & 2 animal fats in transport fuels by allowing them to count for double to meet targets. In theory this should mean fuel suppliers prioritise categories 1 & 2. However, whereas the use of categories 1 and 2 has increased by 36%, thus reaching its full potential, the use of category 3 fats for biodiesel has **grown by 160%** since 2014, hence becoming an increasingly attractive feedstock for biofuels.

The Cerulogy report, carried out on behalf of T&E states, "[i]f the additional value to a biofuel producer of the double counting incentive exceeds the extra value available for category 3 material on the market, then it would become economically rational to downgrade category 3 material to a lower category". Hence, there is a risk of fraud where **category 3 material would be purposefully downgraded to categories 1 or 2** in order to gain access to double counting incentives.

The analysis shows that in 2021 almost **twice the amount of biofuels are being reported to be derived from categories 1 & 2 by member states compared to the supply data actually available and reported by the animal fat industry.** This suggests that materials from animal fats category 3 are mislabelled as originating from category 1 & 2 material. The RED does not allow for downgrading animal fat category 3 to benefit from double counting. If done deliberately, this would count as fraud. This would not be the first time that 'waste' biofuels have been linked to fraudulent practices. T&E, the ICCT and other environmental organisations have already signalled the high risks of fraud with products imported from countries such as China, where palm oil could be used to bulk up their UCO imports due to the very high demand coming from Europe.

Recommendations

T&E recommends that lawmakers take into account the limited availability of animal fats, the issues around competing uses and the displacement effects of using animal fat biofuels when designing their biofuel incentives. This means:

- adopting a robust limit on the use of animal fats category 1 & 2 in transport fuels, keeping the limit on Part B of Annex IX
- excluding the use of category 3 because of its numerous other uses.
- applying these safeguards to the aviation and shipping sectors.

It also calls for the Commission to investigate the existence of a potential fraud in the system, to adopt stronger safeguards to tackle the risk of fraud along the supply chains and to ensure a robust auditing system by an independent body, put in place by national authorities or the European Commission itself.

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1. Introduction

Animal fats are by-products of industrialised meat production traditionally used for the manufacturing of oleochemicals, pet food, animal feed and for combustion as boiler fuel at rendering plants. In recent years, these feedstocks have been increasingly used also for the production of biodiesel and renewable diesel. Interest is growing as well for the production of sustainable aviation fuels (SAFs) to be used in the aviation sector.

There are three different categories of animal fats, classified according to the risk they pose to human and animal health by the Animal By-Products Regulation[1]:

- Category 1 is the highest risk material associated with a specific risk of disease transmission;
- Category 2 is associated with a medium risk (no specified disease risk but unfit for human consumption);
- Category 3 is considered to have the lowest risk (fit for human consumption at the point of slaughter).

All three categories of animal fats can contribute to the renewables targets in transport under the EU's Renewable Energy Directive (RED[2]):

- Animal fats category 1 and 2 are listed in Part B of Annex IX of the RED, together with Used Cooking Oil (UCO). These feedstocks can contribute to the RED transport target up to 1.7% in energy terms and are eligible for double counting. This means that for category 1 and 2 animal fats two certificates are issued for every gigajoule of energy supplied (and only one in the case of category 3), making it easier for fuel suppliers to meet RED targets.
- Animal fats category 3 - as being the one with biggest uses in other industries is not eligible for double counting but can contribute to the target, alongside food based biofuels.

This gives a strong financial incentive for fuel suppliers to use categories 1 and 2 in biofuels as a priority over animal fats category 3. Nonetheless, the uptake of biofuels produced from animal fats category 3 is rising significantly, with implications for other competing industries but also for the environment.

This briefing summarises some of the key findings of a new study commissioned by Transport and Environment to Cerulogy[3] that explores these topics in more depth.

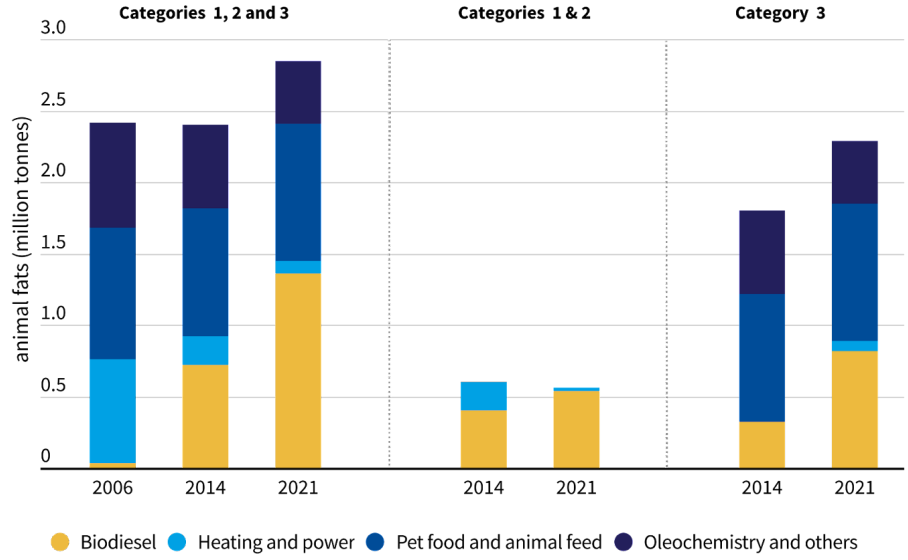
[1] Please find more details about the Animal By-Products Regulation here.
[2] In the UK for example animal fats are listed as products and not waste, please see more info here
[3] Cerulogy. (2023). *The fat of the land: The impact of biofuel demand on the European market for rendered animal fats.*

2. Current and projected trends for animal fat use in biofuels

2.1. Increased use of animal fats in biofuels

Since there are no official statistics on the production or use of animal fats at the EU level, the Cerulogy report had to rely on industry estimates to establish annual availability of these feedstocks. The European Fat Processors and Renderers Association (EFPRA) offers the best available data about this industry in the EU as it represents 23 of the 27 EU Member States plus Norway, Switzerland and the UK and represents the largest majority of animal fat production[4].

In 2021, EFPRA members rendered about 3 million tonnes of animal fats, out of which 2.4 million tonnes were category 3 and edible fats, and 570,000 tonnes were category 1 and 2. EFPRA also provides data for the different uses of animal fat resources between 2006 and 2021. It notably shows a significant shift in the use of animal fats from heat and/or power generation to **biodiesel production, which increased from 1% to 46% of all uses between 2006 and 2021** (Figure 1). The data also indicates that the reported consumption of animal fats for biodiesel production has grown from 30,000 tonnes per year in 2006 to 1.4 million tonnes in 2021. In that year, almost all category 1 and 2 resources were processed to biodiesel (540,000 tonnes, or 96% of all category 1 and 2 fats), plus a further 820,000 tonnes of category 3 fats (36% of all fats in that category).



Source: Cerulogy, based on EFPRA data

Figure 1: Disposition of rendered category 1, 2 and 3 animal fats in the EU and the UK (EFPRA)

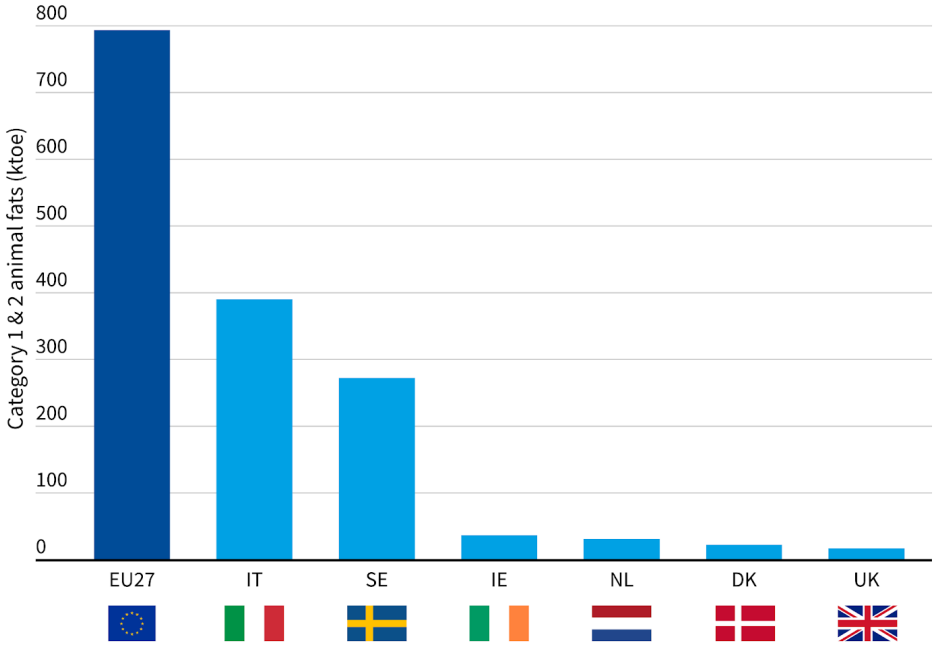
Cerulogy's report noticed some discrepancies between data sources (including EFPRA data, OilWorld, EU SHARES data, USDA's GAIN report and Stratas Advisors) when it comes to the exact level of supply and use of animal-fat based biofuels in the EU and the UK. However, all sources indicate that the animal fat

[4] Cerulogy. (2023). p7: "EFPRA represents at least 95% of category 1 and 2 animal fat production in all but one or two member countries, at least 80-85% of category 3 animal fat production in all member countries and an unknown fraction of edible animal fat production".

consumption for biofuels in Europe is currently above a million tonnes a year (between 1.1 and 1.5 million tonnes)[5].

2.2. Production and consumption of animal fats biofuels in the EU and the UK

In 2021, the officially reported consumption of category 1 and 2 animal fats biofuels in the EU and UK reached about 800,000 tonnes of oil equivalent, corresponding to 1 million tonnes of animal fats feedstocks. **Italy and Sweden represented about 80% of the total consumption of these double-counted fats**, as it can be seen in Figure 2.

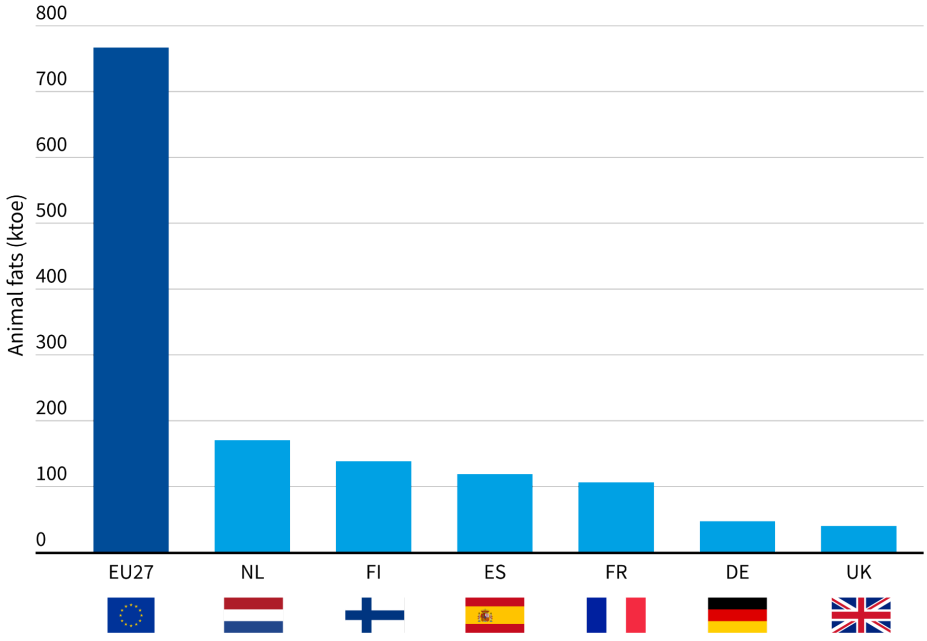


Source: EU SHARES data and UK Department for transport, 2021

Figure 2: Use of category 1 and 2 animal fats in biofuels officially reported (SHARES and UK data)

The main countries of production are somewhat different and more diverse, which suggests that animal fats biofuels are transported to member states that value them more favourably. According to OilWorld (Figure 3), the Netherlands, Finland, Spain and France were the biggest producing member states in 2021.

[5] Cerulogy. (2023). p18. SHARES and OilWorld give numbers below 1 million tonnes, but both are likely to exclude some category 3 material so the author of the report concluded that the real number must be at least 1.1 million tonnes.



Source: OilWorld, 2021

Figure 3: Production of biofuels from animal fats (OilWorld)

2.3. A projected high demand for animal fats

Even if new feedstocks are added to Part B of Annex IX, this would not significantly relieve the pressure on animal fats. These feedstocks will still be very much in demand for the production of biofuels. The new RED revision keeps the incentives for biofuels produced from animal fats and it now incorporates fuels supplied to aviation and shipping into the transport target. The 1.7% cap hence applies to a bigger pool of fuels, again increasing the overall demand. In addition to that, Annex IX feedstocks are eligible to meet new complementary targets for aviation and maritime fuels under separate, sector specific regulations (ReFuelEU[6] and FuelEU Maritime respectively[7]). Hence, the use of animal fats in EU biofuels is unlikely to decrease, on the contrary: Stratas Advisors forecasts that demand for animal fat based biofuels will almost triple between 2021 and 2030, from 1.4 to 3.9 million tonnes of fuel in Europe[8].

When it comes to the aviation sector, for example, the production of 'sustainable aviation fuels' (SAF) from vegetable oils or animal fats is the most mature technology available for alternative aviation fuel production (more info in the info box below). This will put upward pressure on demand for animal fats, as Stratas Advisors' projections show that demand for SAFs made from animal fats could be multiplied by 80 between 2021 and 2030 in Europe, from only 6,000 to 460,000 tonnes of jet fuel per year. **These forecasts also indicate that animal fats will be the most used 'waste'-based feedstock, with UCO coming next (360,000 tonnes of jet fuel in 2030)**. Animal fats category 3 have been included as eligible in both

[6] T&E (Apr. 2023). Press release. *EU agrees to world's largest green fuels mandate for aviation*. Link.
[7] T&E. (Mar. 2023). Press release. *EU agrees to the world's first green shipping fuel requirement.* Link.
[8] Forecasts accessed on May 04, 2023.

ReFuelEU and FuelEU Maritime, further increasing the demand for these feedstocks and despite the fact they are already used by other industries.

Major oil companies are already producing biodiesel from animal fats. According to Stratas Advisors, Neste operates the two biggest facilities in Europe using animal fats as an important feedstock, in the Netherlands (maximum capacity of 1 million tonnes of biodiesel per year) and in Finland (maximum capacity of 525,000 tonnes of biodiesel per year)[9]. Neste also announced the conversion of its plants to refine SAFs from 2023 in Europe[10] and in Asia[11]. Other oil majors also plan to produce SAF from animal fats, for example, Total Energies in its Grand Puits refinery in France[12] and Shell in a new biofuels project in Rotterdam[13].

Infobox: Are (dead) pigs going to fly?

The production of SAFs from vegetable oils, and in particular from used cooking oils, and animal fats is one way to increase the share of alternative fuels in the aviation sector. The availability of those feedstocks is however limited. For instance, the ICCT estimated that only 1.7 Mt of UCO and 0.75 Mt of animal fats biofuels would be sustainably available from 2030, mainly because of competition with other uses[14]. This would convert into a **maximum potential of 1.4% of the projected aviation fuel demand being covered by animal fats SAF in 2050**[15]. Without taking into consideration the fact that livestock farming also needs to be significantly reduced because of its high impacts on the climate and on biodiversity.

Hydroprocessed esters and fatty acids (HEFA) - used cooking oil, animal fats - produced following a similar process as HVO (hydrotreated vegetable oils) but with treatment steps adapted to jet fuel specifications, is likely to be the most commonly (if not only) technology used for SAF made from oils and fats. Although the maximum blend of HEFA with conventional jet fuel is currently capped at 50%[16], it is likely that planes would be certified to run exclusively on HEFA soon[17].

More concretely, it means that a significant amount of fats derived from dead animals will be required in planes if they are to use 100% HEFA made from these feedstocks. For instance, T&E calculated that **an average transatlantic flight between Paris and New-York would theoretically**

[9] These facilities do not only produce biodiesel from animal fats, but also from other feedstocks.
[10] Neste. (Apr. 2021). Press release. *Neste to enable production of up to 500,000 tons/a of Sustainable Aviation Fuel at its Rotterdam renewable products refinery*. Link.
[11] Reuters. (Feb. 2022). *Neste to start Singapore sustainable aviation fuel plant by Q1 2023.* Link.
[12] Total Energies. (Sep. 2022). Press release. *TotalEnergies and SARIA Join Forces to Produce Sustainable Aviation Fuels*. Link.
[13] Shell. (Sep. 2021). Press release. *Shell to build one of Europe's biggest biofuels facilities*. Link.
[14] ICCT. (2021). *Estimating sustainable aviation fuel feedstock availability to meet growing European Union demand*. Link.
[15] Based on T&E's projections. T&E. (2022). Roadmap to climate neutral aviation. Link.
[16] ETIP Bioenergy. *Aviation biofuels*. Link.
[17] Airbus. (2021). *First in-flight 100% sustainable-fuels emissions study of passenger jet shows early promise.* Link.

need around 8,800 dead pigs each way[18]. Applying the current 50% maximum blend of HEFA that can be certified, 4,400 dead pigs per flight would alternatively be needed.

3. Increasing uptake of animal fats category 3 and fraud risks

3.1. Surge of category 3 animal fats in biofuels

Category 3 has the biggest variety of possible uses compared to categories 1 and 2 and the priority is not to mix it with categories 1 and 2 so as not to contaminate it[19]. If a lower risk material is transferred to a higher risk category, the mixture should automatically be labelled into the highest risk category. In practice, this means that if category 3 material was to be mixed with categories 1 and/or 2, it should automatically be downgraded to categories 1 and/or 2. The RED requires material to be reported at the grade at which it was produced even if it is later downgraded, so in principle downgrading animal fats category 3 could not help to benefit from double counting[20].

As described in Section 2.1, EFPRA data shows there was a significant increase in the production of animal fats category 3 over time (from about 1.3 million tonnes in 2009 to 2.4 million tonnes in 2021), while the production of animal fats category 1 and 2 stayed rather stable. The Cerulogy report states several possible reasons for this: a change in category 3 market (EFPRA covered 74% of the category 3 market before 2016 and 80-85% in 2021); improvements in segregation procedures for category 3 fats; relaxation of categorisation protocols in some countries; new approaches to increase fat recovery from rendered material.

Hence, whereas category 1 and 2 animal fats increased since 2014 by 36% and reached their full potential, **the growth in category 3 fats for biodiesel since 2014 is even more important, by 160%.** This suggests that while the increased use of category 1 and 2 fats in biofuels came at the expense of other uses for these categories (in particular combustion for heating and power generation), the use of category 3 fats for biodiesel production contributed the most to the overall growth in this category.

Although it is to be expected that the animal fats category 3 will increase to a certain extent once the animal fats category 1 and 2 have reached their full potential, the level of increase of category 3 is so high

[18] Cerulogy estimated that approximately 0.7 kg of category 1 and 2 fats and 6.8 kg of category 3 fats can be recuperated from one dead pig. The number of animals required per flight is then derived from the average HEFA conversion factor (0.76 kg of fuel per kg of fat, from Biograce) and the average fuel consumption of such flights (50.7 tonnes of kerosene per flight between CDG and JFK, according to ICAO's emissions calculator).

[19] Section 1 of Chapter 3 of the Commission Regulation (EU) No 142/2011 of 25 February 2011 implementing Regulation (EC) No 1069/2009 of the European Parliament and of the Council laying down health rules as regards animal by-products and derived products not intended for human consumption and implementing Council Directive 97/78/EC as regards certain samples and items exempt from veterinary checks at the border under that Directive.

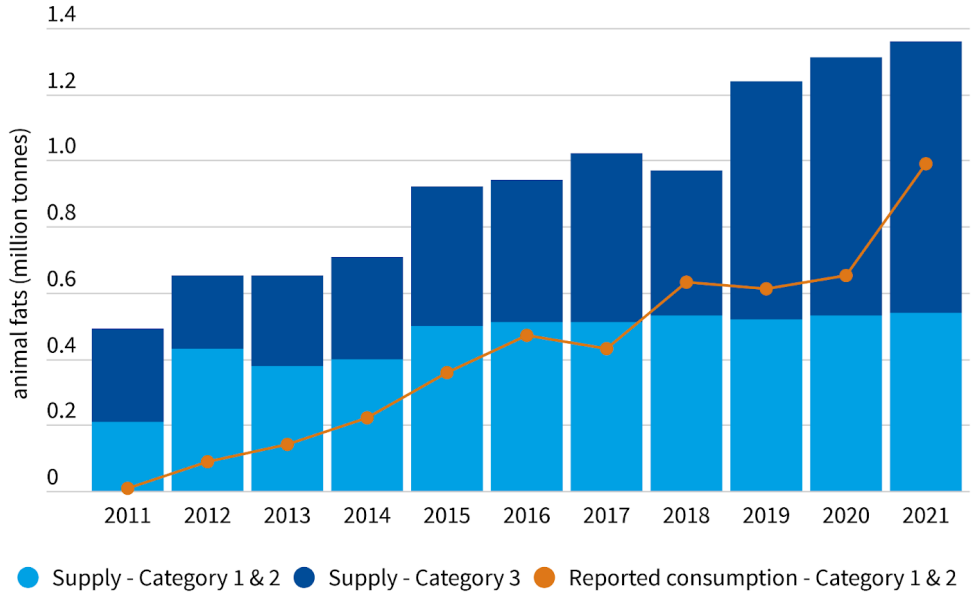
[20] Paragraph 7 of Article 30 of the Renewable Energy Directive on the approval of the voluntary biofuel certification under the condition of "adequate assurances that no materials have been intentionally modified or discarded so that the consignment or part thereof would fall under Annex IX."

that it raises certain questions, taking into account that animal fats category 3 are counted only once in the RED. However, as the Cerulogy report states, "[i]f the additional value to a biofuel producer of the double counting incentive exceeds the extra value available for category 3 material on the market, then it would become economically rational to downgrade category 3 material to a lower category[21]". **Hence, there is a risk of fraud where category 3 material would be purposefully downgraded to category 1 or 2 in order to gain access to double counting incentives.** The Cerulogy report gives an example of the Dutch market where biodiesel and renewable diesel from animal fats are eligible to generate "HBE-O" certificates that can be used to show compliance with the Dutch mandate for renewable energy in transport. For category 3 animal fats one certificate is issued for every gigajoule of fuel supplied, whereas for double counted category 1 and 2 animal fats two certificates are issued for every gigajoule of energy supplied. This could in practical terms result in €420 of subsidy value for every tonne of category 3 animal fats converted, and double the amount (€840) for every tonne of category 1 and 2 animal fats converted[22].

3.2. Potential fraud in animal fats labelling?

The official 2021 data for the EU as a whole (SHARES) show that almost twice the amount of biofuels are being reported to be derived from categories 1 and 2 by Member States compared to what is actually available and reported by the animal fat industry, as can be seen in Figure 4. The SHARES data indeed indicate that just under a million tonnes of category 1 & 2 fats feedstock were consumed in 2021, while EFPRA reported around 0.5 million tonnes of fats being supplied for biofuels in those categories. This **signals a valid concern that materials from animal fats category 3 are potentially mislabelled as originating from category 1 and 2 material.** According to Cerulogy, this gap between supply and consumption of animal fat based biofuels cannot be explained by imports, as imported animal fats are today very limited (less than 10% of the total rendered fats in the EU in 2021 according to Eurostat and EFPRA data, and including higher quality fats imported for human consumption as well as any rendered fats imported for biofuel use).

[21] p6 of the report.
[22] Fast markets. (Nov 2022). *HBE multiplier for Dutch marine biofuel likely to be reduced.* Link.



Supply data refer to the disposition of animal fats for biofuels uses according to EFPRA. The consumption data correspond to the reported animal fats consumed in the EU in biofuels according to SHARES, converted from biodiesel volumes to fat weight.

Source: Cerulogy, based on SHARES and EFPRA data

Figure 4: Animal fats consumption for biodiesel in the EU (SHARES and EFPRA data)

Although there is no documented evidence of this so far, the Cerulogy report reveals that there is a firm belief among industry stakeholders using animal fats category 3[23], that a part of the material that is identified as category 3 at the rendering plant is either downgraded in the supply chain by mixing it with category 1 and/or 2 animal fats or is simply being mislabelled in biofuel reporting. **There is therefore a concern that a form of fraud is taking place, as explained in Figure 5, considering that the RED doesn't allow downgrading animal fat category 3 to benefit from double counting.** In addition to this, these types of fraud could significantly distort the competition between biofuel producers and other users.

[23] Based on a bilateral discussion between Cerulogy and pet food industry stakeholders.

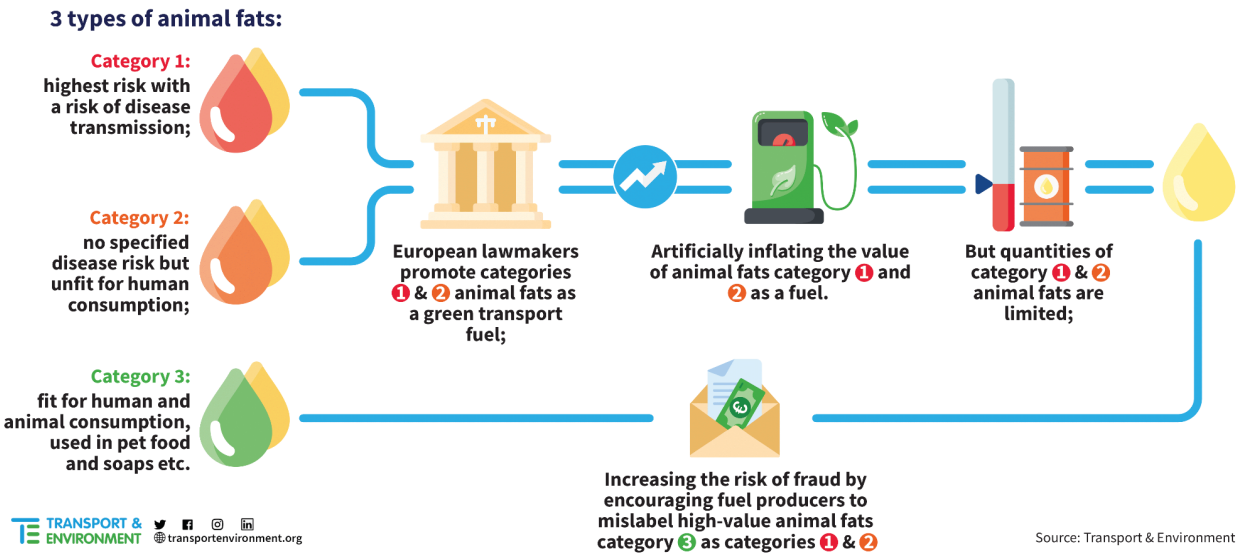


Figure 5: Illustration of potential animal fats fraud case

4. Industries competing for animal fats and climate impacts

4.1. Competing uses and displacement effects of using animal fats for biofuels

EFPRA's data identifies four major ongoing uses of animal fats outside of the biofuel industry: **combustion for heat and power, oleochemicals, livestock feed and pet food.** Several studies have explored what would be the impacts of diverting animal fats from their current uses. All show that this would result in displacement effects and significant indirect emissions since industries once using animal fats would now have to use 'less sustainable' alternatives to replace these products. (more in section 4.2 below).

The increased competition for using animal fats also contributes to increased prices[24] and more difficulties for the historical users to access these feedstocks. Cerulogy's report indeed mentions that prices for category 3 animal fats doubled in twenty years for manufacturers of pet food, animal feed and oleochemicals. With the current surge of animal fats in biofuels, some representatives of the pet food industry even anticipate a further 50% increase in costs for animal fats in the next few years[25].

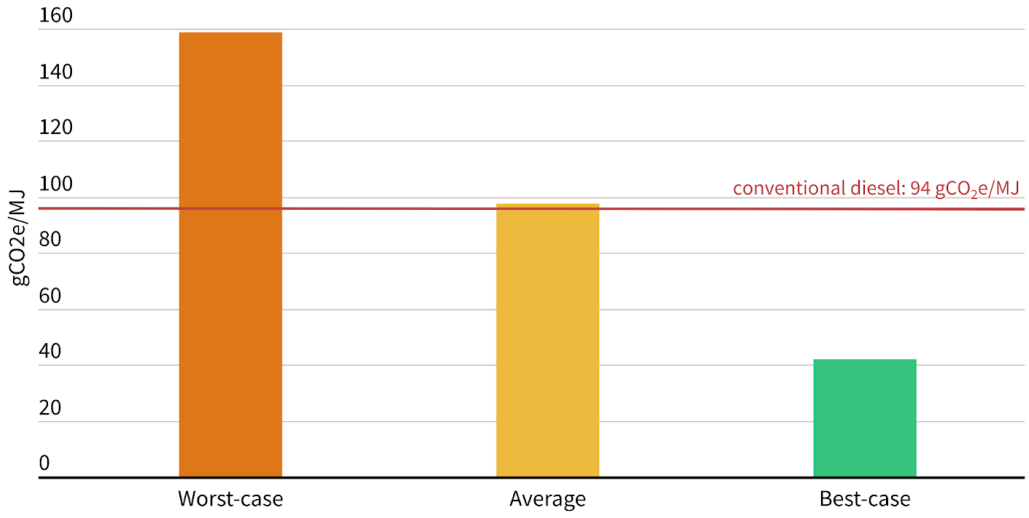
As mentioned previously, animal fats category 3 is the lowest risk category among animal fats and has therefore the biggest applicability in the industry sector. In the oleochemicals industry for example, palm oil is considered as the most likely substitute because of it having most similar properties to animal fats and being the cheapest option available. This is also the case for livestock feed, although the shift will also go to some extent to lower cost energy feeds such as wheat or maize. The situation seems also particularly concerning for the pet food industry as animal fats provide an important role in increasing

[24] Together with the general rise in vegetable oil prices
[25] Based on a bilateral discussion between Cerulogy and pet food industry stakeholders.

the palatability of food (as compared to vegetable oils for example). According to the industry association FEDIAF, 'category Three animal fats are not easy to replace for the pet food industry and can only be substituted with much less sustainable options that are in direct competition with the human food industry'[26]. In the case of heat and power where categories 1 and 2 were mostly used, animal fats are likely to be substituted by fossil fuels such as fuel oil.

4.2. Indirect emissions and climate impacts

Several studies have looked at the displacement emissions from using animal fats in biofuels. When taking into account these emissions, some cases show that using animal fats in biofuels could result in increasing emissions compared to fossil fuels - which is quite different from the official 78% GHG savings used in the RED[27]. For instance, when being substituted by palm oil in oleochemistry uses, **emissions of animal fats' biofuels can be up to 1.7 times worse than conventional diesel** according to Ecofys (Figure 6). Palm oil is associated with direct deforestation, but also with so-called high risk of 'indirect land use change' (ILUC - land clearance to allow for the expansion of overall agricultural area to meet additional demand for land for energy). While palm oil biofuels from areas deforested after 2008 are not eligible under RED, these indirect emissions still undermine the main objective of using biofuels, which is to reduce CO_2 emissions.



The worst-case refers to 100% replacement of non-biofuels uses of animal fats with palm oil, and a high ILUC value for palm oil taken from GLOBIOM modelling. The average corresponds to the combination of several data points that are detailed in Cerulogy's report and the best-case scenario is from the ICCT. In all cases, direct emissions of 20 gCO2eq/MJ have been added to indirect emissions.

Source: Cerulogy, based on results from Ecofys, Econometrica, ICCT and Cerulogy itself.

Figure 6: Estimates of indirect emissions from the increased use of animal fats for biodiesel

Animal fats category 3 are in the grey zone of 'wastes and residues' outside of Annex IX in the Renewable Energy Directive and "considered to have zero life-cycle GHG emissions up to the process of collection of

[26] PET food processing. (Sep. 2022). *Biofuel policies threaten European pet food processors*. Link.
[27] In the RED, only emissions from processing, transport and distribution are considered, leading to about 20 gCO_2eq per MJ for biodiesel made from animal fats category 1 & 2.

those materials"[28]. It is clear that emissions linked to displacement effects are not taken into account under EU rules. In the latest revision of the RED, the European Commission tried to address this issue[29] but unfortunately the new provision was not adopted in the final text of the RED.

A final point of consideration is the fact that the reliance on animal fats for biofuels further reinforces industrial livestock farming, connected not only to deforestation for pasture and feed production, but also to very high emissions associated with the consumption of animal products and animal rights violations. For a more global perspective, this topic has been further explored in the 2022 report by investigative journalists Réporter Brazil[30]. According to this report, Brazil is the third largest biodiesel producer in the world (after the US and Indonesia) and animal fats are the second main material source used after soy.

5. Conclusions

As described above, there are several issues associated with the use of animal fats for the production and use of biofuels. Unfortunately, the recent rules adopted as part of a final Renewable Energy Directive do not include additional safeguards on that matter.

The European Commission had suggested to lift the double counting which would have decreased the incentive for part B biofuels and had also suggested a new calculation method for the GHG emissions of animal fats category 3. However, EU institutions decided instead to keep the double counting, rejected the change on GHG accounting and relaxed the limit on part B biofuels so that the reference limit of 1.7% can be adjusted upwards based on the availability of feedstocks. In parallel, the European Commission recently proposed an amended list of Part B biofuels[31] with new feedstocks, which suggests a risk that the cap on part B biofuels will be increased in the future.

On that basis, it is unlikely that the use of animal fats in biofuels will decrease, on the contrary. T&E suggests the following recommendations to EU decision-makers and national authorities:

- **National authorities must cap the categories 1 and 2 to avoid further increase at national level, for example at their 2020 levels. Moreover, they should not deviate from the limit of 1.7%** applied on biofuels part B of Annex IX - that includes animal fats category 1 and 2 and UCO. National authorities must **exclude animal fats category 3** from the list of eligible biofuels in the national biofuels schemes **.**

- **The national authorities must also ensure that the limit and restrictions apply across all transport sectors, including aviation and shipping.** ReFuel EU and Fuel EU maritime should not lead to even more demand for biofuels from animal fats or Used Cooking Oil. To ensure this,

[28] Annex IV, point 18, sub-paragraph 3 of the Renewable Energy Directive.
[29] The Commissions proposed for these feedstocks to be attributed the same emissions as their closest substitute in the food and feed market. This provision would have helped to assign a more realistic emission factor to animal fats category 3 reflecting the indirect impacts and would have discouraged their use for biofuels compared to other uses.
[30] Réporter Brazil. (2022). *The "Green" Fuel That Drives deforestation.* Link.
[31] You can find the Commission's proposal here.

animal fats category 3 should be excluded from these Regulations (de facto there should be no incentives for their use) and the limit set on categories 1 and 2 in the RED should effectively apply.

- **The European Commission must investigate the potential risk of fraud** in relation to the increased demand for animal fats for biofuels in the EU, derived from the existence of a differentiated policy treatment for the different categories of animal fats 1, 2 and 3.
- **The European Commission and national authorities** must provide transparent and accessible numbers about the different types and quantities of animal fats used in biofuels, per fuel suppliers, as requested by the RED[32]
- **The European Commission and national authorities** should ensure that the auditing systems put in place to prevent fraud are truly independent and robust. This should not be left to economic operators but instead should be a process that is overseen by an independent EU or national authority. It is also crucial that economic operators follow the correct classification of animal fats in their reporting and that sanctions are applied if that is not the case.

Further information

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[32] The Renewable Energy Directive is being currently revised and the final text is to be adopted in plenary in September of 2023.