



Sveaskog AB Green Bond Second Opinion

17 March 2023

Executive Summary

Sveaskog is a state-owned company and the largest forest owner in Sweden. Sveaskog's core business is to manage forest holdings to produce timber and pulpwood. Sveaskog's customers are primarily Swedish forest industry companies, who in turn export worldwide. In addition to its own forest holdings, the company purchases wood from other forest owners in Sweden and to a minor extent the Baltics (primarily Latvia).

The eligible categories in Sveaskog's green bond framework are forest management, forest holdings and research & development. Forest management will receive the majority of proceeds and both financing and refinancing is permitted. Only internal operations are eligible for green bond proceeds; purchases from other forestry companies and imports are excluded. Sveaskog issued a green bond framework in September 2017, and the categories were the same as in this framework.

We rate the framework CICERO Dark Green and give it a governance score of Excellent. Sustainably harvested forests play a positive role in a low-carbon world through both the absorption of CO₂ in the growing phase and the use of wood to substitute for fossilintensive materials after harvests. The company's forests are FSC and PEFC certified and provide a net increase in CO₂ sequestration on an annual basis. This gives a good level of comfort yet may not be sufficient for all stakeholders: Intensive harvesting practices and poor biodiversity are two common arguments directed against Sveaskog and other forest companies in the Nordics. Climate change presents risks to forests in the form of droughts, wildfires and insect infestations, and biodiversity-poor ecosystems may suffer disproportionately. Sveaskog is aware of its broader environmental responsibilities and has started incorporating climate risk and biodiversity considerations into its strategies and operations.

Strengths

Healthy growing forests reduce emissions from land use, increase sequestration and help adapt to a changing climate. Sustainable forest management as practiced by Sveaskog is a vital tool in this process. Indeed, Sveaskog's forests are managed to achieve net growth on an annual basis. Moreover, using the biomass to substitute



framework is found in alignment with the principles.



for fossil-intensive materials in buildings and other processes contribute to further emissions savings elsewhere in the economy.

Sveaskog only supplies the bioenergy industry with waste-based woody material. There are many competing uses of timber – including for building materials – and given limitations on land use, growing trees simply for energy production is not best practice. Using by-products of timber production such as treetops and branches on the other hand, is. Sveaskog has informed us that occasionally whole logs not suitable for other uses may be included.

Pitfalls

Although clear on the climate benefits of its products, Sveaskog's strategic work on sustainability issues such as biodiversity and target setting in line with international best practice is less well developed and articulated. Going forward the company will have to carefully balance production and conservation/biodiversity targets.

The opportunity for further emission cuts from the issuer's value chain may be limited as the main source of emissions is from transportation and machinery, which depend on electrification and fuel switching potentials. The availability and national policy on biofuels may constrain further deployment of low-emission fuels. Moreover, a lot of the transport takes place via third parties over whom Sveaskog has some influence but who they ultimately do not control.

Investors should be aware that forestry companies, including Sveaskog, are from time to time subject to NGO campaigns for their intensive forest management practices – even if their activities take place within the confines of the law. The main area of disagreement is the practice of clear felling and monoculture which has dominated Scandinavian forestry for the past century. Another issue is the interaction with traditional reindeer husbandry and ways of life (specifically the Sami population in the North of Sweden). We encourage Sveaskog to continue improving its conservation and biodiversity measures as well as its stakeholder engagements to mitigate these risks.

EU Taxonomy

CICERO Shades of Green assesses that the relevant taxonomy activities for Sveaskog, as listed in Appendix 2, are likely aligned with the mitigation and Do No Significan Harm criteria in the EU Taxonomy. As Sveaskog mainly operates in Sweden, which has strict laws covering the areas where the company has high risks, and applies a what appears to be robust human rights due diligence process, Sveaskog appears to mainly fulfil the requirements of the minimum safeguards.



Contents

	Executive Summary	1
	Strengths	1
	Pitfalls	2
	EU Taxonomy	2
1	Sveaskog's environmental management and green bond framework	4
	Company description	4
	Governance assessment	4
	Sector risk exposure	5
	Environmental strategies and policies	6
	Green bond framework	7
2	Assessment of Sveaskog's green bond framework	9
	Shading of eligible projects under Sveaskog's green bond framework	9
	More on Forestry	12
	EU Taxonomy	13
3	Terms and methodology	15
	'Shades of Green' methodology	15
Арр	endix 1: Referenced Documents List	17
Арр	endix 2: EU Taxonomy criteria and alignment	18
	Forest Management	
Арр	endix 3: About CICERO Shades of Green	29

1 Sveaskog's environmental management and green bond framework

Company description

Sveaskog is the largest forest owner in Sweden, managing approximately 14 % of the productive forestland and operating in some 170 of the country's 290 municipalities. It is a state-owned company with about 800 employees. Sveaskog's core business is to manage its forest holdings for the production of timber, pulpwood, wood chips, biofuel, seedlings and forest services. The main products are pulpwood (about 50%), sawlogs (about 45%) and biofuel material (5%). In 2021 its net sales were MSEK 6,920. Sveaskog's customers are primarily Swedish forest industry companies, who in turn export worldwide.

In addition to supplying wood from its own forests (about 60%, all in Sweden), Sveaskog purchases wood from other forest owners in Sweden and to a minor extent the Baltics (primarily Latvia).

Sveaskog AB fully owns Sveaskog Förvaltnings AB which carries out most of the company's operational functions. It also owns - partly or fully - a wood product company, a biorefinery and a logistic/transport firm.

Sveaskog created its first green bond framework in September 2017, under which it has issued nine green bonds totalling MSEK 5,400.

Governance assessment

The overall assessment of Sveaskog's governance structure and processes gives it a rating of Excellent. The company has a CO₂ reduction target and some measures in place; however the current target is only for 2026 and is likely to benefit from a review by SBTi (forthcoming) as well as additional targets with a longer time horizon. Climate risk and scenario analysis are included in all major planning and investment decisions and the company is TCFD aligned as of 2021.



A potential area for improvement is to further strengthen attention on broader environmental issues: while Sveaskog has started work in this area, targets on ecosystem restoration and biological diversity could be made more specific and ambitious and made to feature more prominently in its policies.

The green bond selection process is in line with the Green Bond Principles but could be strengthened by replacing the current plan to escalate potentially controversial projects to executive management with an environmental veto procedure. Reporting plans have benefited from learnings from previous green bond issuances and include best-practice elements such as plans to publish impact methodologies.



Sector risk exposure *Physical climate risks*.

Forests face physical risks from climate change, particularly increasingly frequent and severe fires, droughts, and other extreme events. A warmer climate also entails a risk of increased insect infestations. The mitigation potential of forests is at risk due to natural adversities that limit forest growth (and in some cases destroy them), e.g., drought, fire, extreme weather, degradation of biodiversity. Widespread climate-induced forest die-off has been observed in forests globally and creates a dangerous carbon cycle feedback loop, both releasing carbon dioxide into the atmosphere and reducing the carbon sink.

Transition risks. Due to the profound changes needed to limit global warming to 2°C, transition risk affects all sectors. Sveaskog is exposed to transition risks from stricter policies related to land use (protection vs production) and swings in demand for bioenergy, while the trend towards increasing use of wood-based products to replace fossil fuel-intensive ones represent an opportunity for the forestry sector.

Environmental risks. Clear cutting and monoculture can be financially rewarding and has been the model for many countries' forest industries. However, it carries with it negative biodiversity impacts and consequences for the ecosystem, traditional animal herding and culture, as well as the general public's recreational needs. Poor biodiversity can also jeopardise the longevity of the forest industry through the long-run general health of nature. Impacts on lakes and rivers can be another environmental risk from commercial logging (e.g. intervening with a river's natural course to facilitate log driving (transportation).



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Environmental strategies and policies

Emissions (and sequestration) through the value chain: The company joined the Science Based Targets initiative (SBTi) in 2021 and is planning to communicate its climate goal in 2023. Its current goal is to reduce CO₂ emissions across the value chain with 25% by 2026. Annual emissions from Sveaskog's operations in 2022 (Scope 1, 2 and Scope 3) amounted to 0.26 million tonnes of CO₂e. Transportation (of timber to customers), forest management operations (machinery etc), products sold and inputs used (the latter two are both Scope 3 emissions) comprise roughly equal shares of the emissions. The company's main strategy to reduce emissions is through electrification of its vehicle fleet and machinery, and using biofuels (contractors are required to use the 'most effective and environmentally friendly fuel' available).

In 2022 the company also reported carbon storage of 8.61 million tonnes CO₂e, of which 7.94 million tonnes were from live biomass and the rest from wood-based products. Calculations have been carried out by an independent consultant and are according to the Greenhouse Gas (GHG) Protocol. The company has been calculating emissions at the corporate level since 2005: between 2005 and 2021 emissions decreased by 34%, however they were higher in 2022 than in 2021 due to the inclusion of more Scope 3 emissions in the methodology.

Sustainable forestry: The overarching principle of Sveaskog's practices is *net forest growth* – in other words that the amount of timber extracted each year is less than the amount grown. According to its latest annual report, in the past five years the extraction ratio has been around 70%. Sveaskog's forests are Forest Stewardship Council (FSC) and Programme for the Endorsement of Forest Certification (PEFC) certified., and for purchased timber Sveaskog requires the certification FSC Controlled Wood¹.

Biodiversity: Sveaskog's forests consist predominantly of conifers, with deciduous trees making up less than 10%. Partly in response to concerns over lack of biodiversity, the company has recently formulated an aim of increasing the variety of tree species in its forests. Sveaskog is also increasing the amount of land not held for forestry activities: currently it stands at 29% (of wooded land). Forests held for conservation purposes (also called *forest set-asides*) make up about 17%. The company has recently adopted annual aims to restore wetlands and to maintain its current low level of 'major environmental impacts' of felling (captured by a *consideration index* (in Swedish: *hänsynsinventering*)).

Sveaskog has been subject to protests for its forest management practices². The criticism centres around the company's clean felling practices. There have also been controversies related to the interaction between Sami populations and reindeer herding on one side and Sveaskog as the landowner on the other side. The company has recently changed its long-term strategy, with the aim of "combining high-volume and reliable timber delivery with intense efforts to increase biodiversity".

Subcontractors: Sveaskog makes extensive use of subcontractors (e.g. to transport timber): according to the company its contractors perform work equivalent to 1,600 full-time employees/year. The company's policy for subcontractors (Service Declaration) applies to all geographies and includes clauses on the minimisation of climate and environmental impacts.

Sveaskog's sustainability report is in accordance with the GRI. The company has started to assess climate (and biological) risk and documents this analysis in the annual report. Management responses are indicated for the risks.

¹ FSC's controlled wood standard requires organizations to source raw materials from low-risk sources which excludes five unacceptable categories: Illegally harvested wood; Wood harvested in violation of traditional and human rights (i.e. forced or child labour); Wood harvested in forests in which management activities threaten high conservation values; Wood harvested in forests being converted to plantations or non-forest use, and; Wood from forests in which genetically modified trees are planted. It is a less strict standard than FSC Certified.

² See e.g. Sveaskog's Annual and Sustainability Report 2021.



The company strategy recently changed to include measures to adapt the forest to climate change, including working with the Swedish Meteorological and Hydrological Institute to assess the robustness of the company's long-term focus against the risks posed by climate change. Starting in 2021, Sveaskog reports according to the recommendations of the Taskforce for Climate Related Financial Disclosures (TCFD) and uses scenario analysis and results for major investment decisions.

Green bond framework

Based on this review, this framework is found to be aligned with the Green Bond Principles. For details on the issuer's framework, please refer to the green bond framework dated 2023.

Use of proceeds

For a description of the framework's use of proceeds criteria, and an assessment of the categories' environmental impacts and risks, please refer to section 2.

Selection

Sveaskog has established a Green Bond Committee to evaluate and select eligible green projects and to allocate net proceeds to such assets. The committee holds the right to exclude any eligible green project already funded if the project no longer meets the eligibility criteria defined in the framework. If an eligible green project is sold, or for other reasons loses its eligibility, funds will then follow the procedure under Management of Proceeds until reallocated to other eligible green projects.

The green bond committee is a joint venture of the Sveaskog Sustainability Council and the Sveaskog Treasury & Risk Department and is chaired by the CFO. A list of the potential projects is presented to the committee by business controllers, and meetings will be held when necessary and at least semi-annually. The committee is solely responsible for the decision to acknowledge the projects as an eligible green project. A decision to allocate net proceeds will require a consensus decision. The decision is documented and filed. Sveaskog has clarified that decisions on controversial projects could be escalated to the executive management.

In the process of selecting eligible green projects and allocating net proceeds, the committee is responsible for considering and ensuring all aspects of the EU Taxonomy. This will predominantly be safeguarded through compliance with Sveaskog's forest policy, environmental policy, human resources policy, Swedish FSC standards, Swedish Forestry Act and Swedish law.

Management of proceeds

Sveaskog will use a separate account to monitor that an amount equal to the net proceeds from green bonds issued is allocated to eligible green projects. In the event the separate account has a positive balance, such unallocated amount will temporarily be placed in the liquidity reserve and managed accordingly by Sveaskog. The company has clarified that permissible temporary instruments include (i) bank deposits, (ii) investments in (a) Swedish treasury bills, (b) any green bonds, (c) covered bonds and/or (d) commercial papers and short dated bonds. Temporary investments will not be in entities with a business plan focused on fossil or other CO₂ intense activities. Temporary investments will be in entities with at least A- rating from S&P or equivalent rating from other rating institute.

Reporting

Sveaskog will annually publish a report to investors, specifying the allocation of proceeds and the targeted impact of the eligible projects financed ("Green bonds post-issuance reporting"), until full allocation of the net proceeds, and in the event of any material changes until the relevant maturity date of the green bond issued.



The green bond report will include methodology, baselines and assumptions used in the impact calculations. The impact reporting can to some extent be aggregated, and based on Sveaskog's share of each project, where feasible and subject to data availability.

The Green bonds post-issuance reporting will include

- A list of projects financed, including project descriptions and allocated amount
- Distribution between new financing and refinancing,
- The amount of unallocated proceeds, if any.
- Main measurable environmental benefit as a result of the financing. The issuer has clarified that this could include reduced energy consumption and improved environmental impact measures.
- Total carbon sequestration (tonnes)

Reporting is not linked to individual bonds. An independent verifier will on an annual basis verify the internal tracking method and the allocation of funds from the green bond proceeds.

2 Assessment of Sveaskog's green bond framework

The eligible projects under Sveaskog's green bond framework are shaded based on their environmental impacts and risks, based on the "Shades of Green" methodology.

Shading of eligible projects under Sveaskog's green bond framework

- Both financing and refinancing is permitted. Sveaskog has confirmed that 'the majority' of proceeds will go towards new financing. The financing or refinancing of CAPEX will qualify without specific look-back restriction, while OPEX qualify with a maximum three-year look-back period before the issuance year of the bond.
- Sveaskog has indicated that the majority of proceeds will go towards the forest management category in Table 1
- 83 % of the proceeds from bonds issued under Sveaskog's previous (Sep 2017) green bond framework went to forest management; 16 % to forest holdings, and 1 % to R&D
- Green bond net proceeds will not be allocated to projects for which the purpose is fossil energy production, nuclear energy generation, weapons and defence, potentially environmentally harmful resource extraction (such as rare-earth elements or fossil fuels), gambling or tobacco.
- Proceeds will only fund the activities of Sveaskog Förvaltnings AB.

Category	Eligible project types	Gre	een Shading and considerations
Environmentally sustainable	Forest management	Dar	•k to Medium Green
management of living natura resources and land use	 Investments in sustainable forest management to maintain a good rate of return, while maintaining important natural values and FSC-certification through the forest lifetime-cycles 	✓	The sustainable management of land, including forested land, is a key piece of the puzzle for managing GHG emissions and adaptation to climate change. Sveaskog manages forests according to the principle of 'sustainable forestry' and through FSC certification. FSC certification, although not perfect, is seen as the most robust global standard for forest management ³ . The issuer has confirmed that forestland acquisition or ownership is eligible under this
	 Forest holdings Acquisition of, to Sveaskog, new forestland and the refinancing of forestland holdings 	l	framework only if the forest holdings are certified against the Swedish FSC-standard and that purchases from private landowners, other forestry companies, and imports are not eligible under this framework.

³ E.g. as per WWF's assessment tool: https://wwf.panda.org/?246871/WWF-Forest-Certification-Assessment-Tool-CAT



R&D

- Investments in the development of energy ✓ and fuels from forests and other innovation projects aiming to increase the value of wood raw material and thus reduce ✓ greenhouse gas emissions.
- ✓ The forests included in this framework are in Sweden, where government regulation and enforcement are of a good standard.
 - The benefits of growing forests for wood products are twofold: in the growing phase forests absorb CO₂ and when used for sustainable materials (e.g. in buildings) the CO₂ is stored and often replaces fossil fuel-intensive products such as cement.
 - ✓ However, sustainable forestry also carries with it environmental risks: one is the intensive cultivation of a limited number of tree types (spruce, pine) which can be negative for biodiversity. This is a particular problem if old growth forests are cut down to clear areas for such activities. The use of FSC certification is intended to mitigate these risks and we also understand that Sveaskog is in the process of developing several biodiversity-friendly initiatives. For instance, it will switch to selective-felling forestry methods on managed land in the five most public ecoparks (large contiguous landscapes with high conservation values and high ecological ambitions)⁴. Sveaskog has confirmed that across all felling areas it leaves a minimum of 10 trees per hectare.
 - Although Sveaskog is implementing biodiversity initiatives and more selective felling techniques today, one could argue these are coming from a low baseline of poor biodiversity in the wake of a history of intensive monoculture. Critics argue that compared to the original biodiversity of Swedish forests, the current state is very poor. This is not a particular criticism of Sveaskog, rather it reflects common practice in the country for many decades.
 - Proponents of sustainable forest management point out that forest plantations can indirectly protect carbon stocks and biodiversity in ancient forests by providing an alternative readily available wood fibre source. Also, restoring previously deforested lands though timber plantations can help recover degraded land and lead to natural ecosystem regeneration.
 - ✓ The use of fertilisers is another environmental risk of planted forests: On the one hand, their use tends to increase tree growth and therefore the absorption of carbon and biomass output. On the other hand, the production of fertilisers is carbon-intensive, and once

⁴ For more detail, see https://www.sveaskog.se/en/forestry/environment-and-nature-conservation/our-ecoparks/



applied the fertilisers may release nitrous oxides (a potent greenhouse gas) into the atmosphere. FSC certification requires minimising or avoiding the use of fertilisers, but leaves room for interpretation and therefore is no guarantee of outcomes. We understand that Sveaskog only applies fertilisers in northern regions, where there is greater need for them. The issuer has also informed us that there are plans for developing non-fossil fertilisers.

- ✓ A third negative environmental impact of forestry is the impact on rivers: Historically, a large proportion of all Swedish streams and rivers were cleared for log driving (transporting logs after harvest). This has had a significant negative impact on the ecological values in these waters. Sveaskog has restoration initiatives in place for some rivers.
- ✓ Sveaskog has confirmed that road construction, vehicle operations and fertiliser use are eligible use-of-proceeds activities – under the forest management category. The issuer argues that these activities are integral to running the business efficiently and that they are in line with FSC requirements. However, forest roads can also be used by the general public and may increase road traffic.
- ✓ The company has clarified that the acquisition of vehicles is not an eligible category and that approx. 70% of own operations are EVs or use biofuel, and that this is set to increase and be reported on under the SBTi.
- ✓ Sveaskog produces biomass for energy as a by-product but only supplies energy producers with waste such as forest residues (branches and treetops) or logs which are not suitable for other uses (infested by pests or otherwise unsuitable). The biomass is used for district heating. R&D projects to improve biomass fuel use is an eligible use-of-proceeds category.
- Additionally, the issuer's R&D activities may relate to e.g. propagation techniques and conservation/biodiversity improvements. These activities are important for innovation even if they make up a very small share of overall investment spending.

Table 1. Eligible project categories

More on Forestry

Emissions from deforestation and forest degradation currently account for around 11% of greenhouse gas emissions globally⁵. Sequestering carbon while growing but releasing carbon when felled, forests are both a source and a sink of GHG emissions. Sustainable forestry practices therefore represent an important opportunity for reducing GHG emissions and sequestering carbon⁶.

Forests are important as a source of adaptation and resilience through their provision of ecosystem services (e.g., climate regulation and flood prevention), and for livelihoods. Forests additionally provide raw materials and goods needed for the low carbon economy, such as timber for buildings, bioenergy feedstocks, bioplastics, and biocomposites.

International standards such as the Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification (PEFC) are often used as guidelines to ensure responsible management by covering both environmental and social impacts, such as biodiversity, water and soil, pollution, waste and GHG emissions, as well as community relations and workers' rights. WWF's certification assessment tool (CAT) evaluates the relative strengths of different forest certifications and has concluded that FSC is the most credible certification and performs stronger on both the environmental and social fronts⁷. However, in some contexts, both certifications have been seen to lack stringency related to tracing, pollution, waste and GHG emissions criteria.

Forestry and the place that forests should play in combating climate change has been a controversial issue in recent years, pitting those that promote the use of wood material in the economy against those that seek to preserve pristine old-growth forest. In the Nordic context, which is the relevant one for Sveaskog, the points of contention have centred around⁸:

- Type of forests (planted conifer forests for productive uses or more mixed forests for recreation and biodiversity)
- Forest harvesting methods: clear cutting versus selective logging
- The rights of the various users of the forests: indigenous peoples, reindeer husbandry, recreational users, forest and timber operations etc.
- The role of (standing) trees in sequestering CO2 versus the of role tree-based products in replacing other (often carbon-emitting) materials in buildings etc.

Sweden (together with Finland) have been at the forefront of the Nordic debate around forests, due to its large forest holdings. There have been protests by civilians and NGO campaigns as well as developments in how the research community and government (and the EU) view the balance between protection and production. The government and the forest industry have responded with updated strategies which reflect this. For example, in November 2021 the Swedish Government presented a forest bill, which affects Sveaskog both directly (being state owned) and indirectly. One proposal in the bill is that more forests are given formal protection.

⁵ Source: https://climate.ec.europa.eu/eu-action/forests-and-agriculture_en

⁶ By practitioners, sustainable forestry practices are mainly thought of as forests which provide a growing carbon sink with net forest growth over time. the Ministerial Conference on the Protection of Forests in Europe (FOREST EUROPE), and the Food and Agriculture Organization (FAO) have adopted a broader definition which also includes references to the social function of forests and biodiversity (see e.g. https://foresteurope.org/workstreams/sustainable-forest-management/#:~:text=According%20to%20the%20Helsinki%20resolution,and%20social%20functions%2C%20at%20local)

⁷ Source: https://wwf.panda.org/?246871/WWF-Forest-Certification-Assessment-Tool-CAT

⁸ This is by no means an exhaustive formal analysis, rather it is an attempt to give the uninitiated reader a quick understanding of the main issues affecting Sveaskog's operational context.



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EU Taxonomy

The EU Taxonomy Regulation⁹ is a classification system setting criteria for economic activities to be defined as environmentally sustainable. The regulation defines six environmental objectives. To be considered sustainable, an activity must substantially contribute to at least one of the six environmental objectives¹⁰ without harming the other objectives ("Do No Significant Harm"), while complying with minimum safeguards¹¹. So far, the EU has adopted delegated acts under the regulation that set out the technical screening criteria for the climate mitigation and adaptation objectives, respectively. The DNSH-criteria are developed to make sure that progress against some objectives is not made at the expense of others and recognizes the relationships between different environmental objectives.

CICERO Shades of Green has assessed the eligible forest management projects of Sveaskog's framework against the mitigation thresholds and the DNSH criteria in the delegated act adopted in June 2021 (Annex 1), and the minimum safeguards.

CICERO Shades of Green assesses that the relevant taxonomy activities for Sveaskog, as listed in Appendix 2, are likely aligned with the mitigation criteria in the EU Taxonomy.

It should be noted that while we can confirm that a climate benefit analysis has been carried out, CICERO Shades of Green has not tested the assumptions or the realism of the climate benefit analysis.

Sveaskog appears to be likely aligned with the DNSH-criteria.

Minimum safeguards

To qualify as a sustainable activity under the EU regulation certain minimum safeguards must be complied with. CICERO Shades of Green has assessed the company's social safeguards with a focus on human and labour rights. We take the sectoral, regional and judicial context into account and, on the basis of information provided by the company, focus on the risks likely to be the most material social risks.

Sveaskog states that they take a clear stance on issues relating to human rights, labour rights, the right to form trade unions and anti-corruption. The company has expressed that it will use the OECD Guidelines for multinational enterprises in its work and thereby use the due diligence process prescribed therein. The company has several social policies and guidelines, both for their own employees and for subcontractors and suppliers. An assessment of salient human rights risks has also been made. The company does not engage suppliers or contractors that knowingly have breached their obligations towards business partners or employees; violated laws, rules or agreements, abused bankruptcy institutions or have unclear ownership.

Sveaskog also has a whistleblower mechanism. This is limited to serious irregularities and misconduct as well as to a limited circle of persons of leading positions. The notification goes to an external company and one can report anonymously.

The company has received criticism for not adequately upholding a proper dialogue with the Samis in Sweden – the national indigenous group – a population which depends strongly on the forest for their reindeer herding and traditional way of life. In discussions with the company, it became evident that the company takes this criticism seriously and is striving to achieve a solid ground for a peaceful co-existence with the Samis.

 $^{9\} Regulation\ EU\ 2020/852\ https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020R0852\& from=EN$

¹⁰ The six environmental objectives as defined in the proposed Regulation are: (1) climate change mitigation; (2) climate change adaptation; (3) sustainable use and protection of water and marine resources; (4) transition to a circular economy, waste prevention and recycling; (5) pollution prevention and control; (6) protection of healthy ecosystems. 11 Alignment with the OECD Guidelines for Multinational Enterprises and UN Guiding Principles on Business and Human Rights, including the International Labour Organisation's ('ILO') declaration on Fundamental Rights and Principles at Work, the eight ILO core conventions and the International Bill of Human Rights.



CICERO Shades of Green concludes that Sveaskog appears to mainly fulfil the minimum safeguards.



3 Terms and methodology

This note provides CICERO Shades of Green's second opinion of the client's framework dated 2023. This second opinion remains relevant to all green bonds and/or loans issued under this framework for the duration of three years from publication of this second opinion, as long as the framework remains unchanged. Any amendments or updates to the framework require a revised second opinion. CICERO Shades of Green encourages the client to make this second opinion publicly available. If any part of the second opinion is quoted, the full report must be made available.

The second opinion is based on a review of the framework and documentation of the client's policies and processes, as well as information gathered during meetings, teleconferences and email correspondence.

'Shades of Green' methodology

CICERO Shades of Green second opinions are graded dark green, medium green or light green, reflecting a broad, qualitative review of the climate and environmental risks and ambitions. The shading methodology aims to provide transparency to investors that seek to understand and act upon potential exposure to climate risks and impacts. Investments in all shades of green projects are necessary in order to successfully implement the ambition of the Paris agreement. The shades are intended to communicate the following:

	Shading	Examples
°C	Dark Green is allocated to projects and solutions that correspond to the long- term vision of a low-carbon and climate resilient future.	-`O´- Solar power plants
°C	Medium Green is allocated to projects and solutions that represent significant steps towards the long-term vision but are not quite there yet.	Energy efficient buildings
°C	Light Green is allocated to transition activities that do not lock in emissions. These projects reduce emissions or have other environmental benefits in the near term rather than representing low carbon and climate resilient long-term solutions.	For the second s

The "Shades of Green" methodology considers the strengths, weaknesses and pitfalls of the project categories and their criteria. The strengths of an investment framework with respect to environmental impact are areas where it clearly supports low-carbon projects; weaknesses are typically areas that are unclear or too general. Pitfalls are also raised, including potential macro-level impacts of investment projects.

Sound governance and transparency processes facilitate delivery of the client's climate and environmental ambitions laid out in the framework. Hence, key governance aspects that can influence the implementation of the green bond are carefully considered and reflected in the overall shading. CICERO Shades of Green considers four factors in its review of the client's governance processes: 1) the policies and goals of relevance to the green bond framework; 2) the selection process used to identify and approve eligible projects under the framework, 3) the management of proceeds and 4) the reporting on the projects to investors. Based on these factors, we assign an overall governance grade: Fair, Good or Excellent. Please note this is not a substitute for a full evaluation of the governance of the issuing institution, and does not cover, e.g., corruption.



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Assessment of alignment with Green Bond Principles

CICERO Shades of Green assesses alignment with the International Capital Markets' Association's (ICMA) Green Bond Principles. We review whether the framework is in line with the four core components of the GBP (use of proceeds, selection, management of proceeds and reporting). We assess whether project categories have clear environmental benefits with defined eligibility criteria. The Green Bonds Principles (GBP) state that the "overall environmental profile" of a project should be assessed. The selection process is a key governance factor to consider in CICERO Shades of Green's assessment. CICERO Shades of Green typically looks at how climate and environmental considerations are considered when evaluating whether projects can qualify for green finance funding. The broader the project categories, the more importance CICERO Shades of Green places on the selection process. CICERO Shades of Green assesses whether net proceeds or an equivalent amount are tracked by the issuer in an appropriate manner and provides transparency on the intended types of temporary placement for unallocated proceeds. Transparency, reporting, and verification of impacts are key to enable investors to follow the implementation of green finance programs.

EU taxonomy assessment

CICERO Shades of Green has assessed the activities against the EU Taxonomy's technical screening criteria, including the do-no-significant-harm (DNSH) criteria. In addition, we have assessed alignment with the minimum safeguards, as described in article 18 of the EU taxonomy. To assess activities' taxonomy alignment, CICERO Green has reviewed the issuer's green bond framework, other supporting documents provided by the issuer, and written responses to questions on each asset's taxonomy alignment.



Appendix 1: Referenced Documents List

Document Number	Document Name	Description
1	Sveaskog Green Bond Framework 2023	
2	Klimatbokslut Sveaskog 2021	Emissions report
3	Sveaskog Annual- and Sustainability Report 2021	
4	EU ANNEX 1 (TAXONOMY) to the Commission Delegated Regulation (EU) supplementin Regulation (EU) 2020/852	1 g
5	The FSC National Forest Stewardship Standard o Sweden FSC-STD-SWE-03-2019 EN	f
6	Green Bond Report 2021	
7	Ett forandrat klimat: SMHI	Climate Risk Analysis
8	Sveaskog_Tjänstedeklaration_2022_EN	Sveaskog's policy for subcontractors
9	Net carbon sink in Sveaskog's forest over the next 30 years	Climate Benefit Analysis Report

Appendix 2: EU Taxonomy criteria and alignment

Complete details of the EU taxonomy criteria are given in taxonomy-regulation-delegated-act-2021-2800-annex-1 en.pdf (europa.eu)

Sveaskog has conducted a review of activities within sector 1. Forestry in accordance with the EU taxonomy on sustainable finance and has concluded that 1.3 Forest Management is the activity that is found within the company's operations. Sveaskog has undertaken a mapping exercise of its operations against the technical examination criteria found in activity 1.3 Forest Management. Only internal forestry operations are considered to be covered - external business operations such as purchases from private landowners, purchases from other forestry companies and imports are excluded.

-orest management						
Framework	Forestry					
activity						
Taxonomy	y 1.3 Forest Management, NACE II 02.10, 02.20, 02.30, 02.40					
activity						
	EU Technical screening criteria	Comments on alignment	Alignment			
Description of the activity	Forest management as defined by national law. Where national law does not contain such a definition, forest management corresponds to any economic activity resulting from a system applicable to a forest that influences the ecological, economic or social functions of the forest. Forest management assumes no change in land use and occurs on land matching the definition of forest as set out in national law, or where not available, in accordance with the FAO definition of forest	Relevant contextual information:Forest management as performed by Sveaskog is definedby Swedish Law through the Swedish Forestry Act andthrough FSC certification.Forest management according to Swedish law includes anobligation to always regenerate and to ensure that forestedland stay forested.	Likely aligned			
Mitigation criteria	 Forest management plan or equivalent instrument 1.1 The activity takes place on area that is subject to a forest management plan or an equivalent instrument, as set out in national 	Relevant contextual information: Swedish legislation does not require any forest management plan or equivalent instrument; however such plans are part of the FSC and PEFC requirements.	Likely aligned			

Envert Management



 law or, where national law does not define a forest management plan or equivalent instrument, as referred to in the FAO definition of 'forest area with long-term forest management plan'. The forest management plan or equivalent instrument covers a period of 10 years or more and is continuously updated. 	 Information provided by the issuer: (1.1) According to Sveaskog, forest management plans or equivalent planning routines are used for developing forest holdings according to set goals for timing of silvicultural and logging activities. It is a requirement by the two main forest certification schemes (FSC and PEFC). All of Sveaskog's forest holdings carry a FSC certification and are covered by forest management plans. Sveaskog confirms that the planning approach stretches over long time horizons and the data in the plan is updated continuously. For the strategic level planning, a 100-year planning horizon is applied and reviewed, at a minimum, every five years in order to estimate and determine the harvest levels for the coming five years. 	
1.2 Information is provided on the following points that are not already documented in the forest management plan or equivalent system: (a) management goals, including major constraints; (b) general strategies and activities planned to reach the management goals, including expected operations over the whole forest cycle; (c) definition of the forest habitat context, including main existing and intended forest tree species, and their extent and distribution; (d) definition of the area according to its gazetting in the land registry; (e) compartments, roads, rights of way and other public access, physical features including waterways, areas under legal and other restrictions; (f) measures deployed to maintain the good condition of forest ecosystems; (g) consideration of societal issues (including preservation of landscape, consultation of stakeholders in accordance with the terms and conditions laid down in national law); (h) assessment of forest related risks, including forest fires, and pests and diseases outbreaks, with the aim of preventing, reducing and controlling the risks and measures deployed to ensure protection and adaptation against residual risks; (i) all DNSH criteria relevant for forest management	 Information provided by the issuer: (1.2) The forest management plan is a continuously updated electronic map and register. According to Sveaskog, it encompasses all the Taxonomy's requirements – broadly speaking - including constraints. The issuer states that the availability of high-quality digital maps and good stand descriptions are prerequisites for the planning. The objective carried out by Sveaskog is a sustained-yield forestry, aiming at an optimization of the net present value of the entire holding given restrictions pertaining to set-asides and environmental consideration, as well as evenness in the timber flow to the industry. Besides the long-term strategic plans set out in the forest management plans, Sveaskog also confirms that it applies landscape planning in accordance with FSC criterion 6.8.1, including mapping of current conservation values as well as setting goals for restoration. According to Sveaskog, aquatic environments are part of these landscape plans as well 	Likely aligned



	 as information about cultural landmarks and important sites for reindeer husbandry. In detailed planning at the stand level, Sveaskog confirms that it performs an on-site natural value assessment of every stand. This involves measuring and quantifying a number of parameters, including the number of nature conservation trees, lying or standing dead wood and the existence of sensitive biotopes for animals and plants. Nature conservation assessments lead to various considerations and adaptions such as leaving biotopes, tree groups and individual trees untouched. They can also result in an entire stand being set aside for nature protection if the natural values are sufficiently high. According to the issuer, the social and cultural values of the forest are also taken into consideration and reflected in the forest management plans - in line with the national law and the FSC requirement. Consultations are as an example held before felling on issues that affect reindeer herders in the north or issues in urban areas concerning recreation and outdoor activities. Understanding and managing climate related risks are already part of Sveaskog's practices. Through its TCFD reporting, Sveaskog assesses forest related risks, including forest fires, pests and diseases outbreaks, with the aim of preventing, reducing and controlling the risks and deploy measures to ensure protection and adaptation against residual risks. 	
1.3 The sustainability of the forest management systems, as documented in the plan referred to in point 1.1, is ensured by choosing the most ambitious of the following approaches: (a) the forest management matches the applicable national definition of sustainable forest management; (b) the forest management matches the Forest Europe definition of sustainable forest management, and complies with the Pan-European Operational Level Guidelines for Sustainable Forest Management; (c) the management system in place complies with the forest sustainability criteria laid down in Article 29(6) of Directive (EU) 2018/2001, and as of the date of its application with the	Relevant contextual information: Sveaskog follows relevant Swedish legislation. The Forest Europe definition, the Pan-European Operational Level Guidelines and Article 29(6) of Directive (EU) 2018/2001 broadly speaking cover the same areas as Swedish legislation. Information provided by the issuer: (1.3) The issuer confirms that even-aged management with green tree retention is the dominating management system used in Sveaskog's forests today,	Likely aligned. Current Swedish legislation on forestry is s more detailed and prescriptive than the



implementing act on operational guidance for energy from forest biomass adopted under Article 29(8) of that Directive.	and that this is in line with national forestry guidelines and legislation on sustainable forest management. According to Sveaskog, Swedish legislation on this matter (option (a)) is far more detailed than option (b) or (c). This system is characterized by the maintenance of a more or less even age structure of trees within individual forest stands, with one single tree cohort (not considering the trees and areas retained for environmental and social purposes) generally established through regeneration after clearcutting. It involves a sequence of silvicultural treatments that are implemented during the rotation. After cutting, the site is always regenerated and Sveaskog always leaves at least 10 trees /hectare as a minimum. Around 10% of the old stand is generally retained and leaving seed trees or shelterwood for natural regeneration is common.	alternatives listed.
1.4 The activity does not involve the degradation of land with high carbon stock (including wetlands, peatland)	Information provided by the issuer: (1.4) Sveaskog confirms that in compliance with the national law, its forest management does not involve the degradation of land with high carbon stock. The national law allows logging in connection to land with high carbon stock (e.g. wetlands and peatland) but it is prohibited to destroy the ground through e.g. mining of peat. Moreover, in general it is prohibited to drain wetlands and if such activity should be allowed an authorisation has to be received from the County Administrative Board. At the same time, it is not allowed to drain previously undrained areas under the FSC standard, meaning that no such activity is taking place on Sveaskog's forest holdings today	Likely aligned
 1.5 The management system associated with the activity in place complies with the due diligence obligation and legality requirements laid down in Regulation (EU) No 995/2010) [Laying down the obligations of operators who place timber and timber products on the market] 	Information provided by the issuer: (1.5) Sveaskog points out that it has FSC® Chain of Custody certificate to provide customers with timber products from well-managed forests and other controlled sources. One of the instruments that verify timber to avoid trading or sourcing wood from the	Likely aligned



1.6 The forest management plan or equivalent instrument provides for monitoring which ensures the correctness of the information contained in the plan, in particular as regards the data relating to the involved area.	five categories identified in FSC Standard is a constant controlling of suppliers from felling site to delivery to customer. According to Sveaskog, this is in compliance with the due diligence obligation and legality requirements laid down in Regulation (EU) No 995/2010. Further, this regulation has been implemented in Sweden and covers all wood sold in country. (1.6) Sveaskog states that through continuously updated forest management plans and inspections of the forest area, it can be ensured that the data relating to the area as well as the information contained in the plan is correct. Sveaskog has clarified that updates happen continuously as conditions change, and at least every 10 years (as per FSC criteria)	Likely aligned
 2. Climate benefit analysis 2.1 For areas that comply with the requirements at forest sourcing area level to ensure that carbon stocks and sinks levels in the forest are maintained or strengthened over the long term in accordance with Article 29(7), point (b), of Directive (EU) 2018/2001 the activity complies with the following criteria: (a) the climate benefit analysis demonstrates that the net balance of GHG emissions and removals generated by the activity over a period of 30 years after the beginning of the activity is lower than a baseline, corresponding to the balance of GHG emissions and removals over a period of 30 years starting at the beginning of the activity, associated to the business-as-usual practices that would have occurred on the involved area in the absence of the activity; (b) long-term climate benefits are considered demonstrated by proof of alignment with Article 29(7), point (b), of Directive (EU) 2018/2001. 	 Relevant contextual information: Article 29 (7) point (b), of Directive (EU) 2018/2001 covers Sustainability and greenhouse gas emissions saving criteria for biofuels, bioliquids and biomass fuels: Biofuels, bioliquids and biomass fuels produced from forest biomass taken into account for the purposes referred to in points (a), (b) and (c) of the first subparagraph of paragraph 1 shall meet the following land-use, land-use change and forestry (LULUCF) criteria: b) where evidence referred to in point (a) of this paragraph is not available, the biofuels, bioliquids and biomass fuels produced from forest biomass shall be taken into account for the purposes referred to in points (a), (b) and (c) of the first subparagraph of paragraph 1 if management systems are in place at forest sourcing area level to ensure that carbon stocks and sinks levels in the forest are maintained, or strengthened over the long term. Information provided by the issuer: (2.1) According to the company, based on Swedish national regulation and the FSC certification, Syeaskog's forest holding complies with 	Likely aligned The outcome of the climate benefit analysis is highly sensitive to the assumptions used, both the baseline scenario and future predictions.



	sustainability criteria in article 29 (7) point B, of Directive (EU) 2018/2001. Sveaskog annually reports the climate benefit of its forest holdings and states that the climate benefit in the form of the stock of bound carbon in the standing forest and in long-lived products is annually increasing (not just over a 30- year period). Additionally, the issuer has recently commissioned an analysis against a business-as-usual (BAU) scenario (consisting of general predictions for the development of national forest carbon sinks in Sweden) which predicts a higher net uptake of GHG over a 30 year period on the basis of Sveaskog's forest management plan.	
 2.2 For areas that do not comply with the requirements at forest sourcing area level to ensure that carbon stocks and sinks levels in the forest are maintained or strengthened over the long term in accordance with Article 29(7), point (b), of Directive (EU) 2018/2001 the activity complies with the following criteria: (a) the climate benefit analysis demonstrates that the net balance of GHG emissions and removals generated by the activity over a period of 30 years after the beginning of the activity is lower than a baseline, corresponding to the balance of GHG emissions and removals over a period of 30 years starting at the beginning of the activity, associated to the business-as-usual practices that would have occurred on the involved area in the absence of the activity. (b) the projected long-term average net GHG balance of the activity is lower than the long-term average GHG balance projected for the baseline, referred to in point 2.2, where long term corresponds to the longer duration between 100 years and 	Information provided by the issuer: This is not relevant for Sweden as the country meets criteria 2.2 (all areas comply with the requirements at forest sourcing area level)	Not relevant
the duration of an entire forest cycle 2.3. The calculation of climate benefit complies with all of the following criteria: (a) the analysis is consistent with the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories. The climate benefit analysis is	<u>Information provided by the issuer:</u> (2.3) Sveaskog has recently (February 2023) carried out a climate benefit calculation through the use of a third-party (Dr Peter Holmgren, Future Vistas). The	Likely aligned
based on transparent, accurate, consistent, complete and	issuer confirms that the climate benefit analysis has	



*CICERO Shades of now a part of S&P Global Green

	comparable information covers all carbon pools impacted by the	been carried out in accordance with the relevant	
	activity including above ground biomass belowground biomass	(a) (b) (c)	
	deadwood litter and soil ratios on the most conservative	enteria (a)-d) of enteria 2.5 of the EO Taxonomy.	
	deadwood, filler and son, felles on the most conservative		
	assumptions for calculations and includes appropriate		
	considerations about the risks of non-permanence and reversals		
	of carbon sequestration, the risk of saturation and the risk of		
	leakage. (b) the business-as-usual practices, including harvesting		
	practices, are one of the following: (i) the management practices		
	as documented in the latest version of the forest management		
	plan or equivalent instrument before the start of the activity, if		
	any; (ii) the most recent business-as-usual practices prior to the		
	start of the activity; (iii) the practices corresponding to a		
	management system ensuring that carbon stocks and sinks levels		
	in the forest area are maintained or strengthened over the long		
	term as set out in Article 29(7), point (b), of Directive (EU)		
	2018/2001 (c) the resolution of the analysis is proportionate to		
	the size of the area concerned and values specific to the area		
	concerned are used (d) emissions and removals that occur due to		
	natural disturbances, such as pests and diseases infestations		
	forest fires wind storm demogras that impact the area and cause		
	undemenformennes de net result in non compliance with		
	Description (EU) 2020/952, presided that the alignetic har after		
	Regulation (EU) 2020/852, provided that the climate benefit		
	analysis is consistent with the 2019 Refinement to the 2006		
	IPCC Guidelines for National Greenhouse Gas Inventories		
	regarding emissions and removals due to natural disturbances.		
2.	Guarantee of permanence	Information provided by the issuer:	Likely
	3.1. In accordance with national law, the forest status of the area		aligned
	in which the activity takes place is guaranteed by one of the	(3.1) Sveaskog confirms that the area of Sveaskog's	
	following measures: (a) the area is classified in the permanent	forest holdings is classified in accordance with the	
	forest estate as defined by the FAO; (b) the area is classified as a	global definitions set out by the FAO.	
	protected area; (c) the area is the subject of any legal or		
	contractual guarantee ensuring that it will remain a forest.	(3.2) Through a continuously updated forest	
		management plan with the objective of sustained-	
	3.2. In accordance with national law, the operator of the activity	yield forestry, Sveaskog commits to continue to seek	
	commits that future updates to the forest management plan or	the climate benefits determined in the climate benefit	
	equivalent instrument, beyond the activity that is financed, will	analysis.	
	continue to seek the climate benefits as determined in point 2.		
	Besides, the operator of the activity commits to compensate any	Sveaskog moreover confirms that climate benefit	
	reduction in the climate benefit determined in point 2 with an	calculations currently manage to canture unforeseen	
	equivalent climate benefit resulting from the conduct of an	events that may reduce the climate benefits	
	activity that corresponds to one of the forestry activities defined	events that may reduce the enhance benefits.	
	in this Regulation		
	in this Regulation.		



	3. Audit Within two years after the beginning of the activity and every 10 years thereafter, the compliance of the activity with the substantial contribution to climate change mitigation criteria and the DNSH criteria are verified by either of the following: (a) the relevant national competent authorities; (b) an independent third-party certifier, at the request of national authorities or the operator of the activity. In order to reduce costs, audits may be performed together with any forest certification, climate certification or other audit. The independent third-party certifier	 Information provided by the issuer: External audits of Sveaskog's forest holdings are performed annually as part of certification according to FSC and ISO 14001. As the reporting requirements in regards to the EU taxonomy comes into force, audits will encompass the criteria for substantial contribution to climate change mitigation and the DNSH criteria. FSC audits are carried out by organisations considered to be a 'national competent 	Likely aligned
	funder, and may not be involved in the development or operation of the activity.	autnority'.	
	4. Group assessment The compliance with the criteria for substantial contribution to climate change mitigation and with DNSH criteria may be checked: (a) at the level of the forest sourcing area as defined in Article 2, point (30), of Directive (EU) 2018/2001; (b) at the level of a group of holdings sufficiently homogeneous to evaluate the risk of the sustainability of the forest activity, provided that all those holdings have a durable relationship between them and participate in the activity and the group of those holdings remains the same for all subsequent audits.	 Information provided by the issuer: According to Sveaskog, the group assessment criteria refers to timber from areas where there is a lack of sufficient forest legislation at country or state level and that it is not applicable to Sveaskog's business. 	Not relevant
	EU Taxonomy DNSH-criteria	Comments on alignment	Alignment
Climate change adaptation	 The physical climate risks that are material to the activity have been identified (chronic and acute, related to temperature, wind, water, and soil) by performing a robust climate risk and vulnerability assessment with the following steps¹²: (a) screening of the activity to identify which physical climate risks from the list in Section II of this Appendix may affect the performance of the economic activity during its expected lifetime; (b) where the activity is assessed to be exposed to physical climate risks, a climate risk and vulnerability assessment to assess the materiality of the physical climate risks on the economic activity; (c) an assessment of adaptation solutions that can reduce the identified physical climate risk. 	 Information provided by the [issuer/company]: Sveaskog has conducted a climate risk and vulnerability assessment according to the DNSH criteria related to climate change adaptation . The report was conducted according to both the abovementioned technical screening criteria as well as the recommendations by the TCFD. The scenario analysis was conducted during 2021 with the support of Swedish Meteorological and Hydrological Institute (SMHI). The report was audited by Deloitte AB as part of the sustainability report. Adaptation solutions are inherent in the current use of sustainable forestry practices but Sveaskog is also planning to establish a climate adaptation plan 	Likely aligned

¹² The Taxonomy is referring to Appendix A in the Taxonomy Annex 1.





Sustainable use and protection of water and marine resources	Environmental degradation risks related to preserving water quality and avoiding water stress are identified and addressed with the aim of achieving good water status and good ecological potential as defined in Article 2, points (22) and (23), of Regulation (EU) 2020/852, in accordance with Directive 2000/60/EC of the European Parliament and of the Council and a water use and protection management plan, developed thereunder for the potentially affected water body or bodies, in consultation with relevant stakeholders. Where an Environmental Impact Assessment is carried out in accordance with Directive 2011/92/EU of the European Parliament and of the Council and includes an assessment of the impact on water in accordance with Directive 2000/60/EC, no additional assessment of impact on water is required, provided the risks identified have been addressed.	 Relevant contextual information: Sweden has incorporated the directives/regulation mentioned in national legislation. The EU water directive is implemented through three national regulations: The Environmental Code The Regulation on water management and water quality (förordningen SFS 2004:660) The instruction to regional county boards (förordning 2002:864 med länsstyrelseinstruktion). Information provided by the lissuer/companyl: According to the issuer, the content of this DNSH- criterion is addressed by FSC criterion 6.7, dealing with requirements for environmental care and nature conservation in connection to water courses, lakes and wetlands. Sveaskog has also clarified that EIAs are carried out when deemed necessary by national authorities 	Likely aligned
Transition to a circular economy (circular economy)	The silvicultural change induced by the activity on the area covered by the activity is not likely to result in a significant reduction of sustainable supply of primary forest biomass suitable for the manufacturing of wood-based products with long-term circularity potential. This criterion may be demonstrated through climate benefits analysis.	 Information provided by the [issuer/company]: Sveaskog confirms that this DNSH criterion is addressed by principle 5 "Benefits from the forest" of the Swedish FSC standard. Also FSC criterion 6.8 requiring ecologic and economic resilience is relevant. See also provisions for avoiding damages (FSC criteria 10.9, 10.11). 	Likely aligned
Pollution prevention and control	The use of pesticides is reduced and alternative approaches or techniques, which may include non-chemical alternatives to pesticides, are favoured, in accordance with Directive 2009/128/EC, with exception of occasions where the use of pesticides is needed to control outbreaks of pests and of diseases. The activity minimised the use of fertilisers and does not use manure. The activity complies with Regulation (EU) 2019/1009 or national rules on fertilisers or soil improvers for agricultural use. Well documented and verifiable measures are taken to avoid the use of active ingredients that are listed in Annex I, part A, of Regulation (EU) 2019/1021, the Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international	 Information provided by the [issuer/company]: Sveaskog states that requirements in this DNSH criterion fully coincide with provisions in the criterion 10 of the Swedish FSC standard. Concerning use of chemicals and pesticides, these are covered by FSC criteria 10.7-10.8, 10.12. Regarding requirements for the use of fertilizers this is addressed in FSC criteria 10.6 The company has clarified that it currently uses fertilisers at a moderate level (5 000 – 10000 hectares annually, although zero in 2022) and in full compliance with the requirements and guidelines of the FSC standard to minimise such use. 	Likely aligned



	trade, the Minamata Convention on Mercury, the Montreal Protocol on Substances that Deplete the Ozone Layer, and of active ingredients that are listed as classification Ia ('extremely hazardous') or Ib ('highly hazardous') in the WHO Recommended Classification of Pesticides by Hazard. The activity complies with the relevant national law on active ingredients. Pollution of water and soil is prevented and cleaning up measures are undertaken when pollution occurs	 Sveaskog has clarified that it does not use manure nor pesticides in its operations. 	
Protection and	In areas designated by the national competent authority for conservation or	Relevant contextual information:	Likely
restoration of	in habitats that are protected, the activity is in accordance with the		aligned.
biodiversity and	conservation objectives for those areas.	The Swedish Forestry Act and FSC standard	
ecosystems			
	There is no conversion of habitats specifically sensitive to biodiversity loss	Information provided by the [issuer/company]:	
	or with high conservation value, or of areas set aside for the restoration of		
	such nabilats in accordance with national law.	• According to the issuer, Swedish law partly covers	
	 Detailed information referred to in point 1.2.(i) includes provisions for maintaining and possibly enhancing biodiversity in accordance with national and local provisions, including the following: (a) ensuring the good conservation status of habitat and species, maintenance of typical habitat species; (b) excluding the use or release of invasive alien species; (c) excluding the use of non-native species unless it can be demonstrated that: (i) the use of the forest reproductive material leads to favourable and appropriate ecosystem condition (such as climate, soil criteria, and vegetation zone, forest fire resilience); (ii) the native species currently present on the site are not anymore adapted to projected climatic and pedohydrological conditions; (d) ensuring the maintenance and improvement of physical, chemical and biological quality of the soil; (e) promoting biodiversity-friendly practices that enhance forests' natural processes; (f) excluding the conversion of high-biodiverse ecosystems into less biodiverse ones; ensuring the diversity of associated habitats and species linked to the forest; (h) ensuring the diversity of stand structures and maintenance or enhancing of mature stage stands and dead wood 	 the requirements of this criteria while FSC requirements do so in more detail. According to the issuer, the aims and guidelines of this DNSH criteria are covered at a detailed level by the criteria 6 of the Swedish FSC standard, dealing with protection and restoration of biodiversity. Especially relevant are the FSC criteria 6.1-6.6 and 6.8-6.10. Requirements for protection of High conservation forests are covered in FSC principle. 	

Appendix 3: About CICERO Shades of Green

CICERO Shades of Green, now a part of S&P Global, provides independent, research-based second party opinions (SPOs) of green financing frameworks as well as climate risk and impact reporting reviews of companies. At the heart of all our SPOs is the multi-award-winning Shades of Green methodology, which assigns shadings to investments and activities to reflect the extent to which they contribute to the transition to a low carbon and climate resilient future.

CICERO Shades of Green is internationally recognized as a leading provider of independent reviews of green bonds, since the market's inception in 2008. CICERO Shades of Green is independent of the entity issuing the bond, its directors, senior management and advisers, and is remunerated in a way that prevents any conflicts of interests arising as a result of the fee structure. CICERO Shades of Green operates independently from the financial sector and other stakeholders to preserve the unbiased nature and high quality of second opinions.

