

CERMAQ

Sustainability Report 2019

GRI REPORT



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CEO Message



Sustainability is in our nature

We must change our diet towards plant-based food and sea food to meet the goal of limiting global temperature rise to 1.5°C. To do this we must produce more food in the ocean.

This shift follows the clear recommendations from the High-Level Panel for Sustainable Ocean Economy and from the EAT-Lancet report, and widely recognized as needed to meet the Sustainable Development Goals.

More than 25% of the world's carbon emissions come from food production. We are proud to report that farmed salmon has one of the lowest carbon-footprints of any farmed protein. Even so, we constantly seek ways to improve our sustainability and lower our carbon footprint in all parts of our operations.

Producing seafood is just one part of the global solution, and we know that farmed salmon alone will not feed the world - but replacing some of the red meat in our diets with salmon is positive both for the planet and for human health. Knowledge and technology from salmon farming can also be valuable for production of other seafood in other regions.

Growing awareness of the impact of the food we eat is essential to planet health and to human health. At Cermaq, we work in partnership with others in our value chain to find sustainable and innovative solutions.

All stakeholders who use the ocean must share the goal of preserving and protecting it. As salmon farmers, we are directly impacted by climate changes already taking place in the ocean. Ecosystem integrity and access to marine resources are necessary for us to grow our salmon sustainably, and for our industry to continue providing the world with healthy seafood.

We have identified the five following Sustainable Development Goals (SDGs), where we believe we can truly make a difference, our approach is explained on www.Cermaq.com:

- SDG 2 Zero Hunger
- SDG 8 Decent work and economic growth
- SDG 12 Responsible consumption and production
- SDG 13 Climate action
- SDG 14 Life below water

In the following pages, you will find more details about our commitment to sustainability and our overall performance and operations.

In the end, it is all about sustainability and how we together can support the internationally shared goals to cap the rising global temperature at 1.5°C, slow climate change and feed a growing global population with nutritious, healthy and sustainable food.

Our complete Report on Sustainability meets the Global Reporting Initiative (GRI) requirements for a core report and has been assured by our external auditors. The report is available as a downloadable pdf file on our website at www.Cermaq.com

To the Board of Directors of Cermaq Group AS

INDEPENDENT AUDITOR'S ASSURANCE REPORT ON THE CERMAQ SUSTAINABILITY REPORT 2019

We have been engaged by Cermaq Group AS ("Cermaq") to provide limited assurance in respect of the sustainability information in the Cermaq Sustainability Report 2019 – GRI Report ("the Report"). Our responsibility is to provide a limited level of assurance on the subject matters concluded on below.

Responsibilities of the Board of Directors

The Board of Directors of Cermaq is responsible for the preparation and presentation of the Report and that it has been prepared in accordance with the GRI Standards, level Core, and other reporting criteria described in the Report. The Board of Directors is also responsible for establishing such internal controls that they determine are necessary to ensure that the information is free from material misstatement, whether due to fraud or error.

Auditor's responsibilities

Our responsibility is to express a limited assurance conclusion on the information in the Report. We have conducted our work in accordance with ISAE 3000 (Revised) Assurance Engagements other than Audits or Reviews of Historical Financial Information, issued by the International Auditing and Assurance Standards Board.

Deloitte AS is subject to International Standard on Quality Control 1 and, accordingly, applies a comprehensive quality control system, including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

We have complied with the independence and other ethical requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Considering the risk of material misstatement, our work included analytical procedures and interviews with management and individual resources responsible for sustainability management, as well as a review on a sample basis of evidence supporting the information in the Report. In our work, we have focused in particular on the key indicators (CEQ Indicators) and the energy and greenhouse emissions presented in the Report, as well as indicators submitted to the Global Salmon Initiative (GSI) for 2019.

We believe that our work provides an appropriate basis for us to provide a conclusion with a limited level of assurance on the subject matters.

Conclusions

Based on our work, nothing has come to our attention causing us not to believe that:

- Cermaq has established management processes and systems to manage material aspects related to corporate responsibility, as described in the Report.
- Cermaq has applied procedures to identify, collect, compile and validate information for 2019 to be included in the Report, as described in the Report. Information presented for 2019 is consistent with data accumulated as a result of these procedures and appropriately presented in the Report.
- Cermaq applies a reporting practice for its corporate responsibility reporting aligned with the Global Reporting Initiative (GRI) Standards reporting principles and the reporting fulfils the in accordance level Core according to the GRI Standards. The GRI Content Index presented in the Report appropriately reflects which of the GRI Standards disclosures and other disclosures related to material topics that are reported in the Cermaq Sustainability Report 2019.

Oslo, 15 April 2020
Deloitte AS



Kjetil Nevstad
State Authorised Public Accountant



Frank Dahl
Deloitte Sustainability

Cermaq Indicators

KEY FIGURES

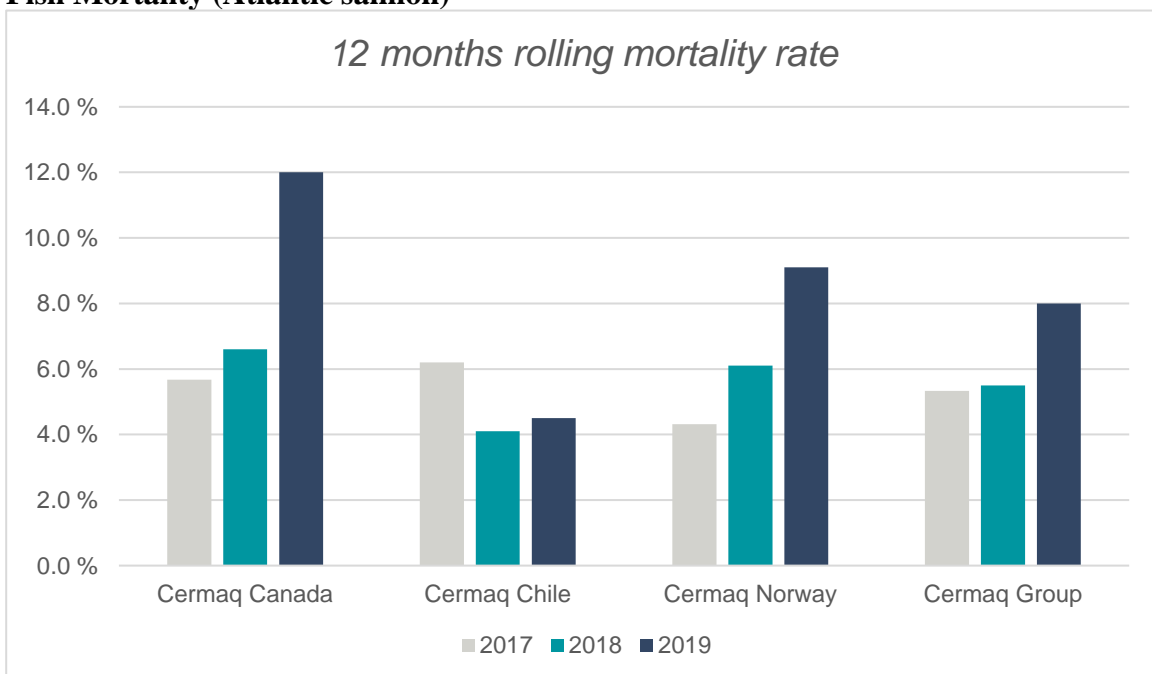
TOPIC	UNIT	2019	2018	2017	2016	2015*	2014
Sales							
Operating Revenue	NOK bn	10.6	10	9.4	8	6.4	5.6
Sales Volume	GWE '000 tons	184	173	158	137	163	138
Social							
Employees	#	3693	4654	4177	3352	3928	4130
Fatalities	#	1	0	0	0	0	1
Absentee rate	% of total working days	2.6%	2.3%	2.2%	2.5%	2.6%	2.0%
Injury rate (H2 value, TRI)	Injuries per million hours worked	8	8	8	9	10	18
Lost-time injury rate (H1 value, LTIR)	Lost-time injuries per million hours worked	6	6	5	6	7	11
Fish Health							
Fish escapes	# of fish	15917	33619**	212562	426	7346	21
Fish mortality (ATS)	% mortalities	8.0%	5.5%	5.3%	7%	6.3%	6.8%
Sustainable feed use	Feed factor	1.27	1.23	1.21	1.26	1.31	1.25
Biodiversity	Weighted fallow time between cycles (weeks)	16	19	21	17	31	13
Energy consumption	GJ	1,363,331	1,283,847	1,073,088	697,185	751,831	724,993
GHG emissions	Tons CO ₂ e	99,070	94,344	80,922	51,995	57,988	54,671
Governance							
Non-compliance with regulations	#	9	12	12	10	11	10
Local communities	% of sites committed to an Area Management Agreement	100%	100%	100%	100%	100%	100%

CEQ 1 FISH MORTALITY

Fish mortality is a key measure to evaluate fish health and welfare. To monitor fish mortality, 12 months rolling rate was introduced in 2012. The rate measures number of fish mortalities for the last 12 months as a proportion of an estimated number of fish in the sea the last month. The benefit of a 12-month rolling rate is that long term trends are better represented. The indicator is a precise measure and a better "steering wheel" for management. Reduction of fish mortality is a key target in Cermaq and fish mortality is defined as a Key Performance Indicator. This means that it is followed up closely and reported monthly to the Central Management team and the Board of Directors.

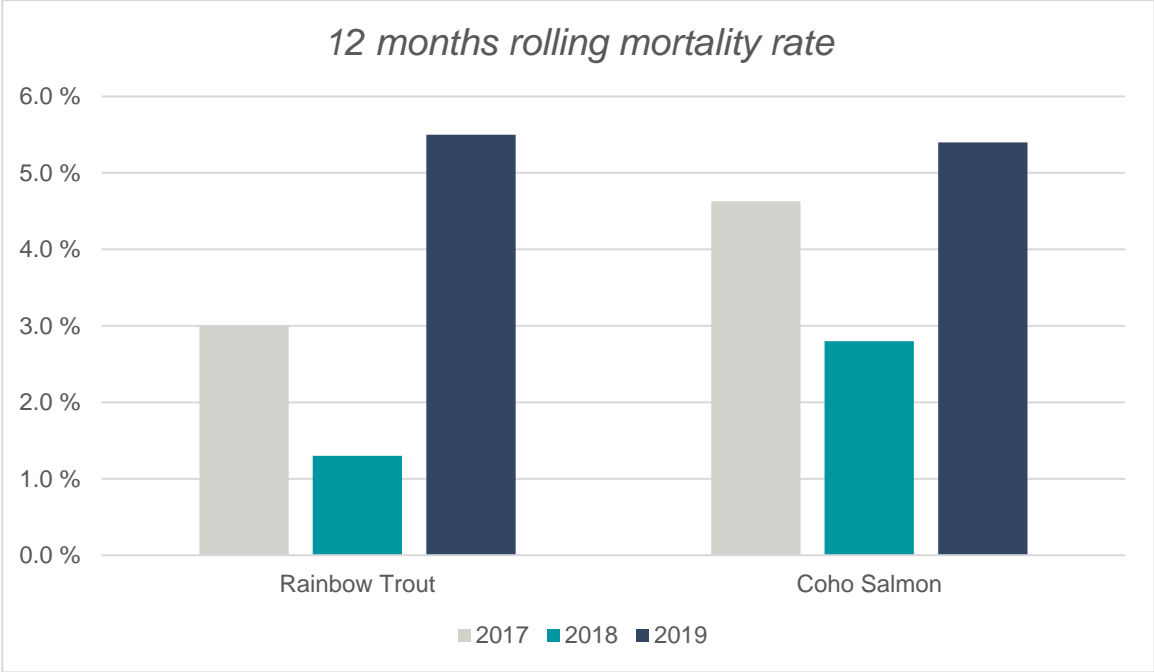
The 12 months rolling fish mortality for Atlantic salmon was 8.0 percent at the end of December 2019 for Cermaq Group, compared with 5.5 percent in 2018. Cermaq Chile had an increase of mortalities compared with 2018. Mortalities increased from 4.1 percent in 2018 to 4.5 percent this year. Cermaq Norway had increased mortalities of 9.1 percent this year compared to 6.1 percent in 2018 mainly due to an algal bloom incident in spring 2019. Cermaq Canada's mortality rate was 12.0 percent, an increase from 6.6 percent in 2018. The increase in mortalities in Canada was largely due to more challenging biological conditions compared to 2018.

Fish Mortality (Atlantic salmon)



In addition to Atlantic salmon, Cermaq Chile is farming Coho salmon and Rainbow trout. At year-end 2018, the 12-month rolling mortality rate for Rainbow Trout increased from 1.3 percent in 2018 to 5.5 percent this year. The rolling mortality rate for Coho increased to 5.4 percent (from 2.8 percent in 2018).

Fish Mortality (Rainbow Trout and Coho Salmon)



Cullings of fish below harvest size are programmed events with the main objective to preserve the fish health situation of a locality, usually triggered by the presence of a disease. Each country has their own set of rules, including the type of disease to be culled and the time schedule to reduce the possibilities of transmission to other farms and companies. Also, when needed, Cermaq’s Fish Health team can propose culling events in order to maintain the general sanitary condition of an area.

During 2019, 12 sanitary cullings were reported in Cermaq Chile, where the fish were removed and transported to final disposal complying with all local regulations. Cermaq Canada had one culling in November 2019 after recommendation by a veterinarian. Cermaq Norway reported one culling in December 2019 after recommendation by a veterinarian.

The stocking density is compliant with national regulations, which are for Atlantic salmon 25 kg/m³ in Norway and 17 kg/m³ in Chile. Canada does not have a regulatory limit, however Cermaq Canada’s normal stocking density is 20 kg/m³.

CEQ 2 SEA LICE

Controlling sea lice levels is a high priority in all regions where Cermaq operates because high levels of sea lice negatively impact the immune systems of the fish and directly affects fish health and welfare. Also, the skin of salmon can be damaged by sea lice and the skin is one of the most important barriers against other diseases. It is additionally a priority to keep lice levels low to ensure they do not negatively impact wild salmon stocks.

Lice occur naturally in the marine environment. There are two species of lice that affect farmed salmon: *Caligus sp.* and *Lepeophtheirus salmonis*. Infestation by either lice species may result in stress and reduced immune competence, making the fish more susceptible to other diseases and health challenges. Therefore, effective lice management is a very important measure in fish health work, and is a pre-requisite for sustainable aquaculture. The best sea lice management is preventive, reducing the parasitic levels in normal farming practices without handling the fish. Preventive measures are less stressful for the fish and do not involve chemical use. Non-medical treatments including lice skirts, cleaner fish, freshwater treatments, and thermal treatments were used in 2019. Chemical treatments include bath and in-feed treatment. Cermaq works continuously to enhance our sea lice management in all regions, with a focus on preventive measures.

Local Action Levels (Mean number of lice per fish)

In 2019, average sea lice counts were controlled below the local action levels in Cermaq Norway and Cermaq Chile. The local action levels in 2019 are provided in the table below.

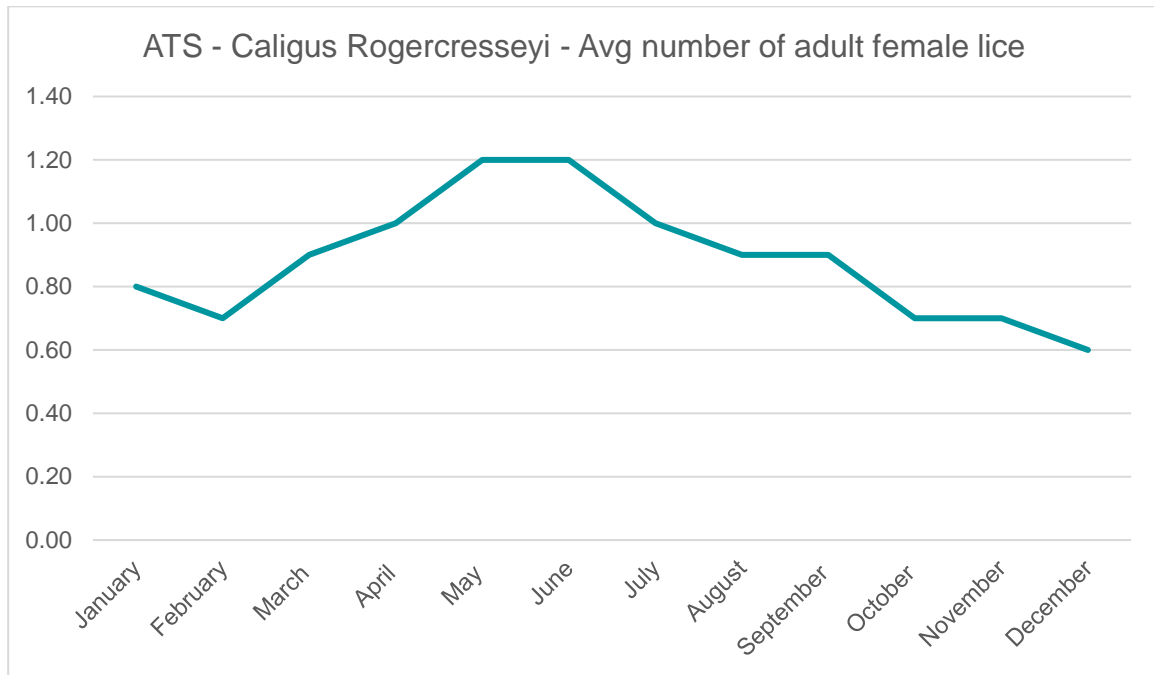
CEQ 02 - Local Action Levels, mean Level of Lice per Fish

	CHILE	NORWAY	CANADA
	Ovigerous Females	Adult Females	Total lice (Mobiles+ adult females)
2019	3	0.5	3

Sea lice counts Cermaq Chile

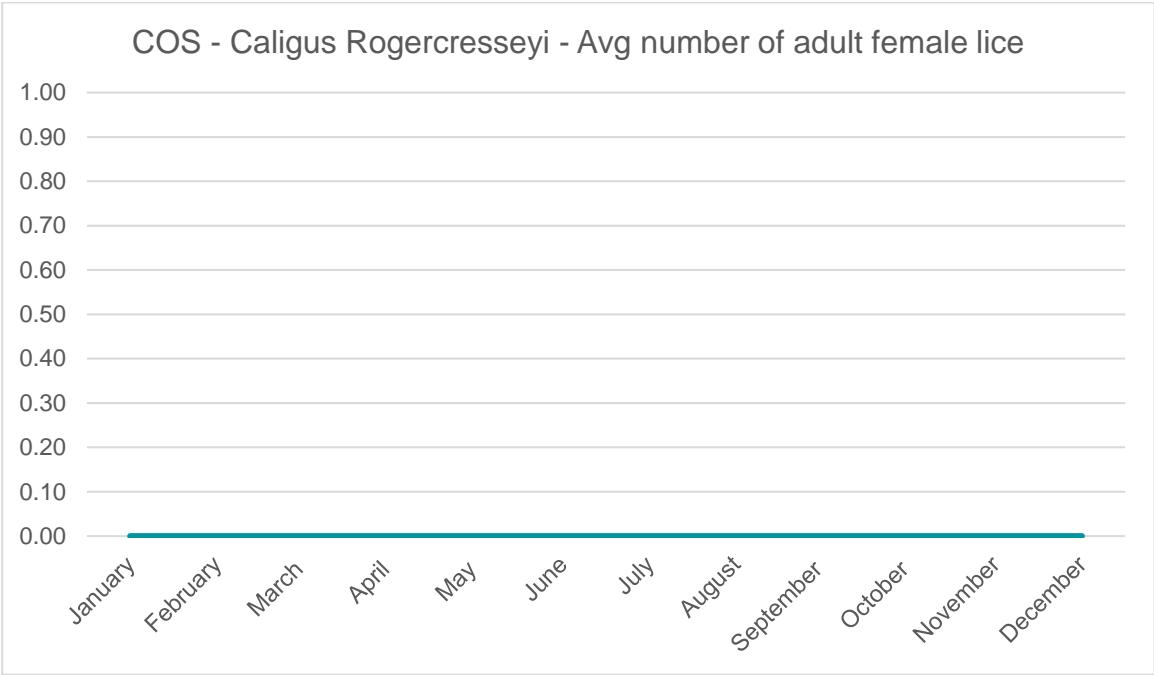
In Cermaq Chile the status of *Caligus* for Atlantic salmon and Trout has improved since the peak in April 2013. For Coho salmon, adult sea lice are not a challenge to the same degree as for Atlantic and Trout and the level remained low in 2019.

Average Sea Lice Counts Chile - Atlantic salmon

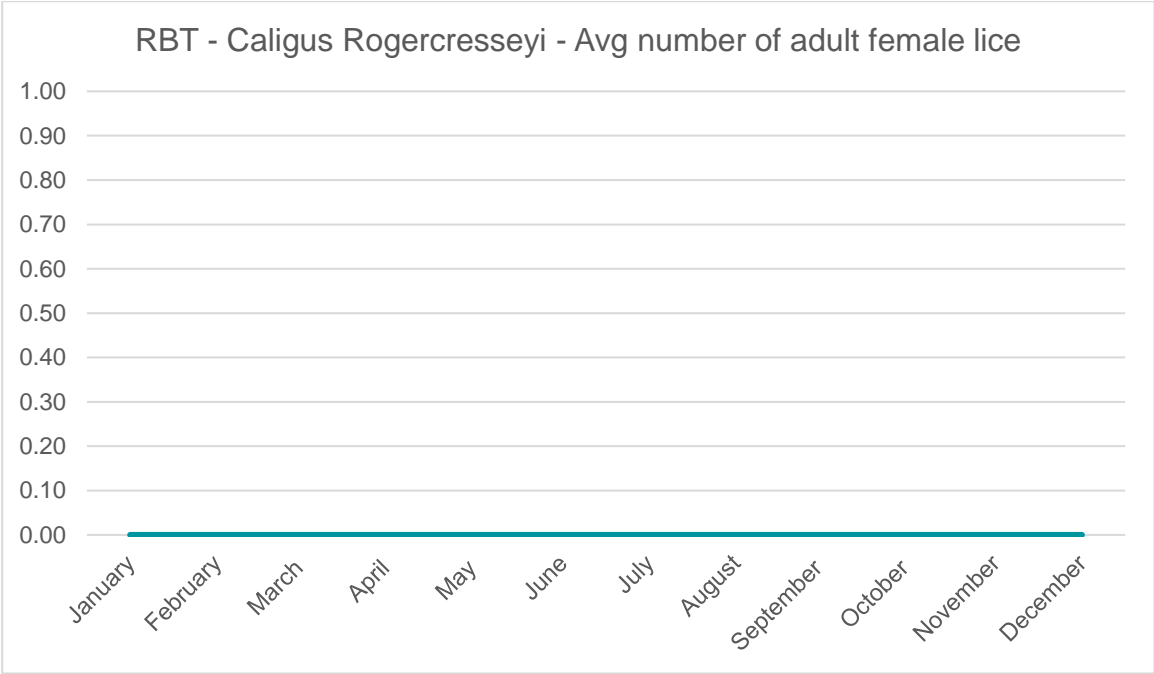


The sea lice counts for Atlantic salmon in Chile were on average 0.88 adult female lice in 2019 compared to 0.98 in 2018. There were lower counts in Q1 2019 compared to Q1 in 2018 (0.80 vs 0.97 lice per fish), with higher counts continuing from April onwards during Chile's autumn of 1.13 lice per fish versus 1.00 lice per fish in April-June 2018. The average counts then decreased to 0.93 lice per fish, in the period July-September 2019, versus 0.97 lice per fish in the same period in 2018, while sea lice counts in October-December 2019 fell to the lowest level in the year, 0.67 lice per fish, versus 0.97 lice per fish during the same period in 2018.

Average Sea Lice Counts Chile - Coho salmon



Average Sea Lice Counts Chile - Rainbow Trout



Coho salmon had an average of zero adult female salmon lice during all months of 2019.

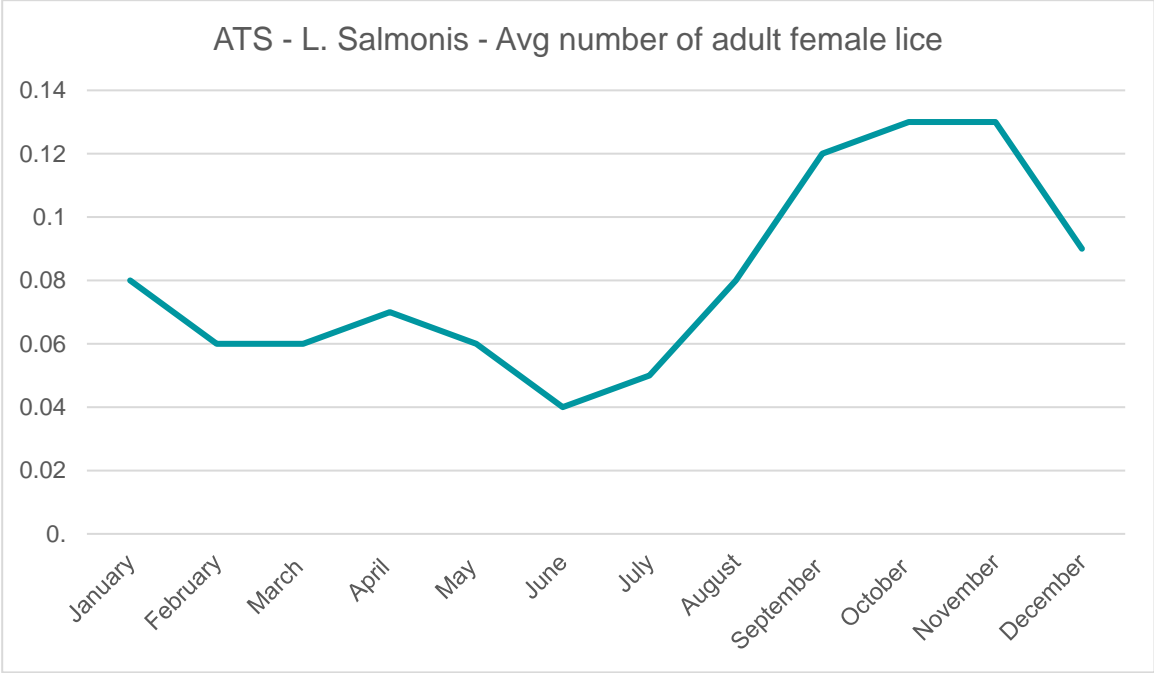
The average adult female lice count for rainbow trout in all months of 2019 was 0 lice per fish as in 2018.

Sea lice counts Cermaq Norway

In Norway, the Norwegian Food Safety Authority (NFSA) has introduced ranking of regions according to a traffic light system. The system is based on the average period of time where the sites in the region have had levels above the maximum allowed level of 0.5 adult female lice. Cermaq Norway’s operations are located in regions of Norway ranked as green traffic-lights.

Cermaq Norway’s yearly sea lice counts were low, with 0.08 lice per fish in 2019, versus 0.06 lice per fish in 2018, both of which counts are well below regulatory limits. Cermaq Norway continues to use preventive sea lice measures such as sea lice skirts and cleaner fish whenever possible and will have a new mechanical de-licing system in place in 2020.

Average Sea Lice Counts Norway - Atlantic salmon

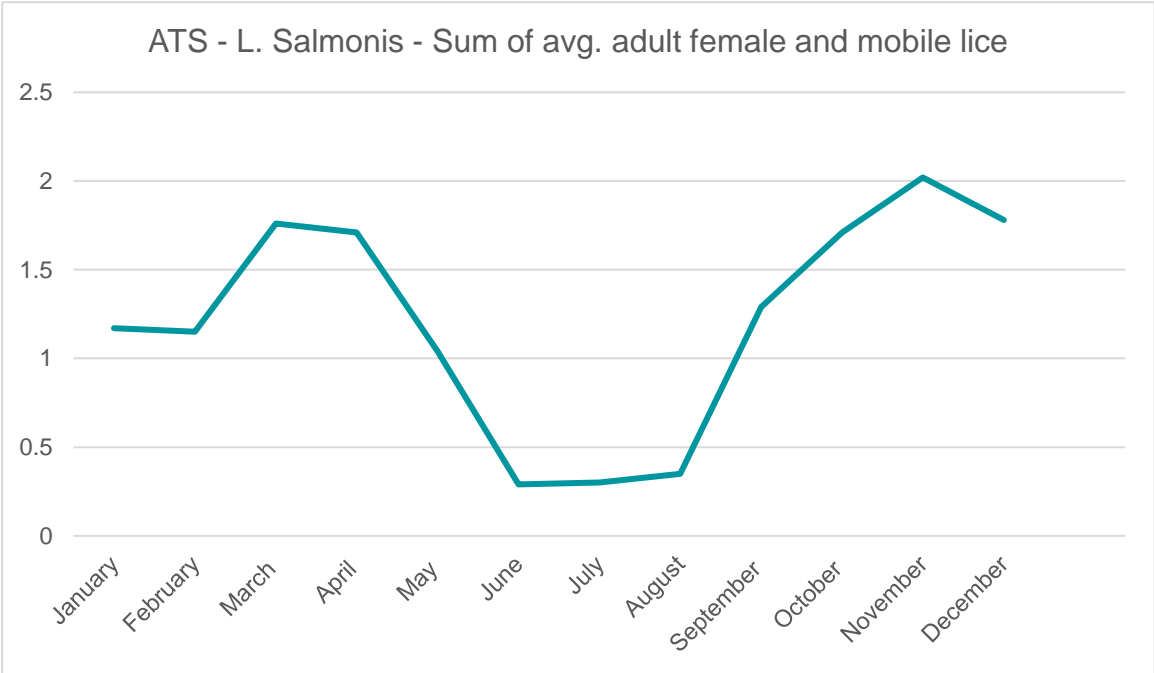


In 2019, continued use of non-chemical methods kept sea lice levels low and well controlled in Cermaq Norway. (0.08 Lice per fish in 2019 versus 0.06 lice per fish in 2018).

Sea lice counts Cermaq Canada

In Cermaq Canada, the sea lice levels decreased in 2019, to an average of 1.2 average adult female lice and mobile lice from 3.8 in 2018 due to use of the new state-of-the-art lice management barge that began in 2019; however, sea lice levels in October-December 2019 were 1.84 adult female and mobile lice versus 0.89 adult female and mobile lice during the same period in 2018.

Average Sea Lice Counts Canada - Atlantic salmon



CEQ 3 FALLOW TIME

Cermaq complies with local and national environmental regulations related to effluents and waste, fallowing time and benthic impact assessment. In 2018, all operations fully respected the fallowing requirements defined in regulations.

Fallowing and benthos assessment are necessary to make sure that fish feces and feed pellets won't build up below or around farm pens, to monitor sea floor status and avoid any longer term or irreversible impacts. We monitor our fish feeding every day with underwater cameras to reduce spill of fish feed and reduce negative impacts of nutrient release, such as Nitrogen and Phosphorus. Also dissolved oxygen is measured on a daily basis at farm level to monitor the environmental condition needed to keep good health and welfare of our fish.

Fallow time is measured per week, from the last fish has been harvested and the first fish stocked in the next cycle. Fallow time corresponds with local regulations in Chile and Norway. There is no regulatory limit in Canada, but best management practice is used.

CEQ 03 - Average Achieved Fallow Time Between Production Cycles (weeks)

WEEKS	CERMAQ CANADA	CERMAQ CHILE	CERMAQ NORWAY
Statutory requirements	-	12	8
2010	22	24	29
2011	13	12	17
2012	24	12	17
2013	27	12	14
2014	17	12	10
2015	55	12	25
2016	18	12	31
2017	23	12	29
2018	23	12	22
2019	14	12	21

Local authorities play an important role auditing all salmon farming companies. If a deviation is detected, Cermaq reports the non-compliances with environmental regulations under indicator 307-1.

In the last years Cermaq has performed trials of alternative fish nets that do not require copper-based antifouling paint. Cermaq Canada has had successful evaluations of Kgrid nets, Chile had EcoNets on 31 farming sites in 2019 and currently Norway continues to transition to using nets made of ultra-high-molecular-weight polyethylene plastic. The main goals include reducing our impact on the environment, reducing handling of net exchange and preventing predator attacks through stronger net alternatives.

CEQ 4 MEDICINE USE

Cermaq is working systematically with preventive health measures in all countries of operation. Key elements include screening programs for monitoring relevant pathogens from broodstock until harvest size fish, systematic use of vaccines, feeding with functional feeds, monitoring of water quality, mapping stress in our farmed salmon, and a restrictive use of antibiotics.

The tools developed over several years and the generation of knowledge has allowed for better forecasting of disease events, lower risk of disease outbreaks, and secure fish health and welfare. Despite preventive measures, sometimes treatment with medicine is necessary, and there are strict procedures in place for the use of medicine such as antibiotics and sea lice treatments. These chemical treatments are used strategically and only when strictly needed to avoid also the generation of resistance.

Antibiotics use

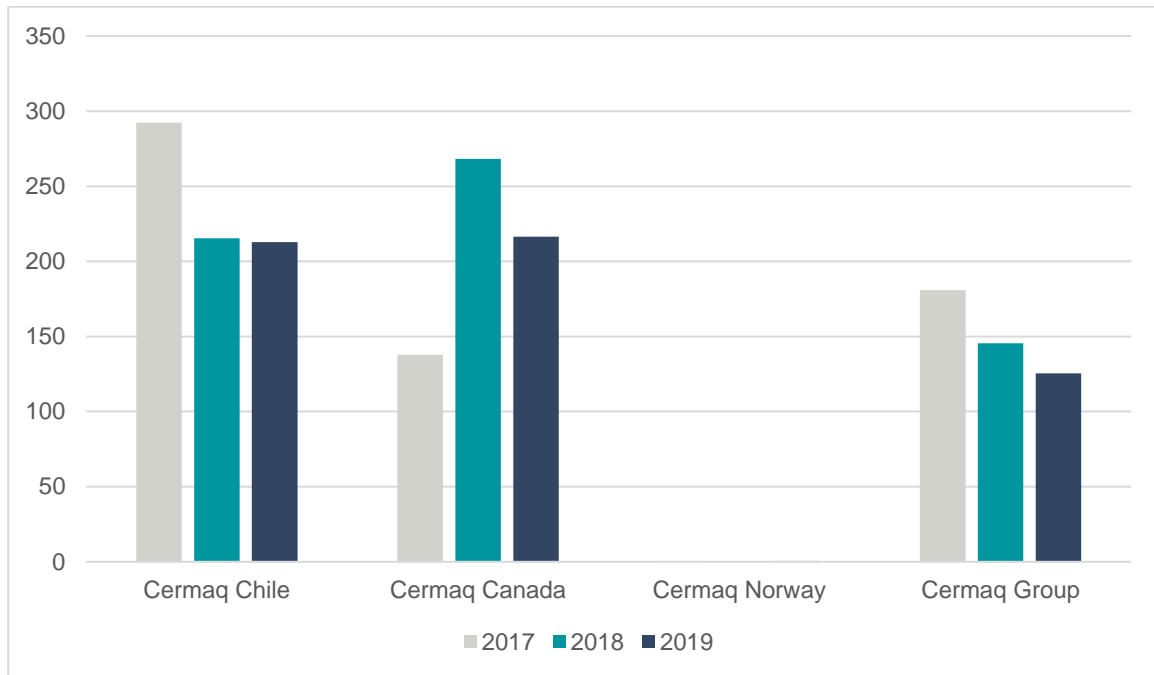
In Cermaq it is important that antibiotic treatments are held to a minimum, only when strictly needed to restore fish health and welfare. Our policy for the use of antibiotics is to limit the use to cases where:

- Animal welfare is threatened by a bacterial disease
- A diagnosis of disease exists with a prescription of antibiotic by an authorized person
- The antibiotic has a proven therapeutic effect against the disease, and
- The antibiotic is approved for use in fish farming

Our calculation of antibiotics use is a ratio between the amount of active ingredients used by tons of live weight of fish produced. This ratio is hence affected by seasonal variations and unpredicted mortality events such as algae bloom mortalities.

CEQ 4 - Antibiotic used

Grams Active Pharmaceutical Ingredients (API) per ton live weight (LWE) produced



In Cermaq Chile, the use of antibiotics per ton production decreased by 1.2% in 2019. The slight decrease was largely a result of a decrease in use of antibiotics and production of fish in Chile, both decreased by 12.7%. Most of antibiotics delivered were to combat SRS (*Piscirickettsia salmonis*) and BKD (bacterial kidney disease). Finding a solution to the SRS challenge remains a key priority for Cermaq's R&D team and work is underway to find effective vaccines for both diseases.

In Cermaq Canada, mouth rot and SRS were the primary cause of antibiotic use in 2019. At the present there are few alternatives to treat fish for these diseases and our global R&D team is focusing their efforts to provide more tools and knowledge to find sustainable solutions. During 2019, mouth rot and SRS treatments to fish newly entered in the sea were the main antibiotics used, while antibiotic use per ton of fish produced decreased 19% during 2019 compared to 2018. Overall numbers for 2019 were: Q1 2019 55 g/ton live weight equivalent vs 38g in Q1 2018, Q2 2019 75g/ton of live weight equivalent vs 66g in Q2 2018, Q3 2019 692g/ton live weight equivalent to combat SRS and mouth rot vs 517g in 2018, and Q4 163g/ton of live weight equivalent to combat SRS, mouth rot and algal blooms vs 583g in 2018.

As in previous years, the main reason for any use of antibiotics in our Norwegian operations in 2019 was mouth rot. The use has however been minimal, with the aim to ensure fish health and welfare, with only two farms receiving treatment during the entire year. The Cermaq R&D team are working to develop more optimal solutions to control mouth rot.

The steady performance in Cermaq Chile and Norway, together with improved performance in Cermaq Canada and a constant focus on a responsible use of antibiotics, led to an 14% reduction in antibiotics use at a Group level compared to 2018.

	CERMAQ CANADA	CERMAQ CHILE	CERMAQ NORWAY	CERMAQ GROUP
2013	10	230	4	127
2014	9	279	5	147
2015	220	513	1	266
2016	65	493	0	197
2017	138	292	0.5	181
2018	268	215	0.3	145
2019	216	213	0.5	126
Δ	-19%	-1%	+107%	-14%

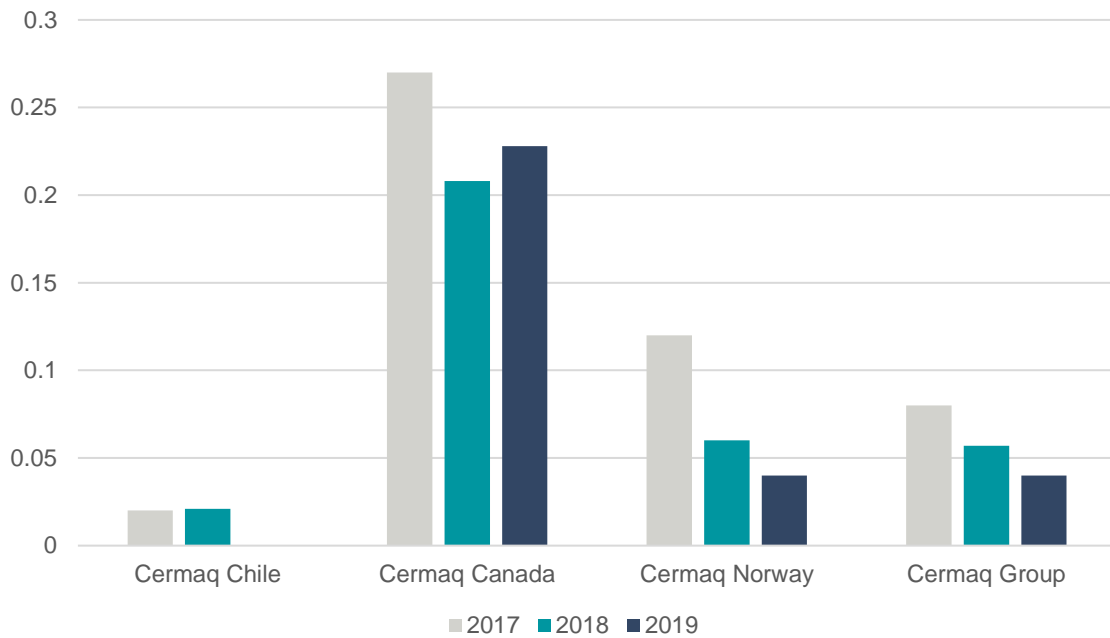
Cermaq also reports antibiotic use online on a quarterly basis. In our quarterly sustainability report we provide the amount of active ingredient of antibiotic used by tonnage harvested, at the moment when the sites are fully harvested (*closed cycle*). This calculation follows the same measure used worldwide in the protein industry to allow for comparison with other protein producers, and hence differs from the calculation presented here (based on LWE produced per calendar year, instead of ton harvested per closed cycle of about 18 months).

Sea lice treatment use

Sea lice is a challenge for the industry worldwide and each country has specific set of requirements with thresholds which determines the proper management. Cermaq has policies and procedures in place to ensure that all treatments are conducted in accordance with local regulations and area management plans. More details can be found under the indicator Sea lice counts (CEQ2).

CEQ 4 - Sea lice treatment used in feed

Grams Active Pharmaceutical Ingredients (API) per ton live weight (LWE) produced.



In Canada, only in-feed sea lice treatment is approved for use and the amount used decreased in 2019. Oral Emamectin is delivered through the fish feed and remains an effective alternative, but research into alternative strategies such as local cleaner fish and physical removal is ongoing. In 2019, Canada also began using a state-of-the-art non-chemical delicing system, which uses water to remove sea lice from fish. The use of in-feed treatments remained low in Cermaq Chile in 2018 due to good environmental conditions. In Norway, use of in feed treatments was lower than in the previous year.

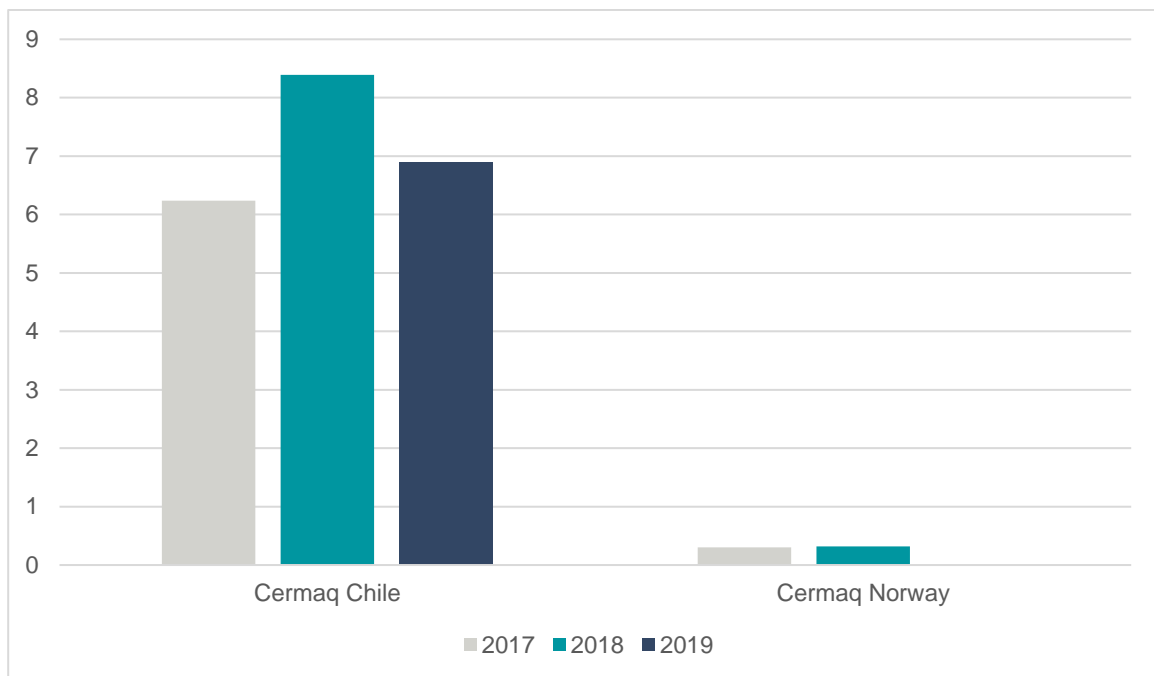
In 2019, the amount of Active Pharmaceutical Ingredients (grams API) per ton live weight (LWE) used for in-feed treatment was 0.04 for Norway, 0 for Chile and 0.23 for Canada. For Norway and Chile, the use decreased by 30% and 100% respectively, compared with 2018. In Canada, the in-feed use increased 10% from 2018.

Grams Active Pharmaceutical Ingredients (API) per ton live weight (LWE) produced.

	CERMAQ CANADA	CERMAQ CHILE	CERMAQ NORWAY	CERMAQ GROUP
2013	0.277	1.749	0.042	0.990
2014	0.139	0.017	0.103	0.063
2015	0.271	0.015	0.092	0.083
2016	0.189	0.031	0.050	0.083
2017	0.270	0.020	0.120	0.080
2018	0.208	0.020	0.062	0.057
2019	0.228	0	0.044	0.040
Δ	+10%	-100%	-30%	-30%

CEQ 4 - Sea lice treatment used in bath

Grams Active Pharmaceutical Ingredients (API) per ton live weight (LWE) produced



The use of sea lice bath treatment for Chile was 6.89 gAPI/ton LWE for 2019, which is a decrease from 2018, and largely due to continuing successful efforts to control sea lice levels.

For Norway the sea lice bath treatment use was 0.002 gAPI/ton LWE, which is a decrease of 99% compared with 2018. Cermaq Norway has continued its strong focus on preventive sea lice management in the past year, with measures such as cleaner fish and skirts used. Also, hydrogen peroxide is used, which requires handling of the fish, but where the active ingredients is broken down into water and oxygen and hence has very limited environmental impacts. Increasing sea lice resistance to chemical treatments is a concern for the industry in Norway and for Cermaq Norway it is a goal to strengthen preventive management and non-chemical alternatives further, while maintaining a strong focus on fish health and welfare, including reducing stress on the fish. Cermaq Norway will also be implementing a new water-based delicing system in 2020 to further focus on non-chemical sea lice treatments.

Grams Active Pharmaceutical Ingredients (API) per ton live weight (LWE) produced

	CERMAQ CANADA	CERMAQ CHILE	CERMAQ NORWAY	CERMAQ GROUP
2013	0	5.20	0.64	3.04
2014	0	6.04	0.98	3.46
2015	0	4.46	2.67	3.10
2016	0	9.67	0.67	3.95
2017	0	6.24	0.30	3.64
2018	0	8.28	0.32	4.72
2019	0	6.89	0.002	3.39
Δ	0	-17%	-99%	-28%

CEQ 5 VACCINATION PROGRAM

Preventive fish health is an effective approach to strengthen animal welfare and resistance to environmental and biological challenges. Preventive measures include broodstock and fish screening for viral and bacterial diseases to reduce transmission, using genetically resistant fish by means of natural breeding techniques (QTL), functional feed and the use of vaccines.

The vaccines available in Norway, Canada and Chile are related to the particular needs of each country. The vaccines used, are those assessed as effective for the species and for the disease in each specific region. Examples of diseases we vaccinate against are IPN, Vibriosis, ISA, BKD, Furunculosis, SRS, IHN and Enteric Red Mouth Disease. Vaccination is delivered mostly in the hatcheries by injectable vaccines. The objective is to protect the fish for the challenges faced during sea water farming. After the vaccination the smolts will have time to obtain immunity and thereby be protected against disease at the moment of stocking.

The fish can also be vaccinated to prevent disease in the freshwater phase or it can receive a booster. The goal of boosters is to increase the first immune response or the first defenses gained by the very first vaccination, allowing for a faster and stronger response against the disease. Cermaq’s global R&D team has a particular focus on developing effective solutions for SRS and mouth rot/ Tenacibaculum.

In Chile, a considerable amount of R&D resources has been used to test both experimental and commercial vaccines for SRS and BKD. The extensive testing of SRS vaccines has provided Cermaq with an optimal vaccination regime for our production. A BKD vaccine is in its late stage of testing in region XII.

Vaccination program in Cermaq (2019)

The following figure includes all the diseases for which vaccines are delivered by country of origin.

CEQ5 VACCINATION PROGRAM			
	CANADA	CHILE	NORWAY
SRS		X	
Furunculosis	X	X	X
Vibriosis	X	X	X
Coldwater Vibriosis	X		X
Winter ulcer*	X		X
IPN		X	X
ISA		X	
Enteric Red Mouth	X		
IHN	X		
BKD		X	
Aeromonas		X	
Yersinosis		X	

**Experimental trial for Moritella viscosa.*

CEQ 6 AREA MANAGEMENT AGREEMENTS

Area based management agreements are of great importance for effective and preventive fish management. Area Management Agreements can be a voluntary measure, such as a best management practice, or it can be a national wide requirement, formalized under a written area management agreement between stakeholders in a defined area.

Regardless of the origin of these agreements, the agreements are tailored to the local situation and, typically, may include topics such as fallowing and sea lice management strategies, vaccination programs, containment and contingency plans, recapture management plans and disease control strategies in farmed and wild fisheries.

In 2019, all Cermaq sites operated under area-based management agreements or were located in areas fully controlled by Cermaq.

CEQ 7 ESCAPES

Cermaq has comprehensive procedures for preventing and managing fish escapes. Fish escapes are regarded as serious incidents which receive special attention from Cermaq management and the Board of Directors. Fish escapes may typically occur if nets are damaged, because of weather conditions, after handling of the nets for bath treatments, or as a consequence of predator attacks. An early detection of a fish escape allows to recover the salmon and reduce the impact of the escape event.

Measures include fish escape prevention plans in all regions, contingency plans, and monitoring activities. In Cermaq Chile, monitoring is in place for the entire network installation by use of remotely operated vehicle (ROV), to assess the status of nets and detect any holes to prevent escapes. Other measures include regular inspections of infrastructure, reporting to learn from previous escapes, implementation of and training in procedures securing the facility in case of escapes, and recapture of escaped fish. In Norway, Cermaq has an emergency cooperation with farmers in the county of Finnmark in case of an escape. Inspections are performed by the authorities in all regions with regards to escape prevention.

Cermaq Canada is currently testing multiple types of nets, including polyester, high-density polyethylene, and KGrid netting, Cermaq Chile has tested and used rigid plastic monofilament Econets for farming and currently Norway is using nets made of plastic (Dyneema Polyethelyne). These stronger nets prevent larger interaction with predators, ruptures, and possible fish escapes. They also do not use copper-based paint to reduce negative impacts on the environment.

Number of escaped fish by region

YEAR	CERMAQ CANADA	CERMAQ NORWAY	CERMAQ CHILE	GRAND TOTAL
2013	0	0	63273	63273
2014	21	0	0	21
2015	2	500	6844	7346
2016	1	425	0	426
2017	0	0	212562	212562
2018	10	5813	27868	33691
2019	37	21	15859	15917

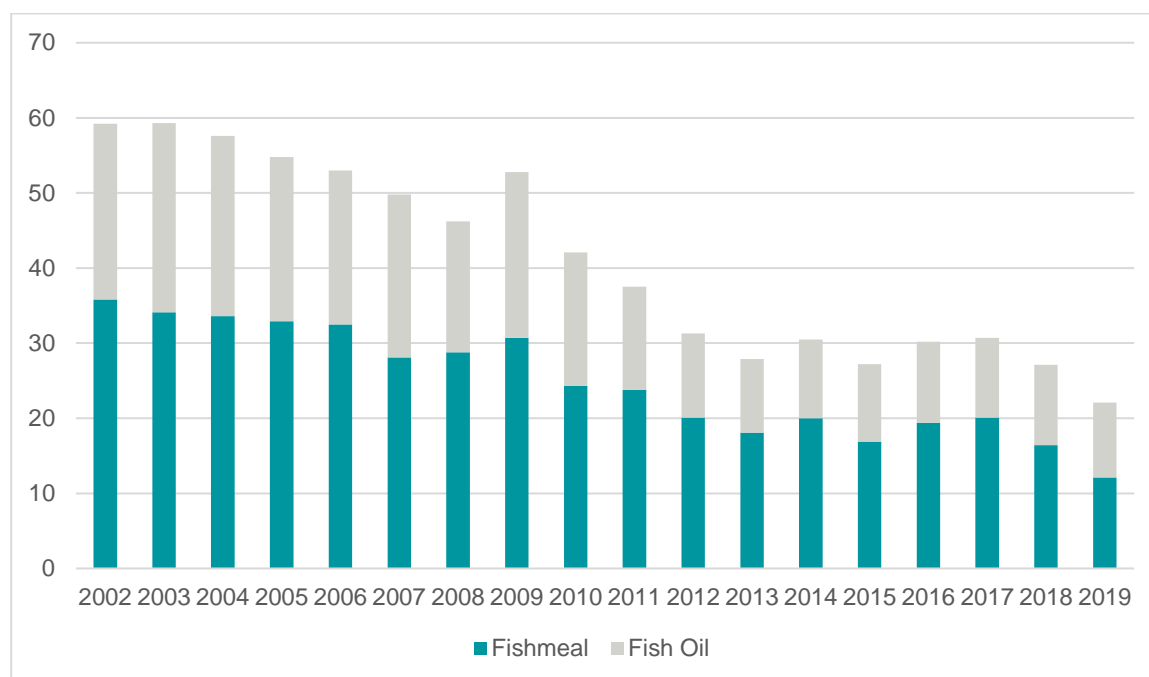
In 2019, there was one fish escape in Cermaq Chile, leading to 15859 fish escaping. One escape was due to a ripped net in December 2019. In Norway, there were three escape events recorded in 2019 where a total of 21 fish escaped. 19 fish escaped in Finnmark due to a pumping error with a wellboat, while a further 1 fish in Finnmark escaped due to an error when sampling and a further 1 escaped fish was found floating outside of a sea site in Nordland. In Canada, 37 fish total escaped in two incidents in 2019 where sea lions chewed a hole in containment nets.

In Norway, Cermaq has introduced DNA traceability for its smolt, enabling to determine whether an escaped salmon is farmed by Cermaq or another company. The first smolt of this kind was transferred to sea in 2015. This DNA traceability allowed the identification of two fish that were caught by a local fisherman in Norway in 2018 as Cermaq fish.

CEQ 8 RAW MATERIAL INGREDIENTS

At a global level, EWOS is the main feed supplier of Cermaq's farming operations and hence this indicator is based on EWOS data. Forage fishery dependency has been a challenge for a growing fish farming industry. Salmon needs marine ingredients to grow healthy and to keep a good content of omega-3. Since 2010, the use of fish trimmings and byproducts in fish feed has increased from around 20% to over 30%. In 2019, the marine index for EWOS decreased to 22.1 percent from 27.1 percent in 2018. The specific content of marine ingredients in our EWOS feed varies within specified limits depending on price and availability of alternative raw materials.

Marine content in salmonid feeds



Notes: 2011-2019 figures are excl. EWOS Vietnam

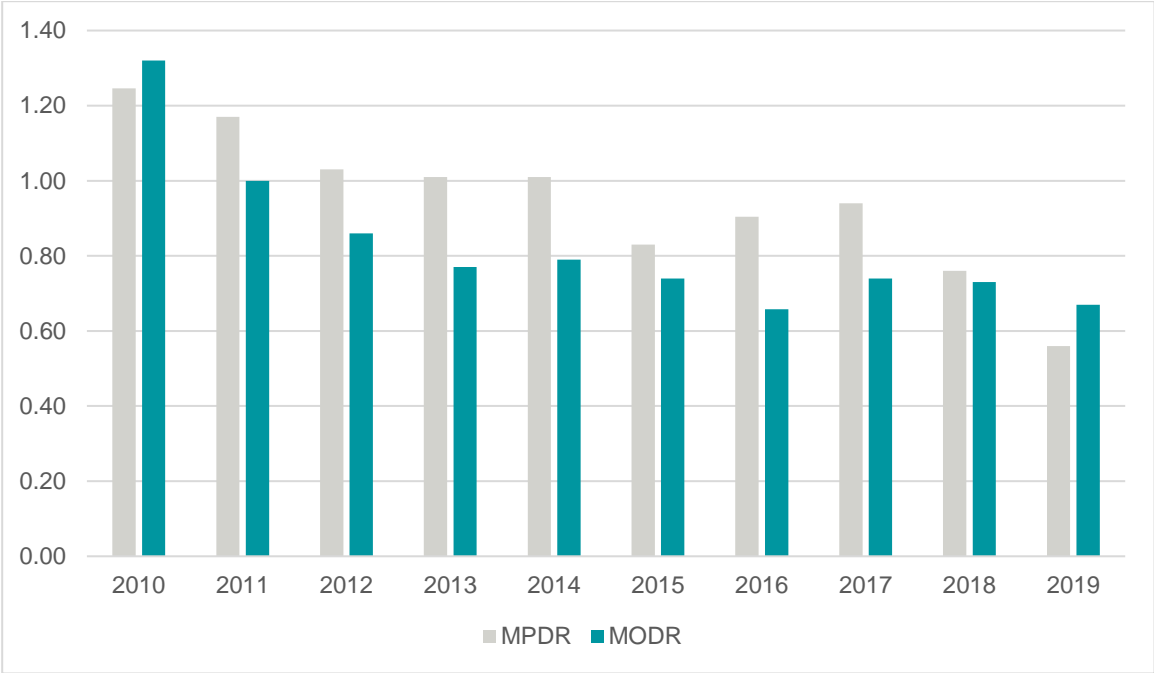
In the FAO report “The State of World Fisheries and Aquaculture 2018” (SOFIA 2018), it is reported that fish meal and fish oil inclusion rates used in feed for salmon aquaculture has been decreasing overall since 1990. At the same time aquaculture production at a global level has grown but not the capture production from forage fisheries, indicating that the dependency between these two activities are decoupling. Efficient use of marine ingredients, byproducts and replacement with plant ingredients has allowed salmon production to increase while keeping its good quality and the advantages relative to other proteins. Specifically, in the past years EWOS and other feed suppliers have introduced new ingredients and lowered the marine content in its feed. Research into 'marine independence' provides the knowledge for further significant reduction in the future if necessary, for example using insects, yeast, or algae in salmon feed. Under this scenario aquaculture is increasingly decoupled from fishery activities.

The marine nutrient dependency ratio (MNDR) is the ratio of each marine-derived nutrient used to feed salmon divided by the amount of each marine nutrient produced as a result of salmon farming (Crampton et al., 2010). Thus, it estimates the amount of marine protein and oil produced in salmon farming relative to the marine protein and oil consumed in the

form of forage fish. The marine protein dependency ratio (MPDR) is the calculation made for proteins and the marine oil dependency ratio (MODR) is for oils and fats. Dietary protein sources and oils or lipids from all capture fish, shellfish or zooplankton are classified as marine sources. (Nofima Report 36/2014).

Efficient use of marine ingredients is important, and farmed salmon is well known to be very efficient in its feed conversion. For example, in 2019, EWOS estimated a MPDR of 0.56 (compared to 0.76 in 2018 and 0.94 in 2017), which means that the build-up of marine proteins by salmon has been higher than the amounts received through the feed. For marine oil the development is similar. EWOS used less marine oil in the feed (0.67) than the amount produced by the salmon. For comparison EWOS used 0.73 units of oil in 2018 and 0.74 units in 2017. Farmed salmon is now a net producer of marine protein and oils.

Estimated Marine Nutrient Ratios



Note: The figures are excl. EWOS Vietnam

The following list shows the countries of origin for many of the fish species used in fishmeal and fish oil purchased by EWOS and used in Cermaq’s production.

Country of origin

FISH SPECIES	COUNTRY
Anchovy	Chile, Peru
Blue whiting	Denmark, Faroe Islands, Iceland, Ireland, Norway, UK
Capelin	Iceland, Norway
Gulf menhaden	USA
Herring (Araucanian)	Chile
Herring (Atlantic)	Denmark, Iceland, Norway
Jack mackerel	Chile
Sand eel	Denmark, Norway
Sardine	Chile, Mauritania, Mexico, Panama
Sprat	Denmark, Norway

Cermaq has strict requirements of its feed suppliers and encourages certified sources of ingredients. As stated on their web page, EWOS prioritizes the use of feed ingredients that are judged to be sustainable based upon sources such as IMARPE and Sernapesca in South America, ICES in Europe, and National Marine Fisheries Service, Gulf States Marine Fisheries Commission, and Atlantic States Marine Fisheries Commission in the USA. EWOS is a strong supporter of the IFFO Responsible Supply Standards, and in line with Cermaq’s requirements, EWOS does not accept IUU/illegal fishing as sources for the fish oil or fish meal they purchase. In 2019, nearly all of EWOS’ 280 raw material suppliers which produced ingredients for feed used by Cermaq signed their Supplier Code of Conduct, which gives expectations to suppliers with respect to [key aspects of environmental and social impacts](#).

EWOS participated in the development of the RTRS and ProTerra standards for responsible soy and also supports the FEFAC guidelines for responsible soy. In 2014, both EWOS and Cermaq signed The New York Declaration on Forests aiming at stopping deforestation and focusing especially on soy and palm oil. EWOS source soy products from Brazil, their main supplier, that are certified to ProTerra, RTRS or equivalent. Use of soy products from other countries can be approved given evidence that they are responsibly sourced or that the suppliers have development programs in place to achieve credible third-party certification. The table below shows the fish species and category of raw material used for salmonid feed primarily, but also raw materials used for other fish species like pangasius and tilapia. In 2019, EWOS’ use of marine ingredients derived from fish trimmings and by-products was 32 percent (an increase from 31 percent in 2018).

Overview of fish species used to make fishmeal and fishoil for EWOS group feed 2019

CATEGORY	SPECIES	CATEGORY %	TOTAL %
Fish trimmings & byproducts	Herring(Atlantic)	37.9	12.1
	Mixed Whitefish	32.0	10.3
	Atlantic mackerel	3.7	1.2
	Capelin	4.6	1.5
	Hake	6.0	1.9
	Pollock	5.9	1.9
	Jack Mackerel	6.0	1.9
	Others	4.0	1.3
Fish trimmings & byproducts Total		100	32.1
Forage Fish	Blue Whiting	20.9	14.0
	Anchovy	20.7	13.9
	Gulf menhaden	14.2	9.6
	Sardine (South American pilchard)	4.5	3.0
	Sardine (Sardinella)	4.4	3.0
	Sardine (Indian oil sardine)	2.8	1.9
	Sand eel	3.8	2.6
	Herring (Atlantic)	4.6	3.1
	Herring (Araucanian)	7.6	5.1
	Sprat	6.8	4.5
	Norway Pout	2.4	1.6
	Others	7.3	1.9
	Forage Fish Total		100
Other Marine Ingredients		0	0
Other Marine Ingredients Total		0	0
			100%

Notes: Species that individually make up less than 2% of the mix have been grouped together under 'various species'. Countries making up less than 2% of the total fish meal + fish oil are not listed.

More information on EWOS feed ingredients, sourcing and sustainability management is available in the EWOS sustainability report on their webpage.

CEQ 11 LOCAL COMMUNITY COMPLAINTS

We recognize that our operations impact our neighbors and local communities in various ways, and we take care to register all complaints to our operations in order to address the root cause and make improvements. Cermaq operates in remote areas and engages closely with local communities. In order to operate sustainably we need to have a respectful interaction with our local communities for a long-term period.

There were three community complaints reported in Cermaq Chile 2019, up from 0 community complaints reported in 2018. All complaints were resolved in accordance with Chilean laws and regulations.

CEQ 12 WHISTLE BLOWING INCIDENTS

Whistle blowing is regarded as positive in Cermaq Group because we get the opportunity to correct any incidence of wrongdoing. Cermaq's current whistle blower channel for external stakeholders was established in 2014, with appropriate routines, procedures and technical specifications. Whistle blowing can be done from our public internet web site.

In 2019, a total of 14 whistle blowing incidents were reported (internal and external). For comparison, there were 10 cases of whistle blowing incidents in 2018. The reports were assessed and closed in accordance with procedures. Below are the whistle blowing incidents recorded in Cermaq by country for the past three years.

	2017	2018	2019
Cermaq Norway	4	4	5
Cermaq Chile	7	2	9
Cermaq Canada	4	3	0
Cermaq Group HQ	0	1	0
Cermaq Group	15	10	14

CEQ 15 COUNTRY-BY-COUNTRY FINANCIAL AND ORGANISATIONAL DATA

Transparency regarding organizational ownership, management and operations, is regarded as important to fight corruption and to demonstrate responsible business conduct. The table below shows Cermaq's financial and organizational data for each country in the Group.

COUNTRY	REVENUES BEFORE TAX	INCOME TAX PAID	INVESTMENTS	COMMUNITY INVESTMENT	FINANCIAL ASSISTANCE RECEIVED FROM GOVERNMENT	NUMBER OF EMPLOYEES
Cermaq Group HQ	-50	-10	8	0	1.0	63
Cermaq Norway	1230	246	389	1.5	0	589
Cermaq Chile	-646	-172	582	0.7	0.1	2753
Cermaq Canada	83	21	198	1.2	1	288
Cermaq USA	0.8	0.8	0	0	0	9
Total	618	85	1176	3.3	2.1	3702

Numbers in mill. NOK

Period accounted for is 01.01.2019 to 31.12.2019.

CEQ 16 ASC CERTIFICATION

The Aquaculture Stewardship Council (ASC) aims to be the world's leading certification and labelling program for responsibly farmed seafood. The ASC's primary role is to manage the global standards for responsible aquaculture, which were developed by the WWF Aquaculture Dialogues. As of December 2019, Cermaq had 50 ASC certified sites. Of these 24 were in Norway, 13 in Canada and 13 in Chile. Cermaq aims to certify its farming sites to the salmon standard for responsibly farmed salmon from the Aquaculture Stewardship Council (ASC). Ongoing certifications can also be found on ASC's website. The table below provides an overview of all ASC certified sites in Cermaq as of 31 December 2019.

COUNTRY	SITE NAME	FISH SPECIES	PRODUCTION CAPACITY
Norway	Anevika	ATS	5400
	Elvevika	ATS	3599
	Store Lerresfjord	ATS	3480
	Gisløy	ATS	2340
	Hjartøya	ATS	5460
	Skinnstakkvika	ATS	3120
	Ytre Koven	ATS	3600
	Sommarbuk	ATS	3480
	Rivarbuk	ATS	3480
	Tuvan	ATS	3480
	Martnesvika	ATS	5400
	Storholmen	ATS	5600
	Olderfjord	ATS	4800
	Jernelva	ATS	2100
	Komagnes	ATS	5800
	Langøyhodvden	ATS	1190
	Svartfjell	ATS	3370
	Dypeidet	ATS	1840
	Ånderbakk	ATS	3900
	Hamnefjord	ATS	3600
	Husfjord	ATS	7560
	Slettnesfjord	ATS	7560
	Hammer	ATS	3600
Hellarvika	ATS	3600	
Chile	Isla Juan	RBT	4000
	Desembocadure Gajardo	ATS	5236
	Yelcho	COS	5250
	Calen 2	COS	4050
	Isla Guzman	ATS	3500
	Canal Bertrand	ATS	3584
	Linlino	COS	2621
	Punta Darsena	ATS	4000
	Estero Riquelme	ATS	7000
	Isla Grande	ATS	5000
	Ensenada Lorca	ATS	4216
	Surgidero Furia	ATS	3750
	Aguantao	COS	2621
Canada	Bare Bluff	ATS	2640
	Dixon Bay	ATS	2650
	Mussel Rock	ATS	2050
	Brent Island	ATS	3000
	Venture Point	ATS	3393
	Raza Island	ATS	2700
	Westside	ATS	2460
	Maude	ATS	2640
	Burwood	ATS	2640
	Sir Edmund Bay	ATS	2640
	Ross Pass	ATS	2450
	Millar Channel	ATS	2900
Saranac	ATS	2640	

Note: Production capacity is in tons as maximum allowed biomass by farming site during one farming cycle. The production capacity is granted from 2015 until 2022, depending on the issue date of the certification

ASC works with aquaculture producers, seafood processors, retail and foodservice companies, scientists, conservation groups and consumers to:

- Recognize and reward responsible aquaculture through the ASC aquaculture certification program and seafood label.
- Promote best environmental and social choice when buying seafood.
- Contribute to transforming seafood markets towards sustainability

A certified farming site must comply with several requirements, including 150 sustainability criteria such as wildlife interactions, sea lice counts, fish escapes and unexplained loss among others. Some indicators such as wildlife interactions and sea lice counts must be reported and be publicly available. This information is provided in the [Cermaq ASC Dashboard](#).

Advantages of ASC salmon

ASC certification can help consumers make positive environmentally and socially responsible choices when buying seafood. It gives at-a-glance reassurance that the seafood comes from a farm which uses responsible farming methods that minimize environmental and social impacts. It lets consumers enjoy seafood with a clear conscience; they know where it has come from and how it has been produced. It ensures transparency, so that seafood products are traceable from farm to fork.

CEQ 17 BIRDS AND MAMMALS

Cermaq recognizes the potential for fish farming operations to impact biodiversity, either directly or indirectly. We operate in areas with rich biodiversity where several species of plants and animals interacts with our farming activities. Also in Chile salmonids are non-native fish species where our operations could have an impact on biodiversity.

Cermaq does not operate any sites in any protected areas as defined by the International Union for Conservation of Nature (IUCN) or National legislation. Birds and mammals mortalities are reported by accidental and intentional events and has been calculated as a total number of interactions divided by the total number of active sites from January to December 2019, following the definition set by the Global Salmon Initiative (GSI).

	ACCIDENTAL		INTENTIONAL	
	Birds	Mammals	Birds	Mammals
Chile	0	0.02	0	0
Norway	1.27	0	0	0
Canada	0.50	0	0	0

A requirement of the Aquaculture Stewardship Council, wildlife interactions on ASC certified sites are covered by public reporting within 30 days of any death of birds or marine mammals, whether unintentional or intentional. ASC requirements also include a requirement of no mortalities of endangered or red-listed marine mammals or birds as defined by IUCN or national endangered species list.

Cermaq will continue to install preventive measures and monitoring to reduce the number of interactions with wildlife. Please consult Cermaq's ASC dashboard for reports of incidents with wildlife on ASC certified sites in each region.

GRI General Disclosures

1. ORGANIZATIONAL PROFILE

102-1 NAME OF THE ORGANIZATION

Cermaq Group AS

102-2 ACTIVITIES, BRANDS, PRODUCTS, AND SERVICES

Farming and sales of Atlantic salmon, Coho salmon and trout, under the brands Cermaq, Mainstream and Cultivos Marinos.

102-3 LOCATION OF HEADQUARTERS

Dronning Eufemias gate 16, 0102 Oslo, Norway

102-4 LOCATION OF OPERATIONS

Cermaq has significant operations in three countries, in Norway, Canada and Chile. For more information read about [our organization](#).

102-5 OWNERSHIP AND LEGAL FORM

Cermaq Group AS is a fully owned subsidiary of Mitsubishi Corporation.

102-6 MARKETS SERVED

Cermaq sells its salmon products globally, where the main markets are USA, EU, Norway, Canada, Brazil, Chile, Japan, China and Russia.

102-7 SCALE OF THE ORGANIZATION

Cermaq operates in three countries, subsidiaries and associated companies of significant size are:

- Parent company Cermaq Group AS
- Cermaq Holding AS
- Cermaq Norway AS
- Cermaq Canada Ltd.
- Southern Cross Seafoods S.A.
- Mainstream Chile S.A
- Cermaq Chile S.A.
- Salmones Humboldt SpA

- Agraindustrial Santa Cruz Ltda.

The GRI report covers Cermaq's aquaculture operations.

Key figures are on page 5 of this report.

102-8 INFORMATION ON EMPLOYEES AND OTHER WORKERS

Workforce

102-9 SUPPLY CHAIN

Cermaq's value chain

102-10 SIGNIFICANT CHANGES TO THE ORGANIZATION AND ITS SUPPLY CHAIN

On 1st of December 2016 Cermaq's Chilean operations were merged with Salmones Humboldt, a salmon farming company fully owned by Mitsubishi Corporation, and the company is operating under the name Cermaq Chile S.A.

No significant changes in the operations or its supply chain occurred in 2017.

Cermaq's Alsvåg processing facility was closed on 1 February 2018 and sold to Viking Innovation, which took over the facility on 27 April 2018. The new processing plant in Steigen was officially opened in September 2018.

No significant changes in the operations or supply chain occurred in 2019.

102-11 PRECAUTIONARY PRINCIPLE OR APPROACH

Cermaq follows a precautionary approach to the management of all risk areas (including sustainability) through its annual risk assessment process and reporting model. The model allocates responsibility and tasks for risk mitigating activities connected with any identified critical or significant risks, in the process are included the countries where Cermaq has significant operations. Furthermore, the company's guidelines for ethical and corporate responsibility explicitly state that "If doubts arise as to whether an activity is permitted or

justifiable on the basis of the ethical and corporate responsibility guidelines, the person in question should seek advice from his/her immediate superior."

Cermaq is closely following up risks in its farming operations through monthly and quarterly reporting, including external sustainability reporting each quarter since 2016. Risks are assessed and followed up by management.

One of Cermaq's five values is Long term perspective explained by the view that long term profit comes before short term gain because Cermaq's success is defined by value creation over time and lasting customer satisfaction.

102-12 EXTERNAL INITIATIVES

Global initiatives

102-13 MEMBERSHIP OF ASSOCIATIONS

Norwegian Seafood Federation (Sjømat Norge, formerly known as FHL); British Columbia Salmon Farmers Association (BCSFA); Canadian Aquaculture Industry Alliance (CAIA); Salmon Chile, Global Salmon Initiative (GSI); UN Global Compact; Annonssørforeningen (ANFO)

2. STRATEGY

102-14 STATEMENT FROM SENIOR DECISION MAKER

Please see the CEO comment to the GRI report

3. ETHICS AND INTEGRITY

102-16 VALUES, PRINCIPLES, STANDARDS, AND NORMS OF BEHAVIOR

The following codes and guidelines have been implemented and are widely distributed throughout the Cermaq Group. They are also available on our web page.

Cermaq values

Ethical and Corporate Responsibility guidelines

Whistle blowing guidelines

4. GOVERNANCE

102-18 GOVERNANCE STRUCTURE

The general meeting is the highest governance body in Cermaq Group AS (“Cermaq”). The General meeting of Cermaq elects the shareholder elected directors, the auditor and also approves the annual accounts and the board remuneration. In addition, three directors of the Board are elected by and amongst the Norwegian employees.

The Board sets the strategic direction for the company and resolves budgets, annual goals and guidelines for the operations of the company. Further, the Board monitors the company’s management and operations, resolves matters outside the ordinary course of business and appoints the CEO. The Board established a remuneration committee in 2016 to develop recommendations to the Board in matters concerning remuneration. The Board did not have any other sub-committees in 2019. The CEO is responsible for the daily management and operations of the company and reports to the Board.

Environmental and social topics are followed up by Cermaq’s global Sustainability Functional Team (SFT), which is chaired by the Head of Sustainability and Risk, and which has the Chief Legal Council (member of the Cermaq management team) as sponsor. Material issues and sustainability reports are reviewed by the SFT before providing recommendations to the Cermaq management team, who has the decision making authority.

5. STAKEHOLDER ENGAGEMENT

102-40 LIST OF STAKEHOLDER GROUPS

The stakeholder groups are described under [Stakeholder engagement](#)

102-41 COLLECTIVE BARGAINING AGREEMENTS

[Workforce](#)

102-42 IDENTIFYING AND SELECTING STAKEHOLDERS

The stakeholder identification process is described under [Stakeholder engagement](#)

102-43 APPROACH TO STAKEHOLDER ENGAGEMENT

The approach to stakeholder engagement is described under [Stakeholder engagement](#)

102-44 KEY TOPICS AND CONCERNS RAISED

An overview of key topics and concerns are available under [Stakeholder engagement](#)

6. REPORTING PRACTICE

102-45 ENTITIES INCLUDED IN THE CONSOLIDATED FINANCIAL STATEMENTS

The GRI report covers Cermaq's aquaculture operations. Entities included are presented under 102-7.

102-46 DEFINING REPORT CONTENT AND TOPIC BOUNDARIES

Materiality assessment and targets for those topics included are discussed and reviewed by the Global Sustainability Functional Team and approved by Cermaq management. The data for Cermaq's sustainability report is collected through the consolidation system Intalex. Each operating company provides its data into the system following the four eyes principle, with separate individuals entering and approving the data. The data is quality assured both at regional level and by Cermaq Group, who consolidates the report. Quality control of key performance indicators is furthermore conducted monthly and quarterly, and the reports are reviewed by Cermaq management. For deviations from target, follow up actions are required.

[Cermaq's Materiality Assessment](#)

102-47 LIST OF MATERIAL TOPICS

[Cermaq's Materiality Assessment](#)

102-48 RESTATEMENTS OF INFORMATION

Cermaq has decided to continue to report the GRI report by calendar year also in 2019, while the financial accounts are reported in accordance with the Mitsubishi Corporation

fiscal year, from April to March. Please consult the 2019 financial accounts for any further restatements.

102-49 CHANGES IN REPORTING

Cermaq's 2019 GRI report is prepared in accordance with the GRI Standards to a Core level. Until 2015, Cermaq reported in accordance with GRI G4 Comprehensive level.

Since 2016, Cermaq reports its financial accounts in accordance with the Mitsubishi Corporation fiscal year, from April to March, which means that the financial and sustainability accounts are published separately. The GRI report continues to be reported by calendar year to allow for inclusion in benchmarking processes and timely release relative to other industry and sustainability reports.

Cermaq and Salmenes Humboldt merged in December 2016. In this GRI report, all data reported also include Salmenes Humboldt operations as an integrated part of Cermaq.

102-50 REPORTING PERIOD

Cermaq's GRI reporting period follows the calendar year 2019, from January to December 2019. Since 2016, Cermaq follows the Mitsubishi accounting year from April to March and will release its financial accounts separately. Some parts of the GRI general disclosures hence refer to information that will be released with the financial accounts in Q3 2020.

102-51 DATE OF MOST RECENT REPORT

The previous GRI report was published in April 2019 and is available on Cermaq's website. [here](#).

102-52 REPORTING CYCLE

In 2019, Cermaq follows an annual GRI reporting cycle from January to December.

102-53 CONTACT POINT FOR QUESTIONS REGARDING THE REPORT

Please contact: Lise Bergan, Director Communications and Corporate Affairs. E-mail: post.group@cermaq.com

102-54 CLAIMS OF REPORTING IN ACCORDANCE WITH THE GRI STANDARDS

This report has been prepared in accordance with the GRI Standards, Core level.

102-55 GRI CONTENT INDEX

[GRI Content Index](#)

102-56 EXTERNAL ASSURANCE

Cermaq is of the opinion that an external assurance process increases the quality and credibility of our GRI report. The GRI report for 2019 is Cermaq's 10th externally assured report. It is assured by Deloitte, our financial auditor in all the operating regions.

We engaged Deloitte AS to conduct a review, in accordance with assurance standard ISAE 3000 "Assurance Engagements other than Audits or Reviews of Historical Financial Information" established by the International Auditing and Assurance Standards Board, to provide a limited level of assurance on the Cermaq AS Sustainability Report 2019. Deloitte has selected a number of indicators subject to assurance based on Cermaq's material aspects. The material indicators are verified each year, whereas less material indicators are assured on a less frequent basis. All regions have been included in the assurance process.

All sustainability indicators are reported in the external sustainability software Intalex. During the assurance process, the operating companies are required to document supporting "evidence" of the reported data into the reporting system. The text commenting on results is subject to assurance as well as the GRI-data in general.

GRI Economic Indicators

201-1 DIRECT ECONOMIC VALUE GENERATED AND DISTRIBUTED

Cermaq supports local communities with both financial and in-kind contributions. However, socio-economic benefits are most obviously manifested through payments to suppliers, employees, local authorities and payment of dividends to shareholders.

The table presented below quantifies the overall economic value generated and distributed through Cermaq's activities.

NOK 1,000		2019	2018	2017	2016*	2015**
Direct Economic Value Generated						
Revenues		10,648,865	9,957,819	9,436,557	8,003,918	8,198,678
Economic Value Distributed						
Operating Costs	Cost of Materials	-4,453,353	-3,392,293	-3,042,347	-3,218,779	-4,674,997
	Other Operating Expenses	-2,633,846	-2,820,032	-2,500,962	-1,947,827	-2,268,208
Employee Wages & benefits		-1,133,476	-1,113,408	-1,001,379	-889,812	-1,001,214
Payments to providers of capital	Interest Expense	-231,532	-139,489	-55,576	-116,554	-124,407
	Dividend payment	-655,510	-823,000	-404,000	0	0
Payments to government	Income tax expense	-84,629	-547,047	-438,864	-683,529	15,254
Community investments		-3,310	-2,872	-2,736	-2,549	-3,135
Sub total		-9,195,656	-8,838,141	-7,445,504	-6,859,050	-8,053,572
Economic Value Retained		1,453,209	1,119,678	1,991,053	1,144,868	145,106

* 2016: 12 months from 01.01.2016 to 31.12.2016. 2016 figures include Salmenes Humboldt for 9 months (April-Dec.) except for Community investments and Payments to government.

** 2015: 15 months from 01.01.2015 to 31.03.2016 due to change in financial accounting year. Previous years are 12 months calendar year.

201-2 FINANCIAL IMPLICATIONS AND OTHER RISKS AND OPPORTUNITIES DUE TO CLIMATE CHANGE

Climate change has the potential to significantly impact the salmon farming industry, and risks related to e.g. extreme weather conditions and natural events are assessed as a high risk area for Cermaq Group. Climate change impacts may also affect the industry's feed supply due to a decrease or disruption in agricultural production, changes in forage fisheries, replacement of species or changes in amount of inclusion. Climate change adaptation is hence an increasingly important aspect of Cermaq's risk management.

The industry also sees opportunities related to climate change. The results from scientific studies show that farmed fish has a relatively low carbon footprint compared to other protein sources, such as beef and pork (e.g. FAO 2014: "The State of World Fisheries and Aquaculture" and the GSI sustainability report 2017). The world's population is growing and demands more protein. Farmed salmon represents a solution to the challenge of climate change by providing a low-impact protein source.

Below is an overview of key risks and opportunities related to climate change for Cermaq Group, including their implications and management.

Physical Risks and Opportunities

Changes in weather patterns

Increased frequency of extreme weather events may cause storms, mudslides and/or flooding, resulting in damage to hatcheries and fish farm sites with sea water cages. This may have consequences related to the safety of employees, increase the risk of fish escapes and influence insurance costs.

In Cermaq's operations in 2019, extreme weather such as storms and currents continued to be experienced in all regions quite regularly. Norway experienced historically high electricity prices in summer 2018 due to an extended period of drought which left hydroelectric reservoirs unable to produce power. In British Columbia, challenging environmental conditions were experienced in summer 2016 caused by prolonged periods without rain, rising seawater temperatures, algae presence and low dissolved oxygen. In Chile, several algae blooms were reported in February and March 2016 due to high seawater temperatures, higher solar radiation and sea water salinity, which resulted in a significant loss of biomass in the industry. These events occurred during a strong "El Niño" - Southern Oscillation event, which has an erratic behavior that affects global weather patterns and which also has been reported to be influenced by climate change. Algal blooms in Chile have been determined by research to be related with higher water temperatures and reduced rainfall. Reuters determined that the total overall losses to all companies in Chile for this algal bloom were at least US\$800m, although Cermaq's losses were relatively minor.

Impacts on feed ingredients

Climate related challenges could impact the availability and price of raw materials (both marine and terrestrial) for feed produced which means higher feed costs for salmon farmers.

Risks related to change in mean (average) temperature

Warmer seawater temperatures could affect aquaculture in temperate zones, making it impossible to farm some species. The Marine Climate Change Impacts Partnership (MCCIP) publishes information about risks connected to warmer water temperatures, such as an increase in disease-causing pathogens.

Higher temperatures also may lead to the introduction or displacement of new fish species and the risk of new sanitary challenges. Several fish parasites have shorter live cycles in warmer temperatures, which could increase the loads and which in turn may impact fish health and welfare. Warmer temperatures can also raise salinity, raise the chance of hypoxia to fish and raise production costs. (Source: Impacts of climate change on fisheries and aquaculture: synthesis of current knowledge, adaptation and mitigation options. FAO Fisheries and Aquaculture Technical Paper No. 627 Rome, FAO, 2018: 449-461)

Risks related to ocean acidification

Ocean acidification due to increased levels of CO₂ poses a risk to marine life, and may affect the environmental conditions for salmon production and the availability of marine ingredients in the salmon feed. As pointed out in an analysis made by Kroeker et al (2013), in general heavily calcified organisms, including calcified algae, corals and mollusks are the most negatively impacted, whereas crustaceans, fish, fleshy algae, seagrass and diatoms are less affected or may even benefit from acidification. Some fleshy algae and diatoms may benefit, although marginally, from the same conditions. Algae blooms are known to have negatively impacted salmon farming sites in Canada and Chile and pose a risk to fish health and welfare. (Source: *Impacts of ocean acidification on marine organisms: quantifying sensitivities and interaction with warming*; *Glob Chang Biol.* 2013 Jun; 19(6): 1884–1896).

Opportunities related to change in mean (average) temperature

Increasing sea water temperatures could enhance the growing conditions for salmon farming, allowing for faster growth rates and reduced production costs. A report from MCCIP explains opportunities connected to growth and type of species cultivated. Rising sea water temperatures could increase growth rates for some fish species (e.g. Atlantic Salmon), and new species could be cultivated (e.g. Sea Brass and Bream). Increase in water temperature may lead to the displacement of local species or introduction of new species.

Changes in sea water temperatures could allow for new salmonid farming sites located farther north than before. However, a UNFAO report released in 2018 noted that relocation to areas with cooler/deeper water could bring new safety risks.

Financial implications of the physical risks and opportunities

Financial implications related to physical risks are increased fish mortality, physical destruction of aquaculture facilities, loss of stock, spread of disease, higher cost in disease prevention and increased feed costs. Changes in sea water surface temperatures could impact the conditions for fish farming. In extreme cases, higher sea water temperatures may cause physiological stress to the fish, reduce seawater oxygen levels and cause harmful algae blooms that increase the risk of mortality and fish health issues, which all have negative financial impacts. Increased water temperatures may also lead to increased sea lice load and hence higher treatment costs. Challenges in the feed supply chain due to climate related issues may lead to lower availability of feed and increased costs.

Higher temperatures in some regions could mean faster growth, which results in decreased production costs for our fish farming operations. However, because the optimal water temperature for growing salmon is 12 to 14 degrees, if temperatures rise above 15 degrees, growing conditions become suboptimal and can increase risk of diseases, prompt algal blooms and lead to longer production cycles. Additional stress to fish can also lead to lower feed conversion rates.

How we manage the physical risks and opportunities

Risks connected with extreme weather events are mitigated through applying site-specific risk assessments for elements such as weather patterns and temperatures, and implementing specific protocols and climate change adaptation measures.

Changes to sea water surface temperatures are in some ways mitigated by the geographic diversity of Cermaq's operations. Evaluating further expansion potential is a part of the management's yearly strategic process reviews.

Cermaq Norway is developing an in-sea closed containment system, Certus, which can prevent the effects of harmful algae on fish. If successful, the system will be potentially also rolled out in Canada.

Regulatory Risks and Opportunities

Emission reporting obligations

There is a general trend towards regulation related to carbon footprint disclosure at point of sale. This may affect all products marketed in the EU.

Carbon taxes

CO₂ regulations and increased tax on fossil-based fuel and energy represent a risk of higher operational costs.

General environmental regulations

Changes in environmental regulations may pose a risk, such as emissions regulations for production sites, increased taxation on energy and fuel and increased reporting demand.

General environmental regulation opportunities

Any new regulations are an opportunity if the organization is well prepared. Immediate compliance can be a competitive advantage.

Financial implications of the regulatory risks and opportunities

Cermaq expects financial implications on different levels: increased operational costs and resources for reporting and labelling purposes; and possible inability to comply with new legislation. Ultimately this could interfere with the access to international markets for our products. For example, the European Union has is now considering binding climate legislation which would include carbon reduction standards for all products sold within the EU.

Investment in time and efforts to comply with new regulations and follow-up and reporting procedures are financial implications of pursuing the opportunities.

How we manage the regulatory risks and opportunities

Regulatory risks and opportunities are monitored and Cermaq's sustainability functional team discusses new regulations and initiatives and their impact on our business. Compliance with regulations is followed up in the quarterly sustainability reporting process.

202-2 PROPORTION OF SENIOR MANAGEMENT HIRED FROM LOCAL COMMUNITY

Cermaq bases its operations on local recruitment of senior management, and in 2019 the proportion of management hired from local communities averaged 66 percent, unchanged from 66 percent in 2018. Senior management includes the management team reporting directly to a Chief Operating Officer, and people reporting directly to Group Management team.

International assignments are seen as positive for personal development in a multinational organization like Cermaq, and employees are encouraged to gain international experience to help share knowledge between our operations and to develop our corporate culture.

PROPORTION OF LOCAL HIRES AND FEMALE MANAGERS		CERMAQ GROUP AS	CERMAQ NORWAY	CERMAQ CHILE	CERMAQ CANADA	CERMAQ GROUP incl. Cermaq AS
2017						
Total size of management group	#	6	8	11	7	29
Number of Local Hires	#	4	2	9	6	20
Number of female management hires	#	0	1	2	1	4
% of senior management hired from local community . local hires	#	66%	25%	82%	86%	69%
Proportion of female managers	#	0%	13%	18%	14%	14%
2018						
Total size of management group	#	6	8	11	8	33
Number of Local Hires	#	4	2	9	7	22
Number of female management hires	#	0	1	2	2	5
% of senior management hired from local community . local hires	#	66%	25%	82%	88%	67%
Proportion of female managers	#	0%	13%	18%	25%	15%
2019						
Total size of management group	#	6	8	7	11	32
Number of Local Hires	#	4	2	4	11	21
Number of female management hires	#	0	1	3	3	7
% of senior management hired from local community . local hires	#	67%	25%	57%	100%	66%
Proportion of female managers	#	0%	13%	43%	27%	22%

The proportion of female managers in Cermaq increased to 22 percent in 2019. Note that Cermaq Group AS management team also includes the managing Directors of Cermaq Norway, Cermaq Canada and Cermaq Chile.

205-2 COMMUNICATION AND TRAINING ON ANTI-CORRUPTION POLICIES AND PROCEDURES

Cermaq's ethical and corporate guidelines are available to all employees and governance body members and are communicated to all new employees. The Guidelines prohibit any form of corruption. Anti-corruption training is delivered regularly.

In 2019, 100 percent of managers and administrative employees in Cermaq Canada received anti-corruption training, in Cermaq Chile 97 percent received training and in Cermaq Norway 89 percent received training. In Cermaq Group AS, 84 percent of managers and administrative employees received anti-corruption training.

Anti-corruption expectations to Cermaq’s suppliers were also developed through the establishment of the Cermaq Supplier Code of Conduct in 2014, which is communicated and was updated in January 2017 on Cermaq’s website.

205-3 CONFIRMED INCIDENTS OF CORRUPTION AND ACTIONS TAKEN

There were no confirmed incidents of corruption in Cermaq Group in 2019.

FP 9 PERCENTAGE AND TOTAL OF ANIMALS RAISED AND/OR PROCESSED, BY SPECIES AND BREED TYPE

Gutted weight (GWE) is a measurement of fish production. It is a calculation where the biomass in tons of closing stocks of live fish is added with the biomass in tons harvested, subtracted by the opening stock in tons of live fish for a specific period of time. This biomass determination is corrected by a 1.2 factor in Chile and Canada and a 1.17 factor in Norway in order to determine the live weight of the biomass or LWE. Our key performance indicators on medicine use in our annual reports are ratios of amount of active ingredients by LWE. The salmonid species and tons produced (LWE) are summarized in the table below.

FISH PRODUCTION 2019	UNIT	
Atlantic Salmon	<i>Tons(LWE)</i>	
Cermaq Norway		85,586
Cermaq Chile		73,109
Cermaq Canada		19,744
Total ATS		178,438
Coho Salmon	<i>Tons(LWE)</i>	
Cermaq Chile		27,085
Rainbow Trout	<i>Tons(LWE)</i>	
Cermaq Chile		1,838
Total all species	<i>Tons(LWE)</i>	207,362

Fish production is the increase of tons in biomass produced within a year, which also considers the amount in tons of biomass harvested in the same period. Atlantic salmon production (LWE) increased in Norway compared with the 2018 production, to 85,586 tons. Atlantic salmon production in Chile and Canada decreased in 2019 by 10,492 tons and 4,528 tons, respectively. Also, during 2019, there was a decrease of Rainbow Trout

production by 838 tons LWE in Chile to 1,838 tons total, while Coho salmon production decreased by 3,558 tons for 27,085 tons total produced during the year.

GRI Environmental Indicators

301-1 MATERIALS USED BY WEIGHT OR VOLUME

301-2 RECYCLED INPUT MATERIALS USED

The disposal of products and packaging materials is a steadily growing environmental challenge. Establishing effective recycling and reuse systems to close product cycles can contribute significantly to increase material life cycle, resource efficiency and it can decrease costs.

All Cermaq operations shall comply with local and national environmental regulations related to effluents and waste handling. The waste handling procedures vary with the local infrastructure in place. Recycling and reuse of packaging materials should always consider that human health is first and for Cermaq it is priority to couple smart use of materials with food safety of our final products.

The work to strengthen our reporting in this area will continue going forward. This indicator provides insight into what extent our materials are collected and successfully converted into useful materials for new production processes, as well as to what extent we have designed products and packaging capable of being recycled or reused.

In 2019, 94% of the input materials (by tons used) were recycled at a Group level. Input packaging used was 3027 tons of materials at a Group level, while for output packaging it was 4747 tons. Cermaq reported input materials used that were recycled, including plastics and wood pallets (used in the transportation of fish feed), cardboard for final product elaboration and wood pallets for storage in processing plants.

Materials used by weight or volume

PACKAGING SOURCE	MATERIAL TYPE	PACKAGING TYPE	TOTAL USED(TONS)	DESCRIPTION
Output Packaging	Plastic	6-PS	2465	Product boxes
Output Packaging	Wood	Pallets	1676	Product pallets
Output Packaging	Paper/cardboard	Cardboard	126	Product packaging
Output Packaging	Plastic	4-LDPE	480	Plastics used in final products
Input Packaging	Plastic	1-PET	6	Containers
Input Packaging	Plastic	2-HDPE	18	Feeding hoses, buoys and floats
Input Packaging	Plastic	4-LDPE	322	Feed bags
Input Packaging	Plastic	5-PP	140	Supersacs & film feed packaging
Input Packaging	Wood	Pallets	2428	Feed pallets

Input Packaging	Plastic	7-Other Plastics	113	Supersacs feed packaging
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Recycled input materials used

RECYCLED INPUT MATERIALS USED	CERMAQ NORWAY	CERMAQ CHILE	CERMAQ CANADA
Plastic 7-Other plastics	100%	0%	0%
Plastic 5-PP	0%	0%	100%
Plastic 4-LDPE	0%	67%	0%
Wood(Pallets)	0%	100%	90%

Note: Norway, Chile and Canada report total of materials used by type of packaging for those materials which are in recycling programs.

302-1 ENERGY CONSUMPTION WITHIN THE ORGANISATION

The total energy use in Cermaq (including Cermaq Group AS) increased 6.2 percent in 2018 compared with the previous year. This increase in energy use was mainly due to an increase in use of diesel due to environmental conditions and operational requirements.

Energy Consumption by Type (GJ)

	ENERGY SOURCE	2019	2018	2017	2016	2015	2014
Non-renewable fuel consumed	Diesel	953,865	904,767	663,087	421,584	444,214	437,163
	Fuel Oil	0	0	2,724	17	20	26
	Crude Oil	583	428	780	713	567	561
	Gasoline/petrol	29,766	31,119	39,299	38,261	51,288	49,305
	LPG	35,225	40,162	39,639	0	0	0
	Natural Gas	42	81	148	75	82	64
	Propane	15,201	16,166	13,375	6,554	6,457	10,104
Total non-renewable consumption		1,034,683	992,705	758,827	467,205	502,627	497,224
Renewable fuel consumed	Biofuel	6353	8383	5688	4904	4939	4301
Total renewable consumption		6353	8383	5688	4904	4939	4301
Electricity purchased for consumption		322,295	282,739	308,348	225,076	244,265	223,468
Total Electricity consumed		322,295	282,739	308,348	225,076	244,265	223,468
Total energy use (GJ)		1,363,331	1,283,847	1,073,088	697,185	751,831	724,993

ΔYoY	6.2%	33.0%	53.9%	-7.3%	3.7%	2.2%
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Note: Total includes Cermaq AS, Cermaq Chile, Cermaq Norway and Cermaq Canada. Diesel energy calculation includes both diesel fuel and 95 percent of biodiesel blend.

Energy consumption and emissions are calculated by country and is not calculated based on fish species in Chile. Norway and Canada only produce Atlantic salmon. In Chile, Coho salmon typically requires less energy use due to a shorter life cycle and consequently less GHG emissions.

Cermaq reports to the Carbon Disclosure Project (CDP) and more details can be found in our CDP reports available on our webpage.

302-2 ENERGY CONSUMPTION OUTSIDE THE ORGANISATION

Feed is the main input when producing salmon and trout and feed costs constitute approximately 50 percent of the purchasing costs related to fish farming in Cermaq. EWOS continues to be our main feed supplier and below is an overview of the energy consumption for EWOS in 2019.

		2019	2018	2017	2016	2015	2014
<i>GRI</i>	Energy Source						
<i>Energy</i>							
<i>Type</i>							
Indirect	Electricity	476,798	450,586	364,783	436,744	474,333	505,043
Direct	Biomass(Rice Husk)	-	-	-	83,145	119,486	104,290
Direct	Diesel	652	788	2,826	2,186	2,644	1,307
Direct	Fuel Oil	4,856	119,284	144,337	146,254	175,309	197,720
Direct	Gasoline/Petrol	0	0	0	0	0	0
Direct	LPG	156	134	69,069	62,895	100,680	70,925
Direct	Natural gas	464,083	336,500	361,125	282,620	295,878	350,957
Direct	Propane	1	0	1,262	1,256	1,266	1,111
Direct	Biofuel (wood)	0	54,476	36,620	49,374	59,914	41,510
Total direct + indirect		946,546	961,768	980,022	1,064,474	1,229,511	1,272,863
ΔYoY		-2%	-2%	-8%	-13%	-3%	2%

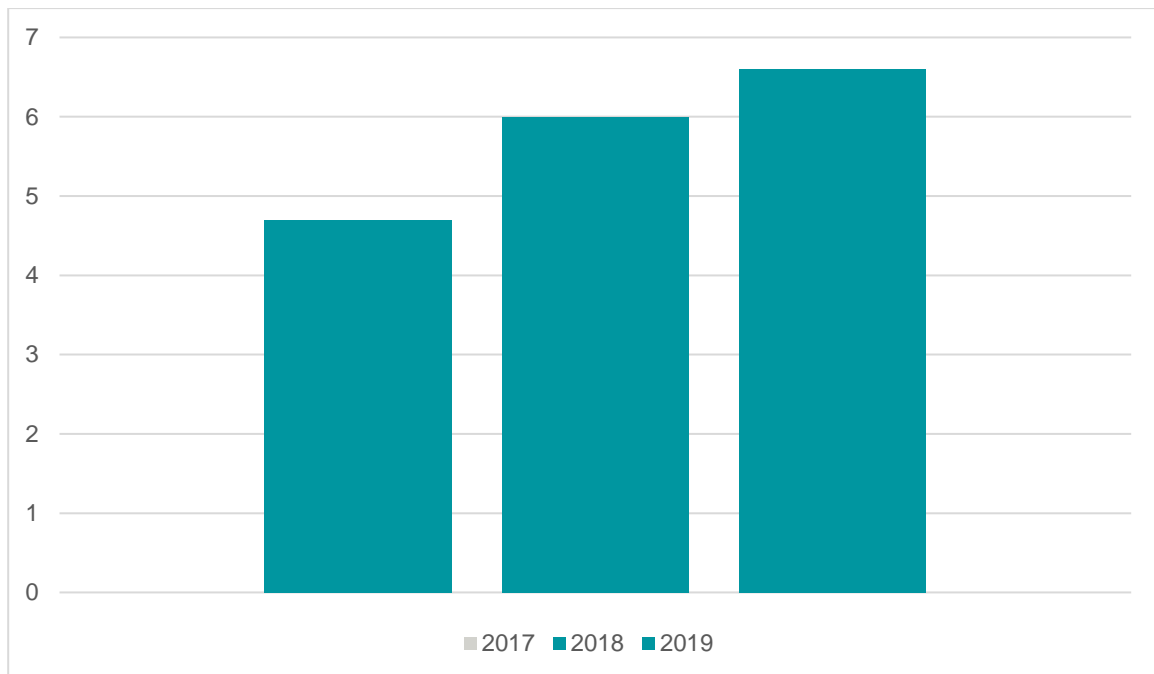
**Biofuel use is reported by EWOS for the first time in 2014*

302-3 ENERGY INTENSITY

The most relevant energy intensity ratio within salmon farming is to express the energy used in terms of tons of fish produced (GJ/ton fish Production LWE). This provides a measure of the energy efficiency within the organization. However, some of the energy use is fixed and does not vary with production (e.g. housing facilities at sea sites and energy used in administrative buildings and processing plants). This means that in years with fewer fish in the sea the energy consumption per ton of production will be influenced in a negative way by the fixed consumption.

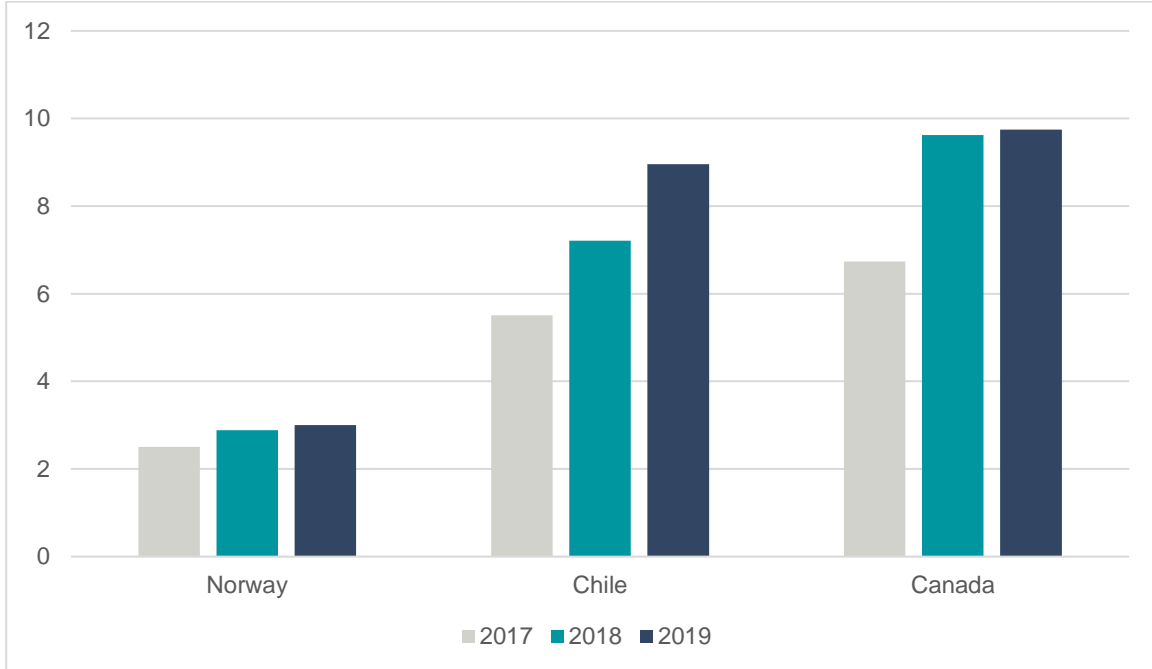
All energy sources listed in 302-2 are included in the following graph, where the amount of Gigajoules (GJ) used by ton fish production (LWE) at a Group level is shown.

Cermaq Group Energy Intensity (GJ per ton LWE)



At a group level the energy use increased to 6.6 GJ per ton of LWE produced from 6.0 GJ per ton produced LWE in 2018, mainly due to an increase in the diesel fuel used during 2019 combined with a decrease in total fish produced. Our total energy intensity increased by 10% at a Group level. The energy intensity by country shows the same trend with differing magnitudes of increase. Canada increased by 1.3% and Norway by 3.9%, while energy intensity in Chile increased by 24.2%.

Energy Intensity by country (GJ per Ton LWE)



302-4 REDUCTION OF ENERGY CONSUMPTION

Cermaq has a number of initiatives to reduce energy consumption, with some examples provided in the table below. Canada’s initiatives this year focus mainly on technological improvements, including installing synchronized generators, trialing a hybrid hydrogen technology for diesel generators, changing equipment, and installation of onsite hydroelectricity at one freshwater site. Cermaq Chile has downsized hatcheries, fully integrated sea sites to save generator use, and installed energy-efficient generators. In Norway, Cermaq has installed a new power grid connection at a seawater site, operated a hybrid-drive service boat, utilizes updated energy-saving equipment, and given personnel instructions on how to drive boats at lower speeds to conserve fuel. A sample of initiatives per country are provided in the table below.

COUNTRY	ENERGY SAVED	TYPE OF INITIATIVE	ENERGY SAVING INITIATIVES
Canada	n/a	Installation of energy-saving equipment and retrofitting systems	<ol style="list-style-type: none"> 1. Evaluate the use of 3 synchronized generators. When small electrical loads are encountered, a single generator will run. When higher demand is required, the second and third generators kick in. 2. Install and evaluate the use of hydrogen injected into the air intake of diesel generators. The hydrogen is produced off-site through generation. (estimated fuel reduction by 7-10%) 3. Installation of micro-hydro project at Little Bear Bay Hatchery 4. Installation of new high-efficiency compressor
Chile	n/a	Conversion and retrofitting equipment, updating of facilities	<ol style="list-style-type: none"> 1. Reduction of freshwater facilities and improvement of efficiency 2. Integration of sea site floats for feed, silage, and habitation and concentrating operations in central offices to improve efficiency 3. Installation of efficiency equipment (fuel savers) which allows reduction of fuel consumption in operations.
Norway	36,000 GJ/year	Heat Recovery from Water	Continuation from previous years- Freshwater site at Forsan uses recovery systems, to significantly reduce heating in the production of smolt. The system uses the heat of wastewater to increase the water temperature.
	11,605 GJ/year	Heat recovery from air	Continuation from previous years- Freshwater site at Forsan uses recovery systems from air, to significantly reduce heating in the production of smolt. Systems are implemented to allow exchange of exhaust air with fresh air within the facility, in order to control humidity. Implementation of LED lights in the hatchery for energy consumption reduction.
	29325 liters of fuel/year	Hybrid diesel-electric service boat	We have invested in a service boat with hybrid technology. This provides energy savings in fuel consumption as well as a reduction of 79 tons of CO2 and 808 kg of NOX. The boat was in service in 2019.
	n/a	Recycling	Freshwater site at Forsan uses recycling technology to significantly reduce pump use and freshwater use in the production of smolt.
	57.7T CO2e	Land connection to grid power for sea site	One new site connected to land power saving use of 218173 kWh worth of diesel generation use
	n/a	Changes in personnel behavior	Driving boats at lower speeds to reduce fuel consumption and switching lights in barges.

304-4 IUCN RED LIST SPECIES AND NATIONAL CONSERVATION LIST SPECIES WITH HABITATS IN AREAS AFFECTED BY OPERATIONS

Below is an overview of IUCN red list species in or in the vicinity of Cermaq’s operations. Cermaq works continuously to ensure good environmental practices on its farms to minimize negative effects on biodiversity. Any incidents with birds and mammals are publicly reported on Cermaq’s ASC dashboard on www.cermaq.com, and in the GSI sustainability report for all Cermaq operations.

Chile

The Chilean Ministry of Environment provides a list of 3500 species, with the conservancy state by species, of those there are 90 Chilean native mammals categorized critical endangered (CR), 520 endangered (EN), 553 vulnerable (VU), 118 near threatened (NT), 208 least concern (LC), and 55 data deficient (DD).

The following list includes all species of cetaceans, mapped by the Chilean Ministry of Environment and categorized as CR, EN, VU, NT and LC by the IUCN red list, which are located in the regions where Cermaq Chile operates. DD species were not included in the following lists.

Marine Mammals

SCIENTIFIC NAME	COMMON NAME	CLASSIFICATION
Balaenoptera Borealis	Ballena sei, Rorcual boreal	CR
Balaenoptera musculus	Ballena azul	EN
Balaenoptera physalus	Ballena fin	CR
Cephalorhynchus eutropia	Delfín Chileno	VU, NT
Eubalaena australis	Ballena franca austral	EN
Megaptera novaeangliae	Ballena jorobada	VU
Physeter macrocephalus	Cachalote gigante	VU
Tursiops truncatus	Delfín nariz de botella	EN, LC
Ziphius cavirostris	Ballena picuda de Cuvier	LC
Balaenoptera acutorostrata	Ballena minke	LC
Delphinus delphis	Delfín común	LC
Grampus griseus	Falso calderón	LC
Hyperoodon planifrons	Ballena nariz de botella del sur	LC
Lagenorhynchus cruciger	Delfín cruzado	LC
Stenella coeruleoalba	Delfín listado	LC
Steno bredanensis	Delfín de pico áspero	LC
Cephalorhynchus commersonii	Commerson’s dolphin	EN
Balaene mysticetus	Ballena Boreal	LC
Balaenoptera bonaerensis	Ballena minke antártica	LC
Lagenorhynchus australis	Delfín austral	LC

The next list provides the Carnivorous mammals with habitat in the sea or fresh water where Cermaq Chile operates.

Carnivorous mammals

SCIENTIFIC NAME	COMMON NAME	CLASSIFICATION
<i>Arctocephalus philippii</i>	Juan Fernandez fur seal	VU
<i>Arctocephalus australis</i>	Lobo fino austral	NT
<i>Lontra Felina</i>	Chugungo	VU
Southern Pudu	Pudu	NT
<i>Lontra provocax</i>	Huilín	EN
<i>Ommatophoca rossii</i>	Foca de Ross	LC
<i>Otaria flavescens</i>	Lobo Marino común	LC
<i>Mirounga leonine</i>	Elefante marino	VU, LC
<i>Hydrurga leptonyx</i>	Foca leopardo	LC
<i>Arctocephalus tropicalis</i>	Lobo fino subantártico	LC
<i>Galictis cuja</i>	Quique	LC
<i>Leopardus colocolo</i>	Colo-colo	NT
<i>Leopardus geoffroyi</i>	Gato montés argentine	NT
<i>Leopardus guigna</i>	Güiña	VU, NT
<i>Lycalopex culpaeus</i>	Zorro culpeo	VU, LC
<i>Lycalopex fulvipes</i>	Zorro de Chiloé	EN
<i>Lycalopex griseus</i>	Zorro chilla	LC
<i>Lyncodon patagonicus</i>	Huroncito patagónico	R
Puma Concolor	Puma	NT
<i>Leptonychotes weddellii</i>	Foca de Wedell	LC
Neovison vison	Vison	LC
<i>Conepatus humboldtii</i>	Zorillo Patagónico	LC
<i>Chaetophractus villosus</i>	Quirquincho peludo Patagónico	LC

Birds

SCIENTIFIC NAME	COMMON NAME	CLASSIFICATION
<i>Anas platalea</i>	Pato cuchara	LC
<i>Anas specularis</i>	Pato anteojillo	NT
<i>Ardea cocoi</i>	Garza cuca	LC
<i>Asio flammeus</i>	Nuco	LC
<i>Asthenes anthoides</i>	Canastero del sur	LC
<i>Calidris canutus</i>	Playero ártico	EN
<i>Cinclodes oustaleti baekstroem</i>	Churreta	VU
Coscoroba	Cisne coscoroba	EN
<i>Cygnus melanocoryphus</i>	Cisne de cuello negro	EN, VU
<i>Gallinago paraguaiiae</i>	Becacina	LC
<i>Gallinago stricklandii</i>	Becacina grande	NT
<i>Heteronetta atricapilla</i>	Pato rinconero	LC
<i>Ixobrychus involucris</i>	Huairavillo	LC
<i>Larosterna inca</i>	Gaviotín monja	VU
<i>Larus modestus</i>	Gaviota garuma	VU, R
<i>Merganetta armata</i>	Pato cortacorrientes	NT
<i>Numenius borealis</i>	Zarapito boreal	CR
<i>Pelecanonoides garnotii</i>	Yunco	EN
<i>Phalacrocorax bougainvillii</i>	Guanay	NT
<i>Phalacrocorax gaimardi</i>	Lile	NT
<i>Pluvianellus socialis</i>	Chorlo de Magallanes	R
<i>Pterodroma externa</i>	Fardela blanca	EN
<i>Puffinus creatopus</i>	Fardela blanca	EN
<i>Rallus antarcticus</i>	Pidén austral	LC
<i>Spatula platalea</i>	Pato cuchara	LC

Birds - continued

SCIENTIFIC NAME	COMMON NAME	CLASSIFICATION
<i>Spheniscus humboldti</i>	Pingüino de Humboldt	VU
<i>Spheniscus magellanicus</i>	Pingüino de Magallanes	NT
<i>Eudytes chrysocome</i>	Pingüino de penacho Amarillo	VU
<i>Eudytes chrysolophus</i>	Pingüino macaroni	VU
<i>Pygoscelis papua</i>	Pingüino papúa	LC
<i>Strix rufipes</i>	Concón	NT
<i>Sula variegata</i>	Piquero	LC
<i>Tachyeres patachonicus</i>	Quetru volador	LC
<i>Tachyeres ptereres</i>	Quetru no volador	NT
<i>Thalassarche chrysostoma</i>	Albatros de cabeza gris	NT
<i>Thalassarche melanophris</i>	Albatros de ceja negra	LC
<i>Anas bahamensis</i>	Pato gargantillo	LC
<i>Chloephaga melanoptera</i>	Piuquén	LC
<i>Chloephaga rubidiceps</i>	Canquén Colorado	EN
<i>Eudromia elegans</i>	Martineta	EN
<i>Fregata minor</i>	Ave fragata grande	VU
<i>Fregetta grallaria</i>	Golondrina de mar de vientre blanco	EN
<i>Fulica cornuta</i>	Tagua cornuda	NT
<i>Fulica gigantea</i>	Tagua gigante	VU
<i>Larus serranus</i>	Gaviota andina	VU, R
<i>Laterallus jamaicensis</i>	Pidencito	LC
<i>Nesofregetta fuliginosa</i>	Golondrina de mar de garganta blanca	EN
<i>Oceanodroma markhami</i>	Golondrina de mar negra	EN
<i>Pandion haliaetus</i>	Aguila pescadora	VU
<i>Phoenicoparrus andinus</i>	Parina grande	VU
<i>Phoenicoparrus jamesi</i>	Parina chica	VU
<i>Plegadis chihi</i>	Cuervo de pantano	EN
<i>Plegadis ridgwayi</i>	Cuervo de pantano de la puna	NT
<i>Pterodroma defilippiana</i>	De Filippi's Petrel	VU
<i>Pterodroma longirostris</i>	Fardela blanca de Más Afuera	EN
<i>Pterodroma neglecta</i>	Fardela de Kermadec	EN
<i>Puffinus nativitatis</i>	Fardela de Pascua	VU
<i>Nycticryphes semicollaris</i>	Becacina pintada	EN
<i>Sterna lorata</i>	Gaviotín chico	EN
<i>Tinamotis ingoufi</i>	Perdiz austral	VU
<i>Xenospingus concolor</i>	Pizarrita	NT
<i>Anas bahamensis</i>	Pato gargantillo	LC
<i>Anas georgica</i>	Pato jergón grande	LC
<i>Ardea alba</i>	Garza grande	LC
<i>Ardenna creatopus</i>	Fadela blanca	EN
<i>Ardenna grisea</i>	Fardela negra	LC
<i>Arenaria interpres</i>	Layero vuelvepedras	LC
<i>Calidris alba</i>	Playero blanco	LC
<i>Calidris bairdii</i>	Playero de Baird	LC
<i>Calidris virgate</i>	Playero de las rompientes	LC
<i>Caracara plancus</i>	Traro	LC
<i>Catharacta chilensis</i>	Salteador chileno	LC
<i>Cathartes aura</i>	Jote de cabeza colorada	LC
<i>Charadrius falklandicus</i>	Chorlo de doble collar	LC
<i>Charadrius modestus</i>	Chorlo chileno	LC
<i>Chloephaga hybrida</i>	Caranca	VU

Birds - continued

SCIENTIFIC NAME	COMMON NAME	CLASSIFICATION
<i>Chloephaga picta</i>	Caiquén	LC
<i>Chloephaga poliocephala</i>	Cancuén común	LC
<i>Cinclodes patatgonicus</i>	Churrete patagónico	LC
<i>Columba livia</i>	Paloma doméstica	LC
<i>Coragyps atratus</i>	Jote de cabeza negra	LC
<i>Daption capense</i>	Petrel damero	LC
<i>Egretta thula</i>	Garza chica	LC
<i>Fregetta tropica</i>	Golondrina de mar de vientre negro <i>Fregatta tropica</i>	LC
<i>Fulmarus glacialisoides</i>	Petrel plateado austral	LC
<i>Haematopus ater</i>	Pilpilén negro	LC
<i>Haematopus leucopodus</i>	Pilpilén austral	LC
<i>Haematopus palliatus</i>	Pilpilén común	LC
<i>Halobaena caerulea</i>	Petrel azulado	LC
<i>Larus dominicanus</i>	Gaviota dominicana	LC
<i>Larus pipixcan</i>	Gaviota de Franklin	LC
<i>Leucophaeus scoresbii</i>	Gaviota austral	LC
<i>Lophonetta specularoides</i>	Pato Juarjua	LC
<i>Macronectes giganteus</i>	Petrel gigante antártico	LC
<i>Macronectes halli</i>	Petrel gigante subantártico	LC
<i>Mareca sibilatrix</i>	Pato real	LC
<i>Megaceryle torquata</i>	Martín pescador	LC
<i>Numenius phaeopus</i>	Zarapito común	LC
<i>Nycticorax</i>	Huariravo común	LC
<i>Oceanites oceanicus</i>	Golondrina de mar de Wilson/fueguina	LC
<i>Pachyptila belcheri</i>	Petrel-paloma de pico Delgado	LC
<i>Passer domesticus</i>	Gorrión	LC
<i>Pelecanoides magellani</i>	Yunco de Magallanes	LC
<i>Pelecanus thagus</i>	Pelícano de Humboldt	NT
<i>Phalacrocorax atriceps</i>	Cormorán imperial	LC
<i>Phalacrocorax brasilianus</i>	Yeco	LC
<i>Phalacrocorax magellanicus</i>	Cormorán de las rocas	NT
<i>Phalaropus tricolor</i>	Pollito de mar tricolor	LC
<i>Phalacrocorax chimango</i>	Tiuque	LC
<i>Podiceps major</i>	Huala	LC
<i>Podiceps occipitalis</i>	Blanquillo	LC
<i>Procellaria aequinoctialis</i>	Petrel de barba blanca	VU
<i>Procellaria westlandica</i>	Petrel de Westland	VU
<i>Pterodroma externa</i>	Petrel de Juan Fernández	EN
<i>Rollandia rolland</i>	Pimpollo común	LC
<i>Rynchops niger</i>	Rayador	LC
<i>Scelorchilus rubecula</i>	Chuca	LC
<i>Sephanoides</i>	Picaflor chico	LC
<i>Spheniscus magellanicus</i>	Pingüino de Magallanes	NT
<i>Stercorarius parasiticus</i>	Salteador chico	LC
<i>Sterna hirundinacea</i>	Gaviotín sudamericano	LC
<i>Thalassarche eremita</i>	Albatros de Chatham	VU
<i>Thalasseus elegans</i>	Gaviotín elegante	NT
<i>Tringa flavipes</i>	Pitotoy chico	LC
<i>Turdus falcklandii</i>	Zorzal patagónico	LC
<i>Vanellus chilensis</i>	Queltehue común	LC
<i>Curaeus curaeus</i>	Tordo	LC

Birds - continued

SCIENTIFIC NAME	COMMON NAME	CLASSIFICATION
Vultur gryphus	Cóndor	LC
Tachyeres pteneres	Quetro no volador	NT
Milvago chimango	Tiuque	LC
Tachycineta meyeni	Golondrina Chilena	LC
Xolmis pyrope	Diucón	LC
Enicognathus ferrugineus	Cachaña	LC
Sturnella loyca	Loica	LC
Phrygilus patagonicus	Cometocinos	LC
Carduelis barbata	Jilguero	LC

Fish

SCIENTIFIC NAME	COMMON NAME	CLASSIFICATION
Orestias chungarensis	Karachi	EN
Trichomycterus chungarensis	Bagrecito	EN-R

In Chile, Cermaq uses predator nets at farms to avoid marine mammals and birds entering into the farm site and to prevent attacks that are stressful for the fish. In Chile, farming companies are required to report immediately to The Undersecretary of Fisheries and Aquaculture (Subpesca) the culling of any marine mammal at the farm.

Stronger nets have been tested in order to reduce the interaction with wildlife, including stainless steel nets and PET monofilament nets. Both nets are more resistant to strain and to external forces, keeping their shape and reducing the risk of accidental entrapment. Nets for birds are installed at the farm sites to protect the fish, which are constantly assessed to check their structural function.

Norway

In Norway, several species are included on the IUCN red list. From all species a total of 13 birds, 1 mammal, 9 fish, 4 algae, 2 mollusks, 1 vascular plant and 3 coral species appear on the national conservation list with habitats in our area of operations. Of them the 13 species of birds and 1 Mammal species are considered to interact closely to our farming sites. The 14 species are categorized as critical endangered (CR) with 1 species, 5 endangered (EN), 3 vulnerable (VU) and 5 near threatened (NT).

The lists below provide the common name, scientific name and the risk category classification for each species.

Birds

SCIENTIFIC NAME	COMMON NAME	CLASSIFICATION
Uria aalge	lomvi	CR
Rissa tridactyla	krykkje	EN
Uria lomvia	polarlomvi	EN
Alca torda	alke	EN
Sterna hirundo	makrellterne	EN
Fulmarus glacialis	havhest	EN
Cepphus grylle	Teist	VU
Fratercula arctica	Lunde	VU
Gavia adamsii	Gulnebbblom	NT
Larus canus	Fiskemåke	NT
Somateria mollissima	Ærfugl	NT
Oceanodroma leucorhoa	Stormsval	NT
Stercorarius parasiticus	tyvjo	NT

Mammals

SCIENTIFIC NAME	COMMON NAME	CLASSIFICATION
Lutra	oter	VU

Canada

In Canada, there are 146 species related to the general geographical location of Canadian operations, the ocean and/or farming operations. Of them, 15 are mammals, 5 reptile species, 7 fish and 126 birds. Many of the species have a broad distribution in the environment and may not interact directly with the facilities, however they were included into this mapping.

The list below includes the scientific name, the common name and the risk category for the species which are in the Endangered, Near threatened and Vulnerable categories in the vicinity of Cermaq Canada's operations (Least concern and Data deficient were not included with a total of 87 bird species).

Marine mammals

SCIENTIFIC NAME	COMMON NAME	CLASSIFICATION
Enhydra lutris	Sea otter	EN
Spilogale gracilis	Western spotted skunk	LC
Callorhinus ursinus	Northern fur seal	VU
Eumetopias jubatus	Steller sea lion	NT
Zalophus californianus	California sea lion	LC
Mirounga angustirostris	Northern elephant seal	LC
Balaenoptera borealis	Sei whale	EN
Balaenoptera musculus	Blue whale	EN
Balaenoptera physalus	Fin whale	EN
Megaptera novaeangliae	Humpback whale	LC
Eschrichtius robustus	Gray whale	LC
Physeter macrocephalus	Sperm whale	VU
Tursiops truncatus	Common bottlenose dolphin	LC
Delphinus delphis	Short-beaked common dolphin	LC
Globicephala macrorhynchus	Short-finned pilot whale	DD

Reptiles

SCIENTIFIC NAME	COMMON NAME	CLASSIFICATION
<i>Caretta caretta</i>	Loggerhead Sea Turtle	VU
<i>Chelonia mydas</i>	Green Sea Turtle	VU
<i>Dermochelys coriacea</i>	Leatherback Sea Turtle	VU
<i>Lepidochelys kempii</i>	Kemp's Ridley Sea Turtle	CR
<i>Lepidochelys olivacea</i>	Olive Ridley Sea Turtle	VU

Fish

SCIENTIFIC NAME	COMMON NAME	CLASSIFICATION
<i>Thunnus alalunga</i>	Albacore Tuna	NT
<i>Acipenser medirostris</i>	Green Sturgeon	NT
<i>Acipenser transmontanus</i>	White Sturgeon	LC
<i>Oncorhynchus nerka</i>	Sockeye Salmon	CR
<i>Cetorhinus maximus</i>	Basking Shark	VU
<i>Hexanchus griseus</i>	Six Gilled Shark	NT
<i>Galeorhinus galeus</i>	Tope Shark	VU

Birds

SCIENTIFIC NAME	COMMON NAME	CLASSIFICATION
<i>Chen canagica</i>	Emperor goose	NT
<i>Gavia adamsii</i>	Yellow-billed loon	NT
<i>Phoebastria immutabilis</i>	Laysan albatross	NT
<i>Phoebastria nigripes</i>	Black-footed albatross	NT
<i>Pterodroma inexpectata</i>	Mottled petrel	NT
<i>Ardenna griseus</i>	Sooty shearwater	NT
<i>Calidris pusilla</i>	Semipalmated sandpiper	NT
<i>Melanitta fusca</i>	White-winged scoter	EN
<i>Brachyramphus marmoratus</i>	Marbled murrelet	EN
<i>Clangula hyemalis</i>	Long-tailed duck	VU
<i>Phoebastria albatrus</i>	Short-tailed albatross	VU
<i>Ardenna creatopus</i>	Pink-footed shearwater	VU
<i>Ardenna bulleri</i>	Buller's shearwater	VU
<i>Synthliboramphus hypoleucus</i>	Xantus' murrelet	VU

In Canada, Cermaq uses bird and predator nets at all farms throughout the production cycle to deter marine mammals. In Canada, farming companies are also required to report immediately to Fisheries & Oceans Canada (DFO) the culling of any marine mammal at the farm. In British Columbia, the industry is not having a negative impact on the populations of marine mammals. Harbor seal, Steller Sea Lion and Californian Sea line populations have increased considerably since they were protected in the 1970s and Humpback whale populations are expanding. More information can be found at [the BC Salmon Farmers Association Website](#).

305-1 DIRECT GREENHOUSE GAS (GHG) EMISSIONS (SCOPE 1)**305-2 ENERGY INDIRECT GREENHOUSE GAS (GHG) EMISSIONS (SCOPE 2)****305-3 OTHER INDIRECT GREENHOUSE GAS (GHG) EMISSIONS (SCOPE 3)**

For the reporting period 1st January 2019 to 31st December 2019, Cermaq's global gross GHG Scope 1 emissions totaled 76 084 tons of CO₂e (72 781 tons in 2018). Scope 2 emissions were 22 986 tons of CO₂e in 2019 compared to 21 474 in 2018. Increases in Scope 1 and Scope 2 emissions and led to a total increase in emissions by 4 725 tons of CO₂e. Details on Cermaq's energy consumption can be found under Energy Consumption (indicators 302-1, 302-2 and 302-3).

Our reporting is based on the GHG Protocol, the internationally recognized standard for the accounting and reporting of GHG emissions. We have used the financial control approach to define our organizational boundary and the operational scope for our reporting of scope 1 and 2. Emissions factors for our global operations are based on sources including IEA, IPCC, SSB, EIA, RE-DISS, Green-e and BC Ministry of Environment.

Feed is the main input when producing salmon and trout and feed costs constitute approximately 50 percent of the production costs related to farming in Cermaq. EWOS continued to be our main feed supplier in 2019 and Scope 3 emissions consists of EWOS estimated CO₂ emissions in 2019. Please see the EWOS sustainability report for further details. GHG emissions reported below includes CO₂-emissions only and all types of energy sources used.

GLOBAL TONS OF CO₂E	2019	2018	2017	2016	2015	2014
Crude oil	43	32	57	53	42	41
Diesel	70,434	66,638	48,873	30,672	32,348	31,958
Biofuel	393	518	352	303	305	266
Fuel Oil	0	0	189	1	1	2
Gasoline/Petrol	2,063	2,158	2,729	2,652	3,560	3,421
LPG	2,228	2,541	2,507	0	0	0
Natural Gas	2	4	8	4	4	4
Propane	921	980	813	405	403	627
Scope 1(Direct emissions)	76,084	72,871	55,528	34,090	36,664	36,319
Purchased electricity	22,986	21,474	25,411	17,905	21,325	18,352
Scope 2 (Energy Indirect)	22,986	21,474	25,411	17,905	21,325	18,352
Total gross emissions (Scope 1 and 2)	99,070	94,345	80,939	51,995	57,988	54,671
Scope 3(EWOS direct and indirect)	66,383	42,920	47,872	50,942	61,444	57,457

305-4 GREENHOUSE GAS (GHG) EMISSIONS INTENSITY

Cermaq is reporting an intensity measurement based upon “tons of CO₂e per ton of fish produced (LWE)”. This is a relevant ratio for our industry.

As can be seen below, the CO₂ emissions per ton of fish produced for Scope 1 and Scope 2 increased by 10.9% from 2018 to 2019.

	2019	2018	2017	2016	2015	2014
Intensity: kg of CO ₂ e per ton of fish produced (LWE)	478	431	352	360	334	258

The increase in absolute energy consumption for Cermaq Group was largely driven by environmental conditions with challenging environmental conditions requiring higher energy inputs using generation equipment as well as increased operational demands for diesel fuel, while production decreased compared to 2018 and Scope 2 emissions increased by 7%. Accounting absolute emissions in tons of CO₂ shows that although Cermaq Canada decreased absolute emissions by 2946 tons CO₂, Cermaq Chile emitted 6 261 tons more CO₂ compared to 2018. Cermaq Norway increased the emissions by 1410 tons. At a Group level, a total of 4 725 tons more CO₂ was emitted to the environment during 2018 (Scope 1 + Scope 2). Further details about energy consumption can be found under Energy consumption (indicators 302-1,302-2 and 302-3).

307-1 NON-COMPLIANCES WITH ENVIRONMENTAL LAWS AND REGULATIONS

Cermaq works actively to ensure that our operations respect and are compliant with local, national and international laws. If any non-compliances occur, we take it seriously and investigate at the appropriate level to correct the issue before measures are taken to mitigate the risk of re-occurrence. In 2019, there was one case of environmental non-compliances closed with a fine in Cermaq Chile.

REPORTING UNIT	TOTAL MONETARY VALUE OF SIGNIFICANT FINES (USD)	TOTAL NUMBER OF NON-MONETARY SANCTIONS	CASES BROUGHT THROUGH DISPUTE RESOLUTION MECHANISMS
Cermaq Norway	0	0	0
Cermaq Chile	30,934	0	0
Cermaq Canada	0	0	0
2019	30,934	0	0

GRI Social Indicators

403-2 TYPES OF INJURY AND RATES OF INJURY, OCCUPATIONAL DISEASES, LOST DAYS, ABSENTEEISM AND NUMBER OF WORK RELATED FATALITIES

All employees should be safe at work in Cermaq, and a number of measures are ongoing to strengthen the attention on safety and risk reduction in our operations. Cermaq has had a high focus on safety in our operations, with visible results the past few years.

Dedicated and competent employees are fundamental; likewise are robust management systems and procedures to manage risk and assessment of all relevant aspects of our operations. Visible leadership on OHS is important in Cermaq, and health and safety are also reflected in our Leadership Principles. The first principle explicitly states that “Health and safety of people are always first”. Measures include sharing of good practice between regions, encouraging a strong safety culture through various activities, the use of adequate safety equipment and adherence to OHS routines. Additionally, Cermaq held its first company-wide Health and Safety Day in April 2019, and also held a company-wide ‘Safety Ideas Contest’, the winners of which will have their ideas implemented throughout the company.

In 2019, the Group absence rate was 2.6 percent compared to 2.2 percent in 2018, and it remains low throughout the group. The lost time injury rate was 6 in 2019 which is steady compared to the lost time injury rate of 6 lost time injuries per million working hours in 2018. The injury frequency rate was also steady in 2019 at 8 injuries per million hours worked after it decreased from 18 in 2014 to 10 in 2015 and continued further down to 9 in 2016 and 8 in 2017 and 2018. At the same time, the lost time frequency rate was 138 at a Group level in 2019, which is an increase from the 91 recorded in 2018. There was one tragic fatality in Cermaq Group in 2019.

To reduce the number of diving accidents, a high-risk area, several measures have been introduced in Cermaq Chile the past years which show promising results. Initiatives include investment in ROVs to monitor the nets and the testing of new predator nets of stainless steel and PET monofilament to reduce the number of dives required. A training program was started in 2013 and is ongoing, with special attention to technical and practical diving issues and activities. In addition, assessment of diving skills and training is an ongoing activity.

During 2019, the absence rate for female employees was 3.5% which is somewhat higher than the male rate, while lost time injury rate and injury frequency rate was significantly lower among female employees.

Rates of injury by region

	NUMBER OF FATALITIES	ABSENTEE RATE	LOST TIME INJURY RATE (H1)	INJURY FREQUENCY RATE (H2)	LOST TIME FREQUENCY RATE (F-VALUE)	OCCUPATIONAL DISEASE CASES	OCCUPATIONAL DISEASE RATE (ODR)
Cermaq Group HQ	0	2.3%	0	0	0	0	0
Cermaq Norway	0	3.7%	5	7	47	0	0
Cermaq Chile	0	2.4%	7	8	149	0	0
Cermaq Canada	1	2.9%	2	10	252	0	0
Cermaq Group Incl. HQ	1	2.6%	6	8	138	0	0

Rates of injury by gender

ALL EMPLOYEES BY GENDER	NUMBER OF FATALITIES	ABSENTEE RATE	LOST TIME INJURY RATE (H1)	INJURY FREQUENCY RATE (H2)	LOST TIME FREQUENCY RATE (F-VALUE)	OCCUPATIONAL DISEASE CASES	OCCUPATIONAL DISEASE RATE (ODR)
Female	0	3.5%	2	3	100	0	0
Male	1	2.3%	7	10	153	0	0

Note on calculation methods:

Lost time injury rate (H1) = Lost time injuries per million working hours

Injury frequency rate (H2) = Injuries per million working hours

Lost time injury rate (F-value) = Number of lost days per million working hours

Occupational disease rate (ODR) = Number of lost days by occupational disease per million working hours

National laws on practices for recording and reporting accident statistics follows the 'ILO Code of Practice on Recording and Notification of Occupational Accidents and Diseases' in the regions where Cermaq operates. Contractors are not included in 2017 figures. Cermaq reports OHS data using units that are consistent with Cermaq's previous reporting practices, rather than adopting any new GRI Standards formulas. Lost time frequency rate (F-value) only includes lost time from injuries up to one year and does not include lost time from occupational disease cases. Total work hours include overtime related to workers working on sites (excluding management and administrative employees).

411-1 INCIDENTS OF VIOLATIONS INVOLVING RIGHTS OF INDIGENOUS PEOPLES

During 2019, there were no reported incidents of violation involving the rights of indigenous peoples in the Cermaq Group.

TOTAL NUMBER OF INCIDENTS OF VIOLATIONS INVOLVING RIGHTS OF INDIGENOUS PEOPLES	2015	2016	2017	2018	2019
Cermaq Norway	# 0	0	0	0	0
Cermaq Chile	# 0	0	0	0	0
Cermaq Canada	# 0	0	0	0	0

For the past 5 years no incidents of violations involving right of indigenous peoples has been recorded in any country where Cermaq operates.

413-1 OPERATIONS WITH LOCAL COMMUNITY ENGAGEMENT, IMPACT ASSESSMENTS, AND DEVELOPMENT PROGRAMS

Cermaq wants to be a responsible partner in the local communities where it operates, with a long-term perspective. Establishing and maintaining good relationships based on dialogue, transparency and mutual understanding is a priority.

All Cermaq operations have local community engagement and development programs in place. Engagement activities include sponsorship of sports teams, clubs, foundations, and schools in regions where Cermaq operates. Cermaq regularly conducts community meetings and engages in dialogue with a wide group of organizations on relevant topics, and openly shares information about its operations to stakeholders.

Cermaq Canada

Our community engagement aims to find and support shared community value with the communities where we work, aligned to the Cermaq reputational model. We want to be present and a part of our communities – be visible, be a listener and be a provider – and invest in capacity. We work with the community to educate and provide opportunity for youth in particular. At Cermaq, we care about the community and the environment beyond salmon farming. We must engage in a deep sense – to build a greater sense of partnership with the community and most importantly in British Columbia – First Nations communities.

In addition to community information sessions and small sponsorships and donations, we also support larger strategic projects; these are linked to SDGs, working closely with First Nations and aiming for transformative impact. In 2019, these include:

- Ocean debris cleanup - focus on plastics – SDG 14 life below water
- Wild salmon enhancement – to recover stocks for food and cultural significance – SDG 2 zero hunger
- Ongoing sugar kelp farming projects

Our community sponsorships help to build relationships, support initiatives and programs that important to local communities and improve our public visibility. In 2019, we sponsored over 100 community activities, events and associations, including local fundraisers, beach clean-ups, school field trips, kids' sports teams and venues. Our staff often identify opportunities where Cermaq can add value and support community initiatives through their own community involvement and volunteerism.

In 2019, we also focused on building relationships with all levels of government, from local through to federal ad continued to present to councils and attend meetings with provincial and federal governments. This information sharing and dialogue is part of our commitment to transparency.

The creation of relationships built on mutual respect and trust with First Nations communities is important for us and is in-line with our values and goals as an organization. We support the Truth and Reconciliation process and have adopted the principles outlines by the United Nations through the United Nations Declaration of Rights of Indigenous Peoples (UNDRIP).

We acknowledge that we operate in the traditional territories of several First Nations. Cermaq is committed to respecting Indigenous rights and building close and meaningful relationships over time through ongoing engagement, information sharing. Through protocol agreements, we also ensure that members of the Ahousaht nation are provided with advance notice of upcoming opportunities and we make it a priority to hire First Nations-owned companies as suppliers. Through our sponsorship and community investment, we support traditional cultural activities, such as canoe journeys, community events and youth sports events.

In 2019, we provided scholarships for 18 Ahousaht youth in the trades, bachelor's, and graduate studies levels. The range of study areas included child and youth care, social work, counselling, nursing, education, psychology, business, global studies, leadership, sustainability management.

Through our community engagement, we hope to contribute in meaningful ways to the local communities in the regions where Cermaq works, on projects which actively engage community members to promote health, well-being, environmental conservation and protection, opportunities for youth, indigenous rights and culture, and other aspects of a vibrant community life.

Cermaq Chile

We believe in working jointly with communities, keeping an open doors policy and focused on developing trusting relationships with our neighbors in all our facilities. There are five

main lines of work that guide this area: environmental workshops in schools, sports and health lifestyle, skills training programs, preserving traditions (indigenous peoples) and Cermaq Open Doors. This last program consists on inviting our neighbors to visit our facilities so they can get to know how we work. We also participate in beach cleaning activities (both lakes and sea) all through the year and along all regions, from La Araucanía to Magallanes.

Cermaq Chile is also part of Social Salmon Initiative, a group of companies focused on developing good practices that allow responsible relationships between salmon industry and local communities.

Cermaq Norway

Our local operations actively engage with the local communities where we operate to build strong relations, add value to the local communities, and to increase our social license to operate. Establishing and maintaining good relationships based on dialogue, transparency and mutual understanding is a central part of Cermaq Norway's community engagement.

Our employees are an integral part of the local communities where we operate, and our community engagement goes beyond salmon farming.

Cermaq Norway wants to be a responsible community partner in our areas of operation, and contributes to local activity and community development with special focus on children and youth.

Cermaq Norway's sponsorships contributes to safeguarding our reputation, as well as creating a supportive political environment regionally.

In 2019, Cermaq Norway supported about 70 different events, activities, organizations and initiatives in the regions of Nordland and Finnmark. The list of sponsored projects is long; spanning from theatre groups to support groups for dementia, swimming clubs, students' associations, youth festivals, hunting and fishing clubs, to sports clubs and –events for children and youth.

In the Finnmark region, we often engage in local events and activities in partnerships with the other salmon farmers in the region, increasing our visibility and support to the local communities.

In Cermaq, we also invite our local communities to visit one of our sea sites during the summer festival season in Norway. In 2019, we also invited the inhabitants of Hammerfest

to visit one of our brand-new barges, as it was stationed in the city for a few days on its way to one of our sea sites in Finnmark.

In 2019, Cermaq Norway engaged in activities with different stakeholders from local communities including municipalities, anglers' associations, suppliers and customers. Cermaq Norway met with local administration and politicians in most of the municipalities where the company has operations to discuss current and planned activities and opportunities for development. A specific topic that Cermaq was engaged in together with other industry players, was the planned reduction of the local school- and education structure. Together with local politicians and local industry, we were able to stop the plans and keep the current school- and education structure locally. This means a lot to sustain vital local communities as well for our future recruitment possibilities.

Cermaq Norway also engages with R&D institutions to the benefit of local fjords, waters and rivers. We continued to fund the surveillance of salmon wild stocks in cooperation with Varpa River system, with very encouraging results. In Finnmark county, we are a partner in research projects looking at interbreeding success of escaped salmon in the national wild salmon rivers Altaelva and Repparfjordelva.

In 2019 Cermaq Norway continued our engagement in beach cleaning, and took in youth as summer employees to give work experience and to address our common need to keep our beaches clean from plastics and debris. Our operations engaged youths between 15 and 18 years, in various parts of our operations and many of them were dedicated to cleaning the beaches in our two operating regions. Thanks to our summer temps, we were able to remove 30 tons of plastics and debris from our beaches in the regions of Nordland and Finnmark.

416-1 ASSESSMENT OF THE HEALTH AND SAFETY IMPACTS OF PRODUCT AND SERVICE CATEGORIES

100 percent of our product categories are assessed for health and safety impact improvements. This is part of the ISO 22000 and IFS standards, which are fully implemented. Cermaq Canada and Cermaq Norway have fully implemented the ISO 22000 standard, while Chile has fully implemented the IFS standard. Further details about Cermaq's management standards are given in indicator CEQ 13 Management Standards.

416-2 INCIDENTS OF NON-COMPLIANCES CONCERNING THE HEALTH AND SAFETY IMPACTS OF PRODUCTS AND SERVICES

Cermaq works actively to ensure that our operations respect and are compliant with local, national and international laws. If any non-compliances occur, we take it seriously and investigate at the appropriate level to correct the issue before measures are taken to mitigate the risk of re-occurrence. Cermaq has comprehensive certifications and management systems in place to ensure that the highest standards are met and complied with.

In 2019, there were zero non-compliances with the health and safety requirements of products and services in any operating region.

REPORTING UNIT	TOTAL MONETARY VALUE OF SIGNIFICANT FINES (USD)	TOTAL NUMBER OF NON-MONETARY SANCTIONS	CASES BROUGHT THROUGH DISPUTE RESOLUTION MECHANISMS
Cermaq Norway	0	0	0
Cermaq Chile	0	0	0
Cermaq Canada	0	0	0
Total	0	0	0

419-1 NON-COMPLIANCES WITH LAWS AND REGULATIONS IN THE SOCIAL AND ECONOMIC AREA

Cermaq works actively to ensure that our operations respect and are compliant with local, national and international laws. If any non-compliances occur, we take it seriously and investigate at the appropriate level to correct the issue before measures are taken to mitigate the risk of re-occurrence.

Compliance with social regulations includes occupational health and safety, including adherence to national legislation related to e.g. working hours and working conditions. In Canada, there were no incidents of non-compliance with social regulations in 2019. In Chile, there were a total of six social non-compliances closed with a fine, totaling 9 609 USD. Cermaq Norway received two fines in 2019, one for lacking an operating certificate on a sea site and another for not having valid certificates on 15 ships. Totals can be found in the following table:

REPORTING UNIT	TOTAL MONETARY VALUE OF SIGNIFICANT FINES (USD)	TOTAL NUMBER OF NON-MONETARY SANCTIONS	CASES BROUGHT THROUGH DISPUTE RESOLUTION MECHANISMS
Cermaq Norway	106,040	0	0
Cermaq Chile	9,609	0	0
Cermaq Canada	0	0	0
2019 Total	115,649	0	0
2018	44,761	0	0
2017	12,635	0	0
2016	26,956	0	0
2015	73,340	0	0
2014	20,550	0	0
2013	29,331	0	0
2012	74,612	0	0

Note: This disclosure corresponds with SO8 and PR9 under the G4 GRI Standard, which were merged under 419-1.

SCREENING AND ASSESSMENT OF FEED SUPPLIERS

All Cermaq's feed suppliers have been assessed taking into account environmental, labor, human rights and anti-corruption criteria as specified in Cermaq's Supplier Code of Conduct and Cermaq's Supplier Code of Conduct – Feed suppliers. The main sub-suppliers to Cermaq's feed suppliers are fish meal and fish oil processing companies and other raw material providers, such as companies supplying e.g. soy proteins, rapeseed oil, wheat and wheat gluten.

Cermaq's main feed supplier EWOS has developed a supplier policy and Code of Conduct based on the UN Global Compact 10 principles, the same principles that are the foundation of Cermaq's Supplier Code of Conduct. Raw material suppliers must sign a self-assessment form and EWOS performs regular supplier audits. In addition, EWOS supports and encourages suppliers of marine ingredients to qualify as certified IFFO Responsible Sourcing. This practice is in line with Cermaq's expectations to feed suppliers laid out in our Supplier Code of Conduct and our Feed Supplier Policy.

EWOS continued to be Cermaq's main supplier of fish feed in 2019 in all Cermaq's countries of operation. However, Cermaq has entered into agreement with two additional feed suppliers, Skretting and Biomar, which both have comprehensive standards in place. Environmental, social and governance criteria outlined in Cermaq's Supplier Code of Conduct are evaluated before entering into any new feed agreement. In addition, Cermaq's Supplier Code of Conduct- Feed suppliers specifies more detailed sustainability requirements to new and existing feed suppliers.

414-1, 308-1, 412-3 SCREENING OF NEW FEED SUPPLIERS

All new feed suppliers to Cermaq in 2019 were screened using environmental criteria, human rights and labor practices criteria as well as criteria for impacts on society. Specific requirements assessed can be found in the Cermaq Supplier Code of Conduct and the Cermaq Supplier Code of Conduct – Feed suppliers.

414-2, 308-2 NEGATIVE IMPACTS IN THE SUPPLY CHAIN AND ACTIONS TAKEN

Cermaq is constantly working on developing its supply management practices, and acknowledge the complexity of our supply chain. In 2019, no significant actual negative impacts were identified in Cermaq's supply chain concerning human rights impacts, labor practices or impact on society. Cermaq has been actively in contact with its suppliers regarding claims made relating to labor issues in Brazil during 2019. Additionally, Cermaq has signed the Statement of Support for the Cerrado Manifesto to prevent deforestation in the Cerrado biome in Brazil. Moreover, Cermaq is currently developing tools for traceability for seafood supply chains through its work in Seafood Business for Ocean Stewardship (SeaBOS). Some key environmental issues within feed processing are to ensure that the raw materials used are not overexploited and that the ecological and carbon footprints are minimized. As our main feed supplier, we present EWOS indicators concerning marine and terrestrial raw material use under the indicator CEQ8. More information about EWOS energy use and CO₂ emissions can be found in indicator 302-2. More details can also be found in the EWOS Sustainability Report. We will continue our work to identify and mitigate risks in our supply chain.

APPENDIX 1 - LABOR

Employment in Cermaq

Our 3 693 employees represent a diverse group both in terms of culture and type of work. Still, a common set of core values unite our international and diversified activities.

Cermaq promotes equal work opportunities and just treatment of all its employees. Strict standards for health, safety and environment are set to ensure high level of safety. All employees are expected to contribute to a work environment free of discrimination.

LEAN AND OPERATIVE CENTRAL MANAGEMENT

All operating companies are represented in Cermaq's Corporate Management Team. The team visits all of Cermaq's operating companies each year. This hands-on involvement is important to acknowledge the effort made by all employees and brings in-depth insight about everyday life in our different areas of operation.

EMPLOYMENT

As of 31 December 2019, Cermaq employed 3 693 people, a decrease of 961 employees since the end of 2019. There are strong seasonal variations in employment in farming, especially related to the harvesting and processing plants. Chile is the largest region in terms of employment and the number of employees reported includes Salmones Humboldt employees. Over 70 percent of all Cermaq employees were located in Chile by year end 2019.

Recruiting the right people is essential for the future success of our operations. Our operations are based on local recruitment of management. In 2019 the proportion of management hired from local communities averaged 66 percent (67 percent in 2018). This is in line with Cermaq's philosophy to trust local employees who best know the local conditions and culture. Possibilities for international assignments contribute to personal development as well as developing our corporate culture.

**102-8 INFORMATION ON EMPLOYEES AND OTHER WORKERS PER
31 DECEMBER 2019**

	GROUP AS		NORWAY		CHILE*		CANADA		TOTAL	
Total Employees	63	100%	589	100%	2753	100%	288	100%	3693	100%
Total Supervised workers	0	0%	0	0%	4	0%	0	0%	4	0%
Total – Workforce	63	100%	589	100%	2757	100%	288	100%	3697	100%
Total Indefinite or Permanent employees	63	100%	523	89%	1835	67%	284	99%	2705	73%
Female	18	29%	125	21%	511	19%	61	21%	715	19%
male	45	71%	398	68%	1324	48%	223	77%	1990	54%
Total temporary or fixed term employees	0	n/a	66	100%	918	100%	4	100%	988	100%
Female	0	n/a	13	20%	383	42%	3	75%	399	40%
male	0	n/a	53	80%	535	58%	1	25%	589	60%

Total Full time employees	58	100%	523	100%	2751	100%	287	100%	3619	100%
Female	13	22%	125	24%	892	32%	62	22%	1092	30%
Male	45	78%	398	76%	1859	68%	225	78%	2527	70%
Total Part time employees	5	100%	66	100%	2	100%	1	100%	74	100%
Female	5	100%	13	20%	2	100%	1	100%	21	28%
male	0	0%	53	80%	0	0%	0	0%	53	72%
Management and administration employees	63	100%	19	100%	207	100%	66	100%	355	100%
Other employees	0	0%	0	0%	0	0%	0	0%	0	0%
Female employees	18	29%	6	32%	28	14%	41	62%	93	26%
Male employees	45	71%	13	68%	179	86%	25	38%	262	74%

*Including Salmenes Humboldt

Note: During high season (November until February), Chile and Norway typically have a high proportion of temporary workers to assist with processing of harvested fish.

DIVERSITY

Cermaq promotes equal work for all its employees. Still, gender is a challenge we continue to face. Whereas 30% percent of our employees are female, women have a significantly higher representation amongst the seasonal workers in the processing plants.

At year-end 2019 Group management team comprised of six members. One member of Group management is a Canadian citizen, one member is a British citizen and four members are Norwegian. There were no women amongst the Group's managing directors. In total 26 percent of the Group's managerial groups are women (including all managers that report to the Managing Directors in the Group's companies) in 2019, a rise over 15% in 2018. It is an aim to increase the percentage of female managers in Cermaq. One means of achieving this is through in-house talent development.

Some of Cermaq's operations are located in areas inhabited by indigenous peoples. In Canada the protocol agreement with Ahousaht First Nation sets ambitions for employment from Ahousaht, and also provides service opportunities. In Chile and Norway indigenous people are employed in line with employees in general, while Cermaq is aware of a history of discrimination against indigenous people. In Chile most of the indigenous people are Mapuche while in Norway are Sami people.

UNION RELATIONS

Good and constructive relations with employees and labor unions are essential to Cermaq, and are managed through well-established local management structures and practices. All employees are free to join any labor union.

COLLECTIVE BARGAINING AGREEMENTS

Below is an overview of Cermaq employees covered by collective bargaining agreements. It is important to note that collective agreements do not necessarily reflect the actual participation in unions.

102-41 Collective bargaining agreements

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Cermaq Group AS	0%	15%	13%	20%	0%	0%	0%	0%	0%	0%
Cermaq Norway	78%	93%	93%	94%	86%	82%	85%	88%	85%	75%
Cermaq Chile	18%	19%	25%	24%	31%	30%	26%	45%	73%	70%
Cermaq Canada	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Cermaq Group (excl. AS)	27%	27%	34%	31%	36%	36%	26%	48%	71%	65%

Note: Employees covered by collective bargaining agreements are calculated as a percentage of all employees, both temporary and permanent employees.

APPENDIX 2 – STAKEHOLDER ENGAGEMENT

Stakeholder engagement activities are carried out both at a local and global level in Cermaq, and our aim is to engage in constructive dialogue based on respect and transparency.

In Cermaq, we work with key stakeholder groups to share knowledge, information and enhance our performance. Our stakeholders show strong interest in Cermaq's sustainability approach and performance. We remain open to dialogue with stakeholders who are directly involved with or impacted by our industry or who constructively engage in seeking industry improvements.

Approach to stakeholder engagement

Identification of stakeholders for engagement

Cermaq's approach to stakeholder engagement is to concentrate on entities or individuals that reasonably can be expected to be significantly affected by the organization's activities, products, and/or services; and whose actions reasonably can be expected to affect the ability of the organization to successfully implement its strategies and achieve its objectives.

Stakeholders may have rights under national laws as well as under international conventions. Important international conventions related to indigenous rights are ILO Convention 169 and the UN Declaration of Indigenous Peoples (UNDRIP). Other central conventions include the eight ILO core conventions of the "Declaration of Fundamental Principles and Rights at Work" and the International Bill of Human Rights, including the right to freedom of association, collective bargaining and human rights.

Our approach to stakeholder engagement

Cermaq's main stakeholder groups include our owner, employees and unions, customers, authorities, local communities, suppliers, civil society and NGOs.

Dialogue with our **owner and Cermaq employees** is continuous, through established management structures and practices. Employee relations are comprehensively regulated by law and agreement in the countries in which Cermaq operates. Cermaq applies one set of standards and values across its operations. The expertise, engagement and efforts of all employees are crucial to the success of Cermaq's business. Cermaq's relations with its employees and unions are described in more detail in the sustainability report (sections 102-8 and 102-41).

Customers include seafood wholesalers, processors and retailers in the main salmon markets. The sales organization in each local Cermaq company works directly with their customer in export markets, and many of our customers visit our operations. Transparent reporting is a useful instrument in Cermaq's customer relations. Dialogue with customers is based in Cermaq's ambition to be a preferred supplier for its customer.

Authorities include regulators and politicians at the local, regional and national levels who define the framework conditions for the industry. Cermaq believes transparent dialogue is a prerequisite for arriving at good and balanced decisions and policies. Cermaq reaches out to authorities and is always meeting requests for dialogue or information. The company will continue to prioritize the dialogue with authorities and politicians, in all the countries where Cermaq operates, describing the performance and challenges of the industry.

Local communities are important to ensure acceptance for Cermaq's local operations, support for future growth and recruitment of employees. Cermaq contributes to local activity and employment and wants to be a reliable partner for the local communities in areas of operation. Regular dialogue and community meetings are conducted in all regions. Indigenous peoples are an important stakeholder group to Cermaq and have distinctive rights in some of the areas in which Cermaq operates. The First Nations of British Columbia, Canada, have special titles and rights under Canadian laws and legislation. It is important for the Group to be aware of potential challenges its operations might represent, and Cermaq acknowledges First Nations as important stakeholders. Cermaq has participated in several conferences on First Nation relations. The main priority has been the Ahousaht First Nation with whom Cermaq has a protocol agreement, and also dialogue

with other First Nations in the territories in which the company operates. Mutually beneficial agreements with indigenous people in BC, Canada is a strong foundation for Cermaq's operations in areas where indigenous peoples' rights are affected by its operations.

Feed suppliers constitute a material stakeholder group in Cermaq, since feed constitutes about half of our total purchasing costs. Following the sale of EWOS, Cermaq is building internal competence as a feed purchaser. In 2015, Cermaq launched a Supplier Code of Conduct and a policy for feed suppliers stating detailed sustainability requirements. These documents were updated in January 2017 and are available at our web page. Other main suppliers include suppliers of technical equipment and transport as well as local suppliers of goods and services. The local Cermaq companies maintain contact with their suppliers with frequency adapted to the needs.

Civil society and the NGO community is diverse and Cermaq is selectively concentrating on those NGOs that seek constructive improvements in the industry. This includes wide groups of environmental organizations, labor organizations and NGOs dedicated to other relevant topics. Cermaq reaches out to these groups when arranging events seminars, take direct contact for regular updates and when specific events occur. NGOs can provide positive input giving the company a broader perspective and Insight.

Cermaq sees industry associations necessary for ensuring the framework conditions for the aquaculture industry. Thus, Cermaq is actively participating in the industry association, normally represented by senior executives in the board of the association. In 2019, Cermaq had representation in the board of Salmon Chile, BCSFA (Canada), CAIA (Canada), Sjømat Norge (Norwegian Seafood Federation), and Cermaq's CEO was active in the Global Salmon Initiative (GSI).

Although Cermaq is 100 percent owned by Mitsubishi Corporation, Cermaq still defines providers of capital a stakeholder group. Financial institutions also approach Cermaq on topics related to specific sustainability concerns, and Cermaq strives to meet the needs for information and clarification.

Key topics

Stakeholder dialogue takes place in both structured and unstructured ways and plays an important role in our reporting. Some key topics discussed in our stakeholder dialogue in 2019 are presented below.

STAKEHOLDER CERMAQ CANADA	TOPIC	CERMAQ RESPONSE
First Nations	First Nations are seeing the benefit of salmon farming in providing jobs for their people and are partnering in business opportunities and skills training.	<p>Cermaq is committed to respectful dialogue and to working with First Nations to develop progressive and innovative relationships.</p> <p>The company works to operate in a manner consistent with the United Nations Declaration on the Rights of Indigenous Peoples(UNDRIP).</p> <p>As part of the partnership agreement with Ahousaht First Nation, Cermaq Canada has again provided post-secondary scholarships to students.</p> <p>The company also provides other sports, cultural and community sponsorships to Ahousaht and other First Nations in whose territories they operate, including Wei Wai Kum, We Wai Kai, Tlah-o-qui-at, Huu-ay-aht and Etteshaht.</p> <p>Through proactive communications, Nation leadership are provided with updates, relevant news and operational information on a consistent manner.</p>
Local Elected Officials	Local elected officials in areas where Cermaq farms want to secure local economic benefits, and in particular decent jobs and supplier contracts in aquaculture, which is one of the biggest local industries. They are also aware of environmental concerns from some constituents about impacts of salmon farming, on aspects such as interactions with wild salmon.	<p>Cermaq Canada executives and senior staff meet with all levels of elected officials – municipal, provincial and federal - in Tofino, Port Alberni, Comox Valley, Campbell River and Port McNeill, to present to them an update on Cermaq’s operations and undertake a dialogue.</p> <p>Through proactive communications, elected officials are provided with updates, relevant news and operational</p>

		information on a consistent manner.
Customers	Retailers want their suppliers to be more transparent and sustainable. They are looking for seafood from Aquaculture operations that are environmentally and socially responsible.	Cermaq Canada is committed to sustainable salmon farming and has 8 third party certifications to prove its commitment: <ul style="list-style-type: none"> · 4 ISO certifications, (EMS, QMS, OHS, FS) · Occupational Safety Standard of Excellence (OSSE) · Best Aquaculture Practices (BAP) (4 star) · Many sites certified to the ASC standard and more pending
Customers	Transparency and practical information about our operations and products	Cermaq Canada provides information directly to retailers who sell its salmon to help answer consumer questions. Cermaq Canada posts comprehensive public reporting data online and posts fact sheets, blog posts and news items providing information about common questions and topics.
Local Communities	Local community concern about aquaculture impacts	Social acceptance of aquaculture is important to Cermaq Canada. This acceptance varies in the communities where we operate. Cermaq maintains a policy of responsible corporate citizenship and proactively builds and maintains collaborative relationships between the company and its stakeholders. This includes community sponsorships. In 2019, the focus was on sports teams, health fundraiser events, educational development, and ocean sciences

CERMAQ CHILE

Trade unions	CSR Committee	Cermaq Chile has a CSR Committee chaired by the Chief Operating Officer, 4 company representatives in the HR, Environment, CSR, Quality and Sustainability fields, in addition to four representatives from company unions.
Indigenous peoples and local communities	Corporate Social Responsibility Program "Cermaq Puertas Abiertas"	We believe in working jointly with communities, keeping an open doors policy and focusing on developing trusting relationships with our neighbors in all our facilities. There are five main lines of work that guide this area:

environmental workshops in schools, sports and health lifestyle, skills training programs, preserving traditions (indigenous peoples) and Cermaq Open Doors. This last program consists on inviting our neighbors including indigenous people, to visit our facilities so they can get to know how we work and know our farming practices.

This program involved all our Chilean operations, and during 2019 the activities included visits from communities, students, open seminars, visits from local authorities

Some the visits considered the Pargua community, Coipue and Alianza Francesa school students, OHS students, Pulgarcito Preeschool Students, Ancud town hall, Chidhuapi rural school, Trafún community, María Behety school of Punta Arenas, Kaweskar indigenous community of Magallanes, a maritime authority of Aysén are some examples of our activities. We also participate in beach cleaning activities (both lakes and sea) all through the year and along all regions, from La Araucanía to Magallanes.

<p>Communities</p>	<p>Working Group on Responsible Community Engagement</p>	<p>Since 2017, we are part of the Social Salmon Initiative, a group of companies focused on developing good practices that allow responsible relationships between salmon industry and local communities beyond current regulations. Since then we are working, to implement the "Toolkit for a Responsible Engagement with Communities" elaborated by " WWF Chile, Rabobank and Consensus Building Institute"</p> <p>Our activities were mainly a Self - Diagnosis to generate a baseline and a guide the group's work and its objectives.</p> <p>In 2019, we shared practices with the industry and we started by conducting 2 pilots with the</p>
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		<p>communities of Calbuco and Melinka, and have been working together around a social investment project and contributions to local development.</p>
Customers	<p>Transparency and sustainable public information about our operations</p>	<p>Cermaq Chile provides information on e.g. sea lice, any escapes or wildlife interactions on its website for some farms to ensure easy access and to comply with requirements in the ASC standard.</p> <p>Also, Cermaq Chile is committed to sustainable salmon farming has 6 third party certifications to prove its commitment:</p> <p>ASC Social and environmental responsibility</p> <p>BAP 4 Stars: Quality, food safety, environment, safety and occupational health and social responsibility</p> <p>IFS: Quality and Food Safety</p> <p>GLOBAL G.A.P.: Good practices in aquaculture, Food safety, environment, safety and occupational health, animal welfare</p>
CERMAQ NORWAY		
Local Communities	<p>Positive ripple effects of the industry and local challenges</p>	<p>Cermaq has met with local administration and politicians in most of the municipalities where the company has operations to inform about and discuss current and planned activities as well as opportunities for growth and development.</p> <p>We buy all services and good locally where they are available, from food, to carpentry, boat-service, net-repair etc.</p> <p>Cermaq has also arranged open days at some of our sea sites, inviting local communities to visit and learn more about our operations.</p>
Local Communities	<p>Impacts from the building of a new viewing center</p>	<p>Meeting with local communities that may feel affected by having aquaculture production in their local areas and fjords, but also to explore opportunities the new viewing center can represent in</p>

		terms of local activity and ripple effects.
Local Communities	Beach cleaning campaign to reduce ocean plastics and improve local environment	Summer temps were hired to help us remove garbage and plastic waste and clean the beaches during summer.
Anglers and Local NGOs	Joint projects	Joint projects with the angler's association on monitoring presence of farmed fish in several salmon rivers (Repparfjordelva, Altaelva, Varpa). Financing of surveillance of wild stocks in cooperation with Varpa River system is ongoing. This project continues in 2020.
Customers	Transparency and practical information about our operations and products	Cermaq Norway continues to provide information on e.g. sea lice, wildlife interactions and any escapes on its website for some farms to ensure easy access and to comply with requirements in the ASC standard.
Municipalities	General public concern over fish farming in regions of operation	Open meetings addressing people's concerns and answering questions about Cermaq's operations and new sites. Meetings regarding cooperation and development in the county.
Local communities	Sponsorship	Sponsorships of sports teams, clubs, foundations and schools in Finnmark and Nordland where Cermaq Norway operates.
Environmental R&D institutions	Research and surveys	Financing includes an environmental water study in cooperation with NCE. Projects continued into 2017- 2019. Development of the competency cluster in Finnmark together with other salmon companies as well as research institutes and the municipality. The cluster coordinates research projects related with aquaculture and lice, escapes etc. Akvaplan-niva is project manager.
CERMAQ GROUP AS		
Politicians	Impacts of growth of the industry	In open meetings with politicians, Cermaq has presented its view on the role of growth in aquaculture to meet the SDGs and the criticality of sustainability in the industry. Cermaq has also submitted its view in writing to public hearings.
Owner	Sharing of best practices with other Mitsubishi subsidiaries	Sharing of the best practices with other Mitsubishi subsidiaries in the food industry is a relevant stakeholder engagement that we have with our owner.

R&D Institutions	Research	Cermaq Group engages in research and development projects with fish feed and vaccine suppliers, working in partnerships. Cermaq Group is engaged in the development of new vaccines by funding research projects and working on feed trial by the use of the R&D licenses granted to Cermaq Norway.
Partners	SDGs	Cermaq Group works within several partnerships to strengthen sustainability in the sector and to develop frameworks for ocean practices to meet the SDGs. The key partnerships cover the salmon industry (Global Salmon Initiative), the seafood industries (SeaBOS), the ocean industries (UN GC Ocean Action Platform). Cermaq Group also engage in the advisory network to the Ocean Panel and in the Cerrado Manifesto, addressing specific sustainability in the Amazon.

APPENDIX 3 MATERIALITY ASSESSMENT

The concept of materiality is the foundation of Cermaq's sustainability reporting.

We conduct a materiality analysis to prioritize reporting on aspects that are material to us and our stakeholders, and to communicate Cermaq's sustainability impact and select indicators for more frequent follow-up.

Our starting point is to report on topics where we have the largest impact and where stakeholder request for information is high. From 2016, we have aligned our material topics with specific UN Sustainable Development Goals (SDGs) that we can significantly impact.

Materiality process

Determining materiality

In defining material interests, Cermaq identifies its economic, social and environmental impacts and identifies the topics that have the greatest influence on stakeholder assessment and decisions. The topics identified as material both to Cermaq and to Cermaq's stakeholders provide the basis for the selection of indicators that we measure our performance against. A part of the process is furthermore to identify material indicators that should have targets – for measuring and improving performance over time. These form the basis of our sustainability reporting and the results are presented in our annual report.

The materiality assessment is subject to an annual review by our global Sustainability Functional Team with representatives from all regions and across disciplines. This is to ensure that we report on material aspects for the organization as a whole and measure our performance against the right indicators. At certain intervals, we perform a thorough stakeholder analysis to inform our materiality assessment process. In 2013, Cermaq invited all its external stakeholders (e.g. shareholders, NGOs, local communities, media, and analysts) to participate in a survey and perform a ranking of 32 sustainability aspects. Cermaq is continuously engaging with stakeholders and

Cermaq's focus areas



Healthy and
nutritious food



Thriving
oceans



People
leadership



Responsible
production



Climate
action

In 2016, a broader process was conducted to inform and update our materiality analysis from a customer perspective and by integrating the UN SDGs. We reviewed the targets and indicators and identified five specific SDGs for special consideration in our stakeholder assessment, based on our perceived ability to make a significant impact: SDG2 Zero hunger, SDG8 Decent work and economic growth, SDG12 Responsible consumption and production, SDG13 Climate action and SDG14 Life below water.

In addition, we conducted a benchmark study to incorporate customers' sustainability expectations into our analysis. The study was based on publicly available information from sustainability branded food retailers, collected in April-August 2016, with an emphasis on requirements to sustainable salmon farming and aquaculture. This analysis was incorporated into our materiality assessment. Cermaq's sustainability framework, which incorporate the five focus areas and the materiality analysis, was based on input from all Cermaq regions and across relevant functions, and was reviewed and approved by Cermaq's central management team and the Board in the Fall of 2016.

Our five focus areas provide the structure for a set of 15 material topics with relevant indicators. Cermaq specific indicators are reported internally to Cermaq's central management team and the Board on a monthly and quarterly basis. Starting in 2016, key figures are also reported publicly on our web page on a quarterly basis. Relevant GRI indicators are reported annually and are available together with the Cermaq specific indicators in our annual sustainability report.

It is Cermaq’s ambition that through transparency and open reporting on material topics, we will further strengthen the constructive dialogue between Cermaq and its stakeholders.

Follow up of performance

The operational responsibility for ensuring sustainable business practice ultimately lies with the Managing Director for each of the operations owned by Cermaq. The Board of Directors holds the overall responsibility to ensure that necessary systems and procedures are in place.

Monitoring and follow-up of sustainability performance is conducted at both local and corporate levels. A set of sustainability KPIs are reported and evaluated monthly by the central management team. Each quarter, the local and central management as well as the Board of Directors receive a comprehensive sustainability report and assess the organization’s sustainability performance. For the material indicators, Cermaq has set yearly targets and the performance is evaluated in accordance with established risk management procedures. Corrective actions are taken for indicators which deviate from the set targets.

All the material aspects listed above as material are material to the whole organization except for Cermaq Group AS that is not involved in fish farming in an operational way.

Material topics and indicators

The material topics are listed below and are explained in further detail in the Management Approach.

FOCUS AREA	MATERIAL TOPIC	INDICATORS
HEALTHY AND NUTRITIOUS FOOD	<ol style="list-style-type: none"> 1. Product quality, health and safety 2. Fish health and welfare 3. Feed ingredients 	<ul style="list-style-type: none"> ● Raw material ingredients ● Customer health and safety assessment ● Fish mortality ● Medicine use ● Sea lice counts ● Animal species and breed type

<p>THRIVING OCEANS</p>	<p>4. Biodiversity and feed sourcing 5. Biosecurity 6. Blue economy</p>	<ul style="list-style-type: none"> ● Non-compliance with product health & safety <p>Fines for product non-compliance</p> <hr/> <ul style="list-style-type: none"> ● Feed sourcing and supplier assessment ● Raw material ingredients ● IUCN red list species with habitats in areas of operation ● Wildlife interaction ● Fallow time/benthic impact ● Vaccination program ● Fish escapes ● Sea lice counts ● Area Management Agreements ● Economic value generated and distributed <p>Country-by-country financial and organizational data</p>
<p>PEOPLE LEADERSHIP</p>	<p>7. Safety & workplace 8. Community relations 9. Human Rights</p>	<ul style="list-style-type: none"> ● Injuries, lost days, absence ● Senior management hired from local community ● Local community engagement programs ● Local community complaints ● Non-compliance with societal regulations ● Incidents of violations involving indigenous peoples' rights ● Economic value generated and distributed <p>Country-by-country financial and organizational data</p>
<p>RESPONSIBLE PRODUCTION</p>	<p>10. Value chain approach 11. Certifications 12. Beyond compliance: Responsible business conduct</p>	<ul style="list-style-type: none"> ● Water withdrawal and recycled input materials ● Non-compliance with environmental regulations ● Whistle blowing ● Training on anti-corruption ● Incidents of corruption <p>ASC certification</p>
<p>CLIMATE ACTION</p>	<p>13. Adaptation 14. Emissions 15. Innovation</p>	<ul style="list-style-type: none"> ● Financial implications, other risks and opportunities due to climate change ● Energy consumption ● GHG emissions (Scope 1, 2 and 3) ● Energy reduction initiatives

APPENDIX 4 GRI CONTENT INDEX

Overview of indicators

In the table below you will find an overview of all indicators in Cermaq's Sustainability Report 2019, in accordance with the GRI Standards, Core level.

GRI STANDARD	DISCLOSURE	REQUIREMENT LEVEL
GRI 102: General Disclosures 2018	102-1 Name of the organization	This disclosure cannot be omitted
	102-2 Activities, brands, products, and services	This disclosure cannot be omitted
	102-3 Location of headquarters	This disclosure cannot be omitted
	102-4 Location of operations	This disclosure cannot be omitted
	102-5 Ownership and legal form	This disclosure cannot be omitted
	102-6 Markets served	This disclosure cannot be omitted
	102-7 Scale of the organization	This disclosure cannot be omitted
	102-8 Information on employees and other workers	This disclosure cannot be omitted
	102-9 Supply chain	This disclosure cannot be omitted
	102-10 Significant changes to the organization and its supply chain	This disclosure cannot be omitted
	102-11 Precautionary Principle or approach	This disclosure cannot be omitted
	102-12 External initiatives	This disclosure cannot be omitted
	102-13 Membership of associations	This disclosure cannot be omitted
	102-14 Statement from senior decision-maker	This disclosure cannot be omitted
	102-16 Values, principles, standards, and norms of behavior	This disclosure cannot be omitted
	102-18 Governance structure	This disclosure cannot be omitted
	102-40 List of stakeholder groups	This disclosure cannot be omitted
	102-41 Collective bargaining agreements	This disclosure cannot be omitted
	102-42 Identifying and selecting stakeholders	This disclosure cannot be omitted
	102-43 Approach to stakeholder engagement	This disclosure cannot be omitted
	102-44 Key topics and concerns raised	This disclosure cannot be omitted
	102-45 Entities included in the consolidated financial statements	This disclosure cannot be omitted
	102-46 Defining report content and topic Boundaries	This disclosure cannot be omitted
	102-47 List of material topics	This disclosure cannot be omitted
	102-48 Restatements of information	This disclosure cannot be omitted
	102-49 Changes in reporting	This disclosure cannot be omitted
102-50 Reporting period	This disclosure cannot be omitted	
102-51 Date of most recent report	This disclosure cannot be omitted	
102-52 Reporting cycle	This disclosure cannot be omitted	
102-53 Contact point for questions regarding the report	This disclosure cannot be omitted	
102-54 Claims of reporting in accordance with the GRI Standards	This disclosure cannot be omitted	
102-55 GRI content index	This disclosure cannot be omitted	
102-56 External assurance	This disclosure cannot be omitted	
GRI 103: Management Approach 2018	103-1 Explanation of the material topic and its Boundary	This disclosure cannot be omitted
	103-2 The management approach and its components	This disclosure cannot be omitted
	103-3 Evaluation of the management approach	This disclosure cannot be omitted

Topic Specific Standards		
GRI 201: Economic Performance 2019	201-1 Direct economic value generated and distributed	Applicable to Core option
	201-2 Financial implications and other risks and opportunities due to climate change	Applicable to Core option
GRI 202: Market presence 2018	202-2 Proportion of senior management hired from the local community	Applicable to Core option
GRI 205: Anti-corruption	205-2 Communication and training about anti-corruption policies and procedures	Applicable to Core option
	205-3 Confirmed incidents of corruption and actions taken	Applicable to Core option
GRI G3.1 FPSS	FP9 Percentage and total of animals raised and/or processed, by species and breed type.	Applicable to Core option
GRI 301: Materials 2018	301-2 Recycled input materials used	Applicable to Core option
GRI 302: Energy 2018	302-1 Energy consumption within the organization	Applicable to Core option
	302-2 Energy consumption outside of the organization	Applicable to Core option
	302-3 Energy intensity	Applicable to Core option
	302-4 Reduction of energy consumption	Applicable to Core option
GRI 304: Biodiversity 2018	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	Applicable to Core option
GRI 305: Emissions 2018	305-1 Direct (Scope 1) GHG emissions	Applicable to Core option
	305-2 Energy indirect (Scope 2) GHG emissions	Applicable to Core option
	305-3 Other indirect (Scope 3) GHG emissions	Applicable to Core option
	305-4 GHG emissions intensity	Applicable to Core option
GRI 307: Environmental Compliance 2018	307-1 Non-compliance with environmental laws and regulations	Applicable to Core option
GRI 403: Occupational Health and Safety 2018	403-2 Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	Applicable to Core option
GRI 411: Rights of Indigenous People 2018	411-1 Incidents of violations involving rights of indigenous peoples	Applicable to Core option
GRI 413: Local Communities 2018	413-1 Operations with local community engagement, impact assessments, and development programs	Applicable to Core option
GRI 416: Customer Health and Safety 2018	416-1 Assessment of the health and safety impacts of product and service categories	Applicable to Core option
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	Applicable to Core option
GRI 419: Socioeconomic compliance	419-1 Non-compliance with laws and regulations in the social and economic area	Applicable to Core option

Note that Cermaq discloses in accordance with the GRI Core option: for each identified material Topic, the organization should disclose the generic DMA and at least one indicator. Cermaq chooses to disclose multiple indicators for multiple topics.

Material Topics not covered by GRI Standards

CATEGORY	DISCLOSURE NAME	REQUIREMENT LEVEL
Fish Health and Welfare	CEQ1 Fish Mortality	Cermaq Indicator- Material topic
	CEQ4 Medicine use	Cermaq Indicator- Material topic
	CEQ5 Vaccination program	Cermaq Indicator- Material topic
Feed sourcing and ingredients	CEQ 8 Raw Material Ingredients	Cermaq Indicator- Material topic
Biodiversity	CEQ 7 Escapes	Cermaq Indicator- Material topic
	CEQ 17 Birds and Mammals	Cermaq Indicator- Material topic
Biosecurity	CEQ2 Sea lice	Cermaq Indicator- Material topic
	CEQ6 Area Management Agreements	Cermaq Indicator- Material topic
Local communities	CEQ 11 Local Community Complaints	Cermaq Indicator- Material topic
Responsible farming	CEQ 3 Fallow time	Cermaq Indicator- Material topic
Certifications	CEQ 16 ASC	Cermaq Indicator- Material topic
Responsible business conduct	CEQ 12 Whistle Blowing Incidents	Cermaq Indicator- Material topic
Economic growth	CEQ 15 Country by Country Financial and Organizational Data	Cermaq Indicator- Material topic