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Second Party Opinion

Grieg Seafood Green Finance Framework

Aug. 20, 2024

Location: Norway Sector: Aquaculture

Alignment With Principles

Aligned = 🗸

Conceptually aligned = O

O Not aligned = X

✓ Green Bond Principles, ICMA, 2021 (with June 2022 Appendix 1)

✓ Green Loan Principles, LMA/LSTA/APLMA, 2023

See Alignment Assessment for more detail.

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Medium green

Activities that represent significant steps towards a low-carbon climate resilient future but will require further improvements to be long-term low-carbon climate resilient solutions.

Our <u>Shades of Green</u> <u>Analytical Approach</u> >

Strengths Weaknesses Areas to watch

Grieg Seafood uses certification schemes throughout its entire value chain to address important environmental and biodiversity risks. The issuer has policies and certifications in place to mitigate deforestation risks linked to soy feed.

No weakness to report.

Being transported by air can more than double the overall life cycle emissions of farmed salmon, depending on the final destination. However, certified salmon transported by air tends to have lower emissions than other animal protein alternatives.

Grieg Seafood's inclusion of battery hybrid power management systems and vessels can decrease emissions in the near term. But

these technologies' possible connection with fossil fuels creates potential emissions and lock in risks.

Scientists and local stakeholders are concerned about fish welfare and biodiversity impacts of fish farming. Grieg Seafood is developing new technologies that reduce interactions between farmed and wild salmon and is collaborating on wild salmon enhancement projects.

Reporting on commercial paper (CP) can be a challenge for issuers due to the short tenure of the instruments. Grieg Seafood plans to mitigate this by including any short-term instruments that mature within an annual reporting cycle in the Green Finance Report for that calendar year, based on average outstanding volume over the year.

Eligible Green Projects Assessment Summary

Eligible projects under Grieg Seafood's green finance framework are assessed based on their environmental benefits and risks, using Shades of Green methodology.

Environmentally sustainable aquaculture	Medium green
Sustainable feed	
Sustainable fish farms, post-smolt and processing facilities	
Environmental management and fish welfare	
Research and development (R&D)	
Renewable energy and electrification	Medium green
Renewable energy	
Electrification	
Water and waste management	Medium green
Water management	
Waste management	

See Analysis Of Eligible Projects for more detail.

Issuer Sustainability Context

This section provides an analysis of the issuer's sustainability management and the embeddedness of the financing framework within its overall strategy.

Company Description

Norwegian salmon farming company Grieg Seafood ASA, headquartered in Bergen, has production sites in Norway (Finnmark and Rogaland), and Canada (British Columbia [BC] and Newfoundland). Grieg Seafood is Norway's seventh-largest salmon aquaculture company by market value and targets a harvest of 120,000-135,000 tons in 2026. The company controls the following supply chain steps: breeding, freshwater farming, seawater farming, harvesting, and sales/distribution. For 2023, the company reported a total turnover of Norwegian kroner (NOK) 7.02 billion (about \$645 million) and operational EBIT of NOK780 million (about \$71.7 million).

Material Sustainability Factors

Climate transition risk

The profound changes needed to limit global warming to well below 2°C mean climate transition risk affects all sectors. Food industry players like Grieg Seafood are exposed to these risks from stricter policies and changes in consumer behavior. Increased regulation may make transporting products by air and sea more expensive. Aquaculture feed supply chains may have substantial climate impacts, including deforestation and other land use changes from the production of soy, palm oil, and other plant-based ingredients. Failure to address these risks may hurt the group's market access and consumer demand, as well as the cost of, and access to, capital. The evolution of plant-based protein and cell-based meat production might also affect demand for seafood.

Physical climate risk

Increasingly frequent extreme weather events, such as storms, flooding, or landslides, may damage fish farm sites or otherwise disrupt operations and supply chains. Also, more intense heatwaves pose risks to fish health. Physical climate impacts on terrestrial and marine ecosystems, such as from increased drought, wildfires, and ocean acidification, may affect the supply of plant-based and marine ingredients for fish feed.

Biodiversity & resource use

Aquaculture facilities can markedly affect local water quality and biodiversity because of facility construction, antibiotics use, fish waste, excess feed, increased diseases, parasites such as sea lice, and fish escapes. Production and harvest of plant-based and marine ingredients used in aquaculture feed may contribute to terrestrial and marine biodiversity loss via deforestation and overfishing. Also, aquaculture depends heavily on ecosystem services that maintain the appropriate water temperature and ensure sufficient levels of water quality and flow. Disruption to such ecosystem services would likely hinder production.

Customer health & safety

The primary risk to customers' health in the food industry is food contamination and disease that could severely affect customers. Foodborne contaminants are ubiquitous. In the food sector, antimicrobial resistant superbugs and resistant bacteria have been found in meat and fish products including those categorized as Highest Priority Critically Important Antimicrobials, which are those with few or no alternatives to treat people with serious infections.

Impact on communities

Aquaculture operations can have various pronounced impacts on local communities. Large-scale aquaculture operations can lead to the displacement of local communities, changes in land use related to onshore facilities and upstream feed production,

and potential conflicts over water resources. Water pollution from aquaculture facilities can negatively affect local drinking water supplies and recreational water bodies. Moreover, the use of local resources for fish feed production can compete with community needs, leading to food insecurity. Additionally, antibiotic use and chemical runoff from aquaculture can pose health risks to local populations. Ensuring that local communities are engaged in decision-making processes and that their needs and rights are respected is crucial for the sustainable development of the aquaculture sector. Failure to address these social and environmental concerns may result in loss of social license to operate, protests, and other forms of community resistance, which can disrupt operations and damage a company's reputation.

Issuer And Context Analysis

The framework contains eligible projects associated with investments targeting Grieg Seafood's most material sustainability factors, specifically, climate transition risks and biodiversity and resource management. The categories of environmentally sustainable aquaculture, renewable energy and electrification, and water and waste management aim to address climate transition risks. Additionally, the sustainable food production and water and waste management categories have the potential to mitigate risks related to biodiversity and resource usage. Furthermore, we recognize that physical climate risks are relevant for the facilities and buildings within Grieg Seafood's operations.

The financed projects align with Grieg Seafood's goals to cut greenhouse gas (GHG) emissions by 35% by 2030 and by 100% by 2050, using a 2018 baseline. These targets cover scope 1, 2, and 3 emissions and apply to the company's operations across Norway and Canada. The issuer's emissions targets were validated by the Science Based Targets initiative (SBTi) in 2022, using the small and medium-sized enterprises approach. SBTi has since published the Forest, Land, and Agriculture (FLAG) recommendations that is tailored to the sector, and since Grieg Seafood verified its targets before this update, the sector specific targets are not used. Grieg Seafood's scope 3 emissions account for 92% of total emissions, with the most significant sources being fish feed (68%), followed by transportation (19%). The emissions vary depending on the location of fish farms; notably, the Newfoundland sites has significantly higher emissions than fish sites in BC, Rogaland, and Finnmark. This, according to Grieg Seafood, is because the site in Newfoundland is a greenfield project designed for high production volumes not yet achieved, and due to remote operations. The emission intensity per fish produced will likely go down when production volumes increase as planned. To reduce overall emissions, the issuer has invested in transportation-related emission reduction measures in a processing facility in Oslo. To reduce Scope 1 and 2 emissions, Grieg Seafood is focusing on electrification and narrowing the use of fossil fuels by, for example, investing in diesel-electric power and other technologies to increase the renewable energy share.

Grieg Seafood's work relating to assessing physical climate risks using climate scenario analysis is in its early days. Physical climate risks can damage fish farms and cause value chain disruptions for Grieg Seafood. The issuer currently does not consider physical climate risks in the selection of its sites. The company plans to continue to work on climate scenario analysis, which will supply its strategical management with stronger and more accurate insight. In 2023, Grieg Seafood used the recommendations from the Taskforce on Climate-Related Financial Disclosures (TCFD) to identify key risks and opportunities from climate change, identifying areas in need of further analysis, for example sea lice and its implications on the future production of fish, as it has high levels of uncertainty and varies between regions. Grieg Seafood intends to delve further into this topic in the future.

Scientists and local stakeholders have voiced concerns about fish welfare and biodiversity impacts of fish farming. There is an ongoing debate in Norway and British Colombia in Canada about adverse impacts from fish farming on wild salmon, including the effects of sea lice outbreaks. The Government of Canada announced a ban on open net-pen salmon aquaculture in BC coastal waters by end-June 2029. Although Grieg Seafood has continued to conduct business in BC as normal, it has decided that any new strategic and large scale project is to be put on halt

for now. Grieg Seafood has shared its concern for the declining wild salmon populations and that it is committed to farm with the lowest possible impact and to continuously improve its operations. The company is developing new farming technologies that reduce interactions between farmed and wild salmon and is engaged in wild salmon enhancement projects together with First Nations partners. By investing in land-based smolt facilities, Grieg Seafood can increase its production on land and thereby reduce the risks of lice and other diseases affecting marine life. To engage with important stakeholders, such as indigenous communities, Grieg Seafood collaborates with working groups and supporting environmental river programs. Furthermore, management conducts farm visits, one-on-one conversations, and group meetings, at local events and through the media and social media, alongside regularly held formal community events in all of the communities where it operates.

Alignment Assessment

This section provides an analysis of the framework's alignment to Green Bond/Loan principles.

Alignment With Principles

Aligned = 🗸

Conceptually aligned = O

Not aligned = 🗶

- ✓ Green Bond Principles, ICMA, 2021 (with June 2022 Appendix 1)
- ✓ Green Loan Principles, LMA/LSTA/APLMA, 2023

✓ Use of proceeds

We assess all the framework's green project categories as having a green shade, and the issuer commits to allocating the net proceeds issued under the framework exclusively to eligible green projects. Please refer to the Analysis of Eligible Projects section for more information on our analysis of the environmental benefits of the expected use of proceeds. Green projects, which include those relating to environmentally sustainable aquaculture; renewable energy and electrification; water and wastewater management. Furthermore, the maximum lookback period to refinance operational as well as R&D expenditure is three years, which is in line with the market practice. However, there will be no limitation on the look-back period for capital expenditure. Grieg Seafood will disclose the proportion of proceeds used for financing versus refinancing.

✓ Process for project evaluation and selection

The framework outlines the process to select and approve eligible projects and assets. The company's Green Finance Committee (GFC) manages the selection process and holds the right to exclude any eligible green project already funded if the project no longer meets the eligibility criteria defined in the framework. Furthermore, the GFC will meet annually, and the decisions are made consensually. Environmental and social risks are managed during project evaluation to align with the company's sustainability strategy. Group level policies guide project execution, ensuring continuity and addressing impacts on stakeholders and the environment. We view positively that Grieg Seafood clearly outlines an exclusion list, including fossil energy production, nuclear energy generation, weapons and defense, potentially environmentally harmful resource extraction, gambling, and tobacco.

✓ Management of proceeds

Grieg Seafood will use a register to ensure that the allocation of the net proceeds of issuances under the framework finance exclusively eligible projects. Furthermore, if projects and assets are divested, or no longer in line with the framework's eligibility criteria, they will be removed from the green finance register. The unallocated proceeds will be temporally invested or managed by the finance department in accordance with Grieg Seafood's overall liquidity management policy.

✓ Reporting

Grieg Seafood commits to disclose the allocation and impact of proceeds annually in its Green Finance Report, either as a stand-alone document or within its annual report until full allocation. Allocation reporting will include information on the nominal amount of outstanding green bonds, total aggregated proportion of green bond net proceeds used per green project category, distribution between new financing and refinancing, and the amount of unallocated proceeds. Grieg Seafood will also report on the actual environmental impact of eligible projects financed by green bonds, along with the calculation methodologies as stated in the framework. We see it as positive that Grieg Seafood commits to receiving limited assurance on the allocation of the net proceeds on an annual basis and until full allocation. Annual reporting on CPs can be a challenge for issuers due to the short tenure of the instruments. To mitigate this, Grieg Seafood notes that any short-term instruments that mature within an annual reporting cycle, will be included in the Green Finance Report for that calendar year, based on average outstanding volume over the year.

Analysis Of Eligible Projects

This section provides details of our analysis of eligible projects, based on their environmental benefits and risks, using the Shades of Green methodology.

Over the three years following issuance, Grieg Seafood expects to allocate over 97% of proceeds to the environmental sustainable aquaculture project category; approximately 1% to the renewable energy and electrification project category; and the remaining to the water and waste management project category.

The issuer expects 27% of proceeds to be allocated to refinancing projects, while 73% of proceeds will be directed to finance new projects.

Overall Shades of Green assessment

Based on the project category shades of green detailed below, and consideration of environmental ambitions reflected in Grieg Seafood Green Finance Framework we assess the framework Medium green.

Medium green

Activities that represent significant steps towards a low-carbon climate resilient future but will require further improvements to be long-term low-carbon climate resilient solutions.

Our <u>Shades of Green</u> <u>Analytical Approach</u> >

Green project categories

Environmentally sustainable aquaculture

Assessment

Medium green

Sustainable feed

Investments and expenditures related to:

- Procurement of marine feed ingredients in compliance with Grieg Seafood's accepted sustainability certification schemes.
- Procurement of soy ingredients certified according to Proterra or Round Table on Responsible Soy (segregated).
- Procurement of feed that either support commercialization of novel fish feed ingredients with a smaller footprint, or improve fish health and welfare.

Sustainable fish farms, post-smolt, and processing facilities

Investments and expenditures related to:

- Recirculating aquaculture systems (RAS).
- Fish farm facilities that are certified by the Aquaculture Stewardship Council (ASC), or in preparation to becoming ASC certified.
- Processing facilities that are certified, or in preparation to becoming certified, using Chain of Custody (CoC) to ensure traceability of ASC certified products.

Environmental management and fish welfare

Investments and expenditures related to:

- Efforts to improve fish welfare, including but not limited to welfare monitoring, sea lice management and reduction of antibiotics use.
- Efforts to restore and enhance ecosystems, such as technology for escape prevention.

Digitalization of farming operations, including but not limited to advanced sensors, artificial intelligence and automation.

Research and development (R&D)

Investments and expenditures related to R&D aimed at improving the environmental performance of feed, fish farms, or processing of fish.

Analytical considerations

- Aquaculture can provide a lower emissions protein alternative to livestock farming. However, the potential climate benefit depends on the sustainability of feed sourcing and product transportation emissions. Biodiversity and ecosystem risks, such as pollution from fish waste, feed, chemical treatments, and antibiotics, as well as wild population impacts from fish escapes and parasites or disease transfer, must also be carefully managed at offshore sites. Grieg Seafood expects to mainly finance sustainable fish farms under this project category, where farms in both Norway and Canada are expected to receive financing (estimated 63% and 37%). We assign a Medium green shade to the project category based on criteria for certifications addressing feed sourcing sustainability and biodiversity safeguards in operations, and a strong focus on reducing the carbon footprint of the salmon, and that the vast majority of fish will be sent by other modes of transportation than air freight.
- Production of fish feed is often associated with a risk of biodiversity loss and climate emissions mainly due to soy farming practices, where there is a possibility that demand for soy used in feed may drive up deforestation and associated direct and indirect land-use change emissions. In 2023, all of Grieg Seafood's marine ingredients (excluding trimmings) were based on fisheries certified according to the Marine Stewardship Council (MSC) or MarineTrust. All Brazilian soy protein concentrate was certified according to ProTerra or Round Table of Responsible Soy (segregated).
- Sustainability challenges apply to marine and other plant ingredients in salmon feed. Since Grieg Seafood is ASC certified, it applies limits on the use of wild fish as ingredients while also requiring a responsibly managed source, preferably certified. A small amount of palm oil (0.10% of raw material content) was used in Newfoundland and was certified according to Round Table on Sustainable Palm Oil.
- There are concerns about the local environmental impacts of aquaculture, including escapes, antibiotic and chemical pollution, overexploitation of wild fish stocks for feed, and sea lice. The ASC certification to aquaculture mitigates some of these issues by setting stricter limits than national regulation but has been criticized for tolerating 300 escaped fish per production cycle and for a lenient limit on hydrogen peroxide. Grieg Seafood strives to use as little antibiotics as possible; in 2023 the company reported zero antibiotics use for Rogaland and Newfoundland, while some was used in BC and Finnmark. Although Grieg Seafood has appropriate strategies in place to minimize environmental and biodiversity risks, certain hazards of sea-based fish farming cannot be fully mitigated in today's operating environment. This, in our view, is a key limitation, as captured in our Medium green assessment.
- We assess certified salmon transported by air as Light green. However, this component doesn't affect the overall shading of the category because it only constitutes 7% of produced fish volumes. Although sustainable aquaculture tends to produce lower emissions than other animal protein alternatives, air freight transport can more than double the climate footprint of delivered salmon, depending on the final destination. Grieg Seafood has provided estimated volumes sent by air freight until 2027, when its volumes will likely be at levels similar to those today. The issuer is currently working to increase its local processing and recently launched a development of a secondary processing plant at Gardermoen, close to Oslo in Norway. This plant will process 10,000 tons of salmon from head over gutted to different filet products. These products will then drastically lower CO2 emissions by reducing the weight of the product to market. Further, it aims to supply all of its American customers with Canadian salmon by trailer. It also notes that it is seeing an increased interest for frozen salmon to the American market, which it is preparing to offer from its 2025 secondary processing plant by sea transport.
- Although they are excluded under the framework, Grieg Seafood acknowledges the potential fossil fuel elements of fish farms, such as conventional generators and vessels. As part of its Climate Action Plan to reduce its carbon emissions by 35% in 2030, the company is taking steps to electrify its operations where possible. In Rogaland, 53% of its farms are powered by onshore electricity, and in Finnmark 57% of its farms are connected to the onshore grid. According to Grieg Seafood, it is more challenging to connect farms in BC and Newfoundland to the onshore grid, therefore it is investing in diesel-electric power and other technology to increase its renewable energy share.
- Sea-based aquaculture is particularly exposed to physical climate risks in terms of rising water temperatures, more frequent storms, and more frequent algae blooms. Grieg Seafood currently does not consider physical climate risks in the selection of its sites, but are investigating how the climate may affect its operations.

Renewable energy and electrification

Assessment

Renewable energy

Medium green

Investments and expenditures related to on-site renewable energy facilities, including but not limited to wind, solar and battery packs to power fish farms and vessels.

Electrification

Investments and expenditures related to:

- Electrification of farming sites
- Electric or hybrid vessels

Analytical considerations

- The aquaculture industry depends partly on fossil fuels. Investments to electrify installations, in renewable energy production, and in energy efficiency are important steps toward more climate-friendly operations. Electrification and moving away from fossil-powered vessels are critical to reducing Scope 1 GHG emissions in aquaculture. Our Medium green assessment on this category is based on our expectation of overall eligible activities' consistency with low carbon and climate resilient future, although the scope of this category is broad, and activities may vary from Dark to Light green.
- Hybrid vessels can achieve positive near-term emissions reductions when zero emissions alternatives are not available. At the
 same time, battery hybrid power management solutions may still connect to diesel engines, and they can continue to use fossil
 fuels. Associated emissions represent that further improvements must occur to reach targets set out in the Paris agreement.
 We therefore assess them as Light green.
- We assess Grieg Seafood's investments in electrifying its fish farming sites, renewable energy, and battery packs as Dark green, as these projects are well aligned with a low-carbon future.
- Investments in renewable energy technology, battery packs, and energy efficiency equipment align with Grieg Seafood's emission reduction targets for its own operations. However, there are indirect carbon emissions from a life-cycle perspective, for example, through battery sourcing and manufacturing, for example. Additionally, battery storage requires high volumes of environmentally sensitive materials, including lithium, manganese, and cobalt. The supply chains for these materials need to be appropriately managed, to avoid creating new adverse social and environmental impacts.

Water and waste management

Assessment

Water management

Medium green

Investments and expenditures related to improving wastewater treatment leading to reduced amounts of wastewater and increasing water recycling at both freshwater and processing facilities.

Waste management

Investments and expenditures related to:

- Solutions that enable efficient management of waste, including but not limited to biological waste and plastics, increased recycling rate and reduced need for virgin raw materials.
- Collection of non-solid waste such as sludge to be reused.

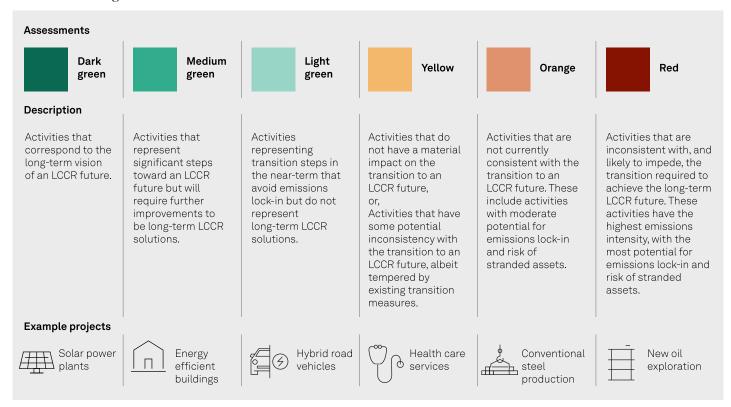
Analytical considerations

Waste management is an important pollution prevention measure that can avoid harm to human health and local ecosystems.
 Aquaculture facilities can have significant impacts on local water quality and quantity, and strong water treatment management

is necessary for the sustainability of the industry. Discharge of effluents and wastewater to the marine environments can cause toxic algae blooms and hurt the local ecosystem. Investments under this category can contribute to reducing such problems. Overall, we assign a Medium green shade to this category.

- Reducing upstream demand for raw material extraction and preventing downstream waste have the potential to limit climate emissions, local pollution, and harmful biodiversity impacts. Be aware that plastic recycling entails energy consumption, emissions, and discharges to the environment that require mitigation strategies. Additionally, plastic is a material derived from fossil fuel feedstocks that can only be recycled a limited number of times.
- Grieg Seafood acknowledges the global risks associated with water scarcity and assess water scarcity risk. The issuer informs us that according to the World Resource Institute and its Aqueduct water risk atlas, its farming operations are in areas where there is low risk associated with freshwater use.
- Using sludge for biogas production can be considered a renewable energy source and can generate substantially lower emissions than fossil fuels. Although energy recovery creates fewer emissions, there are still some emissions in the process, so the solution is not net zero.

S&P Global Ratings' Shades of Green



Note: For us to consider use of proceeds aligned with ICMA Principles for a green project, we require project categories directly funded by the financing to be assigned one of the three green Shades.

LCCR--Low-carbon climate resilient. An LCCR future is a future aligned with the Paris Agreement; where the global average temperature increase is held below 2 degrees Celsius (2 C), with efforts to limit it to 1.5 C, above pre-industrial levels, while building resilience to the adverse impact of climate change and achieving sustainable outcomes across both climate and non-climate environmental objectives. Long term and near term—For the purpose of this analysis, we consider the long term to be beyond the middle of the 21st century and the near term to be within the next decade. Emissions lock-in--Where an activity delays or prevents the transition to low-carbon alternatives by perpetuating assets or processes (often fossil fuel use and its corresponding greenhouse gas emissions) that are not aligned with, or cannot adapt to, an LCCR future. Stranded assets--Assets that have suffered from unanticipated or premature write-downs, devaluations, or conversion to liabilities (as defined by the University of Oxford).

Related Research

- Analytical Approach: Second Party Opinions: Use of Proceeds, July 27, 2023
- FAQ: Applying Our Integrated Analytical Approach for Use-of-Proceeds Second Party Opinions, July 27, 2023
- Analytical Approach: Shades of Green Assessments, July 27, 2023
- <u>S&P Global Ratings ESG Materiality Maps: Banks</u>, July 20, 2022

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