

FORESTS not FUEL

***How biomass subsidies and targets for renewable energy
are destroying forests and worsening climate change***

In an effort to meet renewable energy targets, industries and governments around the globe are providing lucrative subsidies to scale up the use of wood-based bioenergy as a major part of their renewable energy portfolios. Meanwhile, they are turning a blind eye to the growing evidence highlighting the negative impacts on the climate and the damage to forests and communities associated with excessive demands for wood.

Current and future proposed industry plans, in addition to the vast quantities of wood already being burned for electricity and heat, will see many millions of tonnes of trees and other forms of biomass burned every year.

This is fuelling the growth of the pellet and chipping industries which in turn are targeting fragile and biodiverse forest ecosystems to meet ever-increasing demands for wood. Climate change and loss of forests affect marginalized and vulnerable groups the most and their impacts are not gender neutral. Indeed, these changes impact women and children more severely. [1]

Whilst it is convenient for governments and institutions to consider industrial-scale wood-based energy as renewable energy, the reality is that it is not. Challenging this myth is crucial.

An ever-increasing demand for wood

The growing use of wood as an alternative to fossil fuels is part of a flawed notion of the "bioeconomy". This is increasing uses of wood for a wide variety of industrial processes and products ranging from bioplastics to

biochemicals and beyond. Because of this, biodiverse ecosystems and lands on which small farmers and pastoralists—many of whom are women—are threatened with further land-grabs for tree

plantations and other forms of resource grabbing. As commercial and trade interests gain a greater influence on biomass production and use, communities will lose even more control over their

[1] <http://www.theguardian.com/global-development-professionals-network/2014/sep/08/disaster-humanitarian-response-data-gender>



The world's largest biomass power station: Drax in England. Its partial conversion will see it requiring up to 15 million tonnes of wood a year, as well as 3.5 million tonnes of coal. Credit: Steve Morgan / Greenpeace UK

resources and lands, as well as their capacity to formulate community-driven solutions.

Traditional uses of biomass for cooking and heating have long been demonised as destructive to forests and to public health, but the increased risks associated with promoting and subsidising industrial-scale biomass are conveniently ignored.

According to the World Bioenergy Association, bioenergy accounted for around 14% of the global final energy demand in the year 2011, making it the most important sector that is described as renewable. As a result of this, the pellet industry is currently growing at an alarming annual rate of 20%, and in

2013, 22 million tonnes of pellets were produced worldwide in approximately 800 large-scale plants. [2] However, wood pellet consumption forecasts for the EU alone for 2020 range from 50–80 million tonnes, dwarfing current production figures. [3]

In the case of charcoal, there are a lot of misconceptions surrounding its impacts and use. Partial information, over-generalizations, and the tendency to consolidate charcoal with other biomass fuels has contributed to the gross misrepresentation of charcoal in terms of its actual impacts on forests, and its role in improving energy access for communities. [4] This trend is clearly seen in some

countries in the global South where growing commercialization of charcoal competes with traditional uses of it. This deprives local communities of a critical source of fuel for cooking and heating. [5]

Increasing demand for wood comes at a time when forests need to be protected. It is perverse to create incentives to burn forests at the same time that substantial funding is being channeled into schemes that pretend to protect them. One such example is the UNFCCC's Reduced Emissions from Deforestation and Forest Degradation and enhanced carbon stocks (REDD+) scheme, designed for climate change mitigation. In Chile, it has been shown that projects receiving

[2] World Bioenergy Association Fact Sheet - Pellets A Fast Growing Energy Carrier. October, 2014.

[3] http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Biofuels%20Annual_The%20Hague_EU-28_7-3-2014.pdf

[4] Mwampamba et al. 2013, "Dispelling common misconceptions to improve attitudes and policy outlook on charcoal in developing countries." *Energy for Sustainable Development* 17 (2013) 75–85.

[5] <http://globalforestcoalition.org/wp-content/uploads/2010/06/REPORT-WOOD-BASED-BIOENERGY-FINAL.pdf>

subsidies under the Clean Development Mechanism (CDM) have also received subsidies from co-firing power plant activities. [6]

Furthermore, the UK is

currently the major driver of wood pellet exports from North America where the pellet industry is exacerbating the destruction of biodiverse forests. The UK already

guarantees subsidies to the biomass industry of up to £1.3 billion a year (\$2 billion) and this figure set to grow significantly in the future.

False solutions to climate change

While governments, industry and energy policies continue to treat wood energy as carbon-neutral or low-carbon, increasing scientific evidence refutes this claim. Burning wood generates up to 50% more upfront carbon emissions per unit of energy generated than coal, and studies confirm that energy from burning wood results in a carbon debt that will last for decades or even centuries. At a time when carbon emissions must be reduced rapidly, if we are to have any hope of avoiding the worst impacts of climate change, incentivising a high-emission industry under the guise of clean energy is not acceptable.

The low-carbon and carbon-neutral myth is based on the false assumption that after a tree is cut down and burnt, subsequent re-growth of other trees immediately absorbs the carbon emitted. In reality, burning trees on a large-scale results in a significant carbon debt that takes generations to repay. Further still, even if forests

are replanted, they are usually replaced with lifeless monoculture plantations that do not hold the same amount of carbon in them or their soils. Trees and forests are a vital carbon sink, whereas burning vast quantities of wood means storing carbon in the atmosphere— exactly where it shouldn't be.



Eucalyptus plantation in Brazil for biomass. Credit: Ivonete Gonçalves

Impacts on public health

On top of carbon, burning wood releases pollutants like particulates, nitrogen dioxide and heavy metals that pose significant health risks to communities living near bioenergy infrastructure. The health of communities is impacted at every stage of biomass burning: forest destruction

and industrial wood plantations cause adverse impacts on water resources and the pollution of environments through toxic pesticides and fertilisers. Wood chipping and pellet production facilities, as well as other processing infrastructure, expose communities to toxic wood

dust, noise and the risk of fires and explosions. Where wood is burned in power stations, resident communities are exposed to a wide-range of damaging pollutants that impact public health and reduce quality of life.

[6] <http://globalforestcoalition.org/wp-content/uploads/2010/06/REPORT-WOOD-BASED-BIOENERGY-FINAL.pdf>

Sustainability standards won't work

Sustainability standards cannot regulate a fundamentally unsustainable industry. It is the scale of demand being created that is the root cause of the problem, and not the way in which forestry practices are or are not certified or reported. Even with full carbon accounting, no level of

regulation or enforcement could adequately ensure protection for forests and communities. Further still, indirect impacts cannot be addressed by standards and criteria. Damage is done by speculative land-grabs, financed on the back of industry hype, regardless of whether the land is actually used to produce fuel. At

best, sustainability standards are a distraction from the impacts of the biomass industry that are already being felt, and at worst, participating in these processes legitimises the industry and actually becomes a driver of it.

The bigger bioeconomy picture

Bioenergy and an entire bioeconomy are promoted as solutions to climate and economic crisis. Underlying this is the premise that endless economic growth can and must be sustained, and that we can resolve these crises by simply substituting biological for fossil energy sources. This misguided approach distracts attention from real solutions which must address the grossly unsustainable over-consumption of energy and resources by industrialized countries. These same unsustainable models must not be imposed on countries in the global South. Social

movements are challenging consumer-oriented growth economics. They offer instead the alternative concept of “buen vivir” that

rejects overconsumption, aims to meet basic needs for all, and supports local production and control.



Credit: National Coordination of Indigenous and Peasant Women in Paraguay (CONAMURI)

Conclusion

The issues and impacts highlighted in this statement are the result of the renewable energy subsidies currently offered to large-scale bioenergy. These subsidies incentivise the expansion of this increasingly lucrative and destructive sector by energy companies. The only way to stop these impacts is to remove the subsidies that are driving

the industry, and to do that we must remove industrial-scale bioenergy from definitions of renewable energy. Energy that is damaging to forests, to climate and to public health should not be defined as or subsidised as renewable energy.