

## Suzano Papel e Celulose

**Type of engagement:** Annual Review

**Date:** April 2019

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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 April 2019, 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. This is Sustainalytics’ second annual review of Suzano’s 2016 and 2017 green bonds following a previous review in April 2018.

### Evaluation Criteria

Sustainalytics evaluated projects funded in 2018 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**

Use of Proceeds	Project	Key Performance Indicators
<b>Sustainable Forestry</b>	Sustainable management of forests that comply with international and national standards such as FSC, Cerflor (PEFC) or equivalent certification	Carbon stock in planted areas (tCO <sub>2</sub> e)
		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 HCVA’s identified and maintained
		Number of fauna species found in HCVA’s
		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
		CO <sub>2</sub> 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
		CO <sub>2</sub> 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 verify 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 oversee the process.

### 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 reviewed bond projects, funded through proceeds of Suzano green bonds, are not in conformance with the Use of Proceeds and Reporting Criteria outlined in the Green Bond Framework. Suzano has disclosed to Sustainalytics that 88.18% of the proceeds of the green bonds were allocated as of December 2018.

<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 2018 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 2018 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	
			2015-2017 <sup>2</sup>	2018
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	0
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	0
Water Management	WWTP Imperatriz	Completion of the implementation of the ETS of the Imperatriz Unit.	2,683,706	0
Energy Efficiency	WWTP Limeira	Replacement of the waste stabilization pond aerators for a more energy efficient alternative	1,429,404	0
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	0
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	0

<sup>2</sup> The previous annual review conducted in April 2018 includes the allocation amounts provided for the period 2015-2017.

<b>Conservation expenditures</b>	<b>Conservation expenditures – Maintenance and conservation of areas, fauna &amp; flora, natural resources, studies and monitoring.</b>	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	0
<b>Sustainable Forestry</b>	<b>Sustainable management of forests (FSC and Cerflor (PEFC)).</b>	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	614,377,034
		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	0
<b>Total</b>			1,409,394,202	614,377,034

## Appendix 2: Impact Reporting by Eligibility Criteria

Use of Proceeds	KPI Reported	Environmental Impact <sup>3</sup>			
		2015	2016	2017	2018
<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	55,164,857.82 tCO <sub>2</sub> e	54,831,925.56 tCO <sub>2</sub> e	57,867,710.70 tCO <sub>2</sub> e	76,196,822.71 tCO <sub>2</sub> e
Restoration of native forest cover from degraded lands	Total land area with restoration in progress (hectares)	5,503.12 ha	5,570.81 ha	5,886.00 ha	7,273.29 ha
<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)	479,345 ha	491,376 ha	538,168 ha	554,883 ha
	Total leased and owned land area with conserved native vegetation/ total leased and owned land area (percent)	44.17% (of 1,085,299 ha total land area)	44.42% (of 1,106,317 ha total land area)	44.70% (of 1,203,177 ha total land area)	44.36% (of 1,250,966 ha total land area)
	Total leased and owned land area with conserved native vegetation/ total leased and owned planted land area (percent)	109.76% (of 436,725 ha total planted land area)	108.70% (of 452,048 ha total planted land area)	106.10% (of 507,048 ha total planted land area)	102.27% (of 542,561 ha total planted land area)
	Number of HCVAs identified and maintained	30	27	31	33
	Number of species found in HCVAs	839	787	1,284	1,120
	Number of beneficiaries of environmental education programs	3,247	4,276	5,962	3,376

<sup>3</sup> The impact metrics for 2016, 2017 and 2018 are reported based on impact generated until the end of each reporting period as some environmental impacts were created due to allocations made in previous years.

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	Number of ecotourists at Parque das Neblinas	2,544	3,355	3,392	4,839
	Number of research studies developed at Parque das Neblinas	4	3	16	14

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Sustainalytics is a leading independent ESG and corporate governance research, ratings and analytics firm that support investors around the world with the development and implementation of responsible investment strategies. With 13 offices globally, the firm partners with institutional investors who integrate ESG information and assessments into their investment processes. Spanning 30 countries, the world's leading issuers, from multinational corporations to financial institutions to governments, turn to Sustainalytics for second-party opinions on green and sustainable bond frameworks. Sustainalytics has been certified by the Climate Bonds Standard Board as a verifier organization, and supports various stakeholders in the development and verification of their frameworks. In 2015, Global Capital awarded Sustainalytics "Best SRI or Green Bond Research or Ratings Firm" and in 2018 and 2019, named Sustainalytics the "Most Impressive Second Party Opinion Provider. The firm was recognized as the "Largest External Reviewer" by the Climate Bonds Initiative as well as Environmental Finance in 2018, and in 2019 was named the "Largest Approved Verifier for Certified Climate Bonds" by the Climate Bonds Initiative. In addition, Sustainalytics received a Special Mention Sustainable Finance Award in 2018 from The Research Institute for Environmental Finance Japan for its contribution to the growth of the Japanese Green Bond Market.

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