‘Cerrado’ project, Ribas do Rio Pardo: not aligned with IFC purpose

Executive Summary

Suzano has submitted a request for funding for its “Cerrado Project” (Ribas do Rio Pardo mill), to the International Finance Corporation (IFC). The IFC board is scheduled to vote on the submission at its next board meeting, 15 December.

The investment proposed by Suzano to IFC is of an A Loan and a B Loan of up to US$900 million (an A Loan of up to US$250 million and an up to US$650 million B Loan.) The mill is planned for a capacity of 2.55 million tons per annum. IFC justifies its support to the mill stating that it will have positive environmental effects, it will boast climate-friendly technologies, and it will promote economy-wide development and strengthen the competitiveness of Brazil's pulp and paper sector.

This project however, as it is currently designed, will result in the opposite: it will harm the environment, add further threat to the global climate, affect local communities, and will not bring any development or competitiveness.

The “Cerrado Project” has numerous and serious faults, amongst others:

● It will not reduce but increase poverty. For any new job it will create, it will take away many more, due to its extensive acquisition and use of land. Suzano has already acquired land, but has plans to acquire more to reach a total landbank of 600,000 ha.
● It is posing serious risks to the environment. Eucalyptus plantations are monoculture plantations and host little biodiversity. Their development by ploughing removes the remaining native Cerrado stands.
● It is fueling deforestation by pushing the cattle ranch industry towards the forest frontier.
● Its industrial plantations are depleting the local water table and increasing the risk of massive forest fires.
● It will discharge persistent organic pollutants (POPs) in the fluvial system, and poison the local environment with pesticide air spraying.
● Far from strengthening the competitiveness of Brazil's pulp and paper sector, it will add further support to a highly subsidised industry, chronically relying on public money.
● Its "zero fossil fuel technology" will not reduce GHG emissions, but increase them, producing more emissions per unit of energy than coal. Uptake from eucalyptus plantations will only partially and temporarily offset the loss of natural vegetation and thus not effectively offset the carbon-intensive emissions from the pulp mill.
● There has been no real consultation with affected communities. Even worse, we could not find any indication that Suzano is planning on it. The project documentation also does not contain any sufficient research about remaining indigenous people in the area.

Suzano's “Cerrado Project” is not bringing the supposed benefits to development, poverty reduction, is not reducing climate emissions, nor increasing competitiveness. It doesn't meet IFC standards and purposes, and therefore it doesn’t deserve this huge allocation of IFC’s resources.
Introduction: a new old project

In December 2019, the Brazilian paper giant Suzano announced the construction of a new pulp mill: “Cerrado Project”, The pulp mill will be located in the municipality of Ribas do Rio Pardo, Mato Grosso do Sul, Brazil. Total project cost is estimated at BRL 19.3 billion (approximately US$3.7 billion).

The mill is actually not a brand new project. It was originally developed in 2013 by Fundo Participações MCL – led by the entrepreneur Márcio Celso Lopes and Blackwood Capital. At the time, it was called “Celulose Rio Pardense e Energia CRPE)” and it included land for the mill itself and for eucalyptus plantations. The mill in 2014 obtained the installation licence for its bleached cellulose. The construction was then expected to start in the second half of 2015, but it did not happen. Despite having found public funds from FCO (a Constitutional Development Fund for the Mid-Western region of Brazil) and BNDES (Brazil’s development bank), the enterprise was soon stranded due the financial crisis and in financial and judicial difficulties (including a quarrel with the competitor Eldorado).

In December 2019 the mill’s lands and the related project were finally sold to Suzano. The new project run by Suzano, “Cerrado Project”, will have a similar capacity: up to 2.55 million tons of eucalyptus pulp per year and will use ECF bleaching technology. The plant will have the capacity to sell surplus - biomass - energy to Brazil’s power grid.

The project also includes a 2 km water intake pipeline, 4 km treated effluent emissary pipeline, 138 kV transmission line (21 km), 6 km railway connecting the mill with the Rumo Malha Oeste railway, 160m long and 6m wide bridge over the Pardo River and 8.5 km long and 8 m wide access road connecting the bridge to the mill site. All infrastructure is located within Suzano’s properties. Associated facilities include four workers’ accommodations for up to 5,000 workers built, owned, and operated by third-party service providers.

As of September 2022, the majority of the land where the plantations will be established has been incorporated in Suzano’s forestry base (owned and leased properties). The land is located in the municipality of Ribas do Rio Pardo, within a radius of 100 km from the mill. Suzano’s total forestry base in Mato Grosso do Sul, including plantations supplying wood to Suzano’s pulp mill in Tres Lagoas, will reach around 600,000 ha.

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About Suzano

Suzano is the world’s largest global exporter of market pulp. With 10.9 million tons of pulp production capacity (compared with a capacity of just 3.42 million tonnes/year in 2016), it is the world’s largest producer of hardwood pulp. The company relies on almost 1 million hectares of eucalyptus plantations.

After the recent take-over of its competitor Fibria, Suzano now owns a number of pulp mills in Brazil, in Limeira (SP), in Suzano (SP), Jacareí (SP), Mucuri (BA), Imperatriz (MA). It is also developing new pulp lines in Ribas do Rio Pardo (MS), Tres Lagoas (MS), Barra do Riacho, Aracruz (ES), and Palmeiras (PI). Suzano also owns 50% of the Veracel mill in Eunápolis (BA), in a joint venture with Stora Enso, and in another joint venture with Cenibra, in which it holds 51% of the shares, it operates Brazil’s first specialised port for cellulose exports: Portocel, in Aracruz (ES).

It also partnered with the biotechnology company Ensyn in 2012, to invest in the production of cellulosic liquid fuels and chemicals. In 2015 it bought the Canadian company Lignol, for further biotechnological research. In 2010 it bought FuturaGene, a UK biotechnology company, which has labs in China and Israel. Besides pulp and paper, the Suzano Group also has companies in the sectors of logistics, mail services, brokerage, engineering and EIA, and real estate.

Suzano is embroiled in a large number of conflicts, especially with Quilombolas (traditional Afro-descendant communities) in the areas where its plantations have been developed in the past decades, mostly Bahia, Espirito Santo, and conflicts related to land grabbing in Maranhão. In recent months social conflicts are also becoming tense, especially when an attempt by Pataxó indigenous people to retake their traditional land met a threatening crowd of farmers and gunmen. Suzano often resorts to the judiciary to evict traditional or local communities from their reclaimed lands.

IFC Role

Suzano submitted a request for funding for its “Cerrado Project” (Ribas do Rio Pardo mill), to the International Finance Corporation (IFC), the private sector arm of the World Bank Group. According to its own description, IFC “advances economic development and improves the lives of people by encouraging the growth of the private sector in developing countries”. Like the World Bank, IFC is run with public capital and its purpose is to reduce poverty and support sustainable development, even though its funds are aimed at private enterprises.

The investment proposed by Suzano to IFC is of an A Loan and a B Loan of up to US$900 million (an A Loan of up to US$250 million and an up to US$650 million B Loan). IFC states it would provide both

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5 Medeiros Marques, M. I., A Territorializacao da Empresa Suzano no Campo em Sao Paulo e no Maranhao / The Territorialization of Suzano Company in the Field in Sao Paulo and Maranhao, May 2019, [https://shorturl.at/dpQT2](https://shorturl.at/dpQT2)
6 Mongabay, Suzano alega que suas plantacoes de eucalipto sao sustentaveis; ambientalistas discordam, January 2022, [https://brasil.mongabay.com/2022/01/suzano-alega-que-suas-plantacoes-de-eucalipto-sao-sustentaveis-ambientalistas-discordam](https://brasil.mongabay.com/2022/01/suzano-alega-que-suas-plantacoes-de-eucalipto-sao-sustentaveis-ambientalistas-discordam)
8 See the case of Anapurus: Suzano Volta a Derrubar Cerca de Trabalhadores na Localidade Formiga, February 2012, [https://alexandre-pinheiro.blogspot.com/2012/02/anapurus-suzano-volta-derrubar-cerca-de-html](https://alexandre-pinheiro.blogspot.com/2012/02/anapurus-suzano-volta-derrubar-cerca-de-html)
10 See IFC, Suzano Climate, Project Number 45987, [https://disclosures.ifc.org/project-detail/ESRS/45987/suzano-climate](https://disclosures.ifc.org/project-detail/ESRS/45987/suzano-climate)
financial and non-financial additionality. Financial additionality, per IFC, comes from the “provision of long-term financing and resource mobilisation.” This claim strains credulity since Suzano in 2021 had R$76 billion (US$14.4B) in long-term loans of its R$119 billion (US$22.6B) total footings, and net income of R$8.6 billion (US$1.6B). So, as massive as IFC’s proposed loans are, they would only add 6.2% to Suzano’s long-term loans. Further, Suzano’s own 2021 financial statements note (p. 15) that “The [Cerrado] Project is financed by the Company’s cash position and cash generation from current businesses, which can be complemented by financing, provided that the conditions are attractive in terms of cost and term.” So Suzano does not need IFC’s loan; it will only take it if the terms are attractive.

IFC identified the project as a Category A project, because “it may cause significant adverse E&S risks and impacts that may be diverse and irreversible”.13 Yet IFC justifies its support to the mill stating that it will have positive environmental effects and it will promote development:

*IFC expects the Project to generate economy-wide effects and to have positive environmental effects. At the market level, the Project will help strengthen the competitiveness of Brazil's pulp and paper sector by incentivizing other players to replicate zero fossil fuel technology and other designs that optimize energy and resource efficiency.*14

This description is everything but accurate. It is extremely unlikely for this mill to not cause severe social and environmental impacts. It will negatively impact biodiversity, water quantity and quality, further aggravate the climate crisis and have immense impact on local livelihoods. It is also unlikely that the project will promote development, and its “zero-fossil fuel technology” will have serious negative impacts on the global climate.

In the next four sections we will substantiate these claims and show that the project’s (planned) practices are not in line with IFC’s mission.

**Environmental impacts**

**Eucalyptus, Biodiversity, and Ecosystem Risk**

This project poses a risk not only for climate change, but also for biodiversity. Eucalyptus plantations have been encouraged in Brazil for several decades, with regulatory incentives in place since the 1960s.15 Plantations were initially concentrated at the coastal regions of the Atlantic Forest biome, and subsequently the Pampa biome (Rio Grande do Sul). Although the first eucalyptus plantations in the Cerrado were established in the 1970s, serious development of the industry only really began in 2007. Since then, plantations in the Cerrado have boomed. The epicentre of current pulp expansion in Brazil is the Três Lagoas region, on the eastern corner of Mato Grosso do Sul, where production exploded from zero to more than 7 million tons per year within a decade. It is exactly where Ribas do Rio Pardo is located. That area now host nearly a million hectares of eucalyptus plantations16. There are plans to double the production in the area by a further annual 6 to 7 million tonnes, in the coming years.

13 See IFC, Suzano Climate, Project Number 45987, https://disclosures.ifc.org/project-detail/ESRS/45987/suzano-climate
14 IFC, Suzano Data, https://disclosures.ifc.org/project-detail/ESRS/45987/suzano-climate
15 According to the Law No. 5.106 of 1966, tax incentives were provided to the Sector Investment Fund – FISET FISET Reflorestamento to the projects approved by the Brazilian Institute of Forestry Development – IBDF.
Suzano’s eucalyptus plantations are monocultures. This means a severe impact on the region’s biodiversity. Species richness of herbs and birds is proven to be consistently lower in eucalyptus plantations compared to native forests. In 2017, a study by researchers of universities in Chile, United Kingdom, Australia, India, United States, Norway, and Portugal, found that species richness of plants declined by an average of 51% under the eucalyptus tree, as compared to the species richness in open areas. Even if eucalyptus plantations are planted on previous pasture land, the biodiversity in the area strongly decreases. Suzano doesn’t recognise this and states that the risk of significant conversion or degradation of natural habitats is low (PS 6). We refer to the paragraph “Indirect deforestation: driving cattle rangers further into the Cerrado” below for more details.

Suzano’s official EIA documentation about this project does not mention these impacts - or the impacts described below - of the plantations at all, nor does the company explain how it will prevent any environmental impacts such as biodiversity loss, forest degradation or water pollution from happening. Officially, the legislation of Mato Grosso do Sul does not require by law to include plantations in the EIA. However, IFC requires Suzano to identify and assess the forestry component (eucalyptus plantations) of the project. Although this is a good sign, the IFC later on acknowledged that Suzano’s due diligence process is not sufficient to fully address ESG impact related to the forestry component and should therefore be improved. Suzano, according to the IFC project webpage, will do so in the future (ESAP#1, scheduled for June 2023 & ESAP#2, scheduled for June 2024, ESAP#13 scheduled for December 2022 & ESAP#14 scheduled for March 2023).

This is very worrying, as the potential impacts should be identified, analysed, prevented and mitigated beforehand. The construction of the project however is already well underway. Moreover, a promise doesn’t guarantee improvement in the future, especially not when it comes down to companies like Suzano that do not have the best track record.

Deforestation and final conversion of degraded land

The mill is planned in Mato Grosso do Sul, Brazil, at the border of the “deforestation frontier,” an area mapped by WWF as at risk of deforestation, and possibly impacting Intact Forest Landscapes. Suzano already has plantations in the area, but it has plans to expand them dramatically to reach 600,000 ha. in order to supply the new mill.

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19 ESAP#13: Suzano will (i) review and revise its procedure for vegetation mapping and characterization in order to ensure alignment with IFC PS6 definitions of Natural and Modified Habitat to be applicable for the remaining areas to be planted; (ii) calculate the extent of Natural Habitat that was converted in the recent past before the company’s zero-deforestation policy was effective in July 2020; (iii) conduct a No Net Loss assessment comparing the estimated losses of Natural Habitat versus potential gains from the various set-asides. Any residual loss of Natural Habitat will be compensated by Suzano through the restoration of additional set-asides.
20 See for instance the BankTrack profile on Suzano: https://www.banktrack.org/company/suzano/#impacts
23 Intact Forest Landscapes, https://intactforests.org
In some cases, the expansion of eucalyptus plantation in Mato Grosso do Sul involved converting remaining Cerrado vegetation: a 2013 study suggests that 61% of the eucalyptus plantations developed between 2002 and 2013 in the municipalities of de Água Clara, Três Lagoas, Brasilândia and Santa Rita do Pardo have converted remaining Cerrado vegetation while just a 25% has been converted pasture.\textsuperscript{25}

As for the land already converted by cattle ranching, on this land deforestation has been dramatic, but also relatively fragmented. Farmers normally clear the land with the fire. In some cases this is not the end of the natural vegetation, since Cerrado plants, because of their deep roots, have a remarkable capacity to resprout. Many pastures considered by farmers as degraded are, in fact, dominated by natural vegetation under natural regeneration.

This fragmentation came at an end with the shifting from cattle ranching plantations: the rapidly expanding soybean plantations industry along the median belt leading from south-west to north-east of the state, and the eucalyptus plantations booming in the eastern corner. Under these two industries, the different farms were unified under a single and uniformed management unit that cleared these blocks of natural shrubs, ploughing the land deeply, and leaving behind no deep roots, nor chances of regeneration.

**Indirect deforestation: driving cattle ranchers further into the Cerrado**

Most of the land around Três Lagoas was converted by the cattle ranching business decades ago. Cattle farms, often created by violently clearing land of both people and woodland, were able to thrive in areas with limited transport or energy infrastructure. Over time the cattle ranchers attracted new investment in infrastructure, better roads and electricity grids. These developments made the region more attractive for the pulp and paper industry, which relies on such infrastructure to be economically viable.

\textsuperscript{25}Lopes, Cassiomar. Expansão da silvicultura de eucalipto no bioma Cerrado: uma análise sob a perspectiva dos fatores físicos e socioeconômicos, July 2013 https://repositorio.bc.ufg.br/tede/handle/tede/3250
While the conflicts between cattle ranchers and indigenous communities are still violently ravaging in the western part of Mato Grosso do Sul, in the eastern areas of the state, where eucalyptus plantations have been expanding during the last decade, most indigenous communities were cast off their lands long ago. This, too, has made it easier for the pulp & paper industry to establish a stronghold in the region.

The infrastructure developments, ownership consolidation and rising demand for land highlighted above all conspire to increase the sale value of land used for cattle farming. Ranchers are able to cash in by selling their land to other actors, like to the paper industry, for a sizable profit. They are then able to buy up larger tracts of cheaper ‘marginal’ woodland, not yet of interest to plantation developers, and another cycle of deforestation begins. Suzano fails to identify, recognise and address these severe impacts of its practices (PS 6).

Water

The Cerrado is called ‘the cradle of waters’, as its vast water table helps the region and much of Brazil. The deep root system of Cerrado vegetation plays a crucial role in retaining that water table and generating rainfall in the area. The ongoing degradation of Cerrado vegetation has decreased the volume of water recycled to the atmosphere each year, a trend which continues. According to Agência Brasil, the conversion of the Cerrado may result in a critical water shortage to the whole country. The Cerrado capacity to provide water to the subcontinent may collapse in less than 30 years, according to a research article published by 12 Brazilian scientists in Global Change Biology. This would have profound consequences for the country’s vast hydropower energy supply, as well as agricultural production.

This problem isn’t caused exclusively by the eucalyptus plantations, but they are a big part of it. Pulp plantations substitute long-root vegetation that absorbs and maintain water, with trees that do exactly the opposite and are specialised in draining swamps. Scientific studies around the world focus on the impacts eucalyptus plantations have on the water table and in general on the water cycle. From Brazil to Chile, BRITO, Isabel Cristina Barbosa. Comunidade, território e complexo florestal industrial: o caso de Vereda Funda, norte de Minas Gerais. Dissertação de Mestrado, UNIMONTES, 2006. 27


“...We estimate a decrease in runoff from 13.1 to 7.5 mm/summer for PPN and from 7.3 to 5 mm/summer for CQA, referring to the period 1991–2000 compared to 1981–1990. (…)This study clearly shows the important effect that land-use change can have on water yield and to our knowledge this is the first study documenting the decrease in summer runoff in a landscape where native forest cover has dramatically declined and forest exotic plantations have expanded.” Christian Little, Revealing the impact of forest exotic plantations on water yield in large scale watershed in South-Central Chile, June 2009, 28


Antonio Huber et Al., Eucalyptus globulus sobre el recurso agua en la Cordillera de la Costa de la región del Biobío, Chile, 2010, 29

Uruguay, Argentina, India, South Africa, the conclusions are the same: Eucalyptus plantations cause a severe decrease in water quantity.

This impact of eucalyptus plantations on the water table is also very evident to local villagers. In settlement Alercim, surrounded by plantations, it is known many reservoirs in the farms around are dry, including the biggest ones. “It was a sea of water, you wouldn’t believe, it is all dry now”, said a villager, who also complained about the company’s lack of responsibility for caring about the wild animals. What local communities note is a process that has been well studied in the Brazilian region of Minas Gerais, where eucalyptus plantations developed in the 1960s to produce charcoal or pulp, were causing a decrease in water recharge in the areas of reforested plateaus of the order of 164 mm/year. As a result, people, mostly women and children, had to walk for more than a kilometre to find water for everyday use. The situation is similar in the north of Espírito Santo, where parts of the Atlantic forest were converted into pulp-plantations towards the end of the 1960s. According to the local water agencies, desertification is now very critical especially in the basins of the Itaúnas and São Mateus rivers.

Suzano claims to address the water consumption of both the mill and the plantations in IFC’s project documentation (under PS 3). However, it fails to include the crucial information outlined above. Instead, Suzano states that it would only have to water the seedlings and that the plantations do not need to be irrigated. This may be true, but also a misrepresentation of the facts when it is not mentioned that the water will come from underground. Suzano promises to monitor the underground water level (ESAP#7), but does not have any plans or safeguards in place to prevent or mitigate a severe water shortage and drought across the entire region.

Fires

Eucalyptus plantations not only increase fire occurrence by draining the soil, but the manner in which they are planted also fuels forest fires because these large homogenous blocks are densely planted with young trees with a dry undergrowth. On top of that, the bark of the eucalyptus has particular morphological characteristics (very flammable and aerodynamic) which allow, in the presence of strong wind, to send burning embers over great distances, up to three kilometres, well beyond any fire-break trench. In short, it is not the question if large scale fires will happen, but when.

References:

32 JOSHI, Mukund; PALANISAMI, K. Impact of eucalyptus plantations on ground water availability in south Karnataka. ICID 21st International Congress on Irrigation and Drainage, 15-23 October 2011, Tehran, Iran. P. 255-262. Available at: https://www.researchgate.net/profile/Arvind_Singh56/post/Eucalyptus_plantations-how_good_or_badattachment5b0ceb42b53d2f63c3eac5a/AS%3A392086940602380%401470492219932/download/1.pdf
36 “Local native vegetation is adapted to regional water and climate patterns, unlike eucalyptus and pine, which have higher yields, but cannot equate their evapotranspirative demand with that of native native vegetation, causing a decrease in recharge in the areas of reforested plateaus of the order of 164 mm/year. Thus, they contribute to further highlight the water scarcity in the region, which in turn is one of the pillars of the fragile regional social framework.” in: BRITO, Isabel Cristina Barbosa Op. cit.
37 CBH Itaúnas, CBH São Mateu, Planejamento da restauração nas bacias dos rio Itaúnas e São Mateu, 2020, https://agerh.es.gov.br/Media/agerh/Documenta%C3%A7%C3%A3o%20CBHs/S%C3%A3o%20Mateus/LO5_WRI_BaciasES_diagramaca.pdf
These risks of causing large scale fires are not sufficiently covered in Suzano’s environmental and social public documentation of the project. There are provisions about building fire response units (firefighters) but these are of little effectiveness, and this is acknowledged by the IFC as well. Suzano is therefore required to develop a “formal Fire Prevention, Detection, Response, Training and Communication Plan specific for the Cerrado Project, including consultation, training, and coordination with neighbouring communities for the preparation and response to emergencies.” The question however is to what extent this will actually help prevent and minimize outbreaks of large scale fires. As explained above, large scale fires are inherently linked to eucalyptus plantations and change the landscape to be fire prone, especially with ongoing climate change, making this a questionable, even dangerous, use of public funds.

**Pollution**

**Pollution at plantations**

Industrial tree plantations require large amounts of fertilisers and pesticides, aimed to eliminate leaf-cutting ants (mostly Sulfluramid) and termites from the soils, or larvae that may damage the trees. On top of them, herbicides are also sprayed to kill the weeds growing between trees, mostly Glyphosate. Suzano

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39 INPE Queimadas, [https://queimadas.dgi.inpe.br/queimadas/bdqueimadas/](https://queimadas.dgi.inpe.br/queimadas/bdqueimadas/)

40 See IFC, Suzano Climate, Project Number 45987, [https://disclosures.ifc.org/project-detail/ESRS/45987/suzano-climate](https://disclosures.ifc.org/project-detail/ESRS/45987/suzano-climate)

41 Sulfluramid is made from perfluorooctane sulfonate (PFOS) and when used it breaks down into PFOS and other chemicals. PFOS does not occur naturally in the environment and it is resistant to typical environmental degradation processes. As a result, it is found in soil, air and groundwater. PFOS is linked to low birth weight, weakened immune response, liver effects, high cholesterol, thyroid dysfunction, cancer, and other health problems. See: The Intercept, Brazil’s pesticide industry is creating massive PFOS contamination, 29 April 2019, bit.ly/317LboF United States, Environmental Protection Agency, Technical Fact Sheet – Perfluorooctane Sulfonate (PFOS) and Perfluorooctanoic Acid (PFOA), November 2017, [https://www.epa.gov/fedfac/technical-fact-sheet-perfluorooctane-sulfonate-pfos-and-perfluorooctanoic-acid-pfoa-0](https://www.epa.gov/fedfac/technical-fact-sheet-perfluorooctane-sulfonate-pfos-and-perfluorooctanoic-acid-pfoa-0)

42 Glyphosate residues have accumulated in the environment and the food chain. Correlations have been found between the increase in glyphosate use and several plant, animal and human diseases. In 2015, the World Health Organization warned about the potential negative health effects of glyphosate, including the risk of cancer development based on experimental research results, and reclassified glyphosate as
states it will follow FSC standards and Brazilian legislation, but both of them are quite tolerant in matters of chemical contamination: as an example, the maximum limit allowed for glyphosate is 5,000 higher than in the European Union. Persistent toxic pollutants, including chlorine, mercury, lead and phosphorus, (related to cancers, nerve disorders and fertility problems) can leach into waterways and pollute the water. Particularly severe is the case when they are applied as air spraying, as this affects larger areas, destroying community crops, affecting biodiversity and putting agroecology agriculture out of business.

Again, these risks are only partly covered in Suzano’s environmental and social public documentation of the project on the IFC project page (PS 3). There is no mention of the procedure of how the pesticides are sprayed on the plantations. At minimum, Suzano should refrain from air spraying.

Map of municipalities classified by agrochemical contamination found in drinking water. In detail, on the right, the municipalities of Mato Grosso do Sul that are covered in this report. The Sisagua observatory analysed the presence of agrochemicals in tap water by municipality.

Pollution at the mill

Pulp mills are heavy polluters, especially due to the bleaching, still made with chlorine compounds. According to the project documentation, Suzano claims it will make use of the Best Available Technology (BUA). In this case it is the latest Elementary Chlorine Free bleaching technology (EFC) which is based probably carcinogenic to humans. Subsequently, several governments have partially restricted the use of glyphosate. See: van Bruggen AHC, Finckh MR, He M, Ritsema CJ, Harkes P, Knuth D and Geissen V (2021) Indirect Effects of the Herbicide Glyphosate on Plant, Animal and Human Health Through its Effects on Microbial Communities. Front. Environ. Sci. 9:763917, https://www.frontiersin.org/articles/10.3389/fenvs.2021.763917/full

43 Sistema de Informação de Vigilância da Qualidade da Água para Consumo Humano (Sisagua), a partnership between Repórter Brasil, the news agency Pública and the Swiss NGO Public Eye, https://portrasdoalimento.info/agrotoxico-na-agua/

44 Cabrera, Maria Noel, et al. Pulp Mill Wastewater: Characteristics and Treatment. Chapter 7, Biological Wastewater Treatment and Resource Recovery, Robina Farooq and Zaki Ahmad. 2017. INTECH platform
on chlorine dioxide instead of elementary chlorine. This technology - despite being an improvement - still discharges residues of highly toxic chlorine compounds like dioxin.\textsuperscript{45, 46, 47, 48, 49}

The effluents from the chlorine dioxide plant will be directly discharged in the river Rio Pardo, after PH control (and eventual neutralisation). Other effluents will be treated with biological treatment of activated sludge by prolonged aeration (the most common process used in pulp and paper industry) and disposed of in the river Rio Pardo via underwater dispersion in the river water. Suzano does not explain how it will prevent the pollutants from ending up in the river.

The mill effluents, including eventual persistent organic pollutants, will end up into the river, discharged via underwater pipe, where it will be very difficult to be analysed by people not being part of the company staff.

These effluents will have a flow of 8,600 m\textsuperscript{3}/h (2.4 m\textsuperscript{3}/s). This is not a little amount– it corresponds to around 2\% of the full river capacity!\textsuperscript{50}

IFC concludes that the original ESIA (2014) doesn’t provide sufficient safeguards and requested Suzano to conduct a study and, based on the results, review mitigation measures (PS 3, ESAP#8 scheduled for June 2023). Again, this is something that should be in place before the start of a project.

### Promoting development? Social impacts of the project

#### Jobs: too few, too

Suzano claims that it will create 482 new jobs in the mill, 670 in the plantations, and 1,400 contractors and 2,700 new jobs in the mill and plantations during its operation phase (not counting the 10,000 short term construction jobs that are clearly temporary). The question however is, what will the project claim in the long-term? Most working places will be eliminated after the operation phase, as eucalyptus plantations have very low labour-intensity. The harvest requires a low number of workers equipped with heavy machinery, while for the rest of the time the major activity is the aerial application of pesticides, which is harmful to the environment and the surrounding communities, but doesn’t involve much labour.

Working at a pulp mill requires highly skilled workers. Suzano already admits that there is a very limited availability of skilled labour locally, meaning that it relies on non-resident, mostly male construction workers (PS 4). How will that promote development?

Furthermore, IFC strongly criticises Suzano’s (lack of) safeguards to prevent misconduct by its workers (GBVH and child abuse are mentioned). Suzano is required to conduct a risk assessment, and prepare prevention and response measures - which it planned to have ready by 30 June 2023. However, the estimated peak of 10,000 workers is already expected in the second half of 2023, the same time as the plan is supposed to be ready. This time frame makes no allowance for training or education/awareness raising ahead of the peak workforce already being present.


\textsuperscript{46} Cabrera, Maria Noel, et al. Pulp Mill Wastewater: Characteristics and Treatment. Chapter 7, Biological Wastewater Treatment and Resource Recovery, Robina Farooq and Zaki Ahmad. 2017. INTECH platform


\textsuperscript{48} SCA. Publication Papers Technical Support. \url{http://www.sca.com/globalassets/papper/media/brochyrer/papermaking-eng}


\textsuperscript{50} CRPE Holding S.A. (Celulose Rio Pardoense e Energia) Fábrica de Celulose Branqueada em Ribas do Rio Pardo – MS, Volume III Avaliação De Impactos, p. 29
In comparison with the jobs of subsistence agriculture that may have been lost with the conversion, the balance is negative: While eucalyptus plantation work generates 1 to 2.7 jobs per 100 ha, the same surface in the area feeds 20 families living on subsistence agriculture (347,000 farms in the Central-West Region are smaller than 5 ha). It is stated in the project documentation that Suzano has policies to safeguard the conditions of its workers: “HR Policies include Human Rights, Code of Conduct, Ombudsman, Diversity and Inclusion, Health and Safety and Quality of Life, Recruitment and Selection, and Disciplinary Measures. Most of IFC PS2 aspects are covered, including specific mention (in the Human Rights Policy) to ILO conventions and IFC Performance Standards.”

In practice however, the quality of the work offered by the company is disputable. Those who do end up working in the pulp and paper industry encounter difficult and dangerous work, and a general disregard for health and safety or labour rights. Plantation workers complain of poor and unhealthy working conditions. Machines with poor maintenance can be dangerous and their use can cause musculoskeletal injuries. There is often no adequate time nor shelter for eating, there is a lack of restrooms in the workplace, so bodily needs must be met in the fields, with the constant risk of coming in contact with poisonous animals such as spiders or snakes. Over the last years, a number of irregularities have been reported, including violation of the labour legislation. According to the Public Ministry of Labor (MPT), in Mato Grosso do Sul there are 205 cases against pulp and paper companies (87 of them involving Suzano-Fibria). These numbers are exceptionally high, also in comparison with other businesses.

The industry has a sustained history of union-busting activities. In 2015, Fibria (now absorbed by Suzano) fired 18 workers in retaliation for organising an independent workers’ union. Workers who contracted work-related diseases due to poor quality machinery were also fired.

None of the issues described in the previous four paragraphs is addressed in the IFC project documentation.

**Indigenous peoples, scattered first, then expelled**

The IFC disclosure web sites exclude the standard regarding indigenous peoples (PS 7) will even apply: “IFC’s appraisal did not identify Indigenous Peoples (IP) inside the operational footprint of the Cerrado Project and its area of influence. (...) As such, PS7 was not considered relevant for the review of this Project.”

We believe this is fundamentally incorrect. This assumption is based on the fact that any presence of indigenous people disappeared from the original ESRS: the historic social context analysis mentions the first fazenda in the region, back in 1835, but not even the presence back then of indigenous population. They simply disappeared by the narrative. And yet the area where the mill is planned, and where it has its

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51 Christian Cossalter and Charlie Pye-Smith, Fast-Wood Forestry, CIFOR 2003, [https://pdfs.semanticscholar.org/5bbf/82241269b55a59a9777750d1ca5f3ee7677.pdf?_ga=2.51199593.1710506926.1642588782-541200515.1642588782](https://pdfs.semanticscholar.org/5bbf/82241269b55a59a9777750d1ca5f3ee7677.pdf?_ga=2.51199593.1710506926.1642588782-541200515.1642588782)

52 IBGE, 2017, [https://sidra.ibge.gov.br/tabela/6880#resultado](https://sidra.ibge.gov.br/tabela/6880#resultado)

53 [https://disclosures.ifc.org/project-detail/ESRS/45987/suzano-climate](https://disclosures.ifc.org/project-detail/ESRS/45987/suzano-climate)


56 Ministério Público do Trabalho em Mato Grosso do Sul, Consulta Investigados, [https://www.prt24.mp.mp.br/servicos/investigados](https://www.prt24.mp.mp.br/servicos/investigados)


58 [https://disclosures.ifc.org/project-detail/ESRS/45987/suzano-climate](https://disclosures.ifc.org/project-detail/ESRS/45987/suzano-climate)

59 Native Land Digital [https://native-land.ca/](https://native-land.ca/)
Queimando a terra

plantations, used to be ancestral land of three indigenous people: Tekohá (Guarani), Kayapó do Sul, and Ofayé.

In the mill’s area indigenous have been cast off their land and dispersed by the cattle ranching some time ago, so there is now no registered community in the area. Their people are now invisible, and they keep suffering, now again from the transition to the paper industry, when the farms were converted into eucalyptus plantations, which radically got rid of rural populations: cattle farming still needed workers, and there were entire rural villages inside the larger farms, including rural schools and churches. Pulpwood plantations, on the contrary, need mostly seasonal workers for planting and harvesting. As entire cattle farms have been sold en bloc to the paper industry, the villages they included were razed to the ground, and people forced to leave. Their homes and their gardens had been cleared; there was no place for them anymore.

We believe that excluding as “not applicable” IFC PS 7 without having done any effort to identify the presence of Indigenous people and territories or resources are impacted, and therefore without any consultation of these local communities seeking Free, Prior and Informed Consent (FPIC), represents a violation of basic IFC standards.

We noted that as per ESAP#10, Suzano is required to revise its Land Acquisition Procedure and Manual for Population Resettlement to assess and manage past and future impacts of land acquisition due the displacement of people without legal rights to the land (e.g., tenants, caretakers, sharecroppers, informal land users). We believe that this procedure should also include the land that has been already acquired and converted, and it needs to be completed and satisfactory before the project is approved for the required funding. Same for the requirement to redact a socio-economic survey of affected households and impact

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analysis, to identify and understand the magnitude of impacts and mitigation needed and a Resettlement and Livelihood Restoration Plan (RLRP): both survey and plan should be drafted in a collaborative way with affected communities, and the finalised before any decision about funds. Moreover, these processes should be transparent, open, and understandable to stakeholders, meaning that it should take place in their languages and respect their decision making processes.

Local communities and missing consent

The ESRS claims there was a consultation done back in April 2014, but it consisted of just 18 (eighteen!) interviews carried out in the city with people of company officers’ choice. The interview says nothing about possible river pollution or use of pesticides. It results that despite 72% of interviewees having no information about the mill, 94 % of them agree with the project.61

More recently, Suzano mentions a grievance procedure and assures that “the Operational Dialogue procedure targets neighbours within a 3 km perimeter around Suzano’s industrial and forestry operations and aims at disseminating information on activities that will be carried out in the surrounding areas, identifying and discussing the potential adverse impacts of these activities, as well as defining related mitigation actions.” However, this kind of ‘dissemination’ will be carried out just 30 to 60 days prior to activities taking place in the area. That means too late to have any impact on the overall project. And it is not clear whether the people involved in the ‘dissemination’ have any right to refuse the company's activities. The ‘dissemination’ also will involve no more than 400 people, not much compared to an extension of forestry operations on over 600,000 ha of land.62

IFC clearly acknowledges that Suzano’s stakeholder engagement is flawed. The bank is requiring Suzano to review and update its Stakeholder Engagement Plan (SEP) and Community Grievance Mechanism, which it promised to do so by the end of Q1 2023. Again, this should happen before the start of a project, and before IFC will grant any loan to the company.

Climate

Biomass and climate emissions

Suzano says the mill will use and promote zero-fossil fuel technologies that will reduce GHG gas emissions. What the company means with this, is that it will have a biomass boiler. This is indeed not based on fossil fuel. However, defining this as ‘emission reduction’ is a plain lie. While biomass is definitively a “zero-fossil fuel” (in the sense that the wood is not a fossil) its climate emissions are high. Energy from wood biomass produces more CO2 emissions per unit of energy than coal.63

Again, Suzano’s statements on the IFC project page are a misrepresentation of the facts (PS 3). The company fails to provide much details on these zero-fossil fuel claims, and leaves out any information about CO2e emissions from the mill’s biomass boiler. Instead it states that the biomass boilers will be responsible for 336,000 avoided CO2 emissions annually. This is not correct. Looking at other recent pulp in the region, a plant of this size would likely emit between 320,000 and 330,000 tCO2eq/yr., equivalent to respectively 160,000 or 165,000 tons of coal burned every year. Suzano justifies this by stating that the eucalyptus plantations will store 12m CO2 emissions per year.

Suzano relies on the assumption that replanted trees will sequester the carbon that was lost when they were logged and so not contribute to an increase in carbon emissions in the atmosphere. However, the ‘renewable’ claim cannot be made for trees that are planted only to be processed for pulp & paper, a short-lived product, often being discarded on the very same day of its first and final use (like for sanitary papers, newsprint, and packaging).

The fact is that energy from woody biomass is increasingly recognized as a high-carbon source of energy, linked to forest and biodiversity destruction and threats to public health. In February 2021, an open letter by 500+ scientists was sent to world leaders urging them to stop presenting the burning of biomass as carbon neutral. Moreover, there is the carbon accounting myth: emissions from biomass activities are accounted for in the land sector, not in the energy sector. This allows companies like Suzano to claim that their biomass boiler is ‘zero emissions’, as emissions are not counted at the smokestack but officially should be counted at the plantation level.

Suzano may be “zero-fossil” but definitely not zero emissions. In the middle of a global climate crisis, it would be counterintuitive to support a project that, among other impacts, will reduce climate change resilience and is likely to exacerbate the problem.

**Promoting competitiveness?**

Suzano’s claim that IFC financial support to the project will strengthen the competitiveness of Brazil's pulp and paper sector, is disputable. Rather, further subsidised credit will likely provide further support to a business that already receives public money. The fact is, Suzano’s business is heavily subsidised. In 2022 alone, the company received 2.3 billion Reais (US$ 430 million) from the Brazilian development bank BNDES. Now the company is applying for US$ 900 million from IFC. Does this company really need such financial support in the form of subsidised credit?

Suzano is a well-established company, listed on the stock exchange, it deploys cutting-edge technologies, profits are good, with an Adjusted EBITDA of 23.5 billion Reais (US$4.409 billion). This company is financially viable and the market for its products is largely non-cyclical. Indeed, demand for virgin pulp is rising and its prices are running up.

Does IFC really need to support Suzano in these conditions? Shouldn’t development and policy banks invest in other sectors that don’t have such high profit margins, but that are of high social value, such as water treatment, sewage systems, public transport and renewable energy, instead of subsidising the profits of pulp and paper shareholders at the cost of the environment and the people living in it?

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65 For more on issues with biomass, see Biomass Power: Environmental Benefit or Numbers Game? (Power magazine, 1 Feb. 2022).
67 EPN, How UNFCCC carbon accounting has created a biomass delusion and is contributing to climate change and global inequity. See: [https://drive.google.com/file/d/1vB4gd2qHonTvps6rtpYx3rY8t7RJU1Z/view](https://drive.google.com/file/d/1vB4gd2qHonTvps6rtpYx3rY8t7RJU1Z/view)
Conclusion: the Cerrado Project is not fit for IFC’s purpose

“At IFC, we work with the private sector to create markets and jobs for people in developing countries who urgently need them. We strive to unlock new, innovative opportunities for the communities in which we work, but we are also accountable to the people that are affected by the projects we finance.”

In short, we can conclude that the Cerrado Project is not fit for IFC’s purpose as described in the quote. It will almost certainly severely impact the environment and on local communities in the region, and as well will bring very little development to the region, and its impact on climate may not be positive. Moreover, a pulp plantation is not a new or innovative opportunity for the communities in Mato Grosso do Sul. It is just another pulp project, in an area flooded with similar projects and suffering from the severe cumulative social and environmental impacts.

The challenge to prevent further biodiversity collapse and climate crisis requires urgent action from development banks, as well as governments. It is crucial to find resources to support natural forest protection and restoration, rather than investments in projects leading to expansion of large scale monoculture, non-native plantations. Investments should rather be made in reducing consumption, reusing paper and cardboard and in recycling all fibres—businesses which need the risk capital that IFC can provide. Development banks and their clients should also support initiatives that promote this and that develop sustainable alternatives—smart packaging solutions to reduce paper waste, papers with high reusable content instead of throw-away types, and, at local level, forms based on local culture and needs—instead of investing in the business-as-usual expansion of the pulp and paper sector.71

For all these reasons, we strongly encourage IFC to redirect its investment away from this large scale pulp project and for Directors to vote on 15 December against IFC financing Suzano loans A and B.

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