Tornator Oyj
Green Finance Second Opinion

18th April 2023

Executive Summary

Tornator is a Finnish forest management company. The company primarily owns forests in Finland, but also has some holdings in Estonia and Romania. Its core business is production and sale of timber, but it also engages in the development of wind power projects, sells waterfront building plots and leases land. Its forests are both FSC and PEFC certified.

The eligible categories in Tornator's green finance framework are environmentally sustainable management of living natural resources and land use, and terrestrial and aquatic biodiversity. The largest share of proceeds will go towards the first category, more specifically forest acquisitions. The framework is an update from Tornator's 2019 green finance framework, with the main change being the inclusion of additional biodiversity measures.

We rate the framework CICERO Dark Green and give it a governance score of Good. Sustainable forestry has positive climate impacts, both in the growing phase (when trees act as CO_2 sinks) and in the use phase (when wood products can replace fossil-fuel intensive ones). The activities financed by the framework contribute to such positive impacts. Tornator's forests are FSC and PEFC certified and the issuer operates following the net forest growth principle, ensuring an increase over time of the carbon sequestered by the forests. Nevertheless, intensive harvesting practices and poor bio- and species diversity are some of the criticisms held against forest companies by some stakeholders; NGOs from time to time campaign on such subjects. Climate change presents risks to forests in the form of droughts, wildfires, and insect infestations but Tornator shows awareness of these risks and takes them into consideration in its operations.

SHADES OF GREEN

CICERO Dark Green

GOVERNANCE ASSESSMENT

GREEN BOND/LOAN PRINCIPLES

Based on this review, this framework is found in alignment with the principles.

Strengths

Healthy growing forests have positive sequestration properties and help adapt to a changing climate. Tornator manages its forests according to the principle of net forest growth, this entails that felling volumes do not exceed forest growth, ensuring that forests remain carbon sinks. The company has a target to increase carbon sequestration by its forests by 20% by 2030. Moreover, the use of timber in building and other materials contribute to locking in the sequestration and can substitute for fossil-intensive materials. In sum, the activities financed under this framework constitute a key part of the puzzle of the low carbon future.

The company is increasingly engaging with biodiversity. This appears to be an improvement from the previous green finance framework. In the context of the issuer's recently launched biodiversity programme, eight qualitative or quantitative targets have been set, including restoring 3,000 ha or mire habitats, stronger biodiversity consideration in forestry and increasing the structural variation in forests. The biodiversity category in the framework has been further developed with additional measures supporting these new targets, such as increasing the volume of deadwood and increasing the number of tree species.

Most of the timber harvested by Tornator is used in wood products; only wood not suitable for other purposes used in energy production. There are many competing uses of timber 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, as done by Tornator, is.

Pitfalls

Tornator's approach to sustainability relies heavily on the climate benefits of its products and the company appears less concerned about aspects related to operations such as emissions from harvesting and transport. This is exemplified by it not having an emission reduction goal, instead preferring a sequestration goal. In 2022, Scope 3 emissions from harvesting, logistics (transport) and processing in the value chain amounted to 362,000 tonnes CO_{2e}, roughly half of the biogenic carbon net removals by its forests. Responsibility for processing is not directly controlled by Tornator, and Tornator's main clients Stora Enso and UPM have targets validated by the Science Based Targets Initiative. Moreover, according to the company, Tornator has made efforts to cut the emissions from scope 1 and 2, for example by facilitating remote working. Nevertheless, the absence of an emissions reduction goal in addition to a sequestration goal and the lack of a comprehensive strategy for reducing emissions from harvesting and logistics represent a missed opportunity for contributing to a more sustainable forestry value chain.

In 2022, Tornator felled higher volumes than planned in the long-term harvesting plan, due to an urgent need for raw material in the wake of stopped wood imports from Russia. The company expects increased wood sale to continue in 2023. After that Tornator states that it will reduce annual felling to a level compensating for the additional felling in 2022-2023 and balance the cumulative harvesting volume to be in line with the long-term harvesting plan. Last year, higher prices also led the company to lower its use of mineral fertilizers. Such fertilizers increase forest growth and contribute to higher carbon sequestration by the forest but are associated with emissions during the use phase and their production depends on natural gas.

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1 Tornator's environmental management and green finance framework

Company description

Tornator is a leading Finnish forest management company. The company owns forests in Finland, Estonia, and Romania, totalling 740,000 ha, with Finnish assets being responsible for around 90% of the business. The company's core business is the production and sale of timber, but it also engages in the development of wind power projects, sells waterfront building plots and leases land. Some 90% of its timber is sold to bioeconomy company Stora Enso, and Tornator has informed us that the vast majority of its timber is used in wooden products, such as building materials, pulp and paper, and a wide range of other products.

Tornator was established in 2002 and is owned by the bioeconomy company Stora Enso and Finnish pension insurance companies.

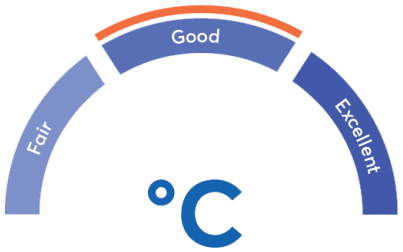
This green finance framework is an update of a framework issued in 2019, under which a total of EUR 750 million has been issued/obtained in green debt/loans.

Governance assessment

Tornator has a CO_2 sequestration goal, but not an emission reduction goal. The company is right in highlighting the considerable net positive sequestration of its business but by downplaying operations-related emissions it may lose out on opportunities to reduce its own footprint. It also does not appear to engage with subcontractors or value chain partners on this issue, although its largest partner (Stora Enso) has its own climate related targets. On the other hand, it is a strength that the company now has biodiversity goals and initiatives in place and that these are tracked and timebound.

The company has started assessing climate-related physical and transition risk, and its annual report follows some of the recommendations of the TCFD. In addition, the company has used scenario analysis on the effects of climate change in Finland on forests, and works to improve the health of the forest to make it more resilient. This appears to be an improvement since the last framework.

The current annual report of the company lacks details on the calculation methodology to arrive at the overall sequestration figure. The planned annual allocation and impact report includes relevant environmental metrics, all projects financed will be described in the reporting and the issuer is committed to disclosing methodologies and assumptions used for calculating impacts.



The overall assessment of Tornator's governance structure and processes gives it a rating of Good.

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, biodiversity loss. 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. Tornator 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 have 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).

Environmental strategies and policies

Tornator has been calculating its carbon footprint (emissions and sequestration) since 2018. Own emissions in 2022 (Scope 1) were 1,674 tonnes CO_2e, coming mostly from soil preparation, tending of seedling stands and fossil fuel emissions from company vehicles. The company reports no Scope 2 emissions (negligible and only tied to office use). Scope 3 emissions consist of harvesting, logistics (transport) and processing in the value chain and in 2022 amounted to 362,000 tonnes CO_2e. In comparison, Tornator reports that its forests absorb some 4 million tonnes CO_2 per year.

Tornator does not have an emission reduction goal, instead it has a sequestration target and a target to increase the substitutability effects of forest use by 50%. Efforts to reduce own emissions are limited to the development of digital applications which improve productivity and decrease the need for commuting. Sequestration of CO_2 takes place at the forest growing stage - in 2022 these were 670,500 tonnes - and at the use stage when forest products are used in buildings and other materials. This biogenic storage in 2022 was 1,764,500 tonnes (numbers have been calculated by an external consultant commissioned by Tornator). It has a goal of increasing carbon sequestration in absolute terms by 20% by 2030, through increased fertilisation, genetically improved seeds etc.

The overarching principle of Tornator's practices is *net forest growth* – this entails that felling volumes do not exceed forest growth, ensuring that forests remain carbon sinks. Tornator's forests are Forest Stewardship Council (FSC) and Programme for the Endorsement of Forest Certification (PEFC) certified. According to its latest annual report, in 2021 forest growth was about 10% higher than forest cut. Meanwhile, in 2022, Tornator felled higher volumes than planned in its long-term harvesting plan, as the stop of wood imports from Russia prompted a supply crunch. The company expects it to continue in 2023, but then plans to reduce annual felling to a level that compensates for the additional felling in 2022-2023. In addition, Tornator applied substantially less fertilisers due to poor availability and high prices in the wake of the war in Ukraine. According to the company, these yearly fluctuations are not expected to prevent it from achieving its long-term goals.

Tornator initiated a 10-year climate and biodiversity programme in 2021 and has three time-bound biodiversity goals as part of its strategy: 5,000 ha of new private nature reserves and forestry areas sold to the state as protected areas; 200 completed forest and aquatic habitat management sites, and 3,000 ha restored mires. A major component of the biodiversity improvement is to restore mires; another development is the company's recent engagement with the World Wildlife Fund (WWF) on a project to protect running waters. It participates in an industry collaboration project: "Development of Evidence based Key Performance Indicators (KPI's) for biodiversity 2020–2025".

Tornator has a Code of Conduct, with which also subcontractors – engaged primarily in silviculture work - must comply.

Tornator's sustainability reporting is based on the GRI and follows some of the recommendations of the TCFD. Tornator management has recently started analysing transition and physical climate risks. Tornator has used scenario analysis and research done by LUKE (National Resources Institute of Finland) and by Ilmatieteenlaitos (Finnish Meteorological Institute) that looks into the effects of climate change in Finland from forestry point of view as the basis for their own scenario analysis work. So far, the company has observed that increased temperatures have increased forest growth, while keeping the forests healthy is important for resiliency against expected extreme weather conditions. The company recognizes the uncertainty in how climate change will impact different types of tree species, while expecting that ongoing initiatives, such as using improved seeds and seedlings, increasing mixed forests and treatment types such as continuous cover forestry, contribute to forests that are more resilient to extreme weather.

Green finance framework

Based on this review, this framework is found to be aligned with the Green Bond Principles and Green Loan 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

Eligible assets are evaluated and selected by Tornator's Green Finance Committee, which meets at least on an annual basis or when needed and is responsible for evaluating the compliance of proposed assets with the eligibility criteria outlined in the Use of Proceeds section. This means ensuring alignment with the categories and criteria as specified in the use of proceeds section, replacing investments that no longer meet the eligibility criteria, and on a best effort basis, reviewing and updating the Green Finance Framework to reflect changes in Tornator's strategy, technology, and market or regulatory developments.

The Green Finance Committee consists of the Chief Financial Officer, the Environmental Manager and the Head of Corporate and Social Responsibility. The Green Finance Committee approves eligible assets in consensus (i.e., all members have a veto). The Green Finance Committee will keep record of meetings held and decision made. The committee is guided by the company Code of Conduct, which includes some biodiversity and climate considerations.

Management of proceeds

Tornator has established the Green Finance Framework to issue green debt instruments, i.e., green bonds, green commercial papers and to take up green loans, for which the proceeds will be entirely allocated to eligible assets. The legal documentations for each green financing shall refer to the green finance framework.

Tornator will establish a Green Register for the purpose of monitoring eligible assets, as well as to provide an overview of the allocation of the proceeds from the green financing issued to the respective eligible assets. The value of the eligible assets detailed in the Green Register will at least equal the aggregate proceeds of all outstanding green financing. If the total outstanding proceeds of green financing exceed the value of the eligible assets in the Green Register, proceeds yet to be allocated will be held in accordance with Tornator's liquidity management policy and managed as such (high quality money market funds).

No funds will be allocated to assets defined as "excluded" under this framework (i.e., projects for which the purpose fossil energy production, harmful resource extraction, or energy peat production). The Green Register will form the basis for impact reporting. If for any reason a financed eligible asset no longer meets the eligibility criteria, it will be removed from the Green Register.

Reporting

Tornator will provide an annual investor letter which will include allocation reporting and impact reporting. The allocation report will contain:

- A list of all projects financed including allocated amount and a brief description
- Information about the division of the allocation of green finance proceeds between new projects and refinancing
- The amount of unallocated proceeds

The impact report will aim to include information about the environmental impact of the eligible assets and will be provided with the reservation that not all related data can be covered, and calculations will be done on a best

effort basis. To report on environmental impacts, the issuer will use the same methodologies used in its general carbon accounting, namely the GHG Protocol and the impact report will be transparent on the assumptions used to calculate environmental impacts.

The issuer will separate out assets financed via loans, to provide added transparency and mitigate the risk of double counting in case of bond issuances related to the same assets financed by another institution.

The issuer plans to appoint an external independent auditor to annually assure the selection process for the financing of eligible projects and that the allocation of the proceeds of the green funds are done in accordance with the green finance framework.

2 Assessment of Tornator's green finance framework

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

Shading of eligible projects under Tornator's green bond framework

- Both financing and refinancing is permitted. In the bonds issued so far, the largest share of proceeds has gone towards refinancing.
- Both CAPEX and OPEX are eligible. OPEX will only consist of R&D and biodiversity related expenditures. The lookback period for OPEX is one year while there is no lookback period for CAPEX.
- Most funds will go towards the first category in Table 1, in particular towards forest acquisitions. In the bonds issued under the previous framework, 100% of proceeds went to forest acquisitions.
- Green finance proceeds will not be allocated to projects for which the purpose is fossil energy production, harmful resource extraction, or energy peat production. Some 500 hectares of Tornator's forest holdings is leased for energy peat production, comprising less than 0.1% of the company's forest land, however Tornator will not use the proceeds for energy peat production but could use them for reforestation of disused peat production areas.

Category	Eligible project types	Green Shading and considerations
Environmentally sustainable management of living natural resources and land use  	Environmentally responsible and socially beneficial management of natural systems including, but not limited to: • Sustainable forestry, where the forest land is certified in accordance with FSC and PEFC • Research and development projects with a positive environmental impact	**Dark to Medium Green** ✓ The sustainable management of land, including forested land, is a key piece of the puzzle for managing GHG emissions and adaptation to climate change. Tornator manages forests according to the principle of 'sustainable forestry' and through FSC and PEFC certification. FSC certification is generally seen as the most robust global standard for forest management[1] but PEFC has important complementary properties (e.g., greater supply chain scrutiny). Customers from different market segments often ask for one or the other and Tornator has both to cater to the various demands. ✓ Most of the forests included in this framework are in Finland, where government regulation and enforcement are of a good standard. This is also largely the case

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

for Estonia and Romania, where the double PEFC/FSC certification also provide additional comfort.

- ✓ The benefits of growing forests for wood products are twofold: in the growing phase forests absorb CO_2 and when used for sustainable materials (e.g., in buildings) the CO_2 is stored and often replaces fossil fuel-intensive products such as cement.
- ✓ However, sustainable forestry carries environmental risks: one is the intensive cultivation of a limited number of tree types (spruce, pine) which can be negative for biodiversity and can diminish resiliency to pests and climate change. This is a particular problem if old growth forests are cut down to clear areas for such activities. We understand that about 70% of Tornator's Finnish forests are pine, 20% are spruce and 10% 'other'.
- ✓ Felling practices can be another contentious aspect of forestry. Tornator has explained that they use different felling practices ranging from clear cutting to continuous cover felling. The selected harvesting method depends on the type of forest, soil, etc. Tornator has confirmed that it always leaves retention trees: this is required by FSC (a minimum of 10 trees per hectare).
- ✓ The use of certification is intended to mitigate these concerns and Tornator has additional biodiversity improvements as part of its company strategy. For example, it is restoring brooks/rivers in collaboration with WWF and participates in a project testing the use of mixed forest in comparison with single-species forest (SEKAVA).
- ✓ Nevertheless, concerns remain around the stringency and real benefits of forest certifications, both in relation to the requirements (most reasonably run companies are likely to qualify) and application (audits seldomly lead to suspension of certification). One area of contention on the requirements is that the FSC allows for the "minimal" conversion of natural forests, as long as the conversion affects a <5% of the land and does not threaten High Conservation Values; which could potentially allow for some deforestation.

- ✓ The issuer has confirmed that forest roads and purchase of fossil fuel machinery/vehicles are not eligible under the framework.
- ✓ The use of fertilisers is another environmental impact from 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 applied the fertilisers may release nitrous oxides (a potent greenhouse gas) into the atmosphere. Tornator sees fertiliser use as an instrument to increase forest growth and carbon sequestration and appears to apply it widely. The company argues that its approach to fertiliser use is through professional and careful planning, site selection, and timing and that these are the best ways to avoid negative effects of fertilisation.
- ✓ Tornator has clarified that peat production (for energy) is not an eligible activity under its green finance framework but that activities to restore peatlands are (see second project category).
- ✓ A significant portion of Finnish forests are planted on peatlands. Historically, these were often drained to maximise forest growth, and we understand draining is still permissible although not common. Draining peatlands can result in significant GHG emissions, as the CO_2 stored in the peat is released when drained, while the drainage also reduces the flood preventing properties of peatlands. New ditching of peatlands is not allowed under the FSC-certifications and will not be financed by the framework.
- ✓ Co-habitation can in some cases be a controversial issue between forest companies and local populations, including indigenous peoples. Tornator has informed us that their land holdings are not located in areas with Sami populations.
- ✓ Biomass for energy production is solely sold as a side-product of Tornator's operations, only from wood not suitable for other uses.

Terrestrial and aquatic biodiversity	The conservation, preservation and/or restoration of nature and biodiversity, as well as natural habitat and ecosystems including, but not limited to, the following: • Reforestation and restoration of damaged habitats: -Reforestation (e.g. disused peat production areas, agricultural lands or pylons) -Restoration of mire habitats back to carbon storage -Improvements to forest and aquatic habitats • The conservation of forests and woodlands • Protection and preservation of biodiversity and natural ecosystems: -Investments to improve the protection of key biotopes and natural sites -Introduction of protective thickets for forest species in forest management practices -Nature management measures to ensure the volume of deadwood in commercial forests -Improvements to mixed stands to enhance biodiversity by increasing the number of species and individuals in the forest -Expenditures to improve water quality by ensuring water protection and restoring small waters	**Dark Green** ✓ This category comprises restoration and biodiversity improvement projects, including collaboration projects with e.g., WWF. The category can also cover expenditures for acquiring land for conservation purposes, as well as maintenance costs. ✓ The eligible biodiversity measures are coherent with Tornator's newly launched Biodiversity Programme, which has four main themes: nature management of commercial forests, active habitat management, conservation, and biodiversity indicators. ✓ Tree diversity is a key component of biodiversity and Tornator is trying to increase the mix of its forests. In 2022, 9% of Tornator's forests were considered 'mixed' in the sense of a conifer-dominated forest having at least 25% hardwood and vice versa. We understand that Tornator aims to increase mixed forests everywhere, not just in a limited geographical area This policy is new and Tornator has updated its forest management guidelines to increase the proportion of mixed forests by paying more attention to mixed forests already at the nursery establishment stage. ✓ Restoration projects have climate and environmental benefits but are usually a small portion of overall land holdings. Tornator has a target to restore 3,000 ha of mire habitats. ✓ It should be noted that biodiversity improvements today are coming from a low baseline of poor biodiversity in the wake of a history of intensive monoculture. This applies to many northern European countries and is not unique to Tornator or Finland.	

Table 1. Eligible project categories

More on Forestry

Emissions from deforestation and forest degradation currently account for around 11% of greenhouse gas emissions globally[2]. 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 carbon[3].

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 bio composites.

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 fronts[4]. 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, the points of contention have centred around:

- 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 CO_2 versus the of role tree-based products in replacing other (often carbon-emitting) materials in buildings etc.

Finland and Sweden have been at the forefront of the Nordic debate around forests, due to their 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 are responding with updated strategies which reflect this: the Finnish government published an updated national forest strategy in 2022[5].

Forests can have areas dedicated to peat production: peat is very rich in CO_2 and harvesting peat for energy or other purposes releases this CO_2. Around 4-5% of Finland's energy needs are covered by burning peat. While peat production was popular in Finland in the past, the trend is now towards decreasing the use of this resource, due to its climate impact.

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

3 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)

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

5Available at https://mmm.fi/en/nfs2035

3 Terms and methodology

This note provides CICERO Shades of Green's second opinion of the client's framework dated April 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
Dark Green is allocated to projects and solutions that correspond to the long-term vision of a low-carbon and climate resilient future.	Solar power plants
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
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.	Hybrid road vehicles

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.

Assessment of alignment with Green Bond and Green Loan Principles

CICERO Shades of Green assesses alignment with the International Capital Markets' Association's (ICMA) Green Bond and Green Loan 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.

Appendix 1:
Referenced Documents List

Document Number	Document Name	Description
1	Tornator Green Finance Framework 2023_3 April	Green Finance Framework, dated April 2023
2	Annual Report 2022	Tornator's latest annual report
3	Green Finance Investor Letter 2021	Green Finance Impact Report
4	Tornator Code of Conduct	Code of Conduct applicable to suppliers
5	Tornator Oyj kestävän hakkuusuunnitteen määrittely	Tornator Sustainable Logging Plan

Appendix 2:
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.

Environmental Finance Bond Awards 2022 Winner
External assessment provider of the year

- **2021 Largest External Reviewer,** Climate Bonds Initiative Awards
- **2020 External Assessment Provider Of The Year,** Environmental Finance Green Bond Awards
- **2020 Largest External Review Provider In Number Of Deals,** Climate Bonds Initiative Awards
- **2019 External Assessment Provider Of The Year,** Environmental Finance Green Bond Awards
- **2019 Largest Green Bond SPO Provider,** Climate Bonds Initiative Awards
- **2018 External Assessment Provider Of The Year,** Environmental Finance Green Bond Awards
- **2018 Largest External Reviewer,** Climate Bonds Initiative Awards
- **2017 Best External Assessment Provider,** Environmental Finance Green Bond Awards
- **2016 Most Second Opinions,** Climate Bonds Initiative Awards