Environmental Paper Network

INDUSTRIAL TREE PLANTATIONS AND GREEN BONDS

The Green Bond Series

Episode 2: UPM-Kymmene Corporation

INDUSTRIAL TREE PLANTATIONS AND GREEN BONDS

The Green Bond Series

Episode 2: UPM-Kymmene Corporation

The Environmental Paper Network Report

Authors: Merel van der Mark, Sergio Baffoni & Karen Vermeer
Contact: karen@environmentalpaper.org
Cover photo: Gustavo Frazao, Shutterstock

June 2021

Acknowledgements: the authors would like to thank Ana Filippini, Víctor L. Bacchetta, Otto Miettinen, Wolfgang Kuhlmann, and members of the EPN Pulpfinance working group for their input and support.

This report is part of a series of reports on Green Bonds in the pulp and paper industry. In May 2019, the EPN published an investor briefing on Green Bonds and industrial tree plantations, including a case study on Brazil.

The Environmental Paper Network (EPN) is a world-wide network of over 140 civil society organisations working together towards the *Global Paper Vision*. The common goal is to create transformational change in the pulp and paper industry and wider society, so that paper production and use contributes to a clean, healthy, just and sustainable future for life on earth.
https://environmentalpaper.org/
https://twitter.com/WhatsNYourPapr

Introduction

In the past months, UPM-Kymmene Corporation (UPM) - a Finnish pulp and paper, timber and energy company with operations across the globe - applied for the listing of its first and second *green bond* to the Irish Stock Exchange, Euronext Dublin. The two green bonds have a total worth of EUR 1250 million.[1] A green bond is a bond earmarked for climate and environmental projects, and should have positive impacts on these two.

Citigroup, BNP Paribas, Nordea and JP Morgan acted as lead arrangers and joint book runners for the EUR 750 million bond issuance, while the EUR 500 million green bond saw Citigroup, BNP Paribas, Danske Bank and Nordea as lead arrangers and joint bookrunners.[2] Both listings are part of the company's Euro Medium Term Note (EMTN) programme and its Green Finance Framework, which could add up to EUR 3 billion in the future.[3]

In this report, the Environmental Paper Network (EPN) provides a case study on the UPM green bonds (part 2), and the expected lack of added value in protecting the global climate and the environment.

Before the EPN dives into the UPM green bonds however, the risks and opportunities of green bonds in the forestry sector in general will be analysed (part 1).

EPN published an investor briefing on industrial tree plantations and green bonds in 2019.[4] This document is a sequel, and the EPN intends to publish more case studies in the future as the green bond market keeps expanding.

[1] Stock Exchange Release UPM, 18 November 2020, *UPM has applied for the listing of its first green bond to Euronext Dublin*. See: https://www.upm.com/about-us/for-media/releases/2020/11/upm-has-applied-for-the-listing-of-its-first-green-bond-to-euronext-dublin/

[2] Investor News UPM, 15 March 2021, *UMP issues its second green bond*. See: https://www.upm.com/about-us/for-media/releases/2021/03/upm-issues-its-second-green-bond/

[3] Please see here for more details on the EMTN programme, Green Finance Framework and base prospectus of both green bonds: https://www.upm.com/investors/upm-as-an-investment/debt/

[4] EPN, May 2019, *Industrial tree plantations and Green Bonds*. See: https://environmentalpaper.org/wp-content/uploads/2019/05/EPN-2019-Industrial-tree-plantations-and-green-bonds.pdf

PART 1: The issue with green bonds for pulp and paper producers

Uncertainties in certifying green bonds

A green bond is a bond earmarked for climate and environmental projects. These bonds are typically asset-linked and backed by the issuer's balance sheet, and are also referred to as climate bonds.

When is a bond called "green"? **There is not a universally recognized standard, and the issuers mark their own bond as "green".**

At a minimum, the issuers of a green bond themselves provide details on the green eligibility criteria for the use of proceeds, which are, for example, disclosed in a green bond framework. For more transparency, issuers can commission an external review on the green credentials of the use of proceeds.

To increase credibility, some voluntary standards have been developed in recent years, which issuers can apply to their green bonds. However, the generally weak criteria of these standards and the poor disclosure requirements raise the question of whether these self-labelled bonds can credibly claim that they will have a positive impact on the environment and/or the climate. It also raises the question of whether they can fulfil their promise of catalysing positive change by providing new and additional funds to stimulate additional green projects.

As a result, there are no specific, universally applied green bonds standards or criteria. Moreover, so far only sector-driven initiatives based on reviewed self-declaration have been available. Please see the text box for an overview of the development of different standards.

Green bonds & industrial tree plantations

In May 2019, the EPN published a discussion paper on green bonds in the pulp and paper industry, *Industrial Tree Plantations and Green Bonds*. The briefing analysed green bonds issued by the Brazilian paper company Fibria, now merged with Suzano into a global paper giant. It challenged the ecological added value of the green bonds issued by Fibria and the dubious calculation of CO2 savings adopted by this company. There are a number of issues with green bonds for the pulp and paper sector that were identified in that report, but that applies to other cases as well.

DEVELOPMENT OF DIFFERENT CERTIFICATION STANDARDS

2007: The European Investment Bank and the World Bank developed a framework for green bonds eligibility, with a third-party review by Cicero (Center for International Climate Research). See here: https://www.cicero.oslo.no/en

2011: The "*Climate Bond Standards*" was developed by the Climate Bonds Initiative (CBI). The CBI still lacks key criteria, such as the requirement to provide full emission calculations.

2014: The *Green Bond Principles* were released by the International Capital Market Association. However, this is a sector-driven association, and its Principles are general and do not take into account the peculiarities of investing in plantations or forests.

As part of its plan to develop a green financial system, various Chinese regulators have also been rolling out national green bond guidelines over the past few years. In 2018, China's Green Finance committee partnered with the European Investment Bank (EIB) to harmonise its green bond standards.

In 2018, CBI published its forestry criteria, which rely heavily on certification systems FSC or PEFC as proxies for due diligence and sustainability.

Also in 2018, the EU announced its plans to develop a EU green bond label by 2019. In March 2020, the Technical Expert Group published a proposal for an EU green bond standard (EU GBS), suggesting to link the EU GBS to the EU Sustainable Taxonomy. In April, the European Commission released the final EU Taxonomy Climate Delegated Act However, the regulation is heavily criticised on its forestry criteria. The EU Parliament has yet to approve the legislation, and the forestry criteria - in theory - could still change after the adoption of the EU Forest Strategy and the revision of the Renewable Energy Directive II, both expected in June 2021. At an international level, the International Organisation for Standardisation (ISO) is formulating Green Bonds Criteria, which were expected to be published in 2020. As of June 2021, they have not yet been published.

Lack of credible standards

At the moment there are no credible standards, nor an agreed methodology to assure that green bonds based on forestry operations are really 'green' as promised. Several of the bonds that were issued by companies from the pulp and paper sector received a second party opinion by Sustainalytics which confirmed their alignment with the International Capital Market Association's (ICMA) Green Bond Principles.[5] However, as explained in the text box on the previous page, these Principles are general and do not take into account the peculiarities of investing in industrial tree plantations or forests.

CASE STUDY: BRAZIL

Between 2016 and 2017, three large pulp and paper companies issued green bonds in Brazil which were largely used to finance the maintenance of their large scale tree plantations.

The case study analysis found that the ecological added value of the green bonds issued by Fibria, Suzano and Klabin is very limited. The likely overestimated calculation of CO2 savings and intensive research into genetically modified trees indicate that the company is not engaged in any kind of environmental reorientation of its business activities. Instead, significant amounts of the green bonds were used to finance those parts of pulp producer's normal business operations that are deemed less environmentally destructive because they are FSC-certified. This does not initiate a change towards a sustainable economy, nor does it provide additionality.

Lack of additionality

By labelling a bond - used in the forestry sector - as 'green', the issuer is commercialising a product claiming performances in mitigating climate change or protecting biodiversity, compared to a *'business as usual*' scenario.

Forestry activity eligible for green bond funding should therefore be able to demonstrate that the amount of carbon stored in a forest will not only be maintained, but will be improved over time. This can only be achieved if the annual harvest is less than the annual increment. Furthermore, performances should be demonstrable according to robust criteria and indicators in order to guarantee that the projects that are certified do indeed have an environmental/climate additionality.

At the moment, none of this is happening.

Lack of permanence

Industrial tree plantations are seen by some as a climate solution and therefore identified as eligible for a green bond, as trees store carbon. However, the carbon they have captured is released again after the trees are harvested and transformed into products like paper or biomass chips/pellets. Part of the wood is immediately burned to generate electricity for the pulp production process, as the pulp industry is one of the most energy intensive industries.[6]

The other part of the wood is transformed into consumer products, which mostly are burned, incinerated or land filled within 2 to 3 years (actually, many end up in the trash after a few hours being used by the final consumer, like packaging, tissue and much graphic paper).[7] [8] While

[5] Sustainalytics 2017, *CMPC external review*. See: https://www.icmagroup.org/Emails/icma-vcards/CMPC-External%20review%20Report.pdf,%20accessed%20on%2029-1-2019%20Sustainalytics%202017
Fibria Green Bond, accessed on 29-1-2019. See: https://www.icmagroup.org/Emails/icma-vcards/Fibria_External%20Review%20Report.pdf
Sustainalytics 2017, Klabin Green Bond, accessed on 29-1-2019. See: https://www.icmagroup.org/Emails/icma-vcards/Klabin_External%20Review%20Report.pdf
Sustainalytics 2017, Suzano Papel e Celulose AS Green Bond, accessed on 29-1-2019. See: https://www.icmagroup.org/Emails/icma-vcards/Suzano_External%20Review%20Report.pdf

[6] USA Environmental Protection Agency, 2011, *Energy Transition for Industry: India and the Global Context*. See: http://re.indiaenvironmentportal.org.in/files/india_industry_transition.pdf.

[7] Please see the EPN Biomass Info Library FAQ for more explanation about the carbon emissions of biomass, at: https://environmentalpaper.org/biomass-faq/

[8] While it is obvious that packaging and tissue products are discarded in the very moment of their use, also graphic papers follow the same destiny: a behavioural research for the printer manufacturer Xerox found office workers throw away 45 per cent of everything they print within a day, equivalent to more than a trillion pages every year. Paul Smith, a laboratory manager at Xerox's

some wood products do store a portion of their carbon in long-term carbon 'pools,' for paper products this is mostly not the case.[9] When disposed in landfills, paper produces methane, a greenhouse gas much more powerful than CO2.

Further, industrial tree plantations may result in **direct or indirect land use change**, either because forests are cut to establish the plantations, or because they push out other actors that can drive deforestation in their search for new land.[10] They can cause **land conflicts** as plantations are often established in community lands and/or because local farmers and communities lose access to land for their livelihoods.[11] Even where they are not directly linked to land-grabbing, the industrial tree plantations likely cause **loss of livelihoods**. People will lose access to land to produce their livelihoods, but at the same time, the sector creates far fewer jobs than other land uses. It is therefore not surprising that in many regions it is linked to **poverty and lower development indices**.[12]

They can also **negatively impact water quality and availability**, as industrial plantations trees, like eucalyptus, use vast amounts of water. This in turn heavily impacts local water availability.[13] [14] Industrial tree plantations also require large amounts of fertilizers and pesticides, which can leach into waterways and pollute the water. Lastly, biodiversity is impacted when large portions of land are occupied by low biodiversity plantations.

The counterfactual of restoring the natural vegetation generally creates a much bigger carbon sink, while it also benefits biodiversity and ecosystem services.[15] Protecting and restoring natural forests is the best way to address climate change.[16]

Opportunities and challenges of green bonds

The Paris Climate Agreement calls for a comprehensive redirection of financial flows. This could be achieved by measures leading to a meaningful reduction of paper consumption and an increase in reuse and recycling.

Green bonds may be an excellent opportunity to put together the growing demand for ethical investment and

research centre in Toronto, Canada, said: "some people use what they've printed only for a minute".
The Guardian, October 2007 at:
https://www.theguardian.com/money/2007/oct/14/workandcareers.news.

[9] Smith, James, et al. "*Methods for Calculating Forest Ecosystem and Harvested Carbon with Standard Estimates for Forest Types of the United States*." US Forest Service, General Technical Report NE-343, 2007.

[10] EPN, September 2020, *Two sides of the same coin: How the pulp and paper industry is profiting from deforestation in the Amazon rainforest.* See: https://environmentalpaper.org/2020/09/two-sides-of-the-same-coin-how-the-pulp-and-paper-industry-is-profiting-from-deforestation-in-the-amazon-rainforest/

[11] Please see the EPN's report on social conflicts in APP and APRIL concessions: https://environmentalpaper.org/2019/12/conflicts-plantations-two-new-investigative-research-reports-from-indonesia/

[12] EPN, May 2019, *Industrial Tree Plantations and Green Bonds: Investor Briefing.* See: https://environmentalpaper.org/wp-content/uploads/2019/05/EPN-2019-Industrial-tree-plantations-and-green-bonds.pdf
EPN, 2020, *Development Funds dissolving in pulp*. See: https://environmentalpaper.org/wp-content/uploads/2020/04/Development-funds-dissolving-in-pulp-April2020-1.pdf

[13] Farley Kathleen et al., October 2005, *Effects of Afforestation on Water Yield: A Global Synthesis With Implications for Policy*. The study concludes that Eucalyptus sp. plantations cause a reduction of 75% of annual water runoff, compared with the previous grasslands ecosystem they replaced. See: https://www.researchgate.net/publication/227862602_Effects_of_Afforestation_on_Water_Yield_A_Global_Synthesis_With_Implications_for_Policy

[14] Nosetto, Marcelo D. et al., July 2005, *Land-use change and water losses: the case of grassland afforestation across a soil textural gradient in central Argentina*. The study carried out in the same environment, but on the Argentinian side of the border, noted that in Eucalyptus sp. plantations water evaporation is on average 80% higher than in grasslands.

[15] Lewis, S., et al (2019). Restoring natural forests is the best way to remove atmospheric carbon. Nature 02 April 2019.

[16] Nature, April 2019, *Restoring natural forests is the best way to remove atmospheric carbon*.
IUCN briefing on Forest & Climate Change:
https://www.iucn.org/resources/issues-briefs/forests-and-climate-change
WWF's overview on Forest habitat:
https://www.worldwildlife.org/habitats/forest-habitat

the huge environmental challenges the world is facing. In theory, they can attract resources otherwise unavailable for making changes on the ground, and they can finance the implementation of projects that contribute to a better environment and climate. But this can only work if the green bonds can provide additionalities, both financially and ecologically.

Financial additionality is achieved when green bonds can mobilise more funds for green projects than standard bonds would. Whether this actually happens, especially for forest and plantation projects, remains to be seen - especially where green bonds are used for '*business as usual*' industrial tree plantations. Questions about the lack of financial additionality are also raised in a report from the 2° Investing Initiative, which states that there is currently a lack of evidence to conclude that "Use-of-Proceeds green bonds contribute – or can contribute without further enhancement – to scaling up the investments in green projects."[17]

Ecological additionality is achieved when the projects that are financed through green bonds have an additional positive impact on the environment and/or the climate, compared to a baseline *'business as usual'* scenario. In the case of Fibria (Suzano), the EPN showed that this does not hold true. The proceeds were used predominantly for the management of existing industrial tree plantations, without any additionality regarding increased carbon stocks or improved forest management.

The EU's High Level Expert Group on sustainable finance already expressed "*doubts on the additionality of certain green projects and their impact, as well as concerns that green bonds have in some cases merely been used to re-label existing investments*", and it stressed the "*insufficient disclosure and data on how green bonds lead to the scaling up of investments in green projects and activities*".[18] These concerns are also repeated in a report by the 2° Investing Initiative, which suggests that the assessment of all bond issuers against climate targets might be more effective than issuing green bonds.[19]

If green bond investors cannot be confident that funds will support practices that go beyond *'business as usual*', investments will dry up. The lack of a robust system that can promote excellence and exclude disputable projects puts the whole concept of green bonds at risk. Projects with disputable assumptions, weak accounting and a lack of transparency represent a high reputational risk for the whole system, which could end green bonds' role as a tool for ethical investment.

Standardization bodies, like the International Capital Market Association (ICMA), the Climate Bonds Initiative (CBI) and the European Commission must therefore ensure their green bonds standards are robust enough to guarantee additionality and human rights are taken into account.

Cherry picking & green washing

If applied in the correct manner and with proper standards, green bonds could be used to finance a company's facilities and activities that actually lead to ESG improvements. Green bonds also provide the opportunity to improve a company as a whole, when one of the requirements for issuing green bonds is the overall sustainability performance of the entire company.

However, if at the same time a company is causing severe ESG impacts as a result of activities that are not part of the green bond, the overall impact of the green bond should be questioned. Considering the fungible nature of money, it can even be argued that the green bond enables a company to free up money in one place and

[17] 2° Investing Initiative, 2018, *Shooting for the moon in a hot air balloon?* See: https://2degrees-investing.org/wp-content/%20uploads/2018/10/Green-bonds-updated-paper-Oct-2018.pdf,%20accessed%20on%2028-1-2019%20;%20https:/www.iso.org/standard/75559.html

[18] EU High Level Expert Group on Sustainable Finance, 2018, *Financing a sustainable European economy*. See: https://ec.europa.eu/info/sites/info/files/180131-sustainable-finance-final-report_en.pdf

[19] Ibid, p. 7

use it for other – damaging – activities somewhere else. In the end, a company could then still be causing severe impacts and the green bond will be a way to greenwash a company's image.

The EPN therefore argues that it is important to assess the overall performance of a company issuing a green bond, ensuring the entire company complies with minimum environmental and social sustainability criteria.

PART 2: UPM-Kymmene

In November 2020, UPM-Kymmene Corporation (UPM) applied for the listing of its first ever green bond of EUR 750 million, followed by issuing a EUR 500 million green bond on 15 March this year.[20] [21] Both listings are part of the company's Euro Medium Term Note (EMTN) programme and its Green Finance Framework, which could add up to EUR 3 billion in the future.[22] This indicates that UPM could issue more green bonds, as EUR 1750 million of the 3 billion is not yet financed.

Citigroup, BNP Paribas, Danske Bank, Nordea and JP Morgan are mentioned in the base prospectus of the two green bonds, and in the press release, as lead arrangers and joint bookrunners.

UPM is a Finnish pulp and paper, timber and energy company with operations across the globe. In Uruguay, the company is constructing a pulp mill in Paso de los Toros, which has been subject to critics of many national and international organisations because of the expected social and environmental impacts and legality issues surrounding the contract that UPM signed with Uruguay.[23]

Although UPM states its commitment to transparency,[24] it has not yet provided much transparency about the two green bonds. A review (second opinion) on the Green Finance Framework by Cicero (Center for International Climate Research, Norway's institute for interdisciplinary climate research[25]) has been published. Although Cicero verified that the assets and investments of the green bond issuances are described as in line with the ICMA Green Bond Principles, it still only provides very general information on the use of proceeds.[26] [27]

Cicero's second opinion indicates that only specific facilities will be eligible for using the proceeds of the green bond. However, it lacks details about the 53

UPM-KYMMENE COMPANY PROFILE

UPM is a Finnish company which operates in the sectors of pulp and paper, timber and energy. It was created in 1996 from the merger of Kymmene with Repola Ltd and its subsidiary United Paper Mills.

It subsequently expanded its operations to China and Uruguay, among others. It now owns four pulp mills with a total pulp capacity of 3.7 million tonnes. Three of these mills are located in Finland, and one in Uruguay (Botnia), with plans for another mill in Paso de los Toros. UPM has pulp mills, paper mills and plywood mills in Austria, Estonia, Finland, France, Germany, UK, Russia, Uruguay and in the USA. In China the company owns the Changsu paper mill. UPM also owns 574,000 hectares of PEFC certified forest in Finland, 432,000 hectares of eucalyptus plantations in Uruguay (of which 280,000 land holdings and 152,00 leased land) ,as well as 76,030 ha of forest land in Minnesota, USA. It further sources wood from 12 other countries.

The company has done a major rebranding effort to transform from paper and pulp to a "bioeconomy" operation by renaming its business sector of pulp and forestry as biorefinery and by adopting the slogan "The Biofore Company".

[20] Ibid, p. 4

[21] Ibid, p. 4

[22] Ibid, p. 4

[23] BankTrack, Dodgy Deal profile on UPM: https://www.banktrack.org/company/upmkymmene

[24] UPM, November 2020, *Q&A - UPM Green Finance Framework*. See: https://www.upm.com/siteassets/asset/investors/debt/upm-green-finance-framework-qa.pdf

[25] https://www.cicero.oslo.no/en

[26] Cicero, 2 November 2020, *UPM - Green Finance Framework Second Opinion*. See: https://www.upm.com/siteassets/asset/investors/debt/cicero-spo_upm-green-finance-framework.pdf

[27] UPM, Funding Strategy, accessed in November 2020 - February 2021. See: https://www.upm.com/investors/upm-as-an-investment/debt/

facilities that are found eligible to receive funds under the green bond framework, and the exact selection criteria for those facilities.

In April 2021, UPM published its first annual Green Bond report (2020).[28] The report lays out how the proceeds of the first green bond were used, and provides somewhat more details than Cicero's second opinion and the Green Finance Framework. The EPN believes the annual report is a step forward for UPM, but underlines that more transparency must be applied **before** any proceeds are used, rather than as an afterthought.[29]

This lack of full and upfront transparency makes it difficult for any stakeholder (or even rightsholder) to assess the actual and potential risks and impact, both positive and negative, of the green bonds.[30]

Use of proceeds of UPM's green bond

The lack of clear information about the use of proceeds of UPM's green bonds in itself is a cause of concern: it becomes difficult to assess to what extent the company really contributes to protecting biodiversity and mitigating climate change.

Cicero's second opinion provides the following detail of the planned use of proceeds, please see the figure on the right.

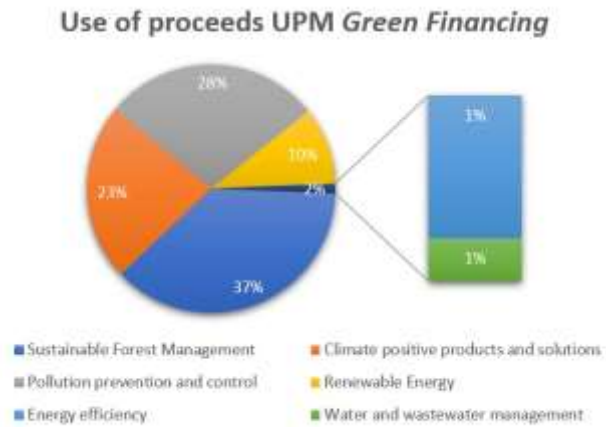
In the next few paragraphs, we will outline our concerns per type of the use of proceeds, with a focus on the **pulp mill in Paso de los Toros, Uruguay**.

Sustainable Forests Management

As with other green bonds by pulp and paper companies[31], a large part - more than a third - of the proceeds of UPM's green bonds is dedicated to "Sustainable Forest Management". In its annual report, UPM writes that "Sustainable forest management includes acquisition, maintenance and management of forest certified under The Forest Stewardship Council ™ (FSC™) and the Programme for the Endorsement of Forest Certification (PEFC)" (p. 7).[32]

This shows that UPM actually means the **management of industrial tree plantations**, not the management of forests. In the first part of this discussion paper, we elaborated on the severe risks of identifying industrial tree plantations as 'green' or as a 'climate solution'.

In relation to the pulp mill in Uruguay, one should note that this country does not have many forests (only 1.5% of the country is covered by primary forests, and 6,6% is natural forest cover[33]), but it has natural native grasslands which can often provide greater and more



Source: Cicero, *UPM - Green Finance Framework Second Opinion*

[28] UPM, April 2021, Green Bond Report 2020. See: https://www.upm.com/siteassets/asset/investors/debt/upm_green_bond_report_2020.pdf

[29] Please see the text box *UPM-Kymmene 2020 Green Bond Report* on the next page, for more details.

[30] Ibid, p.4

[31] Ibid, p. 5

[32] Ibid.

[33] Mongabay, *Uruguay Forest Information and Data*, accessed November 2020. See: https://rainforests.mongabay.com/deforestation/2000/Uruguay.htm
Global forest watch, see: https://www.globalforestwatch.org/dashboards/country/URY/

resilient carbons storage benefits than plantations.[34] UPM however considers grasslands eligible for conversion into plantations because they are not forests[35], despite many of them are key biodiversity hotspots and valuable carbon pools.

It is also important to note that in 2019, 18% of UPM's global wood sources were not certified. UPM's 2030 target is to get all wood from certified forests (both FSC and PEFC are considered sufficient by UPM). The company further leases 153,000 hectares in Uruguay and manages 1,2 million hectares of private forest globally. UPM states that it promotes "forest certification to private forest owners", however there is no indication to what extent this is actually the case - or if this is FSC or PEFC.[36]

PEFC is widely considered to be not very distant from '*business as usual*', while FSC - despite being better, is considered still insufficient to exclude environmental and social impacts.[37] Certification should therefore not explicitly or automatically be rewarded by green bonds. Certification is a market tool, assuring that products obtained by improved management are rewarded in the marketplace, because corporate or final customers give them a preferential choice. Certification does not always assure if a project has ecological or climate additionality, nor does it prevent against social and environmental impacts, and therefore should not be taken as a proxy for additionality by green bond issuers.

With regard to Finland, it is crucial to highlight that forest management, which includes industrial tree plantations, is the highest ranking cause of extinctions of at least 60 species, and the single biggest threat factor for hundreds of endangered species in the country.[38] The Green Bond Report 2020 mentions that UPM has eight targets and indicators on biodiversity, and that in Finland improvement was measured on all targets.[39] However, the reported information remains vague and the report does not provide any more details as to what extent the targets are met and how. Moreover, it is unclear if and how UPM is putting safeguards - for the use of proceeds

UPM-KYMMENE 2020 GREEN BOND REPORT

The Green Bond Report 2020 clarifies that the first green bond was used for operations in Finland and Uruguay, for i) Sustainable Forest Management, and ii) Climate positive products and solutions. The remaining categories were not part of the first green bond.

The report does not mention the use of proceeds for the second, or any future, green bond. In the second opinion, Cicero mentions that the annual reports should have included 'to the extent feasible' a list of all eligible projects and assets funded. This is however not the case, as the report only shows 4 'case examples'.

According to the 2020 annual report, the entire USD 750 million of the first Green Bond "has been used for refinancing with a look-back period of 2-3 years" (p.4).

The report fails to mention any (potential) social and environmental impacts related to the Green Bond, nor how UPM intends to prevent, stop or mitigate those.

[34] Seddon, N. et al (2019) Grounding nature-based climate solutions in sounds biodiversity science. Nature Climate Change, vol 9, February 2019.

[35] Please see page 9 of UPM Green Bond Report 2020.

[36] Please see page 7 of the UPM Green Bond Report 2020 and the Biodiversity web page of the company at https://www.upm.com/responsibility/forests/biodiversity/

[37] Greenpeace 2021, Destruction certified. See: https://www.greenpeace.org/international/publication/46812/destruction-certified/

[38] The Red List, accessed in May 2021. In Finland, the primary habitat of threatened and red listed species is forest (31.2 and 31.9 % respectively). Red-listed species include threatened (CR-VU) and near threatened (NT) species. Forest management is the main cause of (national) extinction for 68 species and one of the reasons for 101 species. It is the highest-ranking cause of extinction. Forest management is the single biggest threat factor for endangered species - the main threat for 732 species amounting to 27.4 % of all endangered species (and one of the threats for but not necessarily the main reason for 1413 species). It is also the main threat for 611 near threatened species; so 1343 species are red-listed mainly because of forestry in Finland.
See: https://punainenkirja.laji.fi/en

[39] Please see page 8 of the UPM Green Bond Report 2020

of the green bonds - in place in order to prevent any further extinction of endangered species triggered by the company's operations.

Climate positive products and solutions: Land use change in Uruguay

UPM states in its Green Bond 2020 report that it maintains its forests as carbon sinks: "In 2020 the annual carbon sink of the allocated proceeds was 9,000t CO2 equivalents per EUR 1 million and the five-year annual average carbon sink of UPM's own land and leased forest was approximately 6 million tonnes of CO2, 1.1 million tonnes in Finland and 4.9 tonnes in Uruguay" (p. 7).

However, the replacement of historical natural grasslands through the development of eucalyptus plantations has eroded biodiversity and carbon storage. For centuries, natural grassland in Uruguay, partially used as traditional extensive pasture, extended in the areas now occupied by UPM plantations. The subtropical Campos savannah not only hosts a unique biodiversity with thousands of species of plants[40], but also stores large amounts of carbon in its extensive root systems under the ground. This is also the case for the grasslands used as traditional pasture. A large part of this stored carbon has been released from the soil where eucalyptus plantations substituted the natural grasslands.

One scientific study from Uruguay measured the loss of 16.6 tonnes of soil organic carbon per hectare in soils under 20 year-old Eucalyptus sp. Plantations.[41] Across the country, UPM controls around 434,184 hectares of plantations.[42] A rough calculation of the research's conclusion (16.6 tonnes/ha), and multiplying it by UPM's land base, results in a potential estimated loss of more than 7 million tonnes of soil organic carbon degraded by UPM in establishing its plantations. This seems to contradict UPM's own calculation and statements on the Green Bond.[43]

Also, the likely release of carbon after logging and using the trees for pulp - as described in part I of this report - is not mentioned in UPM's Green Bond Report.

If the green bonds would contribute to this type of land use change, EPN questions if that could fall under 'climate positive productions and solutions' (23% of use of proceeds).

Climate positive products and solutions: social conflicts

The Accountability Framework lists transparent engagement with stakeholders as one of its key criteria. On this point, it should be noted that UPM has been the target of strong criticism by civil society organizations in Uruguay for failing to engage meaningfully with them.[44] [45] **The Green Bond Report 2020 also does not further explain how engagement with stakeholders - including affected communities - took place,** nor does it refer to any other place this information can be found**.**

Additionally, UPM has the UPM Foundation to promote "education and entrepreneurship through joint work with social organisations and local representatives In

[40] This includes more than 550 species of grass, 500 bird species, and nearly 100 mammals (some of which are considered globally threatened). Convention on Biological Diversity, Uruguay - Main Details. See: https://www.cbd.int/countries/profile/?country=uy

[41] Carrasco-Letelier, L., et al., 2003, "Preliminary study of prairies forested with Eucalyptus sp. at the northwestern Uruguayan soils". https://www.researchgate.net/publication/9054561_Preliminary_study_of_prairies_forested_with_Eucalyptus_sp_at_the_northwestern_Uruguayan_soils/link/5a6b8e48a6fdcc317b159a21/download

[42] UPM, 2021, *We create a future beyond fossil fuels - Annual report 2020*. https://www.upm.com/siteassets/asset/investors/2020/upm-annual-report-2020.pdf

[43] EPN Discussion Document, March 2020, *Papering over reality and risk in Uruguay.* In this discussion document, EPN analyses UPM's claims of carbon storage, amongst others. See: https://environmentalpaper.org/wp-content/uploads/2020/03/23200320-UPM-EPN-Discussion-Document.pdf

[44] EPN, 1 July 2019, *Uruguayan citizens opposing UPM's new pulp mill appeal to the Finnish government*. See: https://environmentalpaper.org/2019/07/letter-against-upm-is-delivered-to-finnish-consul-in-uruguay/

[45] BankTrack Dodgy Deal profile of UPM pulp mill: Paso de los Toros: https://www.banktrack.org/project/paso_de_los_toros_pulp_mill

Uruguay". [46] In practice, this is filling a gap the Uruguayan government is failing to address: the company gives money to small enterprises, women and younger people to support them with the basic needs that a government (regional and national) normally should provide (while at the same time diverting key resources from the Uruguayan government in terms of tax breaks and infrastructure works for its pulp mill[47]). This has two severe impacts: first, it creates tension and social conflicts between those who receive money and support from UPM, and those who try to raise awareness of the impact of UPM's major pulp mill. Second, it shifts away the attention of UPM's social and environmental impact, and enables the company to continue ignoring the rights of stake- and rights holders. In other words, UPM is greenwashing its social impacts.

Renewable Energy

At least 10% of the proceeds will go to the production of renewable energy, according to the second opinion. Cicero mentions second-generation biofuels in its analysis, but it also mentions the production of "excess energy" from "wood residues" by UPM's pulp mills.

In the case of UPM's planned mill in Paso de los Toros, the company intends to produce 310 MW, of which 150 MW will be "excess". To produce this excess energy, it will presumably burn black liquor, a toxic by-product from the kraft process.[48]

Cicero's second opinion states that "*These investments form part of UPM's overarching strategy to shift away from the pulp and paper industry towards a lower carbon bioindustry through the Beyond Fossils project*. *This includes R&D and production of biochemicals, biofuels, biomedicals and other composites to replace the use of plastics in various industrial and consumer applications, as well as the generation of renewable energy.*"[49]

It is important to note that energy produced from woody biomass is not climate neutral. Even worse, it emits more greenhouse gases per unit of energy created than coal.[50] Earlier this year, 500 scientists wrote to world leaders that "the burning of wood will increase warming for decades to centuries. That is true even when wood replaces coal, oil or natural gas".[51]

Biomass energy also provides poor value for money compared to low-carbon forms of renewable energy such as wind and solar power - a trend that will only accelerate as the cost of wind and solar power continues to fall, unlike that of biomass energy.[52]

Water and Wastewater management

Only 0.3% of the proceeds will be spent on water and wastewater management. This amount is low, considering that the company's operations in Uruguay have a huge impact on water sources and on rivers.

In Uruguay, the new pulp mill under construction by UPM will have a daily consumption of 136 million litres of

[46] UPM, September 2015, *UPM Foundation supports long-term development In Uruguay.* See: https://www.upm.com/about-us/for-media/releases/2015/09/upm-foundation-supports-long-term-development-in-uruguay/

[47] Agreement ROU - UPM, November 2017 see: https://medios.presidencia.gub.uy/tav_portal/2017/noticias/NO_Y823/contract.pdf

[48] UPM's webpage on the pulp mill in Paso de los Toros: https://www.upmpasodelostoros.com/the-mill/

[49] Please see page 5 of the UPM Green Finance Framework.

[50] Partnership for Policy Integrity, November 2013, *Analysis of risks and corporate disclosures regarding environmental and climate considerations in the biomass power sector*. See: http://www.pfpi.net/wp-content/uploads/2013/11/PFPI-report-to-SEC-on-bioenergy-Nov-20-2013.pdf

[51] 500 scientists, February 2021, *Letter Regarding Use of Forests for Bioenergy.* See: https://www.dropbox.com/s/hdmmcnd0d1d2lq5/Scientist%20Letter%20to%20Biden%2C%20von%20der%20Leyen%2C%20Michel%2C%20Suga%20%26%20Moon%20%20Re.%20Forest%20Biomass%20%28February%2011%2C%202021%29.pdf?dl=0

[52] EPN briefing document, May 2019, *Risky Biomass Business: The reputational and financial risks of investing in forest biomass energy*. See: https://environmentalpaper.org/wp-content/uploads/2019/04/Risky-Biomass-Business.pdf
EPN also has a *Biomass Energy, Forests and Climate Library*, containing key resources on forest biomass and explaining the science behind it: http://environmentalpaper.org/biomass-library/

water from the Rio Negro river and will return 107 million litres of effluent per day.[53] Considering that the river is relatively small and already suffering from eutrophication, this will be an additional burden on the water quality. UPM began construction of the plant without the acceptance by the Uruguayan authorities of effluent treatment plant and the discharge system over the river.[54]

In addition, UPM's industrial tree plantations impact water availability as the fast-growing eucalyptus trees consume large amounts of water.[55] [56] The pesticides used in the plantations will likely impact water quality. Uruguay already faces high levels of contamination of its waters, causing algae blooms which make the waters of popular tourist destinations unfit to swim in. These are in part caused by fertilizer runoffs from agricultural lands into water sources.[57] As fertilizers are also widely used in eucalyptus plantations, it can be expected that they will exacerbate the problem, and the limited resources dedicated to this issue are unlikely to be enough to address it thoroughly.

EPN is concerned that instead of solving these issues and addressing the potential risks of the pulp mill in Paso de los Toros, the green bond(s) is (are) likely to result in a worsening of the situation.

Legal risks

New EU regulation on sustainable finance established a 'sustainable taxonomy' that may provide a good quality-check of these UPM Green Bonds. These Green Bonds however do not seem to be fully aligned with the taxonomy[58] that is being developed by the EU on at least a few issues:

- **Additionality**: the taxonomy requires 'additionality' to be demonstrated.[59] In other words, UPM should demonstrate that without the activity being accepted for financing as a sustainable investment, the activity would not have been implemented or its economic, environmental or social aspects would have been significantly altered. As "sustainable forest management activities'' are part of UPM's core business, these provide no additionality there.
- **Non-native species:** the taxonomy, under the *Do No Significant Harm* criteria, excludes the use of non-native species. As noted above, UPM has more than 250,000 ha of eucalyptus plantations in Uruguay, where this tree is non-native.
- **Water**: the taxonomy requires, under the *Do No Significant Harm* criteria, that companies "Identify and manage risks related to water quality and/or water consumption at the appropriate level. Ensure that water use/conservation management plans, developed in consultation with relevant stakeholders, have been developed and implemented." There is no indication that UPM has done this for its existing and planned mills in Uruguay.

Please note that, at the moment of writing, the Delegated Act is not yet final. The European Commission published its final draft, but this has yet to be approved by the EU Parliament. [60]

[53] SAAP, Solicitud de Autorización Ambiental Previa

[54] La Diaria, August 2019, *Una alternativa para ahorrar energía sin elevar la cota en el río Negro*. See: https://ladiaria.com.uy/rioabierto/articulo/2019/8/una-alternativa-para-ahorrar-energia-sin-elevar-la-cota-en-el-rio-negro/

[55] Ibid, p. 6

[56] Ibid, p. 6

[57] LGSonic, 8 December 2015, *Economic impact of Algae Blooms*. See: https://www.lgsonic.com/economic-impact-of-algae-blooms/

[58] EU taxonomy for sustainable activities: https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/eu-taxonomy-sustainable-activities_en

[59] Regulation (EU) 2020/852, Annex I, of the European Parliament and of the Council

[60] European Commission, Sustainable Finance Taxonomy, accessed on 22 April 2021. See: https://ec.europa.eu/info/law/sustainable-finance-taxonomy-regulation-eu-2020-852/amending-and-supplementary-acts/implementing-and-delegated-acts_en

This final version received extreme criticism from experts, scientists and civil society, stating that the "criteria for forestry, bioenergy, and fossil gas are in clear contradiction to climate science".[61] If the current version is approved without any changes, it would classify heating and cooling, as well as electricity generation from bioenergy, biogas and biofuels as 'green'. Furthermore, it doesn't distinguish between different types of forestry and allows clear-cutting and industrial tree plantations. This would mean that at least part of the Green Bond activities would fall under the sustainable taxonomy. It could however be questioned if this is the right thing for the environment, climate and our forests.

Conclusion and demands

The lack of (upfront) transparency makes it very difficult to analyse the merits of the green bonds issued by UPM. If we add to this the i) environmental and social impacts of UPM's operations in Uruguay, ii) the lack of transparency in UPM's Green Bond related publications, iii) our identification of the possible severe impacts of green bonds for large scale forestry operations and UPM's oversight of these impacts, vi) and the fact that the first Green Bond is used to refinance already existing activities, we disagree with Cicero's "Dark Green" assessment of this Green Bond Framework.

We could not find enough evidence that the UPM Green Bonds will contribute significantly to sustainability goals. On the contrary, large parts of the money seem to be allocated to (refinance) *'business as usual*' activities which have detrimental/adverse social and environmental impacts. It is therefore misleading to investors to promote these bonds as being green.

More generally, these bonds carry a reputational risk to the green bond sector, as investors may lose trust in the credibility of green bonds, when they do not seem to live up to expectations.

The EPN therefore strongly urges:

- **EuroNext** to not accept any new listing of an UPM green bond and **financial institutions** to not finance these green bonds until -
- **Citigroup, BNP Paribas, Danske Bank, Nordea and JP Morgan** to use their leverage to ensure -

UPM fully discloses the use of proceeds of the green bonds, proving - through an independent third party - that none of the money will be directed to *'business as* usual', and the sustainability of the company as a whole is assessed before issuing green bonds. Otherwise, the practice will only enhance the tendency to allocate less sustainable activities to jurisdictions with weaker governance, and allow cherry picking for green bonds.

[61] Open letter from scientists and environmental and consumer experts on the EU taxonomy Climate DA, March 2021. See: https://www.beuc.eu/publications/beuc-x-2021-029_letter_to_european_commission_on_eu_taxonomy_delegated_act_march.pdf

Reuters, 1 April 2020, *Nine advisors threaten walkout over sustainable finance row*: https://www.reuters.com/article/europe-regulations-finance/nine-eu-advisers-threaten-walkout-over-sustainable-finance-row-idUSL4N2LT4LJ