

# TCFD REPORT FOR SALMAR 2022

The Task Force on Climate-Related Financial Disclosures (TCFD) is an initiative from the Financial Stability Board to increase awareness and transparency for companies on climate-related impacts on financial assets and their future financial profile. This report will present the most relevant climate-related risks and opportunities identified by the dedicated internal task force. Furthermore, it will present SalMar's response to the TCFD Matrix, and a climate-related scenario analysis to understand how likely future scenarios are to affect SalMar's business strategy, and the consequences of these.

SalMar sees the TCFD framework as a useful tool in identifying, evaluating, and categorizing climate-related risks and opportunities. The Group aims to publish a TCFD report annually and use it internally in top-level risk evaluations and strategic decisions.

Our assessment of climate-related risks and opportunities are presented by *category*, i.e., the category of which the risks and opportunities fall into, the *sub-category*, i.e., the nature of the risk or opportunity, the *risks or opportunities* themselves, and their *rating*, ranging from pale color (smallest potential to affect SalMar) to dark color (largest potential to affect SalMar) as per evaluated by internal the task force. The rating considers the likelihood and probable timeframe of the events and their possible impact on SalMar's activities.



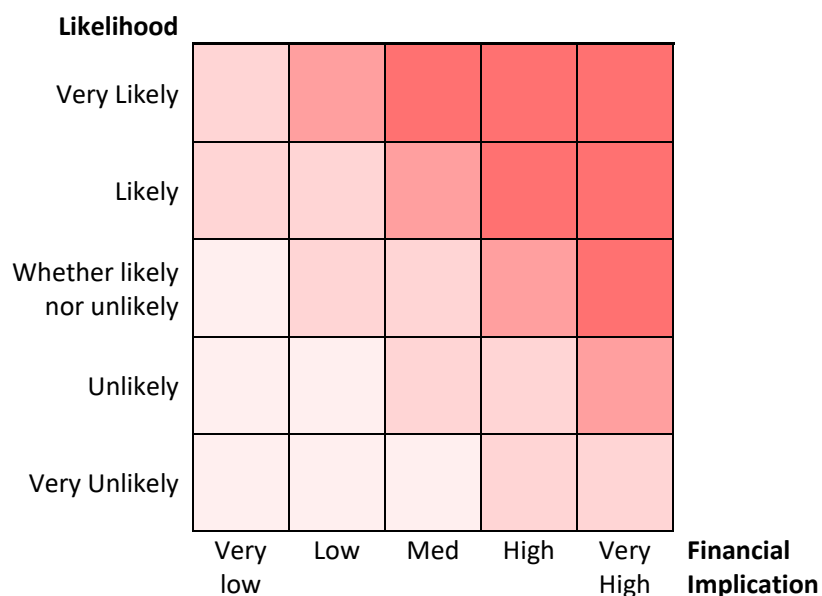


An aerial photograph of the ocean's surface, showing a complex pattern of dark blue and grey waves. A prominent white wake from a vessel cuts through the center of the frame, creating a sharp contrast with the darker water. The overall tone is somber and dramatic.

# CLIMATE-RELATED RISKS

# OUR CLIMATE-RELATED RISKS

When analyzing risks in the short and long term, the following matrix was used:



A summary of the results of the analysis is presented below, separated for short-term and long-term risks, followed by a discussion of the results with mitigating actions.

CATEGORY	SUB-CATEGORY	SHORT-TERM RISK	RATING
TRANSITIONAL	REGULATORY	New laws and regulations	Dark Red
		Carbon taxation and/or CO2-efficiency regulations	Dark Red
		Demands on circular economies	Dark Red
	MARKET	Demand on supply chain transparency	Light Red
		Feed resource availability or trade restrictions	Dark Red
	REPUTATIONAL	Lack of trust	Light Red

CATEGORY	SUB-CATEGORY	LONG-TERM RISK	RATING
PHYSICAL	ACUTE	Increased frequency of drought and flood	Light Red
		Increased frequency of extreme wind	Light Red
		Increased frequency of blizzards, icing and avalanches	Light Red
	CHRONIC	Rising seawater levels and/or acidification of seawater	Light Red
		Changes in seawater temperature	Light Red
TRANSITIONAL	TECHNOLOGY	Technological advancements	Light Red
	MARKET	Change in customer preference or product substitution	Light Red
		Expectations of increased use of renewable energy	Light Red



# SHORT-TERM RISKS



## TRANSITIONAL – REGULATORY RISKS

### NEW LAWS AND REGULATIONS

The Norwegian government, along with most governments in the EU, has ambitious climate targets and aims to regulate more stringently activities contributing to climate change. Furthermore, the international focus on environmental impacts is becoming stronger, meaning that awareness and influence is growing within these areas. New laws and regulations relating to climate and environment are likely and will especially affect the companies that struggle to transition to climate and environment friendly practices. Some laws and regulations that could be implemented on the aquaculture industry involve carbon taxation and other fees, stricter demands to achieve various certifications (like the ASC), ban on import on certain feed resources, or even ban on open net pens. Several of these could have significant impacts on our operations.

SalMar's most important actions to mitigate this risk includes carrying our continuous risk and sensitivity assessments to ensure that we are versatile and non-dependent on one single part of our value chain as well as staying well compliant with current regulations and practicing continuous improvement. SalMar should also always stay aware of upcoming changes to current regulations.

### CARBON TAXATION AND/OR CO<sub>2</sub>-EFFICIENCY REGULATIONS

Carbon taxation is a loudly debated subject in world business today, along with demands on CO<sub>2</sub>-efficiency. This typically involves higher costs or bans on activities that emit CO<sub>2</sub>. In the aquaculture industry the vast majority of carbon emissions are emitted in the supply chain, rather than in direct operations. The industry is not directly affected by current carbon taxations, but this could happen in the short term. If a carbon tax was introduced at 1000 NOK/ton, this could impact SalMar significantly.

This risk is mitigated through transitioning SalMar's own operations and the supply chain to greener solutions. SalMar has greenhouse gas reduction targets for Scope 1+2 and for Scope 3, both verified by the Science Based Targets initiative, aligned with UN's 1.5C target. This will push SalMar to becoming less fossil fuel dependent in its own operations, and drive innovation and strong collaborations in the supply chain.

### DEMANDS ON CIRCULAR ECONOMIES

In 2021, the Norwegian government published its national strategy for green, circular economies and Norway's strategy for responsible plastic usage. These publications pointed to that the primary sector, including fish farmers, has a great potential for well-functioning, green, circular economies. Some examples for SalMar includes full utilization of the salmon including off-cuts, reuse of sludge from smolt facilities as fertilizer or biogas, and sorting and reuse of plastics and other disposals like styrofoam boxes.

The new strategies along with studies in Norway showing that most of the plastic pollution being found along the Norwegian coastlines originate from fisheries and fish farms, may ultimately drive new regulations on plastic use, involving increased material costs, taxation, or even bans on certain materials.

This risk can be mitigated by evolving a robust strategy for transitioning to green, circular economies that encompasses an improved reusing/disposing strategy and includes specific action plans and priorities. Furthermore, ensuring that we deliver our waste to certified waste handlers is important.



## TRANSITIONAL – MARKET RISKS

### DEMAND ON SUPPLY CHAIN TRANSPARENCY

With the upcoming EU directives on ESG reporting, there is a stronger demand for full transparency in reporting and due diligence. In addition, the industry is experiencing an increased expectation on greener investments, where climate-related aspects and lifecycle sustainability are accounted for in investment decisions. There is a risk that unfulfilled expectations on supply chain management and procurement practices will lead to reputational damage.

To combat this risk, it is vital to ensure full transparency throughout the supply chain. This will be done by expanding our due diligence processes. Furthermore, contractual agreements must be made to include demands related to ESG and procurement processes are expanded to consider a broader aspect of ESG.

### FEED RESOURCE AVAILABILITY OR TRADE RESTRICTIONS

In recent years, we have experienced how unforeseen global events can compromise supply chains and render businesses with no back-up plan futile. Assessing a business' sensitivity to even the smallest strands of the total business model has gained focus among stakeholders in this period. In the aquaculture industry, the most important upstream product is the fish feed. The feed resources are transported from different parts of the world, and each has unique characteristics that deem them optimal for its use. However, being dependent on certain feed resources with no sufficient alternative exposes the business to severe risk if there were to develop shortages or embargoes on certain resources. Furthermore, increased frequency of extreme weather events can limit our feed suppliers' access to resources.

This risk can be mitigated by actively seeking novel feed resources. By developing new fish feed compositions composed from local resources with comparable characteristics to the conventional fish feed resources, one can limit risk.

## TRANSITIONAL – REPUTATIONAL RISKS

### LACK OF TRUST

The aquaculture industry has for some time been carrying an average reputation despite being one of the most sustainable ways of producing protein-rich, nutritious food. This has largely been down to public skepticism towards the industry's concern for its environmental effect and misconceptions like antibiotics use and deforestation impacts, albeit the industry being practically antibiotics free and fully deforestation free. Being reluctant in transitioning to more climate friendly operations could also contribute to portraying fish farmers negatively.

To mitigate this risk, aquaculture companies must be more active in opening dialogues with externals to both educate on their actual practices and listen to possible concerns. SalMar is very cognizant of this responsibility and holds periodic stakeholder meetings. By advertising the industry and presenting the many positives, whilst also displaying concrete efforts to combat the negatives, the industry's relationship to the public should grow stronger. Showing dedicated efforts in transitioning to an even more climate friendly business should also improve companies' relationships to the climate-aware public.

# LONG-TERM RISKS



## PHYSICAL – ACUTE RISKS

### INCREASED FREQUENCY OF DROUGHT AND FLOOD

Climate change has been shown to create more frequent extreme weather events. SalMar operates on shore, coastal and offshore, which could be affected by events like flooding. However, the real threat towards SalMar's operations from drought and flood is in the supply chain. Drought, flood, and other extreme weather events could significantly affect fish feed production and make feed scarce and feed deliveries unpredictable. Drought and flood could also affect access to export markets. A further consequence could involve an increased frequency of landslides and erosion which could affect SalMar's access to the necessary freshwater at smolt facilities.

To mitigate this risk, SalMar monitors the water level and quality at sea and in important rivers. Furthermore, becoming less dependent on freshwater by transitioning to recirculating aquaculture systems (RAS) for smolt production helps mitigate this risk. This is already in motion for SalMar, as we get closer to our goal of all our smolt being delivered from RAS. Finally, ensuring a certain degree of flexibility in feed sourcing would contribute to mitigating this risk. This means not being solely reliant on one feed supplier, one geographical location or one feed resource, but continuously exploring alternatives.

### INCREASED FREQUENCY OF EXTREME WIND

Increased frequency of extreme winds is likely in the future. As SalMar's main operating area is at sea, extreme winds or storms are likely to be most evident in rough or even extreme sea states. Some of the possible consequences of extreme wind include physical damage to infrastructure/facilities, operational downtime, fish escapes and environmental spill resulting from structural damage or breakdown, or fish welfare related issues.

The risk can be mitigated by always assuring structural integrity of all facilities and having equipment that can withstand rough conditions. SalMar employees are very well schooled in proper HSE practices, and the risk of personnel damage due to this extreme wind is low.

### INCREASED FREQUENCY OF BLIZZARDS, ICING AND AVALANCHES

Operating in Norway and Iceland, cold weather is part of our everyday lives during winter. Climate change may cause increased frequency and force of events such as blizzards, icing and avalanches, meaning increased risk for SalMar. Just like extreme winds, heavy blizzards may cause structural damage. Avalanches, especially in our Northern operating areas, could be more significant and could cause logistical challenges, e.g., for transporting the salmon to the market.

To mitigate this risk, SalMar must assure that the technology and equipment used at sea sites are fit for extreme weather conditions, sites are located in the optimal locations, and that the proper measures are made to remedy icing events when they occur.



## PHYSICAL – CHRONIC RISKS

### RISING SEAWATER LEVELS AND/OR ACIDIFICATION OF SEAWATER

Rising seawater levels and acidification of the sea could both significantly affect the marine ecosystem. A change in the marine ecosystem would directly impact our salmon, but the extent is still unclear.

The risk can be mitigated by controlling CO<sub>2</sub> emissions and nutrient spills, and continuously monitoring environmental data to stay in front of coming challenges. This is already a part of SalMar's established routines. R&D work is also important to develop predictive simulation models for scenario planning in this regard.

### CHANGES IN SEAWATER TEMPERATURE

Salmon, like most other marine animals, are best equipped for certain seawater temperatures. If these seawater temperatures change, it could compromise fish health and welfare. Higher seawater temperature is a possible long-term consequence of climate change. This could bring increased disease-related events or create a more welcoming atmosphere for sea lice. Eutrophication of the sea is another possible consequence of higher seawater temperatures, which could affect the oxygen levels in the water and thus our salmon's health. Furthermore, it could drive invasive marine species northwards to SalMar's main operating areas in Central and Northern Norway. This could create unwanted interactions both with regards to fish welfare and net pen integrity. Compromised fish health would directly impact both the quality of our product and our reputation, which both have severe implications for our financial viability.

Recent studies point to that it is more likely that the seawater temperatures will vary a lot than that it will become constantly, significantly higher. Larger swings in seawater temperature will likely create challenging conditions for healthy growth in the salmon stock and may imply necessary strategy changes in the farming process.

To mitigate this risk, SalMar can continue to monitor the marine environment and plan for future scenarios. SalMar are already making significant movements towards exposed and offshore operating areas where the seawater temperatures are more stable, and the operating conditions would be less affected by this risk.

## TRANSITIONAL – TECHNOLOGY RISKS

### TECHNOLOGICAL ADVANCEMENTS

Technological advancement is an absolute necessity to reach the outspoken global goals for net zero emissions by 2050. A demand for these advancements poses both threats and opportunities to fish farmers. Innovation and development typically include significant expenses and innovative investments don't always succeed. An acceleration in technological progress also implies that long-term investments like well-boats or fish farms could have to be refurbished or be built with a high degree of flexibility or modularity. This often implies increased costs.

This risk is best combatted by staying in front of technological advancements and actively engaging in research and development. This is something that SalMar is already very focused on. With accelerating technological advancements, increased flexibility in long-term business strategies will also be significant.

## TRANSITIONAL – MARKET RISKS

### CHANGE IN CUSTOMER PREFERENCE OR PRODUCT SUBSTITUTION

There is a growing global consciousness regarding climate change and animal welfare. This is mainly considered an opportunity for SalMar but may also be a threat. According to recent research, the number of vegetarians and vegans in the world are rapidly increasing, led by the young. Consequently, there is a risk of vegan proteins overtaking some of the salmon market segments.

The aquaculture industry has an important job to do when it comes to educating the public on the benefits of consuming healthy salmon. Salmon aquaculture has low carbon emissions relative to other animal protein segments, contains healthy fatty acids and Omega-3 as well as important minerals and vitamins. The industry is also strictly regulated when it comes to welfare standards and environmental impacts.

To combat the risk of change in customer preference or product substitution, SalMar and other salmon producers must be vocal towards present and future customers, as well as always ensuring sustainable practices and operations.

### EXPECTATIONS OF INCREASED USE OF RENEWABLE ENERGY

With ambitious climate targets, comes high expectations of transitioning to zero emission technology. There is no doubt there will be an even larger expectation of increased use of renewable energy in the future. This could risk SalMar's assets running on fossil fuels. If no transition is made, a substantial, disruptive change might be required down the line.

This risk is mitigated by beginning our transition to renewable energy sooner rather than later, and SalMar already has full-electric and hybrid boats in operations today. Furthermore, we are working actively to increase the number of sea sites connected to onshore electrical power.



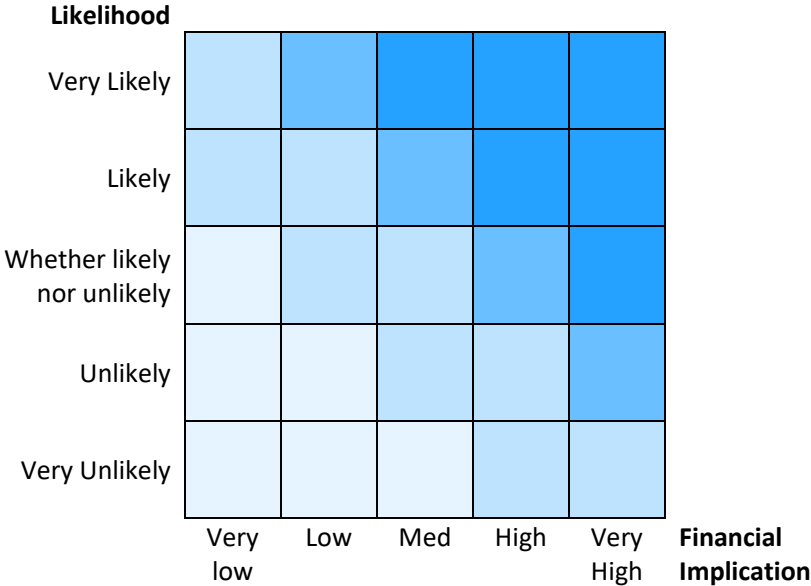
A large fish, possibly a salmon, is swimming in clear, rippling blue water. The fish is positioned horizontally across the middle of the frame, with its head pointing towards the right. The water is highly textured with many small ripples and reflections of light, giving it a shimmering appearance. The background is a deep blue, suggesting a natural aquatic environment.

# CLIMATE-RELATED OPPORTUNITIES



# OUR CLIMATE-RELATED OPPORTUNITIES

When analyzing opportunities in the short and long term, the following matrix was used:



A summary of the results of the analysis is presented below, separated for short-term and long-term opportunities, followed by a discussion of the results.

CATEGORY	SUB-CATEGORY	SHORT-TERM OPPORTUNITY	RATING
TRANSITIONAL	REGULATORY	New laws and regulations	Light Blue
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	TECHNOLOGY	Technological advancements	Dark Blue
	MARKET	Change in customer preference or product substitution	Dark Blue
		Demand on supply chain transparency	Light Blue
		Feed resource availability or trade restrictions	Light Blue
REPUTATIONAL	Lack of trust	Light Blue	

CATEGORY	SUB-CATEGORY	LONG-TERM OPPORTUNITY	RATING
PHYSICAL	ACUTE	Increased frequency of drought and flood	Light Blue
	CHRONIC	Changes in seawater temperature	Light Blue
		Changes in ambient temperature	Light Blue



# SHORT-TERM OPPORTUNITIES



## TRANSITIONAL – REGULATORY OPPORTUNITIES

### NEW LAWS AND REGULATIONS

The Norwegian fish farming industry contributes to local food production with a global market and does so in a sustainable manner. Displaying peak performance on sustainability indicators among global protein producers may let decision-makers on national and international laws and regulations see that sustainable fish farming is part of the global solution. The introduction of laws and regulations that to a larger degree affect less sustainable food producers may provide a competitive advantage to fish farmers.

### CARBON TAXATION AND/OR CO<sub>2</sub>-EFFICIENCY REGULATIONS

Salmon farming has a low carbon emission compared to most other protein producers, so carbon taxation or regulation on CO<sub>2</sub>-efficiency could have a greater impact on other protein producers. Within the industry, two main trends are emerging: bringing fish farming offshore or onshore. SalMar has taken a firm stance on offshore fish farming being the way forward. This is a more energy-efficient production method since it utilizes the sea's natural environment, and thus limits SalMar's risk of carbon taxation or CO<sub>2</sub>-related regulations. SalMar is in pole position to further develop low-carbon production methods.

### DEMANDS ON CIRCULAR ECONOMIES

Implementing circular economies to a larger extent has financial benefits. Limiting waste, and responsibly delivering the waste that accumulates, is an important part of SalMar's business strategy. The EU is now imposing taxes on plastic waste that is not delivered to recycling, ensuring that sustainable waste management systems are not only a part of our responsibilities towards local communities but also financially beneficial. Some of our wastes, especially biological wastes, has a high nutritional content and can be utilized effectively in other industries. These symbiotic collaborations are also beneficial for SalMar.

## TRANSITIONAL – TECHNOLOGY OPPORTUNITIES

### TECHNOLOGICAL ADVANCEMENTS

SalMar is already a forerunner in the industry when it comes to R&D, most recently displayed through our unique offshore strategy. With the right technological advancements, the offshore strategy could become a viable, long-term solution to the most pressing environmental and biological challenge in the aquaculture industry, sea lice. This would, effectively, confirm offshore farming as a production method with a huge growth potential.

Furthermore, advancements with regards to low-carbon solutions to sea-based transport like battery density and the operational reliability of electric vessels, could accelerate the low-carbon transition.



## TRANSITIONAL – MARKET OPPORTUNITIES

### CHANGE IN CUSTOMER PREFERENCE OR PRODUCT SUBSTITUTION

The market clearly trends towards more climate aware customers where sustainability and transparency play important roles. As fish farming is a low-carbon industry relative to many other food producers, SalMar could strongly benefit from commercializing this fact to a larger extent, in order to attract larger customer bases. It is important that the seafood industry clearly displays that customers should change their preference towards seafood, not away from seafood.

### DEMAND ON SUPPLY CHAIN TRANSPARENCY

Demands on supply chain transparency also push companies to gain an increased insight into their own supply chains. With a larger degree of transparency, insight, and collaboration with suppliers, it could become easier for SalMar to derive the best solutions to industry predicaments. Moreover, increased insights into our supply chain could highlight where the largest upsides are for improvements and implementing green procurement practices for better ESG performance. SalMar is already highly engaged in this and is expected to gain a more holistic insight into its supply chain through complete due diligence processes.

### FEED RESOURCE AVAILABILITY OR TRADE RESTRICTIONS

Innovations that enable the production of fish feed ingredients in markets closer to home, potentially in laboratory-based controlled environments, could eliminate or reduce dependence on variable supplies of raw materials. Locally sourced feed ingredients could significantly reduce our greenhouse gas emissions and limit the climate-related risks of our operations.

## TRANSITIONAL – REPUTATIONAL OPPORTUNITIES

### LACK OF TRUST

With a solid foundation of being a sustainable industry with significant growth potential, fish farmers have a strong position in collaboration both between industry players and with suppliers to find solutions to the most pressing and reputationally damaging predicaments facing the industry today. By focusing on climate friendly and sustainable development, SalMar can display a willingness to propose solutions to global problems, rather than being a part of them.

# LONG-TERM OPPORTUNITIES





## PHYSICAL – ACUTE OPPORTUNITIES

### INCREASED FREQUENCY OF DROUGHT AND FLOOD

SalMar's operating areas in the Arctic North is less at risk for extreme weather events like drought and flood than warmer, more humid areas. All areas in which SalMar operates are deemed to have a low overall water risk rating by the Aqueduct Water Risk Atlas. Having better suited operating areas in this regard relative to many other food producers could present an opportunity to increase our market share. SalMar is also continuing its transition to RAS-based smolt production, and thus becoming much less dependent on freshwater.

## PHYSICAL – CHRONIC OPPORTUNITIES

### CHANGES IN SEAWATER TEMPERATURE

An increase in seawater temperatures would be beneficial for SalMar's northern operating areas with regards to growth rates, especially in the arctic winters. The growth rate slows down somewhat when the temperatures are low, so a milder winter temperature at sea could see growth rates increase. This would ultimately be beneficial also financially for SalMar.

### CHANGES IN AMBIENT TEMPERATURE

An increase in ambient temperature, especially with milder winters, would bring a reduced risk of icing on our fish farms. This is beneficial with regards to structural integrity. Higher ambient temperatures could also increase our ability to farm feed ingredients locally, especially the ingredients that typically require a warmer climate than what we currently have in Norway and Iceland.



# TCFD MATRIX



# TCFD MATRIX RESPONSE

#	DISCLOSURE	RESPONSE	REFERENCE
<b>GOVERNANCE</b>			
A	<b>Describe the board's oversight of climate-related risks and opportunities.</b>	<p>The Board of Directors has oversight of all risks and opportunities of the business, including climate-related ones. SalMar has systems and routines in place to monitor important risk factors in all business areas, and it is the CEO's responsibility to ensure that the Group operates in compliance with all relevant legislation and operating guidelines. Follow-up and implementation are part of the day-to-day work done by everyone and is facilitated by the Head of Sustainability. The Board's Audit and Risk Committee is responsible for periodic evaluations of current and potential risks and opportunities, and suitable reactions to these.</p> <p>The Board of Directors has oversight of the Group's progress towards GHG emission reduction plans and are also responsible for concluding on company strategies in this regard. The Board oversees major financial decisions, like issuing a Green Bond and sustainability linked financing.</p>	For more information, see SalMar's Annual Report, specifically the Report of the Board of Directors.
B	<b>Describe management's role in assessing and managing climate-related risks and opportunities.</b>	<p>SalMar's main management level action on climate change is led by the CEO, with support from the Head of Sustainability. The Head of Sustainability works with management teams of all departments in SalMar's operating regions, and reports to the Director of Quality &amp; HSE, who is a member of the executive management team. It is the Head of Sustainability and the management of each SalMar department's responsibility to identify and evaluate climate-related risks and opportunities in everyday operations and report/share findings.</p> <p>SalMar has mapped its climate-related risks and opportunity and evaluated them by relevance. We have verified science-based targets to reduce emissions from our operations (Scope 1 + 2) and from our supply chain (Scope 3). Awareness around climate-related risks is raised by the Head of Sustainability in management meetings.</p>	For more information, see SalMar's Annual Report. The chapter on Sustainability and Corporate Responsibility as well as the chapter on Corporate Governance are both relevant here.
<b>STRATEGY</b>			
A	<b>Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.</b>	<p>See "Our Climate-Related Risks and Opportunities" as presented above. In summary, the most pressing short to medium term risks and opportunities are related to regulatory and market events.</p> <p>In the medium to long term, there are both physical and transitional risk and opportunities discussed, including increased frequency of extreme weather events, change in customer preference and technology advancements.</p>	For more information, see SalMar's Annual Report, specifically the Report of the Board of Directors.
B	<b>Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.</b>	<p>This is also described to some extent in "Our Climate-Related Risks and Opportunities" above. Risk assessments, both climate-related and others, are always integral in SalMar's decision-making.</p> <p>From the internal assessment of climate-related risks and opportunities, the most significant risks and opportunities are in the short term. Transitioning to climate-friendly operations will be demanding for the companies that do not start as soon as possible.</p> <p>We have carried out a scenario analysis following different emission pathways and their implications to see in more detail the effects this will have on our business and how we can best mitigate these risks. This can be seen in the next segment.</p>	For more information, see SalMar's Annual Report, specifically the Report of the Board of Directors.
C	<b>Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.</b>	<p>SalMar always aims to be resilient and flexible in its business strategy, not committing to only one path but discovering solutions around us as we go. SalMar have verified science-based targets for greenhouse gas emission reduction aligned with the 1.5°C target. These targets must always be in the back of our minds when operating or making decisions.</p> <p>It is natural to explore the consequences both of reaching the 1.5°C target and not. To reach the 1.5°C target, stringent laws and regulations must be imposed. Carbon taxation is the most discussed tool. Although this has not yet been</p>	For more information, see our Climate-related scenario analysis in the next segment.

		<p>imposed on the aquaculture industry, this might not be too far away. According to the Organisation for Economic Co-operation and Development (OECD), the carbon tax pricing will see an increase in the time coming, both in scope and in fee, and could be expected at 1,000 NOK per ton CO<sub>2</sub> emitted. Using this as a reference, for SalMar's Scope 1 and 2 emissions, this would imply a cost of almost 30 million NOK in 2022. If SalMar is to pay carbon taxes also on Scope 3, this would add almost 1.2 billion NOK in carbon taxes for this year. A continued increase would further increase the costs and would naturally drive businesses away from CO<sub>2</sub>-emitting operations. SalMar is already transitioning to a low carbon economy to mitigate this risk.</p> <p>For comparison, we can consider a 4°C scenario with very different implications. The consequences of this scenario would be physical, compared to the transitional effects of the 1.5°C scenario. As discussed in the "Our Climate-Related Risks and Opportunities" above, physical changes have acute and chronic consequences, largely related to fish health. This would severely affect our business, and likely force a change in operating strategy. SalMar strives to contribute towards reaching the 1.5°C target, foremost by limiting its emissions. However, SalMar must also work to mitigate the risks implied by the 4°C scenario. This is done by improving monitoring of fish health and the fish' local environment, as well as increasing focus on mitigating actions from algal blooms and extreme weather events.</p>	
<b>RISK MANAGEMENT</b>			
<b>A</b>	<b>Describe the organization's processes for identifying and assessing climate-related risks.</b>	<p>SalMar's senior management leads the analyses regarding climate-related risks and opportunities. Assessing climate-related risks is considered integral to SalMar, and the identified risks and opportunities have oversight by the top-level management and the Board of Directors.</p> <p>The process is carried out by continuous discussions with relevant personnel internally, and external and public discussions concerning what challenges, risks, and opportunities the industry is facing as a whole. The climate-related risks and opportunities assessment is continuously updated when mitigating actions are taken or industry trends/actions impact the evaluation.</p>	
<b>B</b>	<b>Describe the organization's processes for managing climate-related risks.</b>	<p>The Group's CEO is ultimately responsible for SalMar's environmental footprint and for its efforts to increase sustainability. SalMar has dedicated quality departments, which monitor and assess the work being done within this area. The activity is coordinated by management teams within the segments Fish Farming, and Sales and Industry with the support of qualified professionals. Systematic risk and opportunity assessments are carried out at the overarching level and in all departments to ensure that SalMar as a group takes a precautionary approach and is able to implement necessary measures. This also includes climate-related risk. The same applies to the Group's subsidiaries where SalMar's presence on the board of directors ensures that this can be thoroughly implemented.</p> <p>The management group of each department is responsible for ensuring that monitoring activities are performed and reported, and the quality managers follow up and support departmental and operative leaders in this area. Quality managers and other quality assurance staff take an active part in regular management, where quality, safety, working environment, fish welfare and the environment/climate are regular issues discussed at these meetings.</p>	For more information, see SalMar's Annual Report, specifically the Sustainability in Everything We Do part.
<b>C</b>	<b>Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.</b>	Climate-related risk management was integrated into the organization's overall risk management in 2021, on the basis of extensive work on mapping our climate-related risks and opportunities. In order to streamline the risk mitigating process and ensure that our company strategy is aligned with climate-related risks and opportunities, these risks are evaluated and considered at the highest level along with operational and financial risks and opportunities.	



## METRICS AND TARGETS

<p><b>A</b></p>	<p><b>Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.</b></p>	<p>Estimated costs of select risks from the “Our Climate-Related Risks and Opportunities” table above is presented in the following:</p> <p><u>Carbon Tax Risk:</u> As stated previously, carbon pricing is likely to have a big significance in combating climate change. If carbon taxes were to reach the aquaculture industry, it may have significant financial implications. As exemplified earlier, 1,000 NOK is a commonly used estimate for the tax of 1 ton CO<sub>2</sub> emitted when looking into the future. If carbon taxes were introduced for Scope 1 + 2 only, this would imply a cost of almost 30 MNOK with regards to SalMar’s 2022 GHG emissions in Norway and Iceland. If the scope of carbon taxation was to include Scope 3 emissions, the cost would be 1,200 MNOK.</p> <p><u>Carbon Tax Opportunity:</u> If carbon taxes were to be introduced, it would likely force a faster transition to zero emission operations in scope 1+2. Based on the above assumptions, zero or very low carbon emissions could bring a cost saving of up to 30 MNOK within our own operations.</p> <p><u>Feed resource availability or trade restrictions:</u> With increasing pressure on soy producers concerning deforestation, and with increased focus on emission control, it is possible that we may have to look to more local feed ingredients. Already, some are changing their upstream supply chain from Brazilian soy to European soy. Although this change comes with benefits relating to environmental sustainability, it comes with an increased cost. However, if the industry as a whole was to move towards European soy, the demand would outweigh the supply and prices would inflate.</p> <p><u>Change in customer preference or product substitution opportunity:</u> An increasing focus on sustainability among customers may increase the demand for ASC certifications. As of end of year 2022, 57% of SalMar’s sites in Norway and 100% of SalMar’s sites in Iceland were certified by ASC. If we look at the extreme case, that only fish farmed at ASC certified farms is accepted by the customer, this implies that SalMar has to certify an additional 43% of their sites in Norway. Initially this would bring a significant investment cost, but if we assume that ASC certified fish has an increased selling price of 1 NOK/kg and apply as basis SalMar’s sold volume in Norway for 2022 at roughly 240,000 tons, the potential increased income of ASC certifications could be <math>(240,000,000 * 0.43) * 1 = 103 \text{ MNOK/year}</math></p> <p><u>Extreme weather events:</u> Extreme weather events bring substantial risk to human safety, fish welfare, structural integrity of the fish farms, and fish escapes. Considering an extreme event where a fish farm with 1,000 tons of salmon is damaged, causing all fish to escape, this would bring a loss of biological assets of <math>1,000 * 60,000 = 60 \text{ MNOK}</math>, assuming a salmon value of 60 NOK/kg. The cost of equipment could be another 20 MNOK. Efforts for fish collecting and potential fines bring extra costs that are hard to quantify for such an extreme event, but it is fair to assume that the total cost of the event could come at a total of over 80 MNOK.</p>									
<p><b>B</b></p>	<p><b>Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.</b></p>	<p>See SalMar’s Annual Report, specifically Environment &amp; Technology, for the Scope 1, 2 and 3 emissions, as well as the GHG emissions intensities.</p> <table border="1" data-bbox="565 1539 1170 1667"> <thead> <tr> <th>Emission Scope</th> <th>Group GHG Emissions (tCO<sub>2</sub>e) 2022</th> </tr> </thead> <tbody> <tr> <td>Scope 1</td> <td>25,774</td> </tr> <tr> <td>Scope 2</td> <td>3,403</td> </tr> <tr> <td>Scope 3</td> <td>1,173,180</td> </tr> </tbody> </table>	Emission Scope	Group GHG Emissions (tCO <sub>2</sub> e) 2022	Scope 1	25,774	Scope 2	3,403	Scope 3	1,173,180	<p>See SalMar’s Annual Report, specifically Environment &amp; Technology.</p>
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<p><b>C</b></p>	<p><b>Describe the targets used by the organization to manage climate-related risks and opportunities and</b></p>	<p>We target a 42% reduction of our Scope 1+2 and Scope 3 emissions by 2030, with 2020 as the base year for both targets.</p> <p>Our GHG emission reduction targets are classified as below 1.5 degrees and is approved by the Science Based Targets initiative.</p>	<p>See SalMar’s Annual Report, specifically Environment &amp; Technology.</p>								



# SCENARIO ANALYSIS



# CLIMATE-RELATED SCENARIO ANALYSIS

To better understand how future scenarios may affect SalMar’s business, a climate-related scenario analysis is conducted. The scenario analysis will evaluate the climate-related risks and opportunities within three presented scenarios, and their likely effect on SalMar. The climate-related scenarios are:

Scenario	Global Mean Temperature Increase 2100 from pre-industrial baseline	Level of Mitigation	Description
RCP 2.6 Alignment	1.5°C – 2.0°C	High	Below 2°C target is reached
RCP 4.5 Alignment	2.5°C – 3.0°C	Medium	Some mitigation
RCP 8.5 Alignment	Above 4.0°C	Low	No or little mitigation

Note that although SalMar’s GHG emission reduction targets are in line with the 1.5°C target, the following scenario analysis is based on the global achievement of reduction targets rather than purely for SalMar, so the most optimistic scenario analyzed is the RCP 2.6 aligned with the below 2°C target, which is slightly more realistic on a global scale.

## RCP 2.6 ALIGNMENT

In the Representative Concentration Pathway (RCP) 2.6 Alignment scenario, the below 2°C target is reached through stringent regulations and dedicated collective efforts against climate change. The scenario ambitiously presumes that global emissions peak in 2020 and rapidly decline. This likely happens through high carbon taxation, regulations of operating quotas, technology investments and full transparency for all businesses.

In this future scenario, high carbon taxes make fossil fuels exhaustingly expensive and opens the door for low-emission alternatives. This, parallel to increased investments in low-emission technology development, affords feasible low-emission solutions to the transport sector. Regulations on operating quotas further incentivize businesses to become green, and laws on transparency in reporting and operating can eliminate greenwashing.

In RCP 2.6, transitional risks dominate. The transition is pressing and expensive for most companies. Demands for emission reductions are put into effect in all three scopes of operations.

### SCOPE 1 AND 2 EMISSION REDUCTIONS

For fish farmers, Scope 1 and 2 emissions largely encompass their fossil fuel dependency from boats and farming sites, their power usage, and their electricity mix. The stringent pathway demands low-emission solutions early on for the companies’ financial situation to stay viable. Furthermore, connecting farming sites to electrical shore power will be a priority to fully eliminate Scope 1 emissions. The collective and simultaneous efforts will temporarily unbalance the demand and the supply, meaning that low emission solutions initially will be expensive. In the longer term, collective efforts towards a common purpose and technological advancements will contribute to more affordable zero emission solutions.

## SCOPE 3 EMISSION REDUCTIONS

For fish farmers, Scope 3 emissions are largely comprised of downstream transport and feed production. Downstream transport is solved by reducing the volume transported by increasing share of value-added products, low or zero-emission transport methods like hydrogen-driven ships or low-emission airfreight. These are obviously expensive at first, as the demand is way beyond the supply and the technological maturity is unaccomplished, but this also normalizes over time. The feed production is, as well, a complex challenge. Salmon farming requires specialized feed that meets the needs of the salmon. Today, R&D is done into novel feed ingredients that will shorten the value chain and limit GHG emissions. Research and investments into this as well as into sustainable agricultural practices would need to be escalated for a more rapid transition, potentially bringing increased investment demands. Alternatively, carbon offsets could provide a larger predictability in the period leading to full viability in feed transitions, but financially, this could be exhaustive in the long run.

The RCP 2.6 pathway brings high initial costs to drive technology and sustainability but considering SalMar is a financially strong entity, that has already begun its transition it does not pose a significant threat to SalMar's business viability.

## RCP 4.5 ALIGNMENT

In the RCP 4.5 Alignment scenario, some mitigating actions are done like applying low emission fuel alternatives, developing strong reforestation programs, decreasing use of croplands and grasslands due to yield increase and dietary changes, and introducing some extent of carbon taxation. The scenario predicts that the global energy intensity will steadily decrease, but that absolute energy consumption will increase slightly and peak before 2040.

Both transitional and physical risks are relevant in this scenario. Stringent climate policies are imposed across industries to limit fossil fuel dependency and incentivize low-emission solutions. For fish farmers, it is likely that a transition to electricity or other low-emission power sources will be the main driver within our own operations. The transition is not as pressing as in the RCP 2.6 scenario, and companies' financial viability is considered important in the transition. However, carbon taxation and/or carbon offset projects are likely to become mandatory which contributes to incentivizing the transition.

Close collaboration with suppliers throughout the value chain is necessary to limit Scope 3 emissions. Fish feed compositions are adjusted to better suit stringent emission reduction pathways by increasing R&D investments. Focus moves towards better agricultural practices rather than feed ingredient substitutions. Low-emission transport solutions upstream and downstream are imperative for Scope 3 emission reductions and will require technological advancements for affordable solutions. This is especially important for transport to distant markets. A higher price to distant markets with an included CO<sub>2</sub> tax may be one imposed solution, which could potentially alter the trade patterns of Norwegian salmon.

The RCP 4.5 alignment scenario brings transitional costs for salmon farmers, but less pressing than in the RCP 2.6 alignment scenario. It also prompts physical risks in the long run, where extreme weather events will be more frequent, but not to the same extent as in the RCP 8.5 alignment scenario.



The RCP 4.5 pathway does not pose a significant threat to SalMar's business viability.

## RCP 8.5 ALIGNMENT

In the RCP 8.5 Alignment scenario, business as usual continues and economic growth is prioritized to climate action. Accelerating population growth rates cause an increased demand for resources, which induces a continued global overconsumption of said resources. The seawater and ambient temperatures increase as a consequence of unwillingness to transition to low-emission fuels. The previously seen demands from customers and financial institutes on sustainability fade, and efforts to financially incentivize businesses towards a green transition fall short.

Physical risks dominate this scenario, and both acute and chronic risks come into play. The increasing seawater temperatures pose critical predicaments for fish farmers regarding fish welfare, diseases, algal blooms, eutrophication, and biodiversity. Possible changes to ocean current patterns could alter sea conditions like temperature and salinity which would also affect fish health. As a result of these challenging conditions, the fish farming industry would likely move northward towards the polar regions to better suit the fish health demands. This would cause a large demand for limited farming areas and a high ecological pressure on these polar regions.

Higher ambient temperatures would also affect the transport efficiency of the fresh salmon to the market. An increased need for cooling would increase the ratio of ice transported and thus increase costs and emissions per transported fish. Finally, increased frequency and severity of extreme weather events would make salmon aquaculture a less attractive workplace and demand increased resources dedicated to HSE practices, risk management, and structural integrity of the fish farms.

The RCP 8.5 pathway poses a significant threat to SalMar's business viability in the long term, and SalMar should collaborate with national and international decision-makers to ensure that climate action is taken to prevent this from becoming reality.