

## Suzano Papel e Celulose

**Type of Engagement:** Annual Review

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### Introduction

In June 2016, Suzano Papel e Celulose (Suzano) issued 500m USD in green bonds aimed at financing projects focused on sustainable forestry, conservation, water management, energy efficiency, and renewable energy. Suzano had a re-tap of the green bond in September 2017, raising an additional 200m USD. In January 2018, Suzano engaged Sustainalytics to review the projects funded through the issued green bonds, and provide an assessment as to whether the projects met the Use of Proceeds criteria and the Reporting commitments outlined in the Suzano Green Bond Framework.

### Evaluation Criteria

Sustainalytics evaluated projects funded in 2015, 2016 and 2017 based on whether:

1. Proceeds were allocated to projects that met the Use of Proceeds and Eligibility Criteria outlined in the Suzano Green Bond Framework; and
2. Projects financed reported on at least one of the Key Performance Indicators (KPIs) for each Use of Proceeds criteria outlined in the Green Bond Framework.

The table below lists the framework's Use of Proceeds and Key Performance Indicators.

**Table 1: Use of Proceeds and KPIs**

Theme	Use of Proceeds Criteria	KPI
<b>Sustainable Forestry</b>	Sustainable management of forests that comply with international and national standards such as FSC, Cerflor (PEFC) or equivalent certification	Carbon dioxide (CO <sub>2</sub> ) emissions avoided through planted forests
		Continued maintenance of FSC, Cerflor (PEFC) or equivalent internationally recognized certification
	Restoration of native forest cover from degraded lands	Total land area with restoration in progress (hectares)
<b>Conservation</b>	Maintenance and development of conservation areas; protection of native plants and animal species and biodiversity	Total leased and owned land area with conserved native vegetation (hectares)
		Total leased and owned land area with conserved native vegetation/ total leased and owned land area (percent)
		Total leased and owned land area with conserved native vegetation/ total leased and owned planted land area (percent)
		Number of HCVAs identified and maintained
		Number of species found in HCVAs
		Number of beneficiaries of environmental education programs
		Number of ecotourists at Parque das Neblinas
		Number of research studies developed at Parque das Neblinas
<b>Water Management</b>	Development of technologies and systems to increase quality of treated waste water, increase water reuse, and reduce water consumption	Reduction in fibre content in effluent (mg/L or percent)
		Reduction in Chemical Oxygen Demand or Biochemical Oxygen Demand (mg/L or percent)

		m <sup>3</sup> of water saved, reduced, or reused
<b>Energy Efficiency</b>	Projects that increase energy efficiency, including through reduction in fossil fuel consumption	Kwh saved/reduced
		Tons of fossil fuel saved/reduced
		CO2 emissions avoided
<b>Renewable Energy</b>	Substitution of fossil fuels with renewable sources and/or generation of energy from renewable sources	Tons of fossil fuel saved/reduced
		Kwh produced
		CO2 emissions avoided

### Issuing Entity's Responsibility

Suzano is responsible for providing accurate information and documentation relating to the details of the projects that have been funded, including description of projects, estimated and realized costs of projects, and project impact.

### Independence and Quality Control

Sustainalytics, a leading provider of ESG and corporate governance research and ratings to investors, conducted the verification of Suzano's Green Bond Use of Proceeds. The work undertaken as part of this engagement included collection of documentation from Suzano employees and review of documentation to confirm the conformance with the Suzano Green Bond Framework.

Sustainalytics made all efforts to ensure the highest quality and rigor during its assessment process and enlisted its Sustainability Bonds Review Committee to provide oversight over the assessment of the review.

### Conclusion

Based on the limited assurance procedures conducted<sup>1</sup>, nothing has come to Sustainalytics' attention that causes us to believe that, in all material respects, the allocation of 1,409,394,202 BRL (approximately 410,729,186 USD) from Suzano's green bond proceeds, are not in conformance with the Use of Proceeds and Reporting Criteria outlined in the Suzano Green Bond Framework.

<sup>1</sup> Sustainalytics limited assurance process includes reviewing the documentation relating to the details of the projects that have been funded, including description of projects, estimated and realized costs of projects, and project impact, which were provided by the Issuer. The Issuer is responsible for providing accurate information. Sustainalytics has not conducted on-site visits to projects.

## Detailed Findings

**Table 2: Detailed Findings**

<b>Eligibility Criteria</b>	<b>Procedure Performed</b>	<b>Factual Findings</b>	<b>Error or Exceptions Identified</b>
<b>Use of Proceeds Criteria</b>	Verification of the projects funded by the Green bond in 2015, 2016, and 2017 to determine if projects aligned with the Use of Proceeds Criteria outlined in the Green Bond Framework and above in Table 1. For a list of projects financed by eligibility criteria, please refer to Appendix 1.	All projects financed complied with the Use of Proceeds criteria.	None
<b>Reporting Criteria</b>	Verification of the projects funded by the Green bond in 2015, 2016, and 2017 to determine if impact of projects was reported in line with the KPIs outlined in the Green Bond Framework and above in Table 1.	All projects reviewed reported on at least one KPI per Use of Proceeds criteria.	None

## Appendix 1: Projects Verified by Eligibility Criteria

Project Category	Project	Description	Amount Allocated
Water Management	Debottlenecking and modernization of Imperatriz Unit	Investment in retrofit and debottleneck at the Imperatriz Unit to increase production capacity and decrease the effluent load. This investment may also reduce the consumption of inputs such as sodium hydroxide from 16.5 kg to 15 kg / ADMT, hydrogen peroxide from 7 kg to 5 kg / ADMT, among others.	126,701,704
Water Management	WWTP Mucuri	Development of a new effluent treatment plant at the Mucuri Unit; which may reduce the organic matter load in the final effluent (BOD5) from an average of 67 mg / L to 27.5 mg / L.	67,907,801
Water Management	WWTP Imperatriz	Completion of the implementation of the ETS of the Imperatriz Unit.	2,683,706
Energy Efficiency	WWTP Limeira	Replacement of the waste stabilization pond aerators for a more energy efficient alternative	1,429,404
Sustainable Forestry	Sustainable Forestry - Restoration of degraded (leased) lands and conservation of natural ecosystems	The restoration project aims to restore areas that have been degraded over time, or that are in disagreement with the current environmental legislation, especially regarding areas newly acquired or leased properties (inherited liabilities and in most cases their restoration is not Suzano's legal responsibility). The recovery and conservation of natural areas does not only influence the maintenance of ecosystems but also promote the creation of natural enemies of pests that compromise flora species, groundwater recharge, soil protection, carbon capture and non-timber supply to extractive communities.	7,899,311
Sustainable Forestry	Sustainable Forestry - Restoration of other private degraded lands and conservation of natural ecosystems	The Mucuri River Water Springs Project aims to foster/boost the restoration chain in the Mucuri River Catchment region through partnerships with the main regional actors, local entities and communities. It also involves volunteering encouragement, technical capacitation and environmental education initiatives. These actions will have a more educational bias and aim to stimulate producers in the region and the internal public to see forest restoration as a key factor for agricultural development. The recovery and conservation of natural areas does not only influence the maintenance of ecosystems but also promote the creation of natural enemies of pests that compromise flora species, groundwater recharge, soil protection, carbon capture and non-timber supply to extractive communities.	488,334
Conservation expenditures	Conservation expenditures – Maintenance and conservation of areas, fauna & flora, natural resources, studies and monitoring.	The projects include: (1) maintenance and eventual expansion of preserved areas (following legal procedures); (2) monitoring of the remnants of great importance for conservation, aiming the increase in the number of species over time, identification of potential impacts and recommendations in favor of biodiversity conservation and ecosystem services; (3) periodic hydrological monitoring in Suzano's main micro-basins, in order to assess physical and chemical conditions, qualitatively and quantitatively, to support environmental and forest management actions, aiming a higher sustainable productivity and mitigation of possible impacts; (4) environmental education actions and ecotourism through visits to preserved natural areas of Suzano or partners, aiming knowledge dissemination, skills and attitudes towards environmental and biodiversity preservation in order to promote scientific research and studies in this regard. In 2017, the "School of Heroes" program was included which works to raise social and environmental awareness among children and youth from municipal schools. It is a skill development course that supports the formation of important values for sustainability and citizenship.	12,584,285
Sustainable Forestry	Sustainable management of forests (FSC and Cerflor (PEFC)).	Sustainable management of forests with the adoption of best market practices (mosaic planting, ecological corridor, etc.) and certified by FSC, Cerflor or similar.	1,165,358,788
		Social and environmental actions and certification audits focused on meeting the FSC and PEFC principles and criteria for the maintenance and expansion of our sustainable management.	24,340,869
<b>Total</b>			1,409,394,202

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