BRF S.A.

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Introduction

In 2015, BRF S.A. (BRF) issued a green bond aimed at financing eligible green projects across its business divisions and operations. The eligible investments focused on energy efficiency, renewable energy, sustainable forests, GHG reduction, water management, packaging, raw material use reduction and waste management. In May 2019, BRF engaged Sustainalytics to review the eligible projects funded in the year 2018, and to provide an assessment as to whether the projects met the Use of Proceeds criteria and the Reporting Commitments outlined in the BRF Green Bond Framework.[1] This is Sustainalytics' fourth annual review of BRF's green bond following previous reviews in 2016, 2017, and 2018.

Evaluation Criteria

Sustainalytics evaluated BRF's projects financed between December 2017 and December 2018 based on whether the projects:

1. Met the Use of Proceeds and Eligibility Criteria outlined in the BRF Green Bond Framework; and
2. Reported on at least one of the Key Performance Indicators (KPIs) for each Use of Proceeds criteria outlined in the Green Bond Framework.

Table 1: Use of Proceeds categories and the associated KPIs

Use of Proceeds	Key Performance Indicator (KPI)
Energy Efficiency	Energy saved (kWh)
	CO_2 emissions or other GHG emissions avoided
GHG Emission Reduction	Energy saved (kWh)
	CO2 emissions or other GHG emissions avoided
Renewable Energy Generation	Energy produced from renewable sources (kWh)
	CO_2 emissions or other GHG emissions avoided
Water Management	Water consumption reduced or recycled (m^3)
Waste Management	Waste reduced or recycled (tons)
Sustainable and Efficient Packaging	Raw material use avoided in packaging (tons saved/reduced)
	Sustainable and efficient material used (tons used)
Sustainable Forest Management	Number of acres of sustainably managed forests (acres)
Reduction of Raw Material Use (Yield)	Sustainable and efficient material used (tons used)
	Raw material use avoided (tons saved/reduced)

[1] BRF Green Bond Framework Overview and Sustainalytics Second-Party Opinion: http://www.sustainalytics.com///sites/default/files/brf_green_bond_framework_opinion.pdf

Issuing Entity's Responsibility

BRF 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 BRF's Green Bond Use of Proceeds. The work undertaken as part of this engagement included collection of documentation from BRF employees and review of documentation to confirm the conformance with the BRF 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,[2] nothing has come to Sustainalytics' attention that causes us to believe that, in all material respects, the reviewed bond projects, funded through proceeds of BRF green bonds, are not in conformance with the Use of Proceeds and Reporting Criteria outlined in the Green Bond Framework. BRF has disclosed to Sustainalytics that 51.10% of the proceeds of the green bonds were allocated as of December 2018.

Detailed Findings

Eligibility Criteria	Procedure Performed	Factual Findings	Errors or Exceptions Identified
Use of Proceeds Criteria	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 BRF Green Bond Framework. 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
Reporting Criteria	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 BRF Green Bond Framework and above in Table 1.	All projects reviewed reported on at least one KPI per Use of Proceeds criteria.	BRF has confirmed that no relevant KPIs are observed for projects under the two eligible categories – (i) Renewable Energy, and (ii) Sustainable and Efficient Packaging. Nevertheless, Sustainalytics notes that less than 1.5% of 2018 allocations were made to each of those eligible categories. Additionally, Sustainalytics recognizes that allocation to Renewable Energy have generated cumulative environmental impacts over previous years, and that investments in Sustainable and Efficient Packaging are anticipated to deliver environmental benefits that may be difficult to quantify.

[2] 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.

Appendix 1: Projects Verified by Eligibility Criteria

Use of Proceeds	Description	Amount allocated in 2018 (R$)
Energy Efficiency		
Process Optimization	Optimization of processes in order to increase equipment's yield, reducing energy waste.	888,866.78
Replacement of Equipment	Replacement of obsolete equipment for more efficient ones with lower power consumption.	4,042,112.16
Renewable Energy Generation		
Power Plant Repowering	Increased capacity of hydroelectric energy generation, 100% renewable.	18,523.95
Sustainable Forest Management		
Biomass production for power and steam generation in BRF plants	Production of biomass in order to produce energy generation provide from renewable sources: own reforestation with sustainable management (assuring that all trees that are used are replanted, maintaining the soil quality and biodiversity).	35,620,743.53
Water Management		
Process optimization	Optimization on the processes of capturing, processing, storage and distribution of water supply.	4,426,607.08
Waste Management		
Waste Reuse	Reuse of processes wastes as an alternative fuel for power generation.	785,778.70
Reduce of waste generation	Equipments installation and process standardization in order to reduce waste generation.	1,664,778.59
Process optimization	Optimization of storage processes, treatment and disposal of solid waste, wastewater, air emissions.	57,303,674.50
Sustainable and Efficient Packaging		
Reduction of package material	Acquisition of equipment that allow the decrease of raw material or the use of recycled material on packages	1,655,192.68
Reduction of Raw Material Use (Yield)		
Optimize the process in order to reduce the consumption of raw material (animal feed)	Improve the consistency of the feed system resulting in a smaller consumption of grains and other raw material	19,047,740.39
	Total (approximately)	125,454,018

Appendix 2: Impact Reporting by Eligibility Criteria

Use of Proceeds	Project	Description	Environmental Impact[3]
Energy Efficiency			
Process Optimization	Acquisition of a new boiler.	Acquisition of a new boiler in order to improve efficiency.	Reduction of fuel: 697 GJ/month (16.5 toe/month)
Replacement of Equipment	Reducing energy consumption from machines.	The cooling system for the industrial processes used an obsolete and old equipment demanding a high energy consumption. The project consisted in replacing low performance engines for equipment of high performance.	Reduction of 80,898 kWh/month
	Project COPEL Toledo	Replacement of low performance engines for equipment of high performance.	Savings of 485,000 kWh
Sustainable Forest Management			
Biomass production for power and steam generation in BRF plants	Eucalyptus plantation.	Production of biomass in order to produce energy generation provided from renewable source. The project is an investment in the development of eucalyptus plantation, which are sustainably managed.	Planted area: 609 ha Volume of eucalyptus collected: 116,349 tonnes of eucalyptus
Water Management and Waste Management			
Process optimization	Adaptation on the water treatment.	Installation of a new water treatment plant in order to improve water treatment and avoid waste.	Improvement in the water treatment and avoid water consumption
Reduce of waste generation	Environment adjustments in a farm	The Project consisted in the implementation of several actions: - Desorption of biodigesters - Installing a fencing around the treatment lagoons - Replacing the waterproofing of the treatment lagoons - Adequation of the bio-waste distribution system - Building a solid waste center - Installation of effluent treatment of sanitary barriers.	Improvement of biofertilizer quality
Process optimization	Treatment of the sludge generated in the water treatment.	Installation of a system in order to dehydrate and thicken the sludge generated in the water treatment plant, allowing the disposal of compost and avoiding the discharge of this waste in the water body.	Reduction of solid waste generation
	Effluent Treatment System through activated sludge.	Construction and installation of effluent treatment system through activated sludge with the construction and waterproofing of the aeration pond and the decanter, acquisition of	Meet the follow parameters: COD: 200mg/L - 120mg/L BOD: 60mg/L - 30mg/L

[3] BRF has reported quantitative or qualitative environmental impacts, wherever feasible.

		equipment, construction of other civil infrastructures and electrical installations.	
	Effluent Treatment System through activated sludge.	Construction and installation of effluent treatment system through activated sludge with the construction and waterproofing of the aeration pond and the decanter, acquisition of equipment, construction of other civil infrastructures and electrical installations.	Meet the follow parameters: COD: 200mg/L - 120mg/L BOD: 60mg/L - 30mg/L
Reduction of Raw Material Use (Yield)			
Optimize the process in order to reduce the consumption of raw material (animal feed)	Installation of liquid applicator (batcher)	Installation of a liquid dosing system in the poultry feed.	Reduction of 5,100 tons/year in the feed consume

Disclaimer

The Opinion was drawn up with the aim to explain why the analyzed bond is considered sustainable and responsible. Consequently, this Opinion is for information purposes only and Sustainalytics will not accept any form of liability for the substance of the opinion and/or any liability for damage arising from the use of this Opinion and/or the information provided in it.

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The client is fully responsible for certifying and ensuring its commitments` compliance, implementation and monitoring.

Sustainalytics

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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