



TCFD REPORT 2021



LSG's Sustainability Ambition

Lerøy Seafood Group's goal is to create the world's most efficient value chain for sustainable seafood. To achieve this goal, we must look at how we can decrease our emissions, and also at how climate change affects our value chain and the possible opportunities this can provide us as a group.

To reduce our impact on the globe, we have set ambitious targets for climate emissions by 2030. Through Science Based Targets, LSG has committed to reduce the value chain's emissions by 46% overall.

To secure the value chain against climate related risks with potential to affect to our operations, we use a lot of resources to identify risks and put in place measures to secure our operations. We also look into the opportunities that climate change can give us and that can strengthen our operations. Among other things, we are working on a project that has been named "Sustainability in daily operations" to ensure that all our employees, in our various subsidiaries, are aware of how they can affect climate emissions in daily operations. We need all employees on board if we are to succeed with the goals we have set for the group.

About Lerøy Seafood Group

Lerøy Seafood Group ("LSG" or "the Group") is a fully integrated and world-leading seafood supplier, with more than 70 subsidiaries and a history dating back to 1899. The Group has three core business segments comprising production of salmon and trout ("Farming"), catches and processing of whitefish ("Wild Catch"), and processing, product development, marketing, sale and distribution of seafood ("VAP (value-added products), Sales & Distribution").

We currently employ around 5500 people worldwide, delivering seafood to more than 80 countries. We are a proud supplier of seafood, corresponding to some 1.75 billion meals every year.

Our main office is located in Bergen, Norway, and we have fishing vessels and fish farms in operation along the entire Norwegian coast. In addition to production and packaging plants in Norway, we have processing and distribution in Sweden, Denmark, Finland, France, the Netherlands, Portugal, Spain, Italy, and Turkey. We also have sales offices in the USA, Japan, and China.



The TCFD recommendations

Recommendations

There is a growing demand for decision-useful, climate-related information, and creditors and investors are increasingly demanding access to risk information that is consistent, comparable, and clear. The Task Force on Climate-related Financial Disclosure (TCFD) developed the TCFD disclosure recommendations to augment market transparency and stability. Additionally, TCFD encourages the standardized reporting structure for financially material climate-related risks and opportunities to give investors, lenders, and insurers enhanced comparability when assessing and pricing pertinent companies.

The TCFD recommendations are structured around four thematic areas that represent core elements of how organizations operate: governance, strategy, risk management, and metrics and targets. Moreover, the framework separates into three main categories: risks related to the transition to a lower-carbon economy, risks related to the physical impacts of climate change, and climate-related opportunities. The TCFD has also incorporated financial impact as an integral part of its disclosure recommendations.

In line with the TCFD disclosure recommendations, TCFD is an integrated part of LSG's annual financial reporting, and the report is reviewed by the audit committee and the Board annually.



Governance

The organization's governance around climate-related risks and opportunities

Strategy

The actual and potential impacts of climate-related risks and opportunities on the organization's business, strategy, and financial planning

Risk Management

The process used by the organization to identify, assess, and manage climate-related risks

Metrics and Targets

The metrics and targets used to assess and manage relevant climate-related risks and opportunities

TCFD Content Index

Governance	Strategy	Risk Management	Metrics & Targets
Disclose the organization's governance around climate-related risks and opportunities.	Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's business, strategy, and financial planning where such information is material.	Disclose how the organization identifies, assesses, and manages climate-related risks.	Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.
Recommended Disclosures	Recommended Disclosures	Recommended Disclosures	Recommended Disclosures
a) Describe the board's oversight of climate-related risks and opportunities.	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	a) Describe the organization's processes for identifying and assessing climate-related risks.	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.
b) Describe management's role in assessing and managing climate-related risks and opportunities.	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	b) Describe the organization's processes for managing climate-related risks.	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.

CDP Climate and TCFD

LSG has reported to the Carbon Disclosure Project (CDP) Climate questionnaire since 2013, as well as CDP Water (since 2020) and CDP Forests (since 2021). Reporting to the CDP has been an important step for the Group to better identify and manage the climate-related impacts of our business activities. 2022 will be the first year where our CDP report is aligned with the TCFD framework. The TCFD's focus and guidance on our climate-related financial impact and scenario analysis will be an important process, both to ensure transparency, but also to improve our understanding of how climate-related issues can affect us, and how we will mitigate expected changes in the future.

In 2021, LSG achieved a B score in CDP Climate, and we have ambitions to improve this score in 2022, by working systematically with our climate and sustainability strategy and initiatives. Since we started to record our emissions data in 2010, we have since then developed a solid reporting foundation. Our TCFD assessment has played an important role in further developing this, as it helps us to continuously assess what short- and long-term actual and potential risks are relevant to us. In this way, we identify gaps and build mitigation strategies around them to ensure future proofing of LSG.

TCFD disclosure summary

Governance

Disclose the organization's governance around climate-related risks and opportunities.

Board-level oversight

Climate-related risks and opportunities are integrated into LSG's overall governance mechanisms. The Board of Directors (BoD) has the ultimate responsibility for the company management, including oversight of ESG and climate-related strategic planning, and risk and opportunity management. The Chairperson of the Board has the overall responsibility for the management of climate-related issues in The Group. The Board has a responsibility to ensure that The Group's activities regarding climate issues are included in the company's strategy, and climate-related targets are defined and met.

The BoD has appointed one designated member with the extended responsibility for ESG and climate-related issues. This Board member holds quarterly meetings with the Head of ESG & Quality. Discussion points at these scheduled meetings include The Group's ESG and climate strategy and its developments, as well as the necessity for any adjustments to the strategy. They also review policies to be approved and amended (the Board is the ultimate approver of all

policies in the Group) as well as plans of action, budgets, and business plans. Further discussion points include climate-related KPIs, current and future projects, news, trends, and experiences regarding various ESG and climate-related issues. In addition to the scheduled quarterly meetings with the responsible Board member, the Head of ESG & Quality maintains a continuous dialogue with the BoD regarding all ESG and climate-related issues. The Board also reviews and provides guidance regarding risk management, and climate-related risks are included in the Group's overall risk analyses.

Performance objectives are set by the corporate management and approved by the Board. The Performance objectives are measured quarterly, and they also constitute a part of the discussion between the responsible Board Member and Head of ESG & Quality. A report regarding the Group's performance objectives and their development is produced and sent to the Boards Responsible for ESG for quarterly reviews. Discrepancies and negative trends regarding target achievement are reported to the Board which decides if any corrective actions should be taken in order to achieve the defined targets.

Through this structural setup, ESG and climate-related issues receive direct oversight from the Board. We believe that having oversight on the highest executive level is necessary for our success as a sustainable business.

Management-level oversight

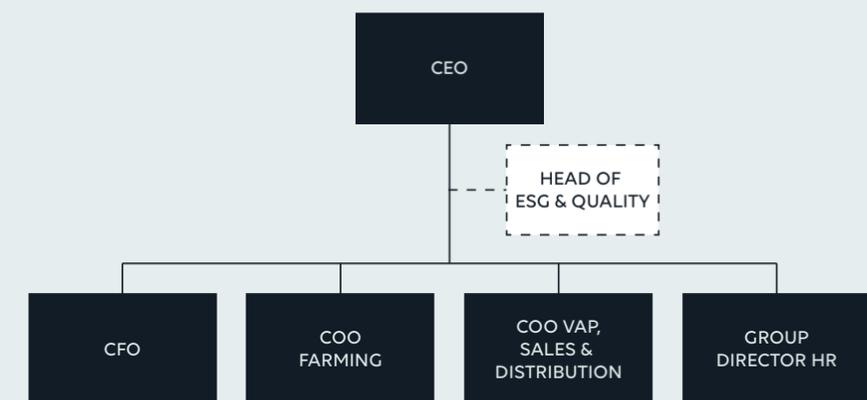
The CEO is the highest management level responsible for ESG and climate-related issues and is responsible for both assessing and managing climate-related risks and opportunities. The Head of ESG & Quality reports directly to the CEO of the Group. Lerøy considers this way of working highly effective taking into consideration the proximity of decision-making and ability to influence decisions regarding climate-related issues.

The ESG & Quality Department manages climate-related issues on daily basis. The department plays a central role regarding management, coordination, and reporting of climate-related issues. The Department consists of sixteen staff members. Five staff members are working exclusively with and are responsible for various aspects of ESG (including climate-related issues). The team dedicated to climate-related issues provides oversight, support, and coordination regarding climate-related matters across the Group, as well as reporting on ESG and climate-related issues both internally and externally. Each company in the Group is responsible for implementing climate-related actions (incl. monitoring and reporting) in their respective areas. Climate-related data is collected from the companies in the Group and is communicated both internally and externally.

Lerøy works with goal management where various KPIs are audited annually. Two of the KPIs are based on the group's emissions of greenhouse gases. The group management reviews KPIs set for climate every month. Strategic projects related to climate cuts have been initiated in order to achieve the goals that have been set. The group management reviews strategic projects on a monthly basis and compiles these with the results achieved. If necessary, corrective measures are implemented.

The Board's work on climate emissions

The management group work on climate emissions



Strategy

Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.

Identified climate-related risks and opportunities

Climate-related risks and opportunities influence Lerøy Seafood's strategic and financial planning and consider both short-, medium-, and long-term time horizons in the assessments of these risks and opportunities. The following definitions of time horizons are applied:

Time horizon	Year	Comment
Short-term	1 – 5	Daily operation
Medium-term	5 – 10	Goals SBT 2030
Long-term	10+	Goals 2050

In 2020/2021 the Group conducted a climate scenario analysis using the TCFD framework. The analysis was based on in-depth interviews with 20 key internal and external Group stakeholders and identified Lerøy's main risks and opportunities related to climate change. The results of the analysis were discussed with The Group's Management and serve as building blocks for the Group's future climate-related strategy.

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The below table summarizes the risk and opportunities considered in our climate-related risk assessments.

RISK TYPE	DESCRIPTION OF RISK	MITIGATION STRATEGY
CURRENT & EMERGING REGULATION		
	<p>LSG is continuously monitoring the actual and potential impacts of existing and emerging regulations, both in our production countries and in the markets we serve. The risks connected to these regulations are always included in our risk assessments.</p> <p>Grow-out licenses (being allowed to catch/produce a certain volume): Grow-out licenses are given to enterprises in politically adopted allocation rounds. The number of these is already limited, which is a risk we currently account for. Moreover, the allocation rounds may become even stricter and more selective in the future due to environmental concerns. This is highly relevant to LSG, as a large-scale producer of seafood.</p>	<p>To mitigate this risk, we stay in close contact with relevant authorities. By facilitating clear communication both ways, we stay up-to-date on potential upcoming changes to the licensing scheme, which makes it possible to plan accordingly.</p>
	<p>Uncertainty related to the EU Taxonomy and how this will impact Lerøy in the short term: As the seafood sector is among the sectors for which Taxonomy criteria are yet to be developed, there is high uncertainty associated with what share of LSG's business activities will be classified as "green". If a significant percentage of our activities are deemed to not be Taxonomy aligned, this will affect our access to capital.</p>	<p>In order to prepare for the EU Taxonomy, LSG focus on getting all relevant reporting on track, in line with best-practice procedures. We also cooperate closely with other organizations in the sector to identify gaps and improve our reporting.</p>
	<p>Carbon pricing and taxes: LSG transports products to oversea markets by air freight. Any carbon taxes will have a significant financial impact, making products less competitive. We use Marine Gas Oil (MGO) and diesel in our operations (both in farming and wild catch), and taxation on fossil fuels will impact the cost of fuel significantly</p>	<p>Our number one priority to mitigate this risk is to lower our emissions. We prioritize targeting the activities producing the most GHG emissions (MGO, fish feed, and air freight), as reductions in these categories will significantly lower our overall GHG output.</p>
	<p>Potential new legislation prohibiting direct sea operations and requiring production in closed systems: Today, Lerøy is heavily dependent on direct sea operations, and as such, increased regulations (and potentially prohibition in certain areas) will directly impact Lerøy's operations and business model.</p>	<p>LSG closely follows the developments of closed systems, as we see the risk of non-adaptation as highly relevant. Moreover, LSG is developing an innovative concept for closed production for <1kg fish. We are involved in various other projects of this nature, and a project that this will become an important part of our operations in the long term.</p>
	<p>Potential new legislation prohibiting the use of MGO: MGO is the most common form of fuel we use for the fleet. A ban on MGO would imply large adaptation investments for the Group.</p>	<p>We are participating in a project with GSP to develop new technologies/fuels, to substitute and phase out MGO.</p>

RISK TYPE	DESCRIPTION OF RISK	MITIGATION STRATEGY
	Risk of regulatory changes in relation to CO2 emissions allowance per site: This type of regulation could potentially be imposed on a variety of levels: Multilaterally, bilaterally, domestically, or locally. Therefore say we need to stay up-to-date on GHG-related regulations for all of the above, to ensure that we can stay compliant and adapt if regulations were to emerge.	Our main mitigation strategy here is to work towards electrification on all production sites, as this will significantly decrease our direct emissions.
	Stricter requirements for ASC/MSC certifications: It is imperative for Lerøy to continue to meet the criteria for the ASC/ MSC certifications. If these criteria are not met and the products lose their certifications, this could lead to loss of market share and decreased profitability.	We regularly participate in meetings where this is discussed. It is of high importance to us to keep our certification, and we ensure that we stay up-to-date on their associated requirements.
	New legislation and requirements concerning the use and disposal of styrofoam and plastics: Stringent regulations concerning the use and recycling of plastics in all markets may increase operating costs. As such, LSG will have to allocate capital to invest in new types of packaging material and transportation boxes.	As this risk is highly relevant to LSG, we participate in projects focused on developing new types of sustainable packaging.
	Taxation on, or prohibition of the use of soy in fish feed: Due to the issues and stigma connected to soy production globally, there is a risk that the purchasing and/or use of the commodity will be regulated. Traditionally (and currently), soy has been and is the dominating ingredient in fish feed. If the price of soy increases, this will incur significant costs for LSG. Moreover, if the use of the commodity in feed production is banned, LSG will need to find new alternatives. The current alternatives to soy-based feed on the market are either underdeveloped or highly priced. It is Lerøy's hope that both these aspects will improve in the coming years.	In order to avoid risks associated with soy, LSG is determined to significantly reduce the use of soy over time. We are involved in multiple projects focused on alternative feed ingredients (blue mussels, sugar kelp, etc), as well as we keep in close communication with our feed providers, in order to push the development of feed in the right direction.

RISK TYPE	DESCRIPTION OF RISK	MITIGATION STRATEGY
TECHNOLOGY		
	Based on our risk assessment, we have identified a variety of risks connected to the emergence of new technologies:	
	<ol style="list-style-type: none"> 1. Unsuccessful investments in new technologies: This may pose a financial and operational risk. In this regard, a relevant example pertaining to LSG would be to invest in a new fleet whose performance proved insufficient after a short period. This would mean that we again would need to invest in new technology, which would incur significant costs and may further affect our operations in the transition time. 2. Technological developments in alternative protein production: As developments in alternative-protein technologies are increasing, this may pose a threat to LSG if consumers shift from seafood to these alternative protein sources. 3. Technological developments in land-based fish farming: Land-based farming poses a threat to LSG, as this moves production closer to the market, eliminating the need for long-distance transport, especially air freight. 	<p>In order to avoid this, thorough assessments needs to be conducted prior to purchase/implementation. In order to implement new technology, we need to ensure that procedures are in place to minimize the potential impact of our operations.</p> <p>The development of new protein sources cannot be avoided. Therefore we are also engaged in projects developing new and high-quality forms of marine protein (mussel meal, sugar kelp, and microalgae).</p> <p>We are currently administrating multiple projects pertaining to land-based farming of juvenile fish (post-smolt), in many of our Norwegian locations. Moreover, we are participating in multiple land-based projects administered by other actors..</p>
MARKET		
	Globally, we are seeing an increased focus on how food production is connected to climate change, which is creating changes in market patterns	
	<p>Change in consumer needs and behavior: An example relating to this is younger consumers (with increasing purchasing power) changing their eating habits and having a larger focus on climate issues. Alternative protein sources can potentially threaten LSG's market position, causing a negative financial impact.</p> <p>Increasing demand for climate-friendly food: Climate action is becoming increasingly important for consumers, especially in Norway, where we deem it poses the largest market risk. Consumers set higher demands and requirements for the products they purchase. There may be an increase in demand for certified fish, and this may have a financial impact if these demands are not met.</p>	<p>We cooperate closely with grocery chains and other actors to conduct market research projects and reputation assessments. This way, we can assess consumer patterns and adapt accordingly.</p> <p>In order to meet these demands, we stay vigilant when it comes to fulfilling certification requirements. Moreover, we are actively working on decreasing our negative impact on the climate and environment, to increase the probability of staying compliant as the requirements become stricter.</p>

RISK TYPE	DESCRIPTION OF RISK	MITIGATION STRATEGY
REPUTATION		
	If LSG is unsuccessful in contributing to the transition to a low carbon economy, and/or fails to communicate our developments, there is a risk that this will tarnish our reputation and negatively affect our business. LSG is a well-known name to consumers, and given our brand recognizability, the risks associated with a tarnished reputation are significant.	
	The use of soy in fish feed is increasingly impacting our reputation. The use of soy in feed is becoming more and more controversial, as consumers' awareness of the issues connected to its production (deforestation, land-use change, etc.) is increasing. Even though 100% of the soy used in our feed is certified, the use of soy alone can damage our reputation.	First and foremost, we are actively working towards deforestation-free soy through our supplier requirements. We have signed on to the Cerrado Manifesto in support of expanding existing environmental legislation as it pertains to soy production. We must also endure that we communicate our efforts, to ensure that customers know we are actively trying to better the industry as a whole.
	Growing awareness of the use of air freight in transportation may harm the overall reputation of seafood.	LSG is working on decreasing the amount of product transported by air, which will have a positive impact on our GHG emissions. Optimizing our transportation logistics is high on the agenda, as this affects both our emissions, reputation, and bottom line.
	There is a long-term risk that aquaculture potentially may be blamed for ruining the ecosystem in the ocean.	To mitigate this risk, we take full responsibility for negative environmental impacts and monitor them closely. We also actively work to innovate our operations, both to future-proof the Group, and to push the industry as a whole in the right direction.
ACUTE PHYSICAL		
	Acute physical risks, such as storms, hurricanes, floods, and heavy precipitation of rain and snow are considered highly relevant risks for LSG. Such events may impact LSG's direct operations, or cause disruptions in the supply chain. For LSG, any events delaying production have a financial implication. Due to the uncertainty of the timing of events, LSG must be prepared for such scenarios.	
	Through our acute physical risk identification process, we identified the following as the most significant:	

RISK TYPE	DESCRIPTION OF RISK	MITIGATION STRATEGY
	Direct operations: Extreme weather events such as storms and waves can have direct implications on production sites and fishing operations, as they can increase the risk of tarnishing/breakage of installations. This may lead to major material damage and could cause LSG to lose production capacity short term which will have a direct impact on revenue. Material damage on production sites further increases the risk of escapes. Extreme weather can damage our fleet, so that fishing operations are not possible, directly impacting production capacity and revenue. Last year, two boats and two buoys had to be replaced due to extreme weather, which in total incurred a cost of 800 000 NOK. Though this was not detrimental to our production, it exemplifies that this is indeed a relevant financial risk.	All LSG's locations are certified according to NS 9415, which means that they are sturdy enough to endure extreme weather.
	Extreme weather can cause oil spills along the Norwegian coastline, further impacting aquaculture. If there are no healthy fish in Norwegian waters, operations standstill, directly impacting revenue.	We have agreements with local actors to access their oil spill emergency equipment, in case it is needed. We also have our own equipment, which is tested regularly.
	Extreme weather events pose direct health and safety risks on all sites and fleets.	We have developed robust procedures to ensure the health and safety of our employees.
	Facilities in coastal areas are increasingly exposed to landslides.	We are currently in the process of improving our facilities to mitigate this risk if occurs.
	Extreme weather events can lead to changes in water quality, leading to disease, parasites, and algae that can kill the fish overnight. This will have a direct impact on our operations and revenue. Any events impacting the biology in the ocean, especially algae bloom, is potentially a risk that can have a large impact on LSG's bottom line.	We have developed procedures to be implemented if this was to occur.
	Supply chain: Extreme weather, such as drought and floods can affect the production of raw materials that LSG depends on in feed (soy, wheat, rapeseed oil, corn). This can impact both the availability and cost of raw materials.	We conduct risk assessments for all ingredients used for our feed, in order to mitigate this risk.

RISK TYPE	DESCRIPTION OF RISK	MITIGATION STRATEGY
CHRONIC PHYSICAL	<p>The sea is LSG's biggest asset and any changes in sea levels or temperature can potentially impact the company's long-term livelihood.</p> <p>Rising sea temperatures: Sea temperatures affect the migration patterns of wild fish. Changes in sea temperatures lead the cod stock further north. This causes the fishing zones to move, directly impacting the transportation radius of trawlers, increasing fuel use and hence costs. It poses a large challenge for coastal fishing if cod is no longer found along the Norwegian coastline. There is a financial risk if LSG can not prove to our investors that we can take advantage of our full fishing quota. Changes in sea temperatures also lead other fish stocks north and closer to the coast. These species can make holes in the cages that can result in farming escapes. Increased sea temperatures also provide better conditions for salmon lice. This currently makes operations in the south more challenging and can also affect aquaculture in the north in the long term.</p> <p>A rise in sea temperature may also cause a change in the substances found in fish. This could make products less attractive to the market, decrease the demand and have a direct impact on revenue.</p> <p>Changes in oxygen levels, increased precipitation, changes in sea levels in fjords can lead to poorer conditions for farming, increasing the risk of disease and mortality.</p>	<p>Some species will be affected more than others, but it will be important for LSG to monitor this development in the long run. Higher sea temperatures may mean that we need to diversify our products and look into other species than the ones we are currently producing.</p> <p>To prevent salmon louse (which will become more relevant if the temperature of the water rises), we have invested 1178 billion NOK in wrasses between 2019 and 2021.</p>

OPPORTUNITY TYPE	DESCRIPTION OF OPPORTUNITY
MARKET SHIFTS	<ol style="list-style-type: none"> Alternative transportation solutions as sub chilling' to increase the durability of fresh fish will eliminate or reduce dependency on air freight of fresh fish. This may reduce costs and improve reputation. We are currently involved in multiple projects to test various alternative transportation solutions. Simultaneously, we are developing new cooling methods making it possible to transport more products by sea, rather than by air Innovations enabling the production of fish feed ingredients in markets closer to home, potentially in lab-based controlled environments, may eliminate or reduce the dependency on an unstable supply of raw materials such as soy. This will also reduce transportation, further reducing costs and emissions. We are involved in multiple projects to facilitate feed production closer to home (blue mussels, sugar kelp, microalga, and insect meal). For now, we are focusing on the Norwegian market, as we see great potential here. We are planning on expanding these projects, in order to create new revenue streams. Moving towards more climate-friendly packaging, with a focus on recycling, is a clear signal to the customer that LSG has serious considerations regarding climate and sustainability. This may have a positive impact on reputation and revenue growth. We actively work to improve our packaging. We are involved in multiple projects to create more sustainable alternatives, all while maintaining product safety. We also send employees to participate in courses focused on recycling and repurposing, in order to build internal competence. There are large opportunities associated with reaching young and future consumers who are concerned about climate change, as this can have a positive impact on revenue. To realize this opportunity, the key will be communication, transparency, innovation, and education. We will continue to contribute on educational platforms, to teach the younger population about our developments and the benefits of seafood.
NEW POSITIONING:	<ol style="list-style-type: none"> A shift in market preference from whole fresh, to refined fillets or frozen fish may increase market share, directly impacting revenue, and lower costs and emissions from air freight. Our strategy to realize this opportunity is to make it convenient for customers to purchase frozen and fillet fish. There are large opportunities associated with the perception of seafood and aquaculture as a contributor to sustainable food production for a growing world population. We will leverage the fact that marine proteins, when produced properly, have a significantly lower climate footprint than land-based proteins. We will need to continue to improve our products and be proactive in informing the market about the benefits of marine protein. Organizations such as EAT, European Green Deal, WRI are all pointing to aquaculture as a contributor to sustainable future food requirements. This may influence market perception. We are collaborating with EAT in a working group targeting issues in aquaculture, to show our dedication to bettering our own production and pushing the sector as a whole in a sustainable direction. A growing population will increase the global demand for food and protein. If seafood continues to be viewed as a healthy and sustainable protein and there will be opportunities for new and growing markets, which will in turn impact revenue growth. To realize this opportunity, efficiency and innovation will be very important. We want to be able to provide sustainable food for a growing population but need to ensure that we do not compromise on our climate commitments in the process. Investments in low-carbon solutions could lead to eligibility for financial support schemes from for instance Enova (a Norwegian government-owned company aiming to contribute to the restructuring of energy use and energy production.). We are already involved in multiple projects aimed at substituting fossil fuels with renewable sources, some of which Enova is involved in.

OPPORTUNITY TYPE	DESCRIPTION OF OPPORTUNITY
COLLABORATIVE EFFORTS:	
	<p>LSG sees a large potential to improve our competitive advantage by collaborating with suppliers to reinforce efforts to shift to climate-friendly solutions.</p> <ol style="list-style-type: none"> 1. There is a lot of potential for improvements in the fish feed industry, and by collaborating with our suppliers, we can ensure that we are at the forefront of sustainable feed developments. We engage in quarterly meetings with our feed suppliers to discuss developments, and we are working closely with other actors to develop and promote sustainable feed. 2. Work actively with transportation providers to be at the forefront of low-emission goods transportation. This will potentially improve reputation, reduce overall emissions and costs through avoided carbon or fuel taxes. We have in the last few years kicked off collaborative projects with our transportation suppliers, in order to realize this opportunity 3. Active communications with authorities and involvement in policy making will reduce climate-related risks and enable LSG to be ahead of any regulatory changes. LSG has established roles within our organization with the responsibility of this, in order to ensure that we keep up with potential and actual developments
RESOURCE EFFICIENCY:	
	<ol style="list-style-type: none"> 1. Resource efficiency is equivalent to cost efficiency and can be obtained through: 2. Increased resource efficiency in the processing of fish: <ol style="list-style-type: none"> a. More efficient use of products, such as fish feed, or fish flour/oil, can reduce costs. b. Filleting fish in Norway for lower weight in freight to processing plants in Europe can reduce transportation costs 3. Increased efficiency in waste management: <ol style="list-style-type: none"> a. Circularity and return schemes in packaging and plastics from the ocean can reduce costs. 4. Better data technologies for all systems may lead to increased control of operations, further improving efficiency and potentially reducing costs. We are now in the process of establishing a country-wide (Norway) agreement on waste to realize this opportunity

The impact of climate-related risks and opportunities on the Group's strategic and financial planning

Our strategy and financial planning have been influenced

by climate-related risks and opportunities in several business areas as demonstrated in the table below:

AREAS INFLUENCED BY CLIMATE-RELATED RISKS & OPPORTUNITIES	DESCRIPTION
PRODUCTS AND SERVICES	<p>LSG's goal is to become the leading and most profitable global supplier of sustainable high-quality seafood. In order to ensure operational sustainability, the Group has to find new and innovative ways to operate.</p> <ul style="list-style-type: none"> • Firstly, we need to ensure that our current operations are optimized. We are committed to working towards highly sustainable seafood production in all our sites, and thoroughly documenting our progress, we want to become a trusted name as climate and environmental concerns grow in the market. By ensuring that our products are safe and sustainably produced, we can educate the public on the benefits of marine protein. • Through our joint venture (Ocean Forest) with the NGO Bellona Holding AS, we are producing macroalgae, sugar kelp, blue mussels, and polychaete near several of our farming sites. The purpose of this is to absorb excess nutrients (mainly nitrogen and phosphorus), as well as sequester carbon, from our salmon and trout production. Moreover, these species (especially blue mussels and sugar kelp) are high-quality and sustainable sources of protein. The mussels, for example, can be converted to meal and be a key ingredient in sustainable fish feed. This business venture has great potential- Today, we are already producing blue mussels at 2 locations and sugar kelp at 5 locations. Our ambition is to gain the knowledge, technology, and customer base to be able to make this an important revenue stream. • We also include 1,5–2% insect meal in all our freshwater feed, as a replacement for fish meal. From a nutritional point of view, it is considered a high-quality and sustainable protein source, however, today, it is a very costly ingredient. Once the market for insect-based feed solutions grows, as we assume it will be (based on market projections), adding a larger share of insect meal to our feed will be feasible.
SUPPLY CHAIN AND/OR VALUE CHAIN	<p>The volume of fish transported by air has increased in the past years, due to higher sales to Asia, Australia, and the USA. We work closely with our air transport suppliers to identify the best airfreight solutions for the environment. The Group is aware that transporting seafood by air has a significant climate impact and we work closely with transport suppliers and customers, as well as Bellona, to find future-proof transportation solutions. Initially, we will strive to increase sales of processed products and try to send more products by sea if possible. We have already made efforts in this area, and in the last five years share of the total transportation by sea has increased by 45.1%. In volume, sea transport has increased by 118.9% in the last five years. The Group has also put procedures in place to check and assess our largest suppliers in terms of their ESG (including climate-related issues) strategy and performance.</p>

AREAS INFLUENCED BY CLIMATE-RELATED RISKS & OPPORTUNITIES	DESCRIPTION
INVESTMENT IN R&D	<p>LSG has a large focus on innovation and views this as the core of our sustainability strategy going forward. We are committed to forming alliances, entering new (and further developing existing) partnerships in order to achieve our targets and goals.</p> <p>Examples of R&D projects already in place, aiming to reduce our GHG emissions:</p> <ul style="list-style-type: none"> Production of sugar kelp: Producing sugar kelp is a very efficient way of binding CO2 already dissolved in the sea. Farming sugar kelp does not require any input of freshwater, fertilizer, pesticides, or land. The plant captures the nitrogen, phosphorus, and carbon directly from the ocean. On average, 1.000 kg (wet weight) of sugar kelp contains 26 kg carbon equal to 100 kg CO2 – which is higher than the same volume for wood. This project has shown great results so far, and we are making efforts to expand it in the years to come. Production of blue mussel meal: Ocean Forest AS, our joint venture with Bellona, also focuses on the production of blue mussels, not for human consumption but mainly as a source of marine protein. We have conducted a series of growth studies with Atlantic salmon demonstrating that blue mussel is an excellent fish meal replacement. Innovative raw material for fish feed: The Group has an ongoing program focused on developing new innovative raw materials for fish feed. Historically, LSG has been a leader in the industry, when it comes to the use of Omega-3 fatty acids produced from microalgae. We use the microalgae to increase the level of Omega-3 in our feed compared to industry standards. In 2021, we produced 100 tons of microalgae and in 2022, the production number is estimated to reach 300 tons. Moreover, we have introduced Camelina oil in our feed, whilst banning ethoxyquin. In 2020, we were the first company to start using insect meal in all our freshwater feed delivered by one of our feed suppliers. Project 50/50-5: This is an ongoing project aimed to reduce non-recyclable plastic by 50 %, including a reduction in total plastic consumption. All 60 companies in the Group will contribute to achieving the goal and have established sub-projects with goals for each company. Data is systematically collected from the companies every month, in order to track the developments.

AREAS INFLUENCED BY CLIMATE-RELATED RISKS & OPPORTUNITIES	DESCRIPTION
OPERATIONS	<p>The Group has established different innovative measures to reduce the environmental impact of our activities. Examples are:</p> <ul style="list-style-type: none"> Water usage: We have devised strict protocols and procedures to make sure that we never draw on more water than we are allowed to. We do this based on extensive risk analysis and preventive actions. This also protects local habitats and wildlife in addition to reducing our impact on local water levels. We also continue our effort to switch all flow-through systems to RAS (Recirculating Aquaculture Systems). The RAS technology allows Lerøy Seafood Group to produce fish with up to 99% reduction in water use compared to conventional flow-through systems. Wastewater: We continue our work with water treatment and discharge. Most of our processing factories, new and old, are equipped with fat separators and UV light treatment. In some factories, where it's necessary, we also have chemical treatment of wastewater in addition to mechanical treatment. Waste handling and sorting: Improving our handling and sorting of waste is a continuous priority for LSG. Sorting waste for reuse, recycling and recovery will greatly impact our environment through the reduction of unwanted, hazardous and non-biodegradable waste in the environment. We have implemented strict sorting regimes in all our locations and strive, in collaboration with our waste handling companies, to make sure that all our waste is handled correctly by us and the recipient of the waste. Electricity: The Group has established different revolutionary measures to reduce environmental impact; from obtaining power from land, hybrid fleets, floating solar cells, to working boats. Organic non-edible materials: Organic non-edible materials from all our activities represent about 26% of our total volume produced. The Group strives to increase the share produced for human consumption by 50% by 2024. Recycling: The Group is actively involved in the process of recovering plastic waste from the oceans through different programs, in order to protect marine wildlife. One of the activities is focused on recycling our fish farming nets, yarn, and old trawls. Use of organic sludge from smolt production: The Sludge will be used as a soil improvement material and fertilizer.

Scenario analysis

In line with the recommendations laid out by the TCFD, The Group conducted a qualitative scenario analysis in 2021. The TCFD recommendations state the importance of the development of a sound scenario narrative, before proceeding to quantify the scenarios. The Group has the vision to be the most profitable global supplier of sustainable high-quality seafood, and sustainability is at the core of every important strategic decision we make. The Group acknowledges the importance of better disclosures and aims to integrate the complete TCFD recommendations with quantification of potential financial impact in due course.

We have analyzed physical and transitional risks and opportunities with help of public IPCC and IEA scenarios and other relevant sources. We have used both well-below 2°C and 4°C pathways. The well-below 2°C scenario assumes meeting the goals set in the Paris Agreement with climate change mitigation through policy changes, whereas the 4°C scenario is considered a business-as-usual scenario without ambitious climate policy changes. An assessment of different climate-related scenarios was completed for Lerøy. In the scenario analysis, both short- and long-term time horizons have been regarded. For chronic physical climate risks, scenarios towards 2100 have been considered as these are important to consider in our long-term planning. Acute risks are relevant to consider for our shorter-term strategies. For transition climate risks, time horizons are often shorter (< 20 years) due to the qualitative nature of forecasting political, economic, and sociocultural trends.

The well-below 2°C scenario

This scenario assumes a relatively orderly transition to limit global warming to below 2°C. The scenario presumes a rise in climate policy ambition and coordinated global climate action to start gradually in the immediate future. Transitional risks and opportunities dominate the well-below 2°C scenario. The scenario assumes that global CO₂ emissions peak in 2020 and decline fast. A high carbon price is introduced in most economies, and global power is mainly generated using renewables. Due to low demand, fossil fuel prices are low. Customers are increasingly becoming climate-conscious and demand more sustainable products and operations from producers of protein such as Lerøy.

New Policy & Legal Risk

An increase in regional, national, international, and industry-specific regulations is likely to impact Lerøy financially through increased operating costs and decreased revenue. For example:

1. CO₂ pricing: An increase in CO₂ pricing will directly impact operating costs in the short term before Lerøy transitions to lower emission technologies and solutions. These costs are mainly related to Lerøy's main sources of emissions: MGO, air freight, and fish feed.
2. Quotas and licenses: More stringent quota and license regulations will directly impact LSG's production capacity, which can have a direct impact on revenue.

Market & Reputational Risk

As environmental awareness increases, it becomes increasingly important for the Group to reduce its GHG emissions. Failure to comply with stakeholder environmental demands may lead to reduced demand for their products, impacting revenue. The Group may be especially vulnerable to sector-wide reputational damage concerned with the use of air freight as a mode of goods transportation, or the use of soy in fish feed, as Lerøy as a brand is positioned close to the end consumer. Any damage to reputation can directly impact consumer behavior in-store.

The Business as Usual 4 °C Scenario

The 4.0°C business as usual scenario is dominated by increasing physical risks due to a lack of coordinated policy actions to limit climate change. In this scenario, economic growth is preferred over climate action; the population grows faster than in the 2°C-degrees scenario, and overconsumption of resources continues. The world continues to be dependent on fossil fuels and energy intensity continues to be high. Customers are not prioritizing climate in their decision-making.

The global ocean will continue to warm during the 21st century, and the North Sea is warming at rates 2–4 times faster than the global mean rate. Coastal ecosystems are affected by ocean warming, including intensified marine heatwaves, ocean acidification, and loss of oxygen. This will likely lead to a series of challenges for farmed salmon, including bacteria, algae bloom, viral diseases, and sea lice becoming more prevalent. Consequently, the migration patterns of fish will move towards the Earth's polar regions.

The ocean is an imperative asset to the Group's production and harvesting. Any impact on the marine ecosystems, both in terms of increased risks of diseases and risk of migration, is likely to have a direct financial impact on revenue as activity is likely to decrease.

Rising sea temperatures, ocean acidification and lower oxygen levels that create challenging farming conditions and alter the migration patterns of fish are likely to create a scarcity of production areas, both for farming regions and fishing zones. This is likely to have a direct impact on The Group's production capacity and revenue growth.

Risk Management

LSG has set ambitious Science-based targets to actively reduce our overall carbon footprint and also focus on reducing the environmental impact of the Group's activities. Setting Science-based targets was a "defining moment" for the Group and enabled us to look at climate-change management from a wider perspective. To achieve the targets, it is important to have a systematic and methodical assessment of climate-related risks and opportunities in place.

The identification, assessment, and management of climate-related risks and opportunities is an integral part of LSG's multidisciplinary risk and opportunity management. In order to systemize our risk management process, we utilize a **Material Climate-Related Risk and Opportunity Assessment and Response Matrix (R&O Matrix)**. The identification and assessment process is conducted through in-depth interviews and discussions with relevant internal and external stakeholders, representing different organizational levels and functions (internally) and interested parties (externally), thus providing an accurate and balanced picture of the risks and opportunities faced by the Group.

Once the risks are identified, the impact and likelihood (high/low) of each risk and opportunity are determined. Following, based on where on the R&O Matrix the risk falls, the group establishes which mitigation strategy will be the most beneficial response strategy: Mitigate, Transfer, Accept, or Control. Based on each risk's categorization, we develop, review and implement response plans, based on internal and external recommendations.

GHG emissions 2019 – 2021 The Group	Unit	2019	2020	2021
Scope 1	tCO ₂ e	118 785	127 811	141 524
Scope 2 (location based)	tCO ₂ e	7 033	9 937	9 581
Scope 2 (market based)	tCO ₂ e	28 443	50 410	49 209
Scope 3	tCO ₂ e	1 292 739	1 284 642	1 157 174
Total (location based scope 2)	tCO₂e	1 418 557	1 422 390	1 308 279
Energy consumption (Scope 1 & 2)	MWh	594 221	683 761	752 471

Metrics and Targets

Greenhouse Gas Emissions

The Group's carbon accounting is conducted in accordance with the Greenhouse Gas (GHG) Protocol. We have calculated our GHG emissions from scopes 1 and 2 since 2010, and have included full scope 3 emissions since 2019.

In 2021, the total GHG emissions from the Group's activities amounted to 1 308 279 tonnes of CO₂e (tCO₂e). This includes our total scope 1 emissions, location-based scope 2 emissions, and indirect emissions from our value chain.

Scope 1 includes all use of fossil fuels from stationary combustion or transportation, in owned, leased, or rented assets. It also includes any direct emissions from the use of refrigerants.

Scope 2 emissions include indirect emissions related to purchased electricity and district heating in assets where the organization has operational control.

Scope 3 comprises indirect emissions from our value chain activities. The scope 3 categories have been assessed and included by relevance. The categories included in the scope 3 inventory are purchased goods and services (fish feed, packaging), fuel-and-energy-related activities, waste generated in operations, business travels, downstream transportation and distribution, processing of sold products, and end-of-life-treatment of sold products.

Science-based Emission Reduction Targets

The Group works purposefully to reduce our climate footprint, both within our own operations and across our value chain. In 2020, the Group set a Science-Based Target (SBT) which has been approved by the Science Based Targets initiative. By committing to the SBTs, the Group set a strategic direction that defines our climate-related objectives and measures to be implemented in order to achieve an ambitious reduction target:

Lerøy Seafood Group has committed to reducing absolute Scope 1, 2, and 3 GHG emissions by 46 % by 2030 from a 2019 base year.

This target is aligned with a 1.5°C pathway. 2019 was identified as a base year as this was the first year all operating segments across the Group were included in the carbon accounting across all scopes.

We aim to reach our target by concentrating our efforts on three strategic areas that combined constitute 65 % of the Group's total emissions:

1. Fish feed
2. Goods transport
3. Fleet (MGO)

Additionally, we have initiated different projects across all segments that aim to reduce food waste and non-recyclable plastic consumption by 50 % by 2024. We also invest in R&D projects aimed at reducing CO₂ emissions, such as sugar kelp production to bind CO₂, production of blue mussel meal as a source of marine protein, more efficient feed control, and more efficient production and transportation processes.

The Group is continuously working on improving its CO₂ emissions monitoring and reporting. Information regarding emissions is crucial for understanding and responding to environmental challenges. In 2020 Lerøy completed a comprehensive analysis of climate-related short-, medium-, and long-term risks and opportunities. This analysis, combined with our GHG emissions monitoring and target tracking, serves as a building block for our further efforts to transition toward an environmentally sustainable economy.



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