BANKTRACK

September 2025

Position papers on false solutions for the climate crisis.
#2 Biofuels.

What are biofuels?

According to the International Energy Agency (IEA), biofuels are liquid fuels made from biomass or waste, such as ethanol, biodiesel and biojet fuels. They can be classified based on the type of raw materials (feedstocks) and production methods: **conventional biofuels** are made from food crops, while **advanced biofuels** are made from non-food sources, like agricultural waste or dedicated energy crops.

Biofuels are also classified into generations: While **first-generation** biofuels are made from food crops (corn, sugarcane), **second-generation** fuels are made from waste materials and non-edible crops, while **third-generation** are made from aquatic sources like algae. The IEA defines **advanced bioenergy** as sustainable fuels made from non-food sources that significantly cut greenhouse gas (GHG) emissions and don't compete with food production or harm sustainability.

Biofuels in the IEA's Net-Zero Roadmap

The IEA's Net Zero Emissions (NZE) roadmap outlines how the world can reach net-zero by 2050, in line with the 1.5°C climate target. The IEA anticipates a **limited role for biofuels**, mainly in **transport**, not power generation. The updated 2023 version reduces the expected role of biofuels in transport compared to the 2021 plan. According to the IEA, **liquid biofuels production must triple** by 2030 to meet NZE targets, **advanced biofuels** must grow from **12% in 2022 to 40% in 2030**, but progress is currently **off track**, mainly due to a **lack of sustainable feedstocks**.

Unclear CO2 emissions reduction potential

A 2023 study found that in the EU, restoring land used for biofuels crops to its natural state could **absorb more CO2** than the emissions saved by using biofuels. It also says that it takes **40 times more land** to power a car with biofuels than with solar-charged electric vehicles.

A Royal Society paper warns that estimates of greenhouse gas emissions savings from biofuels vary widely. Some biofuels reduce emissions but cause other problems like acid rain, water pollution, high water use and biodiversity loss.

Negative environmental impacts

The Royal Society also points out that biofuels may threaten food and water security, human health and rural development. Besides, the US Environmental Protection Agency (EPA) found that biofuel production can have worse impacts than fossil fuels in some areas, such as: smog formation, acid rain, particulate pollution (PM2.5) or ozone layer depletion. It concludes that the potential effect is smaller because the biofuels' industry is smaller than the fossil fuel industry. However, the impacts could grow significantly as production expands.

Biofuels and land use

Last but not least, the cultivation of biofuel crops competes with land needed for food production. A study covering 51 developing countries between 2011 and 2016 found that biofuel production negatively impacts food security in these regions. More recently, in 2022, Gro Intelligence reported that the calories diverted to biofuel production—due to current policies and future commitments—are equivalent to the annual food needs of 1.9 billion people. This issue must be addressed before pursuing large-scale expansion of biofuel production.

Biofuels in power generation: a false solution

Using biofuels for **electricity generation** is not efficient or sustainable. Given the **uncertain emission reductions, environmental risks and limited feedstocks,** biofuels should be **strictly limited to specific uses,** and only where **negative impacts can be avoided.** They should **not be treated as a main solution** for a just energy transition. **Banks should exclude biofuels from the scope of their sustainable finance for the power generation sector.**

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