This briefing has been produced by the **Biomass Action Network's Latin American Working Group** and the **Global Forest Coalition**

Decarbonisation or dispossession?

The extent of industrial-scale biomass energy in Latin America and its impacts on the region

Across Latin America, the production and use of wood for energy is expanding rapidly, often promoted as part of national decarbonisation or "green" energy agendas. However, this expansion is closely linked to monoculture plantations, land concentration, and corporate control over territories.

From steel to pulp and paper, and ethanol to agribusiness, industries are using biomass as a substitute for fossil fuels and claiming that this is sustainable, renewable energy. In fact, its combustion exacerbates climate change over the crucial period for action. The environmental and social costs are severe, and risk reinforcing extractive plantation models, reproducing structural inequalities and colonialist economic models, driving land-use conflicts, and undermining real climate mitigation efforts.

This publication provides an overview of the impacts of the main industrial sectors generating energy from biomass sourced directly from forests and plantations in Latin America, and highlights key resources for those wishing to explore the issue further. It has been produced by the Biomass Action Network's Latin America Working Group in partnership with the Global Forest Coalition.[1]

[1] The Biomass Action Network is part of the Environmental Paper Network (EPN) please see: https://environmentalpaper.org/biomass/ for more information

Charcoal made from eucalyptus for steel production in Brazil. **Federica Giunta**

Introduction

Latin America is frequently portrayed as a bioenergy powerhouse due to its vast (though dwindling) forest resources and established (and growing) plantation forestry. The Brazilian government has used the opportunity of hosting COP30 to spotlight the bioeconomy, for example by championing the Belem X4 pledge, which would see a quadrupling of biofuel production.

In doing so, it is hoping to fire up all types of bioenergy generation in the name of reducing fossil-fuel dependence and meeting renewable energy targets. Yet this narrative often ignores underlying issues of land concentration, carbon accounting controversies,[2] and the ecological and social harm caused by logging and industrial forestry.

The framing of biomass energy as a climate solution aligns with international finance and carbon-offset mechanisms, and reflects broader trends in green extractivism, where natural resource frontiers are reopened under the banner of sustainability. Development banks and carbon markets provide funding under the assumption of renewable carbon neutrality. However, this financialization tends to reward large corporate actors and marginalize alternative models—such as agroecology, agroforestry or community-managed forests—that would better align with social justice and ecological resilience.

Across the region, the large-scale burning of woody biomass (biomass harvested directly from forests and tree plantations) primarily involves the production of charcoal, the majority of which is used in the iron and steel industry, and a significant proportion is also used by agribusinesses to dry soy and other grains in silos.

Increasing amounts of wood are also being burned in biomass plants that are linked to pulp mills and ethanol refineries, which export some of the electricity they produce to the grid, as well as stand-alone biomass power stations which supply the public electricity grid. Wood pellet production remains relatively small-scale, with only one pellet mill exporting to Europe (which makes pellets from acacia plantations), and pellet mills in Chile producing around 220,000 tonnes per year predominantly for domestic consumption.

[2] This briefing does not go into detail on the carbon impacts of biomass energy, but the Biomass Action Network's Burning up the Biosphere report sets all of the issues around carbon emissions from burning biomass clearly. See also How UN carbon accounting has created a biomass delusion.

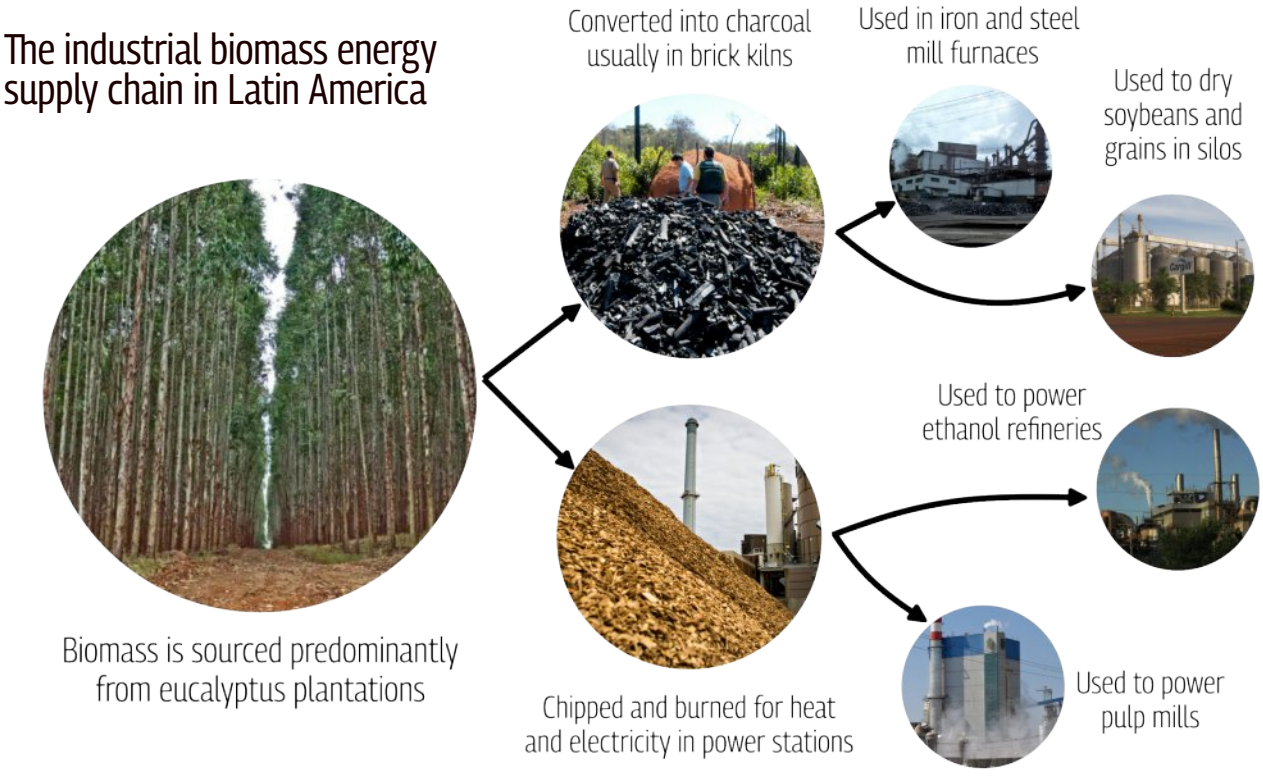

Figure 1: Simplified diagram of woody biomass supply chains. In reality, steel, pulp, and ethanol producers tend to be vertically-integrated, and control large portions of their own supply chains, from plantation to end use.

Photo: A football pitch surrounded by eucalyptus in Minas Gerais. **Karen Lang**

A summary of the impacts of biomass energy in Latin America

Environmental and ecological impacts

Forest degradation and biodiversity loss: Industrial biomass supply chains, even when they involve certified tree plantations, contribute to landscape simplification, soil degradation, and water stress. In some cases, native forests are logged to feed energy plants or to make room for plantations. Studies have documented that conversion of mixed ecosystems to fast-growing monocultures reduces habitat complexity and carbon stocks.

Ineffective sustainability standards: Certification schemes such as FSC or PEFC are often invoked to signal sustainability, yet their effectiveness is highly controversial. These usually voluntary frameworks prioritize procedural compliance over substantive ecological outcomes, resulting in even the most egregious and harmful companies gaining certification.

Emissions accounting flaws: While biomass combustion is classified as renewable, actual emissions at the smokestack can exceed those from coal per unit of energy. The assumption of regrowth-based carbon neutrality depends on future forest management that is uncertain or unenforced. In addition, trees cannot regrow fast enough to sequester carbon within the timeframe required to mitigate climate change. When wood is exported to be burned abroad, the emissions are counted as zero for the receiving country, obscuring global carbon impacts.

.

Social and territorial impacts

Concentration of land ownership: The sector is dominated by multinational forestry and energy corporations, particularly in Brazil and Chile, controlling large tracts of land planted with eucalyptus and pine. These plantation models have long histories of displacing smallholders, reducing biodiversity, and exacerbating rural inequality.

Land and labour conflicts: Expanding industrial forestry for biomass often intensifies pre-existing disputes over land tenure and Indigenous rights. In southern Chile, Mapuche communities have protested the encroachment of pine and eucalyptus plantations on ancestral lands. Similar conflicts occur in Brazil's Cerrado and Atlantic Forest regions, where plantation companies have consolidated millions of hectares.

Water and local ecosystem stress: Fast-growing species used for biomass—especially eucalyptus—consume substantial water and alter hydrological cycles. Rural communities report declining water tables and reduced access to clean water, a particularly acute problem in semi-arid regions of Brazil and Paraguay.

Labor precarity and wealth extraction: Employment generated by the biomass sector is often temporary, low-wage, and carried out under poor health and safety conditions. Value creation is concentrated in capital-intensive processing facilities, while rural communities bear environmental costs.

Key industry case studies

Charcoal for "green steel" production

Across the continent, 10 million tonnes of charcoal are produced in Latin America annually, predominantly for the steel industry. Brazil is the world's largest charcoal producer, producing around 7 million tonnes each year, nearly all of it using wood from eucalyptus plantations. 90% of the charcoal produced is used by the country's iron and steel industry, much of which they produce themselves using wood from their own eucalyptus plantations.

.

70% of Brazil's iron and steel mills are located in the southeastern state of Minas Gerais, which also has the largest plantation area of any state in the country. Charcoal is also produced for steel production in the state of Maranhão, by Aço Verde do Brasil (AVB), which has declared itself the world's first carbon neutral steel producer. Numerous communities are impacted by the company's operations, including the community of Formiga in the municipality of Anapurus.

Historically, more charcoal has been used in pig iron and steel production in Brazil because of a lack of coking coal deposits and easy access to wood. In recent years, charcoal use has been boosted by government and international climate finance, which is aimed at reducing the use of coal – and carbon emissions supposedly – from steel production.

"Green steel" production is also a significant consumer of wood and charcoal in Paraguay, where around 600,000 tonnes of wood is required annually to produce charcoal for the ACEPAR steel mill.

Charcoal production in Minas Gerais for the steel industry. **Federica Giunta**

Top left: A meeting for impacted communities in Minas Gerais. Bottom right: Local produce. Right: An iron mill in Minas Gerais. **Federica Giunta**

Climate finance for major steel producers in Brazil

In 2020, the Global Forest Coalition (GFC) published a case study about a Global Environment Facility (GEF) climate finance project in Minas Gerais, which provided support to a number of major steel producers, including ArcelorMittal, Vallourec and Plantar, to produce charcoal more sustainably.

The project centred around efforts to reduce methane emissions escaping from kilns when the charcoal is produced, such as through gas flaring, since charcoal production results in greater methane emissions than simply burning wood. The methane is converted to carbon dioxide and emitted to the atmosphere anyway, but because carbon accounting rules dictate that methane emissions must be accounted for whereas carbon dioxide emissions are not, burning off the methane means that the charcoal can be considered carbon neutral by the industry.

Eucalyptus plantations are among the top three drivers of the destruction of the Cerrado biome, the world's most biodiverse savannah. At the time of the report, the Cerrado had already lost 52% of its vegetation cover, resulting in rivers and streams running low and springs drying up. The destruction of the Cerrado is linked to disrupted rainfall over the Amazon Basin and other regions.

Most charcoal in the state is made in small kilns, where workers are exposed to serious health risks, and where working conditions tend to be extremely poor. In 2022, Minas Gerais was the state with the highest prevalence of forced labour, with charcoal production being one of the high-risk sectors for slavery like conditions.

Interviews with communities conducted as part of the GFC case study revealed widespread land-grabbing; eucalyptus drying up water sources and causing vital fruit trees to die; the application of pesticides and other agrotoxins; and a lack of work, leading to young people leaving traditional communities.

Aperam BioEngergia in Brazil

Another major steel producer in Minas Gerais is Aperam South America. Its subsidiary, Aperam BioEnergia, was established in the 1970s to produce charcoal for steel production and is located in the Jequitinhonha Valley in northeastern Minas Gerais.

It operates six production sites, producing around 420,000 tonnes of charcoal per year, which is transported to Aperam's steel plant in Timóteo, some 350 km away. Since biochar has gained prominence as a CDR technology, Aperam BioEnergia now refers to the fine charcoal they produce as biochar and, instead of sending it to the steel mill, they spread it in their eucalyptus plantation areas in order to sell carbon credits. According to CDR.fyi, the company has sold more than 100,000 tonnes worth of carbon removal credits on voluntary carbon markets since 2021, mostly through Puro.earth.

The biomass Aperam uses for charcoal and biochar production is sourced predominantly from its 125,000 hectares of FSC-certified non-native monoculture eucalyptus plantations. In 2025, Aperam BioEnergia announced plans to expand its charcoal operations in Minas Gerais, with a 20% increase in forestry area, more than two thirds of which would be monoculture eucalyptus plantations. Puro.earth claims that Aperam BioEnergia's forestry operations have important and positive biodiversity and economic outcomes for local communities, but evidence suggests otherwise.

Studies show that eucalyptus plantations in the region have lowered groundwater levels by 4.5 meters since the mid-1970s, jeopardizing the water supply for local communities and their livelihood. This is because eucalyptus trees use more water than native plants and alter the water cycle. Harm to human health has also been reported due to Aperam BioEnergia's large-scale use of pesticides and insecticides. To establish eucalyptus plantations, the old woodlands were cleared and burned and resources used by the local population, such as wild fruits, were lost.

GFC, Biomass Action Network (BAN) and the HOME Alliance are currently collaborating on an investigation into Aperam BioEnergia's charcoal and biochar production, and recently published an interview with researcher Karen Lang, who visited impacted communities in the Jequitinhonha Valley in order to hear their stories of struggle against the company and its operations.

Top left: A dry field. Bottom left: Biochar ready to be spread. Right: A resident points to a dry stream. **Karen Lang**

Using charcoal to dry industrially-produced soybeans and grains

In Paraguay, Argentina, Uruguay and Brazil, agribusinesses are increasingly using woody biomass — often sourced from forests or plantations — to produce charcoal to dry grains such as soybeans and corn. This trend connects agricultural expansion with deforestation and the biomass industry, consolidating corporate control over rural territories. Local CSOs and networks have started to expose these links and their implications for biodiversity and community rights.

Artificial drying is necessary in humid tropical and subtropical regions in order to maximise harvests and stop the grains from spoiling, particularly in the case of soybeans. This involves exposing the beans to air heated in dryers, which use charcoal and/or wood to generate heat. In Brazil, studies suggest that a cubic metre of wood is required to dry between 25-50 tonnes of soybeans, and that eucalyptus plantations have an average productivity of 40 cubic metres per hectares per year in regions where charcoal is produced for grain drying. Therefore, drying Brazil's estimated annual 170 million tonne soybean harvest alone would require around five million cubic metres of wood, or around three million tonnes.

Another study carried out in the state of Paraná indicated that the state's grain producers burn around 2.4 million cubic metres of fuelwood each year to dry grains, requiring a minimum area of 62,400 hectares of plantations to meet the needs of the entire agricultural industry. This represents 12% of the estimated 507,000 hectares of eucalyptus plantations in the state.

Currently, the main industrial demand for biomass in Paraguay is to produce charcoal for grain drying. Paraguay is the fourth largest exporter of soybeans in the world, and drying the soybeans before they are stored in silos requires more than 500,000 tonnes of wood to be burned each year. A similar quantity is required for drying wheat, maize and other grains.

Approximately 13.5 million cubic metres of biomass in consumed annually in Paraguay by industry and households. Of this total, an overwhelming 81% comes from native forests, with only 19% sourced from plantations. There is no publicly-available data on the total fuelwood demand by agribusiness, but these

A grain processing plant in Paraguay. **Ronnie Hall**

Soybean cultivation operations in Chile. **Orin Langelle**

figures show that in Paraguay charcoal production for industrial uses is also inextricably linked to sourcing from native forests.

At the same time, plantations are being expanded at an alarming rate to cope with the demand for fuelwood. Between 2010 and 2024, Paraguay's plantation area quadrupled to more than 200,000 hectares, with planting rates accelerating sharply in 2023 to an estimated 50,000 hectares of newly established plantations each year.

This results in a double cycle of deforestation. Firstly, agribusiness (particularly the soybean and livestock sectors) drive deforestation in Paraguay as they expand the area under cultivation. Secondly, the grain harvested on this deforested land then requires further deforestation of native forests (and to a lesser extent replacement of forested areas with plantations) to source the wood and charcoal needed for drying and processing.

Another strong connection between agribusiness and eucalyptus plantations is the fact that in the east of the country eucalyptus plantations are either replacing cattle pasture and industrial soy monocultures, or being incorporated into silvo-pastoral systems. In either case, the land is locked-in long term to another unsustainable and ecologically harmful land use.

Centro de Estudios Heñói has highlighted the fact that the forestry industry is copying the agro-commodity export model in Paraguay, and the eucalyptus trees that are being planted on a large scale in the country are mainly used to produce charcoal for drying grains. They point out that, following the announcement in 2021 of the construction of the PARACEL pulp mill, alarms were raised by the agrobusiness community because *"its great demand for eucalyptus plantations could affect the silos used to dry corn or soybeans since they use the same energy source."*

The pulp and paper industry and biomass energy

Woody biomass from pine and eucalyptus plantations is widely used by the pulp and paper industry, especially in Chile and Brazil. In Chile, communities near large pulp complexes like Arauco's Valdivia plant face extreme impacts such as pollution, forest degradation, and conflicts over water and land. Biomass power stations integrated into pulp mills are often presented as renewable energy solutions but actually intensify extractivism and greenhouse gas emissions.

Pulp mills have traditionally burned production residues – mostly black liquor (sludge left behind from the production process) and bark – to generate their own energy. However, in recent years, growing numbers of pulp mill operators worldwide have started investing in larger biomass plants that sell surplus electricity to the grid, and require more wood than the mills produce as by-products. This means that more wood has to be brought in directly from forestry operations, increasing the overall demand. The Biomass Action Network has mapped 31 biomass plants adjacent to pulp mills (planned and operational), 18 of which are in Brazil, 9 in Chile, 3 in Uruguay, and 1 in Paraguay.

Biomass power stations linked to the pulp and paper industry in Chile

Biomass-based electricity generation in Chile emerged in the early 2000s and expanded significantly after 2008, when legislation on non-conventional renewable energies was introduced which incentivised thermoelectric power plants.

According to the Colectivo de Estudios Políticos y Ambientales (CEPA), there are currently 17 biomass power plants operating nationwide in Chile, with an installed capacity of around 500 megawatts (Coordinador Eléctrico Nacional). Much of this expansion was financed under the Kyoto Protocol's Clean Development Mechanism (CDM) which, rather than reducing emissions, legitimized a system of compensation and subsidies for the forestry model *"Although the CDM promoted sustainable development in its rhetoric, in practice it reproduced a logic of compensation and environmental externalization, reinforcing dependence on an intensive and extractive forestry model rather than promoting a just energy transition."*[3]

According to CEPA, these mechanisms allow countries in the Global North to finance energy projects in the Global South as a way to offset their own emissions—essentially outsourcing pollution

[3] CEPA 2025 - ongoing research - preview available here and presented during the 2025 International Day of Action BAN Latin America Working Group webinar.

Logging operations in Chile. **Orin Langelle**

through the carbon market. In Chile's case, at least seven projects have been registered under this mechanism, six of which are owned by Arauco, Chile's largest pulp and paper and forest products company, showing the concentration of these financial benefits within a single corporation.

Most of the power plants are concentrated in the central and southern regions—particularly in Biobío (47%)—and the main operators are Arauco and CMPC, which is another large Chilean pulp and paper company. These companies burn biomass not only to generate energy for their own production processes (particularly pulp), but also to sell electricity into the public grid, reinforcing their dominance in both the forestry and energy sectors.

Arauco's Valdivia pulp mill and power station

A case study published by Colectivo VientoSur, the Global Forest Coalition, and the Environmental Paper Network looks at the Valdivia biomass power plant in southern Chile, part of a pulp mill complex operated by Arauco. The plant was designed to be so large that most of the electricity it produces is sold to the grid, and it received carbon credits under the UN Clean Development Mechanism for doing so. According to the investigation, there are indications that some of the biomass burned is wood from whole trees, despite the fact that Arauco states that all of the biomass it burns is waste wood.

The pulp mill complex relies on large eucalyptus and pine plantations. It has had serious negative impacts on the Mapuche Indigenous People, including land-grabbing, loss of livelihoods and food sovereignty, and rural depopulation, a trend that has been repeated across all Indigenous territories in Chile: *"As Mapuche communities demand land restitution and respect for their rights, they face violent repression. Patterns of murders, attacks, and threats target Mapuche leaders, activists, and community members amid ongoing territorial disputes with forestry companies. Environmental conflicts caused by monoculture tree plantations have claimed numerous lives"*, writes Daniel Santander Urrutia, researcher and member of the BAN LAC working group.

Arauco's Valdivia pulp mill. **Orin Langelle**

Megafires have devastated large areas in Chile. **Techo/Flickr**

The impacts of Chile's industrial forestry model on communities and the territories they depend on

The impacts of Chile's plantation forestry model on biodiversity have been severe, and the replacement of native forests by pine and eucalyptus reduces diversity and contributes to water scarcity. Plantation establishment commonly involves clearcutting, removal of the organic soil layer, and intensive agrochemicals —undermining soil structure and fertility, and risking soil erosion. The monoculture tree plantations are also highly susceptible to disastrous megafires, and in 2017 fires burned over 500,000 hectares, which were the worst in Chile's recorded history. They disproportionately affected the ancestral lands of the Mapuche people, as well as other rural communities, destroying homes, livelihoods, and ecosystems.

Chile's forestry model has been repeatedly criticized for its social and ecological impacts, especially in regions like Biobío and Araucanía. It is rooted in land dispossession and backed by state subsidies and support mechanisms, resulting in persistent conflicts, criminalisation, and rural poverty.

Lorena Garrido Reyes, from BAN member Network for Overcoming the Forestry Model in Chile, described during a webinar the impacts[4] that have been experienced in the community of Curanilahue, in the Biobío Region, which is emblematic of all of Chile's Indigenous territories. Lorena recounted how around 70% of the territory is occupied by pine and eucalyptus monocultures, primarily owned by Arauco and CMPC. The expansion of monocultures has led to water scarcity, soil erosion, biodiversity loss and increased the risk of forest fires, which have contributed to a growing number of disasters, including floods and landslides. Curanilahue was almost completely flooded recently due to the combination of land degradation and extreme weather events. On a territorial and urban level, land concentration in corporate hands prevents the municipality from building housing, since the main landowner refuses to sell plots. As a result, informal settlements have proliferated. According to Lorena, over 3,000 families currently live in precarious conditions, many under eviction orders to make way for new plantation areas. This situation is compounded by militarization, persecution, and threats against community leaders, as well as the criminalization of local resistance.

Chile's forestry model is built on monocultures and land concentration, and has deepened water crises, environmental disasters, and social conflicts, while undermining housing rights and local democracy. Overcoming it requires a just transition: one that restores ecosystems, ensures social rights, and is carried out strategically and collaboratively with the affected communities.

[1] CEPA 2025 - ongoing research - preview available here and presented during the 2025 International Day of Action BAN Latin America Working Group webinar.

The PARACEL pulp mill in Paraguay and the plantations it will require

In 2021 approval was granted for the construction of the PARACEL pulp mill in Paraguay, which will produce 1.8 million tons of pulp annually and require 185,000 hectares of eucalyptus to be planted. The project was developed without consultation with the Indigenous population, violating their right to Free, Prior, and Informed Consent (FPIC). The mill will have a biomass power station burning wood, which will contribute to the 200MW of energy that will be produced at the mill, half of which will be surplus to requirements and sold externally.

Paraguay has been marked by long-standing land conflicts with Indigenous and traditional communities, and numerous organisations including the Environmental Paper Network and Instituto Maira have raised serious concerns about the fact that the construction of a new pulp mill and establishment of the necessary tree plantations risks exacerbating them. Indigenous communities in particular have been refused access to their basic rights and been evicted from their traditional lands despite the constitutional protections that are meant to uphold them.

Paraguay's pulp and paper developments are likely to expand further, and according to President Santiago Peña, Paraguay *"is on the threshold of making one of the biggest leaps in cellulose production in the history of the world."* The country is eyeing the development of three pulp mills over the next few years, which are likely to have biomass power stations, and which would require a four-fold increase in industrial tree plantations, from 233,000 hectares to over a million. This would exacerbate the existing impacts already being experienced by Indigenous and peasant communities, who already suffer at the hands of the forestry industry.

A peasant protest blockades a road in Paraguay. **Ronnie Hall**

Suzano's Cerrado Project in Brazil

Suzano is planning to build a huge new pulp mill in Ribas do Rio Pardo, Mato Grosso do Sul, which it refers to as the "Cerrado Project". It will receive almost $1 billion from the International Finance Corporation (IFC). According to Suzano, the partnership with IFC will "support with sustainable restoration and management practices to reduce habitat fragmentation". However, the 2.55 million tonne capacity mill will harm the environment and, make climate change worse..

On top of this, there has been no real consultation with affected Indigenous and traditional communities in the area, which are likely to be seriously affected by the project, as described elsewhere in this briefing.

The company plans to expand its landholdings in the region to 600,000 hectares through the project, much of which will be eucalyptus plantations, adding to the 1.6 million hectares of eucalyptus it already controls. The expansion of its plantations involves first removing the native vegetation through ploughing the land with bulldozers, which removes highly-biodiverse Cerrado ecosystems, and fuels deforestation further afield by pushing agribusiness such as cattle ranching and soybean production further into the forest frontier.

The pulp mill will also have a large biomass power station with the capacity to sell around 180MW of surplus energy to Brazil's power grid. This will make it one of the largest biomass power stations associated with a pulp mill in the world.

A corn-to-ethanol refinery. **Trần-Quang**

Biomass power stations linked to the ethanol industry

Across Brazil, biomass power plants are increasingly powering corn-to-ethanol and sugarcane ethanol refineries, which use eucalyptus as fuel to produce the energy required for distillation processes. Surplus electricity is usually sold to the public grid.

FS Lucas do Rio Verde and Sorriso biomass-to-ethanol refineries, Brazil

The FS Agrisolutions Indústria de Biocombustíveis Ltda (FS) Lucas do Rio Verde and Sorriso corn-to-ethanol refineries in the state of Mato Grosso, Brazil, are two of a number of corn-to-ethanol refineries in the state that are powered by biomass plants which mainly burn wood from eucalyptus plantations. FS's two refineries produce 415,000 MWh of electricity each year, and each require around 30,000 hectares of eucalyptus plantations to power their biomass plants. The company plans to bring another four refineries online in the coming years.

Eucalyptus was introduced to the area on a large scale to power the growth of the ethanol industry, with an estimated 70,000 hectares of plantations required to produce 7.5 million tonnes of ethanol annually, at current plans for expansion.

FS has also announced plans for a $65 million Bioenergy with Carbon Capture and Storage (BECCS) project at its Lucas do Rio Verde refinery, which will give it a *"negative carbon footprint."* It has already started making deals for future carbon credit sales, and plans to expand its BECCS project to other sites.

Conclusions

Industrial-scale forest biomass energy in Latin America exemplifies the contradictions of the green economy: marketed as sustainable, yet deeply entangled with historical patterns of resource extraction, inequality, and environmental degradation. Without profound structural reform—land redistribution, democratic governance of energy systems, and rigorous sustainability standards—the sector risks deepening ecological and social crises.

A just energy transition must therefore look beyond industrial biomass and toward models that decarbonize without dispossession. Lasting solutions require recognizing and addressing these social impacts, as well as promoting forestry models that are rights-based, and centred around ecological sustainability and respect for the communities.

Civil society organisations across Latin America — including the Biomass Action Network (BAN) and its regional working groups — have documented how biomass expansion connects to land grabs, industrial monocultures, and the persistence of extractive economies. While corporate and government actors frame these projects as part of the "green transition", grassroots groups highlight their real impacts on forests, water systems, and livelihoods. No centralized model of energy production — regardless of the source — can meet the unlimited energy demands imposed by neoliberal economic systems without reproducing the same patterns of extraction, inequality, and environmental degradation.

Acknowledgements

This overview draws on research and testimony from multiple organisations and networks, including the Global Forest Coalition, Biofuelwatch, Global Energy Monitor, The Environmental Paper Network (EPN) and its Biomass Action Network, particularly BAN's Latin America Working Group, and national partners across Brazil, Chile, Paraguay, Argentina, Uruguay and other countries.