DEBUNKING DANGEROUS DISTRACTIONS

Bioenergy

How burning wood, biofuels and BECCS are exacerbating climate change, hurting people and delaying real action

Bioenergy is a dangerous distraction

Bioenergy – biofuels, woody biomass and bioenergy with carbon capture and storage (BECCS) — is often presented as an energy and climate solution.

However, bioenergy poses serious risks to biodiversity, socio-economic well-being, and the climate itself. Current projections and plans for bioenergy by governments and corporations constitute a severe dangerous distraction from the real solutions we must rapidly implement.

Why is bioenergy a problem?

Bioenergy risks driving land grabs, rising food prices, land and water conflicts, as well as threats to health from air pollution and toxic biofuel production.

Bioenergy threatens massive conversion of biodiverse forest and agriculture into monoculture plantations. And while posed as a climate solution it is often the exact opposite – in effect causing more CO_2 emissions.

Bioenergy is not carbon neutral – it dangerously adds emissions while threatening livelihoods and peoples' rights

Biofuels
Biofuels are derived from plants (e.g. corn and sugar), algae or animal waste and exist as both liquid (e.g. ethanol, biodiesel) and gaseous (e.g. biogas) fuels. While biofuels can be used for heating, industrial processes and electricity generation, massive growth is projected for transportation, some assuming biofuels to provide half of all aviation fuels by 2050.

Woody biomass based bioenergy
Bioenergy from woody biomass includes both electricity and heat production from the burning of trees, shrub and roots. Bioenergy already drives significant cutting of natural forests and establishment of monoculture plantations. By co-firing coal plants with wood, countries and corporations are falsely claiming emissions from the coal are abated.

Bioenergy with carbon, capture and storage (BECCS)
BECCS is a form of carbon dioxide removal (CDR) geoengineering and combines two problematic technologies – bioenergy (generally from woody biomass) and Carbon Capture and Storage (CCS). This technology is largely unproven and poses significant risks. Yet it is assumed to remove huge quantities of CO_2 from the atmosphere over decades and centuries.

Debunking myths

To tackle the urgent climate crisis, we need real strategies, real commitment, real solutions, real funding, and 'REAL ZERO' for an urgent just transition. **NOW.**

	DANGEROUS DISTRACTIONS	DEBUNKED
1	There is plenty of unused land available for bioenergy	There is very **little unused land**. Conflicts over land are already prevalent, with negative impacts on marginalised communities, smallholder farmers, Indigenous Peoples, and women. Vast expansion of bioenergy could have disastrous impact on the human rights and livelihoods for billions of people.
2	Bioenergy is people-friendly	History shows people are often **displaced** and **denied rights** as technologies are heavily promoted and commercialised. Any application of bioenergy must ensure the strictest application of human rights, rights of Indigenous Peoples, and other stringent safeguards, including the principle of Free, Prior and Informed Consent.
3	Bioenergy is carbon neutral	Grossly misleading. Burning biomass for bioenergy results in **immediate CO_2 emissions.** These may or may not be eventually absorbed by new trees or other vegetation—there may be new land uses or forests may burn. Uptake of CO_2 in trees takes decades or centuries while emissions in the near future may breach critical **tipping points**.
4	Burning forests and replanting them is climate smart	Standing, **old forests are excellent sinks**, which generally absorb more carbon than young forests, and are essential for biodiversity and resilience against climate disasters. Promotion of bioenergy incentivises cutting such forests under false pretence of 'climate action'.
5	Bioenergy is clean and healthy	Burning and processing of biomass cause **air pollution** and **respiratory diseases**, often in socially-disadvantaged communities. BECCS would require huge pipeline infrastructure with risks of **accidents** and massive reliance of **toxic chemicals.**
6	Bioenergy is cheap and fast	Bioenergy is expensive and slow. **Opportunity costs are huge**—the land used for growing the biomass is almost always better used for food production and preservation of forests.
7	Emissions from bioenergy are accounted for	Bioenergy presents huge **accounting loopholes** where emissions are not accounted for in the countries where the burning takes place.
8	Bioenergy offsets are a win-win for climate and income in poor countries	Offsets are in reality **'permits to pollute'** that allow corporations to continue polluting while claiming to be green. Poor countries suffer from the resulting warming. Rich countries and corporations must provide **both climate finance** *and* **reduce their emissions**.
9	BECCS projections in climate models show we have a reasonable remaining carbon budget	**BECCS** has essentially functioned as a **'black box'** in IPCC models, filling in huge gaps in the projections to make climate targets look achievable without radical, transformative action.
10	Storing carbon in old oil wells as part of BECCS is safe and climate smart	Perversely, the pumping of CO_2 into old oil wells helps the fossil industry extract remaining oil or gas —**'Enhanced Oil/Gas Recovery' (EOR).** There is persistent risks of leakage of the injected CO_2.
11	Bioenergy is essential for cooking in poor countries	Yes, but it has major negative health, environmental and socio-economic impacts. A rapid transition to **people-centred** and appropriate **electrification of cooking** and other alternatives must be prioritised, supported and financed based on clear equity and climate justice principles,
12	There is considerable potential for bioenergy to serve our energy needs	Bioenergy can only play a very marginal role, with few exceptions, and must be **stringently regulated** and **controlled** to avoid harm
13	The bioeconomy is the answer to our climate challenges	**Extreme care** is needed to ensure that the notion of the new "bioeconomy" does not become a **gateway** for harmful bioenergy approaches.
14	Bioenergy targets show climate ambition	Inclusion of bioenergy as a large share of countries' and corporations' climate targets can often mean **greenwashing** and **delayed action** for real solutions.

"Bioenergy must not be portrayed and promoted as a significant and universal climate solution. Any role that bioenergy can play will be inherently limited by climate, biodiversity, and socio-economic constraints, and thus peripheral to the necessary focus on ambitious climate transformation."

Download and read the full CAN position on bioenergy

This brief acknowledges and draws on work pioneered by Indigenous peoples and climate justice groups.

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CLIMATE ACTION NETWORK