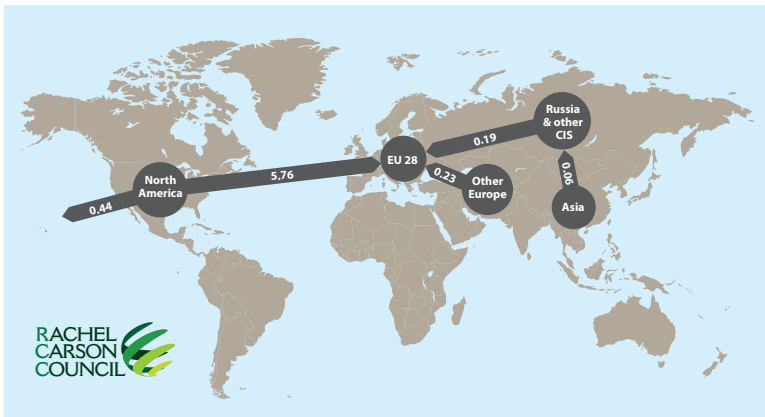


Clear Cut

A Guide to Enviva, Environmental Justice and Civic Action against the Wood Pellet Industry

Wood Pellets are a carbon-intense fuel source created from clear cutting and other destructive forestry techniques in order to produce electricity. Southeastern forests are cut down, ground up and dehydrated before being shipped around the world in what is often touted as a clean, environmentally safe alternative to fossil fuels.

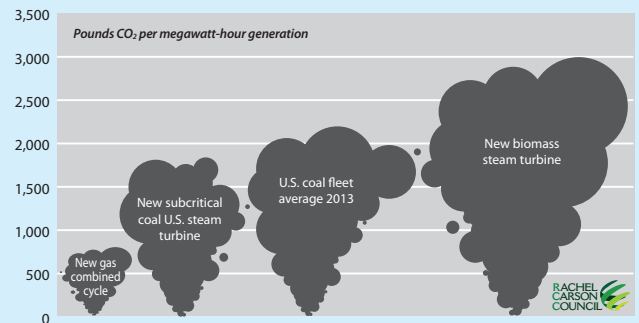
Clear Cut unearths the truth behind this willful disinformation by exploring complex political and economic forces at play supporting this destructive industry—using North Carolina as a case study.



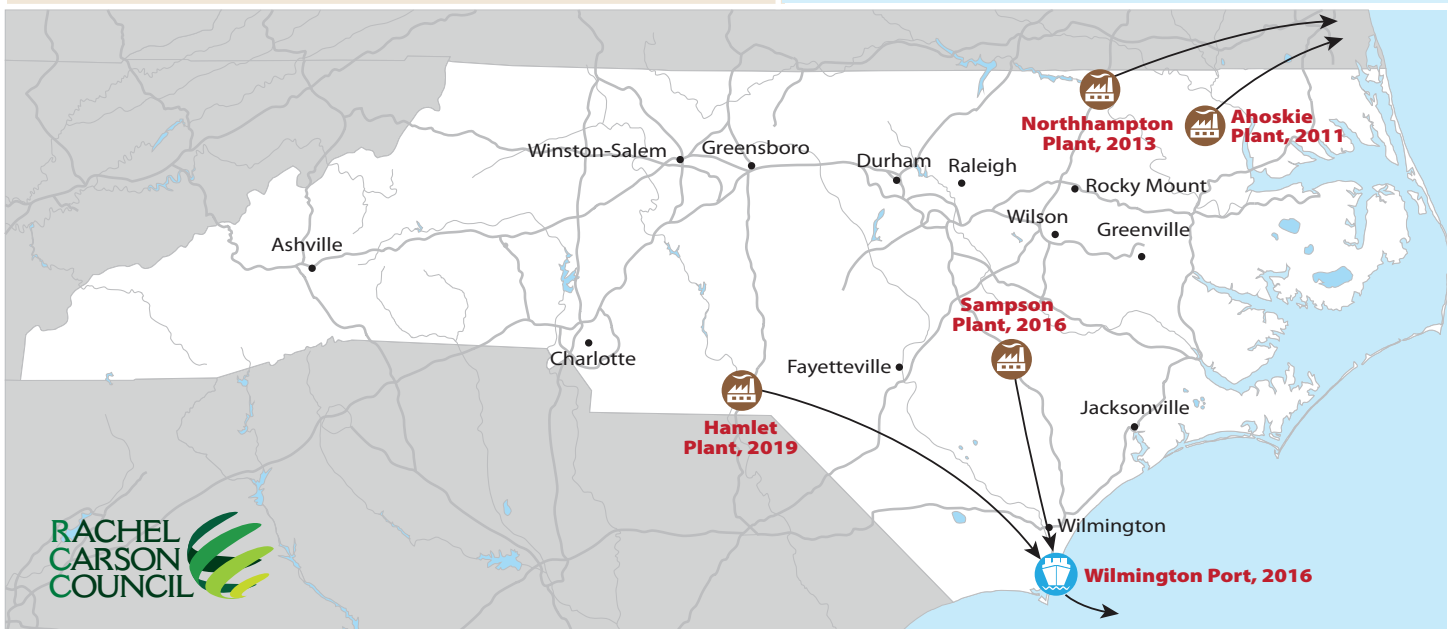
The world's largest producer of wood pellets, **Enviva**, operates seven, soon to be eight, processing plants in the Southeastern United States which produce 3.5 million metric tons of wood pellets each year.

Continuously expanding, Enviva is currently responsible for 50 acres a day of clear-cut land.

Comparison of Power Plant Emissions

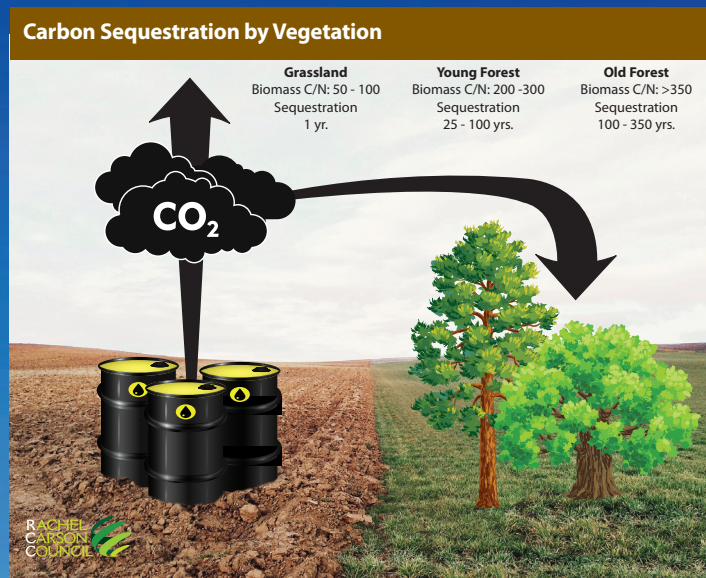


While the forests being clear cut are native to the American Southeast, the European continent accounts for more than 75 percent of global wood pellet demand, a third of which goes to power plants to be burned for electricity generation. Biomass energy is excessively inefficient and emits approximately 65 percent more CO₂ per megawatt hour than modern coal plants - a significant contributor to global climate change.



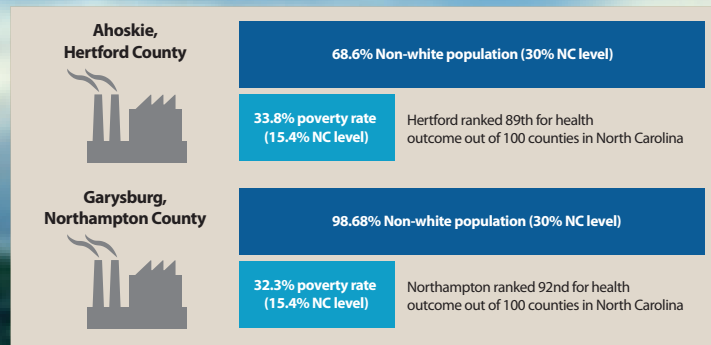
LEFT STANDING, North Carolina's 18.8 million acres of forests support climate control, biodiversity, clean air, clean water, and other essentials for a healthy ecosystem.

Forests and other communities of vegetation around the world remove about 2.6 billion metric tons of carbon (BMTc) from the atmosphere. Plots of land with greater forest species diversity absorb more carbon than those with only one species.



ENVIRONMENTAL INJUSTICE

The Enviva facilities within North Carolina are located in largely rural areas that suffer some of the highest concentrations of environmental degradation from industrial operations in the state. These operations are disproportionately clustered around poor communities of color. A recent study from Dogwood Alliance found that wood pellet facilities are 50% more likely to be cited in environmental justice communities nationally. In North Carolina, every single facility is in an environmental justice community.



While corporations like Enviva might claim to prioritize bringing good jobs to the counties that need it most, an Enviva plant worker must work for nearly thirty years to earn what the company president receives annually.

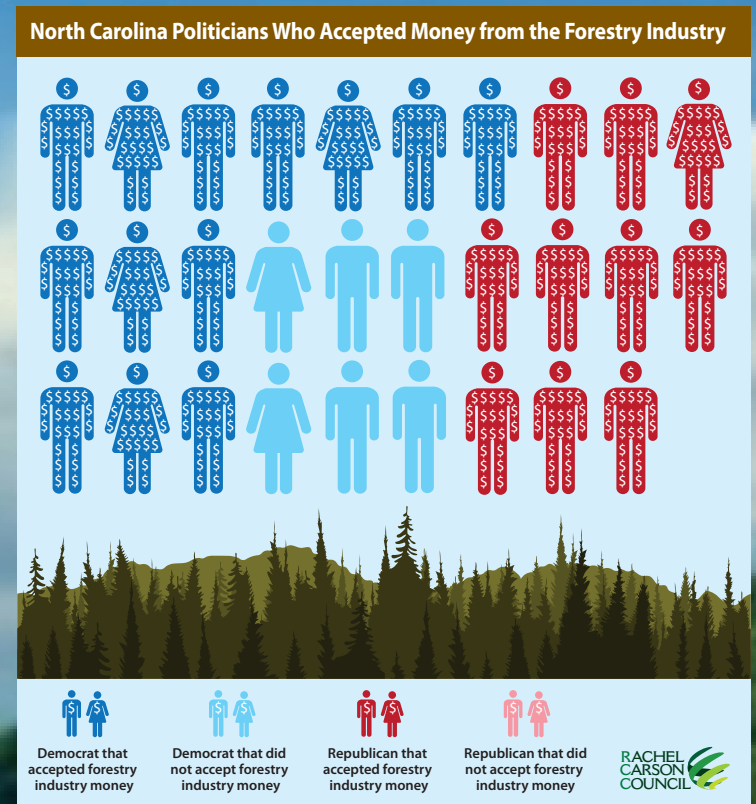
WHEN BURNED, wood pellets produce Volatile Organic Compounds (VOCs), particulate matter (PM), nitrogen oxides (NO), and carbon monoxide, all of which are detrimental to human health. All 21 U.S. wood pellet mills combined emit 16 thousand tons of detrimental air pollutants every year.

Enviva's Sampson plant wood dryer emits 50 times more total hazardous air pollution and 70 to 300 times more formaldehyde and acetaldehyde than similar wood pellet plants that do use controls.



ENVIVA INVESTS IN POLITICIANS...

Since 2009, twenty-three of the twenty-nine different officials — governors, senators, representatives, and state legislators — that have represented the communities surrounding Enviva's four processing plants within North Carolina—Republicans and Democrats alike—have accepted nearly \$400,000 from the forestry industry throughout their careers.



...AND POLITICIANS INVEST IN ENVIVA.

Enviva has received \$6 million in state and local subsidies, while only bringing around 250 jobs to the state of North Carolina.



Impacts of the Wood Pellet Industry & Ongoing Actions

Water



Forests promote **groundwater renewal** and maintain the proper movement of the water cycle. They support strong riverbanks to capture sediment and control water temperature fluctuations. North Carolina residents have **directly benefited from the natural filtration system that forests provide**. As North Carolina's population continues to grow, forest support for local freshwater will become increasingly important.

Stand for forests and for clean water by joining one of the organizations with the **Stand4Forests campaign**.

Defend Academic Integrity



To successfully bring about social, environmental, economic, and political change, it is essential to equip coalitions in higher education with research and **advocacy skills**, and for them to act **without fear of repercussions**.

Work to expose intimidation and protect researchers, advocates, and community members.

Energy



In 2009, the European Union created their **2020 Renewable Energy Directive**. This policy sets a collective target for 20% of total energy generation from renewable sources by 2020; it includes all forms of biomass as carbon-neutral and sustainable sources. As a result, wood pellets now account for nearly half of the E.U.'s "renewable" energy production.

In reality, wood pellets are **far from a sustainable**, carbon neutral fossil fuel substitute.

Fight the spread of the wood pellet industry and join the **Dogwood Alliance**.

Air



All 21 U.S. wood pellet mills combined emit **16 thousand tons of detrimental air pollutants** every year.

Enviva's Sampson plant wood dryer emits 50 times more total hazardous air pollution and **70 to 300 times more** formaldehyde and acetaldehyde than similar wood pellet plants that do use controls.

Climate Justice



The NC Enviva facilities are in largely rural areas that suffer some of the highest concentrations of environmental degradation from industrial operations in the state. These operations are disproportionately clustered around poor communities of color.

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The **Natural Resources Defense Council**, **Clean Air Carolina**, **Southern Environmental Law Center**, the **Environmental Integrity Project**, and the **Rachel Carson Council** are just a few other of many national and regional organizations that support local community mobilization for environmental health against the extractive wood pellet industry.

Climate Crisis



Warming Planet: Given that climate change impacts are already disrupting the planet, it is necessary to contain global temperature rise to 1.5°C or less within the century before we face a human-induced, irreversible environmental catastrophe.

However, it takes a half-century for new trees to remove carbon dioxide from the wood pellet process. The time lag for trees to regrow and pay off their **carbon debt** undermines the very efforts the renewable portfolio standard, Paris Agreement, and E.U. climate targets were initially designed for: immediate climate change mitigation.

The best strategy to lower atmospheric CO₂ levels is to **preserve and expand forests**, rather than destroy them and use trees as fuel.

Extreme Weather: Strong forests protect North Carolinians from extreme weather events such as costly hurricanes.

In 2016, **Hurricane Matthew caused \$4.8 billion in damage**, affected 98,000 homes and nearly 20,000 businesses across North Carolina. While the federal government initially committed \$1.2 billion toward the recovery, this was still insufficient to properly address housing and infrastructure needs. **Cutting down trees for wood pellets further weakens North Carolina's natural defense** against such severe weather events.



Want to learn more about the economic and political injustices surrounding the wood pellet industry? Find the full report at <https://rachelcarsoncouncil.org/clear-cut/>
Any questions or comments? Email us at office@rachelcarsoncouncil.org
Connect with us on Facebook @RachelCarsonCouncil and Twitter @RachelCarsonDC.