

# BANKTRACK

September 2025

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

### #1 Solid biomass.

#### What is solid biomass?

Solid biomass is any organic material that comes from plants and animals, and is used for generating energy, either through burning or converting into liquid or gas fuels. The International Energy Agency (IEA) [defines](#) solid biomass, or “solid bioenergy” as including materials such as charcoal, fuelwood, dung, agriculture residues, wood waste and other solid biogenic wastes”.

#### Biomass in the IEA’s Net-Zero Roadmap

The [IEA’s Net Zero Roadmap](#) (NZE) – a global pathway for the energy sector to align with net zero emissions by 2050, in line with the 1.5°C goal – expects “traditional use of biomass”, like burning wood for cooking, to be phased out by 2030. However, the roadmap **anticipates significant growth in “modern bioenergy use”**, like agricultural or forest waste processed into fuels like pellets then used in high-efficiency technologies for electricity, heat or transportation solid bioenergy, liquid biofuels and biogases. This will be used particularly in power generation and industries, which could worsen the environmental damage already associated with biomass combustion.

#### Uncertain climate impacts: Biomass is not carbon-neutral

A common belief is that biomass energy is “[carbon neutral](#)”, meaning it does not contribute to increased carbon emissions. This is because plants absorb CO<sub>2</sub> while growing and release the same amount when burned. **However, this view overlooks several factors.** Firstly, if the plant material was left to grow or decompose naturally instead of being burned, **it would act as a carbon sink**. Secondly, the emissions from the biomass supply chain, from logging to transportation, [are not accounted](#) for in the energy sector but are instead shifted to the land sector, giving the false impression that biomass combustion does not contribute to climate change.

Thirdly, biomass combustion releases carbon into the atmosphere all at once. As research from organizations like the [World Resources Institute](#) or the [Partnership for Policy Integrity](#) (PFPI) emphasises, **it can take decades or even centuries for plants to regrow and reabsorb the CO<sub>2</sub> released during combustion**. This delay means that biomass keeps adding to atmospheric CO<sub>2</sub>, creating more “carbon debt” each year. The PFPI also points out that burning biomass can actually release more CO<sub>2</sub> per unit of energy than burning fossil fuels.

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## Deforestation and Land Use

Clearing forests to grow biomass crops can lead to huge carbon emissions, even if the crops regrow quickly. **Biomass generation often relies on new [monoculture plantations](#), which [can harm natural habitats](#) and lead to [land grabbing](#) in some regions.**

## Biomass in coal power plants does not help the environment

Burning biomass in coal power plants is not a viable climate solution either. While it [might reduce some air pollution](#), **it does not significantly lower greenhouse gas emissions.** Biomass co-firing [prolongs the use of coal](#), delaying the shift to cleaner energy sources.

The IEA's roadmap also expects bioenergy carbon capture to help reduce emissions by 2050 (by 1,263 million tonnes of CO<sub>2</sub>). **However, this goal seems unrealistic given the technical challenges facing carbon capture technology** and the limited progress so far – only 1MtCO<sub>2</sub> was captured from bioenergy in 2022.

## Health and human rights impacts

In addition to the uncertain climate benefits, the [health impacts](#) of biomass combustion on local communities are concerning. The [fine particles](#) emitted during biomass combustion can cause **respiratory and cardiovascular diseases, cancer, and [other health problems](#).**

## Conclusion: Biomass is not a real solution

In conclusion, **biomass does not contribute to a just or effective energy transition.** Due to its unclear climate benefits and harmful impacts on ecosystems and human health, **banks should exclude solid biomass from the scope of their definition of sustainable finance and prioritise finance for genuine climate solutions.**

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