FIBRIA GREEN BOND

FRAMEWORK OVERVIEW AND SECOND PARTY OPINION BY SUSTAINalytics

November 7th, 2016
# TABLE OF CONTENTS

**FRAMEWORK OVERVIEW AND SECOND PARTY OPINION BY SUSTAINALYTICS**

1. Preface  
   3

2. Introduction  
   3

3. Framework overview  
   4
   3.1 Use of Proceeds  
   4
   3.2 Project Evaluation and Selection Process  
   7
   3.3 Management of Proceeds  
   7
   3.4 Reporting  
   8

4 **SUSTAINALYTICS’ OPINION**  
   Sustainability Performance of Issuer  
   9
   Sustainalytics’ Opinion on Fibria’s Green Bond Framework  
   11
   Conclusion  
   12

**APPENDICES**  
   13
   Appendix 1: Documents Reviewed  
   13
   Appendix 2: Sustainalytics’ Analysis of FSC and Cerflor (PEFC) Certifications  
   14
   Appendix 3: Green Bond/Green Bond Programme External Review Form  
   15
1. PREFACE

Fibria Overseas Finance Ltd. (Fibria), with the corporate guarantee of Fibria Celulose S.A., a Brazilian pulp company active in the global forest products market, intends to issue a Green Bond to finance projects that will improve its environmental performance. The company has engaged Sustainalytics to provide a second opinion on Fibria’s Green Bond Framework and on the bond’s environmental credentials. As part of this engagement, Sustainalytics held conversations with Fibria’s treasury, legal and sustainability teams to understand the use of proceeds, management of proceeds and reporting aspects of Fibria’s Green Bond, as well as the company’s sustainability strategy. Sustainalytics also reviewed relevant public and internal documents from Fibria. This document contains two sections: Framework Overview – a summary of Fibria’s Green Bond framework; and Sustainalytics’ Opinion – an opinion on the framework.

2. INTRODUCTION

Fibria is a pulp company with 969,000 hectares of forest plantations in Brazil. The company has an annual production capacity of 5.3 million tons, with mills located in Três Lagoas (Mato Grosso do Sul), Aracruz (Espírito Santo), Jacareí (São Paulo), besides Veracel, a mill in Eunápolis (Bahia), in Joint-Operation with Stora Enso. In partnership with Cenibra, it operates Portocel, in Aracruz, the only Brazilian port specialized in pulp shipments.

Fibria produces pulp from eucalyptus and is the world’s largest producer of market pulp in terms of production capacity, with the majority of its exports sold to Europe, North America and Asia. Fibria’s long-term business strategies include increasing its market share in the international pulp market and developing state-of-the-art technologies to improve its operational efficiency and reduce its environmental impact. With its operations based entirely on renewable forest plantations, Fibria has a total forest base covering 969,000 hectares of land, of which 338,000 hectares are native forests that have been set aside for environmental conservation. All Fibria units have been certified by the Forest Stewardship Council® (FSC®) or the Brazilian Forest Certification Programme (Cerflor), which is part of the Programme for the Endorsement of Forest Certification (PEFC).

Fibria’s vision to consolidate the planted forest area as a generator of profits in tandem with environmental conservation, social inclusion and improved quality of life is reflected in its Sustainability Policy. This Policy, applicable to all units and subsidiaries, states that Fibria aims to consider the social and environmental context of its operations, while promoting the identification, prevention, resolution or mitigation of the social, environmental and economic impacts of its activities. In line with this commitment, the company publishes a yearly sustainability report in which it outlines its short- and long-term sustainability goals and reports on its key social and environmental performance indicators. These include the company’s efforts on sustainable forestry management, local community relations, greenhouse gas emissions and sequestration, waste management, among others.
Fibria is issuing a Green Bond, to help finance projects that will improve its environmental sustainability across its global business divisions and operations. The bond proceeds will finance activities focused on 1) sustainable forest management, 2) restoration of native forests and conservation of biodiversity, 3) waste management, 4) sustainable water management, and 5) generation of energy from renewable sources.

3. FRAMEWORK OVERVIEW

Fibria Overseas Finance Ltd., with the corporate guarantee of Fibria Celulose S.A., is issuing a Green Bond that will fund projects focused on environmental sustainability across the company’s global business divisions and operations. For this Green Bond issuance, a framework has been created that follows the four key pillars of the Green Bond Principles 2016 (“GBP”):

- Use of Proceeds
- Selection Process
- Management of Proceeds
- Reporting

3.1 Use of Proceeds

An amount equal to the net proceeds of the Green Bond will be allocated to projects that meet the eligibility criteria specified below, including (i) existing projects financed during the two years preceding the issue date of the Green Bond, (ii) projects committed to prior to the issue date of the Green Bond but financed following the issue date of the Green Bond and (iii) projects committed to and financed after the issue date of the Green Bond.

3.1.1 Eligibility Criteria

To be eligible for the green bond proceeds, the projects funded must meet one or more of the following eligibility criteria:

1. SUSTAINABLE FOREST MANAGEMENT

Use of proceeds: Proceeds of the green bond will be allocated to capital expenditures necessary to sustainably manage eucalyptus forest plantations that are certified by FSC® or Cerflor (PEFC). This includes:

(i) New planting and replanting activities such as:
   a. Production\(^2\) and acquisition of eucalyptus seedlings
   b. Preparation of soil for the plantation of seedlings, including subsoiling and harrowing activity
   c. Planting of seedlings

\(^2\) Fibria’s eucalyptus clones are the result of conventional genetic improvement processes, as a result of vegetative propagation procedures. No genetically-modified organisms are used in commercial plantations. The bond proceeds will not be used in any activity related to GM trees.
d. Protection and maintenance of planted seedlings up to harvest

Context: As a part of its sustainability strategy, Fibria has made two long-term commitments: (i) to optimize the use of natural resources, and (ii) to contribute to mitigation of greenhouse gas emissions. In keeping with these two goals, Fibria has set targets to achieve a one-third reduction in the amount of land it uses to produce pulp, and to increase the net capture from forests from 5.5 million tCO₂eq, in 2011, to 11.1 million tCO₂eq, in 2025. Fibria has identified sustainable management of forests as an important means to achieve progress towards these targets.

2. Restoration of Native Forests and Conservation of Biodiversity

Use of Proceeds: Proceeds of the green bond will be allocated to inputs and services (capital and operational expenditures) required for:

(i) Restoration of native forest cover in degraded land such as:
   a. Acquisition of native Brazilian seedlings
   b. Labor costs associated with planting native Brazilian seedlings in degraded land
   c. Labor and capital costs associated with creating ecological corridors and mosaics in eucalyptus plantations so they can serve as wildlife and flora habitat conservation
   d. Funding studies that evaluate and monitor the conservation of High Conservation Value (HCV) areas

Context: As a part of its sustainability strategy, Fibria states a long-term commitment to protect biodiversity. In keeping with this goal, Fibria has set a target to restore 40,000 hectares of its own land between 2012 and 2025. These projects will also contribute to Fibria’s long-term goal to double carbon sequestration into the atmosphere by 2025.

3. Waste Management

Use of Proceeds: Proceeds of the Green Bond may be allocated to the construction, installation, operations, and upgrade of waste facilities that:

(i) Reduce the generation of waste such as:
   a. Equipment to reduce chemical usage and waste generated in the wood cooking process
   b. Equipment to increase the efficiency of filtration and the removal of dregs generated in the causticizing process. This ensures the recovery of caustic soda through purges in the system, and reduces the volume of waste (dregs) generated.
   c. Equipment to recover fibers (which are reused as either biomass or commercialized for packaging) and minimize fiber waste

(ii) Reuse waste in processes such as:
   a. Installation of a biological sludge dryer in the wastewater treatment plant. This results in the dry waste being used as biomass in the biomass boiler.
   b. Separation and recovery of methanol waste to reuse as fuel in the lime kilns
c. Reduction of excessive levels of sedimentation in emergency lagoons through dredging in order to improve effluent treatment. Dredged material will be evaluated for use in composting or soil corrective products.

d. Transformation of waste of the industrial process into sub products (ex. soil correctives)

**Context:** As a part of its sustainability strategy Fibria states that it has an objective to avoid and prevent pollution related to wastewater, solid waste and air emissions. The company aims to achieve this through effective waste management by reducing, reusing, and recycling waste. Between 2012 and 2025, Fibria has a target to reduce the amount of solid waste disposed in Fibria’s or third-party landfills by 91%.

### 4. SUSTAINABLE WATER MANAGEMENT - WATER USAGE EFFICIENCY

**Use of Proceeds:** Proceeds of the Green Bond may be allocated to construction, installation, operations and upgrades of water facilities that:

(i) **Reduce water consumption** such as:
   a. Equipment to reduce the consumption of water in industrial processes, such as reducing consumption of water used for sealing vacuum pumps

(ii) **Allow for water reuse in industrial processes** such as:
   a. Equipment that would facilitate reuse of water in industrial processes, such as reusing water that was previously released as effluent

**Context:** In its sustainability strategy, Fibria states that it strives to conserve its water resources. The company monitors water withdrawal in its forest management activities and has been implementing measures to reduce water withdrawal in its operations. In its 2015 sustainability report, Fibria has stated the intention to develop water goals in 2016 for nurseries, planted forests, and industry.

### 5. RENEWABLE ENERGY – GENERATION OF ENERGY FROM RENEWABLE SOURCES

**Use of Proceeds:** Proceeds of the Green Bond may be allocated to construction, installation, operations and upgrades of renewable energy facilities that:

(i) **Increase production of renewable energy from waste biomass sources (waste to energy)** such as:
   a. Equipment to increase the efficiency of the biomass boiler to increase energy generated from biomass

**Context:** Fibria states that it aims to reduce its energy footprint and shift from fossil fuel energy to renewable energy. 90% of the energy produced by Fibria is renewable and includes biomass energy from waste biomass resulting from the production process (i.e. liquid biomass, wood chips, biological sludge

---

3 The remaining 10% is primarily natural gas and oil which is used when there is equipment maintenance and general stoppage at the mill. Fibria states that aiming for 100% renewable energy would not be a realistic target.
and primary sludge). All three mills are wholly energy self-sufficient, and two (Aracruz and Três Lagoas) export a surplus of energy to the grid.

3.2 Project Evaluation and Selection Process

To evaluate and select Green Bonds projects Fibria has created a Green Bond Sustainability Team that will:

(i) Select projects for funding through green bond proceeds based on compliance with the eligibility criteria as described in the framework; and,

(ii) Recommend an allocation of proceeds to eligible projects.

The Green Bond Sustainability Team is comprised of representatives from the Treasury, Legal, Environment, CAPEX and Sustainability departments and is overseen by the Sustainability Executive Officer. The team will recommend to the finance department specific projects for allocation of the bond proceeds. These recommendations will be made on an annual basis and will include past, current and future projects. Fibria’s Green Bond Sustainability Team has also identified the eligible criteria for the use of proceeds, closely connected to Fibria’s Sustainability strategy and specifically its sustainability long-term targets for 2025.

Fibria’s Green Bond Sustainability Team also oversees the purchases and investments made in environmental initiatives.

3.3 Management of Proceeds

Proceeds may be allocated to Fibria subsidiaries’ projects that meet the eligibility criteria, and that are committed to either up to two years before the settlement of the bonds or after the settlement date and before the maturity date of the Green Bond.

The proceeds from the Green Bond will be allocated and managed by Fibria’s Finance Department following specific recommendations by the Green Bond Sustainability Team on project selection. The finance team has an internal management system that will track the allocation of proceeds to such projects using spreadsheets, including brief descriptions of the projects, the regions in which the projects are located, and the amount of proceeds allocated to the projects.

Pending allocation, net proceeds from the sale of the notes may be invested in cash, cash equivalents and/or marketable securities, in accordance with Fibria’s cash management policies.
3.4 Reporting

Throughout the life of the notes, Fibria will keep records in connection with the allocation of the net proceeds and will make publicly available on its website (see www.fibria.com.br/en) information on the allocation of the net proceeds, to be renewed annually until full allocation of the net proceeds, and as necessary thereafter in the event of new developments. This information will include, subject to confidentiality considerations, in relation to the projects to which we are subject, additional descriptions of select projects funded with the net proceeds and, to the extent possible, in addition to its allocation reporting, Fibria will report on the expected environmental impact of the projects. The contents of Fibria’s website are not incorporated into this prospectus supplement or the accompanying prospectus.

These reports will be accompanied by:

(i) An assertion by management that the net proceeds of this offering were allocated to qualifying eligible projects; and

(ii) A report by an external auditor in respect of its examination of management’s assertion conducted in accordance with attestation standards established by the International Standard on Assurance Engagements (ISAE) 3000.

Impact Reporting

To the extent possible, in addition to its allocation reporting, Fibria will report on the expected environmental impact of the projects to which bond proceeds have been allocated. Where relevant, Fibria will report on the following key performance indicators in aggregate (on a project portfolio basis) for Green Bond projects. Impact reporting will be disclosed publicly on the Fibria website, when feasible.

**Table 1: Key Performance Indicators by Eligibility Criteria**

<table>
<thead>
<tr>
<th>Use of proceeds category</th>
<th>Key Performance Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sustainable Forest Management</strong></td>
<td>Certified forest area: Hectares of Fibria’s land that has been planted or replanted certified by FSC® and Cerflor/PEFC</td>
</tr>
<tr>
<td></td>
<td>Greenhouse gas sequestration (tCO₂eq/adt)</td>
</tr>
<tr>
<td><strong>Restoration of native forests and conservation of biodiversity</strong></td>
<td>Hectares of Fibria’s land that has been restored</td>
</tr>
<tr>
<td></td>
<td>Hectares of owned land area with conserved native vegetation</td>
</tr>
<tr>
<td></td>
<td>Greenhouse gas sequestration (tCO₂eq/adt)</td>
</tr>
<tr>
<td><strong>Waste management</strong></td>
<td>Reduced and reused waste (t or kg/adt)</td>
</tr>
<tr>
<td><strong>Sustainable water management</strong></td>
<td>Water withdrawal reduction (m³ or m³/adt)</td>
</tr>
<tr>
<td></td>
<td>Water reused (m³ or m³/adt)</td>
</tr>
<tr>
<td><strong>Generation of energy from renewable sources</strong></td>
<td>Total electricity generated from waste biomass at Fibria’s facilities (MWh or MWh/adt⁻¹)</td>
</tr>
<tr>
<td></td>
<td>Total amount of waste biomass reused for electricity generation</td>
</tr>
</tbody>
</table>

---

4 FSC® License Code FSC-C100042, FSC-C100704, FSC-C110130

5 Adt – Air dried tons of pulp
4 SUSTAINALYTICS’ OPINION

Sustainability Performance of Issuer

Contribution of use of proceeds to Fibria’s sustainability strategy

Fibria has a strong overall sustainability strategy supported by a formal sustainability policy. The strength of Fibria’s strategy derives from (i) internal accountability – Fibria has a sustainability committee that reports to the Board on all aspects of sustainability; (ii) a multi-stakeholder process to define material issues, and continual engagement with relevant stakeholder groups on these issues; (iii) definition of short- and long-term sustainability targets; (iv) yearly sustainability reporting on these targets. Sustainalytics is of the opinion that accountability through a formal sustainability committee, and performing a materiality analysis demonstrate the importance given to sustainability and the recognition that sustainability is important in day-to-day operations. Furthermore, the commitment to targets and yearly reporting is indicative of the priority the company assigns to achieving its sustainability goals.

Table 2: Fibria’s Sustainability targets on issues relevant for use of proceeds

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimizing the use of natural resources</td>
<td>Reduce by one third the amount of land needed for pulp production (Goal: 15 adt/ha/year)</td>
<td>11.7 adt/ha/year</td>
</tr>
<tr>
<td>Contributing to the mitigation of the effects of greenhouse gas effect</td>
<td>Increase the net capture from forests from 5.5 million tCO₂eq, in 2011, to 11.1 million tCO₂eq, in 2025</td>
<td>7.25 million tCO₂eq sequestered in 2015</td>
</tr>
<tr>
<td>Protecting biodiversity</td>
<td>Promote environmental restoration of 40,000 hectares of Fibria’s own areas between 2012 and 2025.</td>
<td>13,885 hectares in 2015</td>
</tr>
<tr>
<td>Increasing eco-efficiency (including waste management)</td>
<td>Reduce by 91% the volume of industrial solid waste disposed in own or third-party landfills</td>
<td>44.7% reduction in 2015</td>
</tr>
</tbody>
</table>

The intention to develop in 2016 water goals is also seen positively by Sustainalytics in the context of the use of proceeds for Fibria’s Green Bond.

Given Fibria’s strong sustainability strategy, and alignment of the framework to support progress on Fibria’s sustainability goals, Sustainalytics is of the opinion that the company is well positioned to issue a green bond.
**Well positioned to mitigate key environmental and social risks from eligible projects**

Sustainalytics recognizes that the eligible projects defined in Fibria’s Green Bond Framework are exposed to environmental risks specific to the Brazilian context. Eucalyptus plantations are a fast way of generating wood fibers, but have been criticized for their negative impact on water resources and biodiversity. An additional concern is the use of genetically-modified (GM) seedlings in eucalyptus plantations, given that the potential negative impacts of GM trees are not yet fully understood. While FSC and PEFC are both based on rigorous standards and are aligned with international norms, PEFC has faced certain criticisms from civil society organizations (see Appendix 2 for details). However, Sustainalytics is of the opinion that Fibria is well positioned to mitigate these environmental and social risks, based on:

(i) **Fibria’s environmental impact plan to mitigate the negative impacts of Eucalyptus plantations**

This environmental impact plan includes several activities that alleviate the negative impacts associated with Eucalyptus plantations. Such activities include: (a) Formation of forest mosaics that alternate eucalyptus plantations with native vegetation. For each two hectares of planted forest, one hectare of natural area is preserved; (b) Restoration processes and improvement of conservation areas; (c) Development of measures that reduce negative impacts associated with forest operations; (d) Monitoring of the impacts of its operations to effectively utilise corrective actions.

(ii) **Fibria’s transparent and conservative approach to the introduction of GM seedlings**

Fibria maintains a detailed policy on the use of GM eucalyptus. Fibria is involved in research and development in this area, but the company has no commercial plantations with GM trees. Fibria states that it is committed to holding stakeholder dialogues with the scientific and social communities to investigate the potential economic, social, environmental and biosafety aspects of GM plantations. Additionally, Fibria has committed that no bond proceeds will be allocated to GM eucalyptus related activities.

(iii) **Double certification (FSC and PEFC) of a majority of Fibria forests**

Fibria reports that the majority of its forests have both FSC and PEFC certification, lessening the risk of proceeds being directed towards exclusively PEFC-certified forests, which has faced criticisms from civil society organizations. See Appendix 2 for Sustainalytics’ assessment of the relative strengths and weaknesses of FSC and PEFC certifications. Sustainalytics’ is of the opinion that Fibria should keep striving to maintain FSC certification for the majority of its forests, to ensure alignment with international best practices.

Additionally, Sustainalytics has reviewed Fibria and its operations, and has found no evidence of major environmental or social controversies. Given that the company is not involved in major controversies, its environmental impact plan to mitigate negative impacts of eucalyptus, its detailed policy on the use of GM eucalyptus, and its double certified forests, Sustainalytics believes that Fibria is well positioned to mitigate common environmental risks from eligible projects.
Sustainalytics’ Opinion on Fibria’s Green Bond Framework

Importance of sustainable forest management and restoration of forests in Brazil

Sustainalytics is of the opinion that Fibria’s green bond framework is impactful, and contributes to mitigating GHG emissions from the Agriculture, Forestry, and Land Use sector (AFOLU), specifically in the Brazilian context. Sustainalytics is of the opinion that forest-dependent companies like Fibria are key contributors to progress Brazil’s ambitions to reduce forest degradation/deforestation and to reduce GHG emissions from the AFOLU sector.

Land use change and forest degradation/deforestation is the main source of GHG emissions in Brazil, accounting for nearly 55% of country’s total emissions⁶. This highlights the need for sustainable forest management and restoration of forests in Brazil, and forest-based companies have an important role to play in this regard.

Specifically, with respect to Fibria, managing forests sustainably in line with standards of international certifications directly addresses concerns of forest degradation. Fibria is contributing to reducing GHG emissions from the AFOLU sector through carbon sequestration, as described in the section below.

Contribution of Fibria’s green bond framework in mitigating GHG emissions

The contribution of sustainable forest management and restoration of forests to reducing forest degradation/deforestation and mitigating GHG emissions from the AFOLU sector is supported by the IPCC. The IPCC has identified three primary strategies⁷ to achieve mitigation of GHG emissions in the AFOLU sector:

(i) Reduction/prevention of emissions to the atmosphere by conserving existing carbon pools in soils or vegetation that would otherwise be lost or by reducing emissions of methane and other GHG
(ii) Sequestration—enhancing the uptake of carbon in terrestrial reservoirs, and thereby removing carbon dioxide from the atmosphere
(iii) Reducing CO₂ emissions by substituting fossil fuels or energy-intensive products for biological products

Of these three, sustainable forest management and restoration of forests contributes to reducing forest degradation/deforestation and GHG emissions mitigation through increasing forest cover and carbon sequestration. Specifically, Fibria’s green bond framework directs proceeds towards (ii) carbon sequestration and (iii) substitution of fossil fuels for biological products. For example, sustainable management of eucalyptus plantations will allow for an increase in carbon sequestration when converting pastureland to forest, as will restoring native forest cover from degraded land.

Given this alignment of the Fibria green bond framework with recognized GHG emissions mitigation strategies, the strength of Fibria’s sustainability strategy, its set carbon sequestration targets, and its robust processes to mitigate environmental and social risks, Sustainalytics is of the opinion that Fibria’s

---

green bond framework has a clear impact on climate change mitigation, and is aligned with Brazil’s national efforts in this area.

**Inclusion of Operational Expenditures (OPEX)**
Sustainalytics recognizes that the use of proceeds will be allocated to OPEX (operational expenditures) that is specific to eligible projects. Given the nature of the projects, Sustainalytics believes that OPEX will be important to maintain projects and will contribute to sustaining positive environmental impacts.

**Alignment with Green Bond Principles**
Sustainalytics has determined that Fibria’s Green Bond Framework aligns with the four pillars of the ICMA Green Bond Principles 2016. See Appendix 3 for details.

**Conclusion**
Through its green bond, Fibria aims to invest in projects that improve its environmental performance. In alignment with Fibria’s sustainability strategy and long-term sustainability goals, the green bond’s proceeds will be allocated to projects focusing on: 1) sustainable forest management, 2) restoration of native forests and conservation of biodiversity, 3) waste management, 4) sustainable water management, and 5) generation of energy from renewable sources. Sustainalytics is of the opinion that eligible projects will have a clear impact on climate change mitigation, and will contribute to achieving long-term goals identified in Fibria’s overall sustainability strategy. The company’s approach to selecting projects and managing green bonds proceeds is credible, and its reporting on the use of proceeds, with key performance indicators that capture environmental impact, is transparent.

Based on the above points, Sustainalytics considers Fibria’s Green Bond to be robust and credible.
APPENDICES

Appendix 1: Documents Reviewed
Sustainalytics reviewed the following documents for the purposes of writing this report

<table>
<thead>
<tr>
<th>Number</th>
<th>Document Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fibria’s website – accessed October 2016</td>
</tr>
<tr>
<td>2</td>
<td>Sustainability Policy</td>
</tr>
<tr>
<td>3</td>
<td>Risk Management Policy</td>
</tr>
<tr>
<td>4</td>
<td>Corporate Governance Policy</td>
</tr>
<tr>
<td>5</td>
<td>Statutes of the Sustainability Committee</td>
</tr>
<tr>
<td>6</td>
<td>2015 Sustainability Report</td>
</tr>
<tr>
<td>7</td>
<td>Code of Conduct</td>
</tr>
<tr>
<td>8</td>
<td>Greenhouse Gas Inventory report and Verification statement</td>
</tr>
<tr>
<td>9</td>
<td>FSC certification summaries</td>
</tr>
<tr>
<td>10</td>
<td>PEFC certification summaries</td>
</tr>
<tr>
<td>11</td>
<td>Summary of the forest management plans</td>
</tr>
<tr>
<td>12</td>
<td>Fibria’s answers to BM&amp;FBOVESPA’s Corporate Sustainability Index</td>
</tr>
<tr>
<td>13</td>
<td>Investor Tour 2016 Materials</td>
</tr>
<tr>
<td>14</td>
<td>Policy on Fibria’s genetically modified eucalyptus (GM Eucalyptus)</td>
</tr>
</tbody>
</table>
Appendix 2: Sustainalytics’ Analysis of FSC and Cerflor (PEFC) Certifications

FSC and PEFC are both based on rigorous standards and on a multi-stakeholder structure. Both organizations are in line with international norms such as the International Labor Organization (ILO) conventions, the Convention on Biological Diversity (CBD), and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). In addition to compliance with laws in the country of certification, both schemes have a set of minimum requirements that companies are required to meet to obtain and maintain certifications. These requirements include compliance with standards around sustainable management of forests, management of environmental impact of operations, preservation of biodiversity, management of socio-economic and community relations, and sourcing of sustainable wood (chain of custody). Furthermore, both FSC and PEFC require external annual audits to ensure compliance, and achieve and maintain certification.

Despite these similarities, PEFC has faced certain criticisms from civil society actors. These are highlighted below:

i. **Type of organization**: Since the FSC is an international labeling and certification system, it sets its own global standards. The PEFC, in contrast, is not a standard setter, but a mutual recognition scheme. The PEFC sets sustainability benchmarks according to international norms, and endorses national certification schemes that comply with these benchmarks. A common criticism of this model is that it allows for more flexibility in the interpretation of international PEFC benchmarks as per regional, cultural, and socio-economic context, and results in the endorsement of less rigorous national certification schemes. However, the process for being endorsed by the PEFC is thorough; any national certification system seeking to obtain PEFC endorsement must submit to a comprehensive assessment process, including independent evaluation and public consultation. This evaluation of compliance with international PEFC benchmarks is carried out by independent, accredited certification organizations.

ii. **Indigenous People’s Rights**: FSC and PEFC both identify indigenous rights as an important standard in forest management. Both certification schemes require that forest management activities consider and do not infringe on indigenous people’s rights, and the activities are carried out using frameworks ensuring their free and informed consent. A criticism of PEFC is that it requires only engagement with indigenous people in forest management decisions, while the FSC provides performance-oriented targets, and requires forest managers operating on indigenous lands to obtain indigenous people’s consent through binding agreements.

iii. **Sourcing wood from non-certified sources**: Both FSC and the PEFC have established standards around sourcing wood from non-certified and controversial sources. FSC’s standards direct forest managers to avoid wood harvested in violation of traditional and civil rights. A criticism of the comparable PEFC standard is that it limits identification of controversially sourced wood to situations where the local legislation is violated. However, PEFC standards explicitly reference the violation of local, national, and international legislation with regards to worker’s and indigenous people’s rights as being a controversial source of wood.
Appendix 3: Green Bond/Green Bond Programme External Review Form

Green Bond / Green Bond Programme
External Review Form

Section 1. Basic Information

Issuer name: Fibria Overseas Finance Ltd., with the corporate guarantee of Fibria Celulose S.A.

Green Bond ISIN or Issuer Green Bond Framework Name, if applicable:

Review provider’s name: Sustainalytics

Completion date of this form: November 7th, 2016

Publication date of review publication:

Section 2. Review overview

SCOPE OF REVIEW

The review assessed the following elements and confirmed their alignment with the GBPs:

☒ Use of Proceeds  ☒ Process for Project Evaluation and Selection
☒ Management of Proceeds  ☒ Reporting

ROLE(S) OF REVIEW PROVIDER

☒ Consultancy (incl. 2nd opinion)  ☐ Certification
☐ Verification  ☐ Rating
☐ Other (please specify):

Note: In case of multiple reviews / different providers, please provide separate forms for each review.

EXECUTIVE SUMMARY OF REVIEW and/or LINK TO FULL REVIEW (if applicable)
Section 3. Detailed review

1. USE OF PROCEEDS

Overall comment on section (if applicable):
Sustainalytics is of the opinion that the eligibility criteria described in this framework will ensure clear environmental benefits with respect to climate change mitigation, specifically in the Brazilian context. Sustainalytics considers the eligibility criteria for the use of proceeds to be credible. Based on its review, Sustainalytics is of the opinion that by funding eligible projects, Fibria will contribute to GHG emissions reduction through carbon sequestration and substitution of biomass for fossil fuels. Additionally, Fibria’s Green Bond Framework also has clear environmental impact through resource conservation and waste management.

Use of proceeds categories as per GBP:

☑ Renewable energy
☐ Energy efficiency
☐ Pollution prevention and control
☒ Sustainable management of living natural resources
☒ Terrestrial and aquatic biodiversity conservation
☐ Clean transportation
☒ Sustainable water management
☐ Climate change adaptation
☒ Eco-efficient products, production technologies and processes
☒ Other (please specify): waste management by reduction and reuse of waste
☐ Unknown at issuance but currently expected to conform with GBP categories, or other eligible areas not yet stated in GBPs

If applicable please specify the environmental taxonomy, if other than GBPs:
2. PROCESS FOR PROJECT EVALUATION AND SELECTION

Overall comment on section (if applicable):
Projects are selected for funding through bond proceeds based on compliance with the eligibility criteria. Fibria has established a green bond specific sustainability team to evaluate projects on compliance with eligibility criteria. Sustainalytics is of the opinion that the process to select eligible projects for funding through green bond issuances is transparent and robust.

Evaluation and selection
- Defined and transparent criteria for projects eligible for Green Bond proceeds
- Documented process to determine that projects fit within defined categories
- Summary criteria for project evaluation and selection publicly available

Information on Responsibilities and Accountability
- Evaluation / Selection criteria subject to external advice or verification
- In-house assessment
- Other (please specify):

3. MANAGEMENT OF PROCEEDS

Overall comment on section (if applicable):
Fibria’s finance department has sufficient oversight over the management of proceeds. The finance team will use internal management systems to track the allocation of proceeds to such projects through spreadsheets, including brief descriptions of the projects, the regions in which the projects are located, and the amount of proceeds allocated to the projects. This is in line with industry norms.

Tracking of proceeds:
- Green Bond proceeds segregated or tracked by the issuer in a systematic manner
- Disclosure of intended types of temporary investment instruments for unallocated proceeds
- Other (please specify):

Additional disclosure:
- Allocations to future investments only
- Allocations to both existing and future investments
- Allocation to individual disbursements
- Allocation to a portfolio of disbursements
Disclosure of portfolio balance of unallocated proceeds  ☐  Other (please specify):

4. REPORTING

Overall comment on section (if applicable):
Fibria will provide allocation reporting on a project portfolio basis, annually until proceeds are fully allocated. Fibria has also committed to reporting the impact of use of proceeds on a project portfolio basis, where relevant and feasible. Impact reporting will be disclosed when feasible. All allocation and impact reporting will be disclosed publically on the Fibria website. This is in line with industry norms.

Use of proceeds reporting:
☐ Project-by-project  ☒  On a project portfolio basis
☐ Linkage to individual bond(s)  ☐  Other (please specify):

Information reported:
☒ Allocated amounts
☐ GB financed share of total investment  ☐  Other (please specify):

Frequency:
☒ Annual
☐ Semi-annual  ☐  Other (please specify):

Impact reporting:
☐ Project-by-project  ☒  On a project portfolio basis
☐ Linkage to individual bond(s)  ☐  Other (please specify):

Frequency:
☐ Annual  ☐  Semi-annual
☒ Other (please specify): When feasible

Information reported (expected or ex-post):
☐ GHG Emissions / Savings:
☒ Other ESG indicators (please specify): Carbon sequestered tCO₂eq/adt, water savings, tons of waste reduced, energy generated from waste biomass (MwH). See Table 1 in framework for full list of KPIs.

☐ Energy Savings
Means of Disclosure

☐ Information published in financial report
☐ Information published in sustainability report
☐ Information published in ad hoc documents
☒ Other (please specify): Information will be made publically available on website

Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review):
Allocation reporting subject to external verification

Where appropriate, please specify name and date of publication in the useful links section.

USEFUL LINKS

SPECIFY OTHER EXTERNAL REVIEWS AVAILABLE, IF APPROPRIATE

Type(s) of Review provided:

☐ Consultancy (incl. 2nd opinion)
☐ Certification:
☐ Verification / Audit: Verification for CBI certification
☐ Rating
☐ Other (please specify):

Review provider(s): Date of publication:

ABOUT ROLE(S) OF REVIEW PROVIDERS AS DEFINED BY THE GBP

(i) Consultant Review: An issuer can seek advice from consultants and/or institutions with recognized expertise in environmental sustainability or other aspects of the issuance of a Green Bond, such as the establishment/review of an issuer’s Green Bond framework. “Second opinions” may fall into this category.

(ii) Verification: An issuer can have its Green Bond, associated Green Bond framework, or underlying assets independently verified by qualified parties, such as auditors. In contrast to certification, verification may focus on alignment with internal standards or claims made by the issuer. Evaluation of the environmentally sustainable features of underlying assets may be termed verification and may reference external criteria.

(iii) Certification: An issuer can have its Green Bond or associated Green Bond framework or Use of Proceeds certified against an external green assessment standard. An assessment standard defines criteria, and alignment with such criteria is tested by qualified third parties / certifiers.

(iv) Rating: An issuer can have its Green Bond or associated Green Bond framework rated by qualified third parties, such as specialised research providers or rating agencies. Green Bond ratings are separate from an issuer’s ESG rating as they typically apply to individual securities or Green Bond frameworks / programmes.
Disclaimer
All rights reserved. No part of this second party opinion (the “Opinion”) may be reproduced, transmitted or published in any form or by any means without the prior written permission of Sustainalytics.

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.

As the Opinion is based on information made available by the client, Sustainalytics does not warrant that the information presented in this Opinion is complete, accurate or up to date.

Nothing contained in this Opinion shall be construed as to make a representation or warranty, express or implied, regarding the advisability to invest in or include companies in investable universes and/or portfolios. Furthermore, this Opinion shall in no event be interpreted and construed as an assessment of the economic performance and credit worthiness of the bond, nor to have focused on the effective allocation of the funds’ use of proceeds.

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

Sustainalytics is the largest independent provider of sustainability research, analysis, and services to investors. We serve over 250 institutional investors which include some of the world’s largest asset owners and asset managers. Through over 20 years of experience serving the responsible investment (RI) market, we have gained a reputation for providing high-quality ESG research solutions and excellent client service.

Sustainalytics is headed by seasoned professionals in the field of business, finance, and sustainability, with a wealth of experience in the Responsible Investment area. After more than 20 years of local experience and expertise in the Responsible Investment (RI) market, Sustainalytics has developed a comprehensive understanding of trends and best practices and a solid process to assist organisations in integrating ESG considerations into their policies and strategies. We have worked with some of the world’s financial institutions including pension plans, investment managers and banks providing customised support to help them achieve their RI objectives. Clients include ABN AMRO, APG, BBVA, BNP Paribas, Deutsche Bank, ING Bank, Lombard Odier, Lloyds Bank, Triodos Bank, UBS and over 250 other financial institutions and organisations.

Sustainalytics now has a staff of 250 employees globally, including over 120 analysts, with operations in Amsterdam, Boston, Bucharest, Frankfurt, New York, Paris, London, Singapore, Sydney, Timisoara, and Toronto, and representation in Brussels and Washington DC.

In 2015, Sustainalytics was named the Best SRI or Green Bond Research Firm by GlobalCapital. In December 2014, for the third year in a row, Sustainalytics was named best sustainable and responsible investment research firm in the Independent Research in Responsible Investment (IRRI) Survey, conducted by Thomson Reuters and SRI-CONNECT.