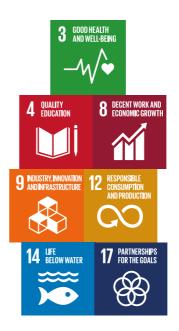


# Highlights 2018

## 1. Contributing to the 2030 Agenda and Sustainable Development Goals

At Salmones Camanchaca we have adopted the United Nations 2030 Agenda for Sustainable Development as a guide to identify our impacts and understand how our operations relate and contribute to the global challenges facing humanity. Our company contributes to eight of the United Nations Sustainable Development Goals (2, 3, 4, 8, 912, 14 y 17).





## 2. Employee Training and Development

At Salmones Camanchaca we value and promote professional development as a key component of talent management. Throughout 2018, 943 employees took part in our training programs.

	% Men Trained	% Women Trained	% Executives Trained	% Administratives Staff Trained	% Operators Staff Trained
Tomé	22.4%	9.7%	0.4%	15.9%	<b>15.7%</b>
Farm Sites	56.2%	11.8%	4.6%	54.2%	9.1%
Total	78.6%	21.4%	5.0%	70.2%	24.8%

## 3. Certifications (30% Harvests Were ASC Certified)

In 2018, 100% of our salmon production received the Best Aquaculture Practices (BAP) Certification from the Global Aquaculture Alliance and almost a third of our harvests were certified with the Aquaculture Stewardship Council (ASC) standards.

### **Hatchery**



### **Farm Sites**



## 4. Corporate Social Responsibility

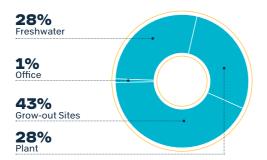
Our commitment to local communities takes shape through the program "Camanchaca Amiga," which has been strengthened in the various areas in which we have operated since 2012. In 2018, the number of activities carried out by the program increased by 15% compared to the previous year. Our work has three pillars:



## 5. First salmon farming company to register its greenhouse gas emissions with "Huella Chile"

Salmones Camanchaca was the first salmon farming company to register in the "Huella Chile" program. "Huella Chile" is a program developed by Chile's Ministry of Environment, whose objective is to promote the quantification, reporting, and management of greenhouse gas (GHG) emissions from public and private institutions. As a company, we know that we cannot be bystanders to the challenge that climate change presents for the planet and humanity. Having already measured and identified our main sources of emissions, we will announce our specific GHG reduction goals in 2019.

### **Emissions by Area**



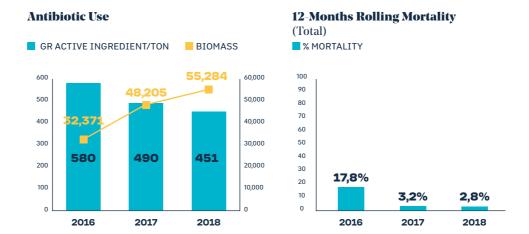
AREA	(tCO <sub>2</sub> -e)
Fresh water	8,624.35
Grow-out Sites	13,118.05
Plant	8,747.27
Office	415.07
Total	30,904.74

GHG amissions

## 6. Reduction of Antibiotic Use

At Salmones Camanchaca, antibiotics are used exclusively when there is a clinical diagnosis from a veterinarian and an associated prescription. In 2018 we were able to simultaneously reduce the use of antibiotics and fish mortality. In 2018, 100% of our fish were vaccinated with Pharmaq's Alpha Ject Livac vaccine, the latest technology in protecting against Salmon Rickettsial Syndrome (SRS).





## 7. Financial Capitalization Record

2018 was a year of achievements for Salmones Camanchaca. Our company opened on both the Santiago and Oslo stock exchanges, we saw good operational and commercial results, and we had record sales of US\$ 332 million that allowed an EBITDA of US\$ 83 million (57% higher than in 2017).



# Index

08

The Company at a Glance 16

A Word from the Vice President

19

CHAPTER 01

About This Report 31

CHAPTER 02

**Our Business** 

47

CHAPTER 03

Our People **57** 

CHAPTER 04

**Our Communities** 

**67** 

CHAPTER 05

Caring for the Environment

93

**CHAPTER 06** 

Our Salmon

105

CHAPTER 07

Our Future 114

CHAPTER 08

Recognition

115

CHAPTER 09

Trademarks and Memberships

118

**CHAPTER 10** 

**GRI Index** 

# The Company at a Glance

Salmones Camanchaca is a public corporation that has been listed on the Santiago and Oslo stock exchanges since February 2018. Compañía Pesquera Camanchaca S.A. is the main shareholder of Salmones Camanchaca, with a 70% interest after its IPO.

The Company is vertically integrated with freshwater and seawater facilities, together with primary and value-added processing plants. Additionally, it has commercial offices in different markets around the world in order to ensure a continuous, stable supply for its customers, who value reliable service.

### Salmones Camanchaca S.A.

Avda. Diego Portales 2000, Piso 13 Puerto Montt, Chile

### Website:

www.salmonescamanchaca.cl

### E-mail:

inversionistas@camanchaca.c

## **Value Chain**

### Salmones Camanchaca produces

100% Atlantic Salmon (Salmo salar)

Produced entirely in Chile using eggs from the Company's breeders without genetically modified organisms.

### We have

74
Aquaculture
Concessions

Located in the Los Lagos and Aysén regions on a total of 1,045 hectares, only 480 of which were used in 2018.

### We have

5 Freshwater Sites

(Including both open-flow and recirculation) on a total of 37 hectares.





1 Value-Added Plant

### **Commercial offices in**



Additional commercial representation agencies in Russia, Oceania, Europe, Middle East, Africa, and Brazil.

## **Production**

2018 Smolt production:

(of which 100% were produced inside closed recirculation systems).

**Production Capacity of Recirculating systems:** 

million smolt

2018 Biomass in Water - Salar

**Biomass produced** in 2018 - Atlantic salmon:

Number of fish in the water as of December 31, **2018 - Salar:** 

**Capacity of** value-added plant:

**And primary** processing plant:

**Tons WFE** 

**Seawater Production** 

**Freshwater Production** 

ton/Há

ton/Há

**Production** ton/ha per year



**Feed consumed** in 2018:

**Tons for grow-out** 

FCRe Efficiency

open-cycle LWE

FCRb Efficiency

open-cycle LWE

## **Our Employees**

as of December 31, 2018







## **Financial Performance 2018**

332,301

Revenue from ordinary activities US \$ (thousands)

48,496

Harvests (tons WFE)

50,032

**Sales**(tons WFE
company-farmed salmon)

**3.29** 

Ex-cage cost (US\$/Kg WFE)

0.89

Processing cost (US\$/Kg WFE) 6.12

**Price** (US\$/Kg WFE)

1.38

EBIT/kg WFE (US\$)

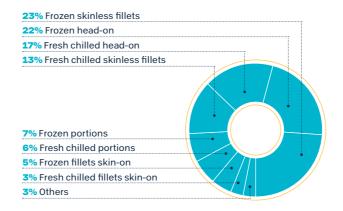
## Our Markets

The sales team at Salmones Camanchaca S.A. has offices and representation agencies in different parts of the world, which allows the Company to serve and develop several markets in a more direct and effective way. The Company has positioned itself in international markets as a reliable supplier of premium marine products. Throughout its history, Camanchaca has built long-term relationships with important retail, food service, and distribution customers around the world.

In international markets, Salmones Camanchaca S.A. sells frozen and high value-added products under the Camanchaca Gourmet and Pier 33 brands, which mainly target end consumers.

### **Distribution by Product**

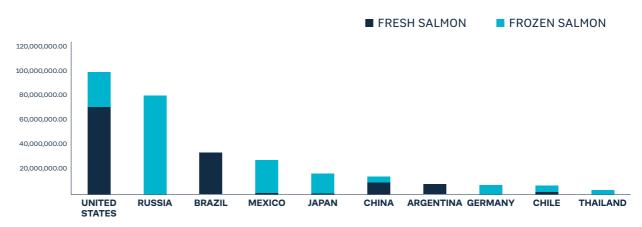
ACCORDING TO THE FOB VALUE (USD)



For additional information, see: www.salmonescamanchaca.cl/en/mercados/



## **Distribution by target market** (Total FOB USD)





## Historical Overview



1965

1987

Compañía Pesquera Camanchaca S.A. began its fishing operations in 1965 by catching and processing langostino lobsters in the district of Tomé in the Biobío Region.

Later diversification of catches included sardines, anchovies, and jack mackerel, and the Company ventured into aquaculture. The Polcura Hatchery in the Biobio region was acquired, where the first coho smolts were produced. This was the first species farmed by the Company and marked the beginning of its salmon business.

The first Atlantic salmon were stocked in the Peñasmó and Terao sites.

2012

2013

2015

Salmones Camanchaca became the first salmon producer to earn three stars for complying with the Global Aquaculture Alliance's (GAA) Best Aquaculture Practices (BAP).

Salmones Camanchaca formed the New World Currents organization in partnership with three other Chilean companies to supply salmon to the Chinese market in an efficient and stable manner, while achieving economies of scale. The Global Salmon Initiative (GSI) was officially launched, which includes Salmones Camanchaca together with other leading salmon producers. Its main priority is to achieve significant progress in the industry's sustainable development.

On June 26, 2015, Salmones Camanchaca published its first Sustainability Report. A sustainability dashboard was also published on Camanchaca's redesigned website to increase transparency of its principal performance indicators

Between 2015 and 2016, the Rio Petrohue hatchery was reconstructed following severe damage due to the eruption of the Calbuco volcano.



2005

2010

The first recirculating hatchery for salmon in Chile was commissioned on the Petrohué River in the Los Lagos Region, a groundbreaking investment for the Company.

Commercial operations began in Miami, USA, focusing on the sale and distribution of the Company's products, principally salmon.

Opened a commercial office in Tokyo, Japan, in 2005, to sell and distribute frozen products in Japan and South Korea. Compañía Pesquera Camanchaca S.A. created the subsidiary Salmones Camanchaca S.A. in order to focus and consolidate resources for the business.

2016

2017

2018

Our Porcelana farm site was our first site to be certified under the demanding ASC standards, accomplishing one of the commitments we made within the framework of the Global Salmon Initiative (GSI). The chains of custody at the Tomé and San José processing plants were also certified (ASC CoC). That same year, the Company earned a four-star BAP certification for our Río Petrohué hatchery, which includes grow-out sites, a processing plant, and suppliers of fish feed, thus certifying the Company's entire production chain under this standard.

Our Río del Este hatchery, which supplies eggs for the entire operation, earned the GLOBAL G.A.P. certification.

In November 2016, results from the previous year earned the Pilpilehue farm site "Best Site of 2015" at the conference on Innovation and Collaboration for a More Sustainable Industry, organized in Valdivia by Skretting.

Moved to the SAP system, which facilitates decision-making by giving us greater control over our information. Also earned the Pro Pyme Seal, which is a major accomplishment for the Company and reflects its ongoing commitment to suppliers.

Salmones Camanchaca S.A. was registered with the Securities and Insurance Commission, a significant step that will lead to an independent IPO process for this subsidiary in both Chile and Norway and help strengthen the Company's future development plans.

On February 2, 2018, Salmones Camanchaca completed its IPO for 30% of its shares, raising US\$ 50 million through primary placement. Compañía Pesquera Camanchaca carried out a secondary sale of shares of Salmones Camanchaca, raising US\$ 58 million. This operation positioned Salmones Camanchaca as the first and only Chilean and Latin American company to be listed on the world's most important seafood market, making it a model for other domestic companies in the industry.

The Company obtained ASC certification for 75% of its production for the fourth quarter of 2018 and first quarter of 2019.

Salmones Camanchaca was the first salmon farming company to register in the program "Huella Chile" from the Ministry of the Environment, whose objective is to promote the quantification, reporting, and reduction of greenhouse gas emissions from private and public institutions.

## A Word From the Vice President



Salmones Camanchaca is part of the global community facing environmental, social, and economic challenges. We are aware that, as a company, we must be part of the solution and thus contribute to a better future.

This requires us to be more thoughtful and open to the experiences of other players and countries and increase competence and diligence in the way that we assume our long-term commitments to society. As fish farmers, we must promote the sustainable development of the areas and communities in which we operate, and from there contribute to the larger goals of our country and planet.

It is in this context that Salmones Camanchaca has adopted the United Nations 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs) as a guide to identify its social, economic, and environmental impacts. This allows us to understand how different aspects of our operation relate and contribute to each of the seventeen SDGs, establishing a direct link between our local dimension and global challenges.

All the information presented in this report references the 2016 Global Reporting Initiative (GRI) standards and has been reviewed and certified by the independent auditing firm Deloitte. We emphasize

this as a sign of our pursuit of transparency, which goes beyond being open to publishing information and includes independent third-party verification of the veracity and integrity of our reports.

2018 was a favorable year for Salmones Camanchaca, during which we achieved transcendental goals. Our openings on both the Santiago and Oslo stock exchanges are momentous for Latin American companies. The reduction in the use of antibiotics and the high survival rate of our fish, our positive operational and commercial results, and our record sales of US\$ 332 million that allowed an EBITDA of US\$83 million, 59% higher than 2017, are all significant achievements for the Company.

We regards to the environment, the entirety of our production received the Best Aquaculture Practices (BAP) certification from the Global Aquaculture Alliance, verifying our compliance with the highest environmental and productive management standards. Additionally, almost a third of our harvests were certified by the Aquaculture Stewardship Council (ASC), demonstrating that we adhere to the highest sustainability standards in global aquaculture.

In Chile, Salmones Camanchaca was the first salmon farming company to register in the program "Huella Chile" from the Ministry of the Environment, whose objective is to promote the quantification, reporting, and reduction of greenhouse gas emissions of private and public institutions. We believe that all institutions, and people in general, must commit to collaborate on the reduction of greenhouse gas emissions, which we know are harmful to our environment. Having already measured our carbon footprint, Salmones Camanchaca will announce specific greenhouse gas emission reduction targets in 2019.

In the social dimension, we have reaffirmed our commitment to the Salmon Social Initiative. This initiative, coordinated by the Consensus Building Institute, groups ten salmon farming companies together with the objective of building an action framework for a responsible relationship with local communities. It builds on the local and global experience of other industries in community relations and will result in the implementation of the best global practices in the Chilean salmon industry. Also in the social dimension, our social responsibility program "Camanchaca Amiga" has continued to work effectively in its three pillars of action: Community Outreach, Caring for the Environment,

and Healthy Living, which in 2018 totaled 244 specific actions. Among these actions are community dialogues, workshops and training programs, beach cleanups, environmental certification of educational programs, and family runs.

Regarding fish health, Salmones Camanchaca, through various strategies, was able to reduce annual fish mortality by 12.5% between 2017 and 2018, with low levels of 2.8% mortality in 2018. We view our 8% reduction in the use of antibiotics as an overall sign of good fish health, which is explained in part by our generalized strategy to use last generation vaccines to prevent the Salmon Rickettsial Syndrome (SRS). Additionally, we reduced the use of sea-lice chemotherapeutics by 15%, though we maintain a vigilant attitude regarding their efficiency. These indicators give us confidence in the results that our fish health strategies—led by a dedicated team of professionals with vast experience in the industry—are having on the health and welfare of our fish and the environment.

Salmon farming is a young industry that is rapidly demonstrating its capacity to produce healthy proteins efficiently and sustainably. This fact is illustrated by two indicators: the carbon footprint of salmon is 10 times lower than that of cattle, and its feed conversion ratio is 7 times lower. Together, they highlight the capacity of salmon farming to produce proteins with less environmental impact and better use of natural resources than traditional sources of animal protein.

At Salmones Camanchaca we know that aquaculture—and salmon farming in particular—has a promising future in the delivery of proteins around the world, and we take this responsibility very seriously. We are committed to making a significant effort to achieve this mission with excellence and responsibility so that our clients, employees, neighbors, suppliers, authorities, and shareholders can be proud.

Ricardo García Holtz

Vice President of Salmones Camanchaca S.A.



### CHAPTER 01

# About this Report

This document is the fifth Annual Sustainability Report, which covers 2018 performance in the financial, environmental, and social matters identified as material by the Company. This report is an essential part of the corporate policy of communication and transparency with stakeholders established by the organization.

We regularly monitor performance indicators for Salmones Camanchaca's process and report results to our diverse stakeholders annually.

The information herein covers all production operations of Salmones Camanchaca S.A., which all take place within Chile.

This report has been prepared in accordance with the 2016 Global Reporting Initiative (GRI) Standards in its essential version and has been independently verified by Deloitte. Additionally, all our financial, food safety, and environmental and social performance information is regularly evaluated by third parties according to standards such as Best Aquaculture Practices (BAP), Aquaculture Stewardship Council (ASC), GLOBAL G.A.P. Standards, ISO Standards (ISO 9001, ISO 14001, OHSAS 18001), and by our customers themselves. Compliance with these standards is reflected in the obtained certifications, as indicated in Table 1.

**Table 1.**Main Certifications Obtained for Salmones Camanchaca's Value Chain.

VALUE CHAIN	CERTIFICATION	CERTIFYING ENTITY	NUMBER OF FACILITIES CERTIFIED	PRODUCT CERTIFIED	
	BAP (Best Aquaculture Practices)	NSF	1 (25%)	11,954,803 smolt (100% smolt production)	
Hatchery	Global G.A.P + GRASP	Control Union (CUP)	2 (50%)	17,100,000 eggs (100%)	
	ASC (Aquaculture Stewardship Council/Chain of Custody)	Control Union (CUP)	1 (25%) (Smolt Supplier)	11,954,803 smolt (100% of smolt production)	
	BAP (Best Aquaculture Practices	NSF SGS Global Trust	10 (100%) (sites harvested in 2018)	55,284 tons produced (2018)	
Farm Sites	ASC (Aquaculture Stewardship Council)	Control Union (CUP)	4 (2 harvested in 2018) (20%) 2 In assessment (20%) (Atlantic salmon)	16,659 tons produced (2018) (Atlantic salmon)	

VALUE CHAIN	FACILITY	ISO 14001	ISO 9001	ISO 18001 BAP	GLOBAL G.A.P + GRASP	ASC (AQUACULTURE STEWARDSHIP COUNCIL/ CHAIN OF CUSTODY)	HACCP (IMPLEMENTED)
Processing	San José (Primary Processing Plant)				Chain of Custody	Chain of Custody	•
Plants	Tomé (Value- Added Plant)	•	•	• •		Chain of Custody	•



## Our Stakeholders

Salmones Camanchaca has a Code of Conduct and Business Ethics, which was approved by the Compañía Pesquera Camanchaca Board of Directors 6 years ago and identifies and defines the Company's stakeholders.

Salmones Camanchaca has the following commitments to its various stakeholders:



### **Employees**

- HUMAN RIGHTS. Salmones Camanchaca S.A. respects human rights and commits to prohibit forced or child labor in any form.
- INTERNAL PROMOTION. We promote the development of our employees in order to improve and strengthen their skills and competitiveness, while giving priority to internal promotions.
- RESPECT. We encourage employees to treat everyone with dignity and respect, which entails: maintaining a close and direct relationship, taking into account the uniqueness and value of each human being, and appreciating diversity and non-discrimination.
- COMMUNICATION. We provide work conditions
  that ensure safe environments that favor the
  well-being and development of people based
  on their own merits, and provide people the
  opportunity to express their honest opinions
  in an open and constructive environment along
  with fair, truthful, and timely feedback, as a space
  to correct and improve the work performance of
  our employees.

Communication with our employees is carried out through direct interaction with their supervisors or through their representing unions and joint committees, organizational climate surveys, and outreach meetings held on a quarterly basis.

## Consumers and Customers

- HIGHEST QUALITY. We offer our consumers and customers products of the highest quality, always aiming to provide healthy nourishment and disclosing product characteristics and qualities.
- COMMUNICATION. Communication with our customers and consumers is done through our business executives in our offices around the world and through our website <a href="http://www.salmonescamanchaca.cl/en/contacto/">http://www.salmonescamanchaca.cl/en/contacto/</a> and social media networks

### **Suppliers**

- EQUITY. We aim to carry out honest and fair negotiations with our suppliers, without discrimination or imposition. All suppliers will always be treated with respect and will have the information needed for bidding processes, competitions, or tenders to ensure that these processes are competitive, transparent, and fair.
- TIMELY PAYMENT. One of our main commitments to our suppliers is timely payment for
  their services and products in accordance with
  agreed upon payment conditions. To accomplish this, we establish clear payment terms and
  stable, simple, and transparent processes that
  are not open to interpretation or susceptible to
  bad practices.
- COMMUNICATION. Communication with our service suppliers and/or contractors is continuous through work meetings and direct communication.

### **Competition**

INTEGRITY. We compete correctly and fairly
within a framework of integrity and respect in
a free, transparent market, where transactions
are based on merit, including the best price,
quality, and service. We avoid any conduct that
creates monopolistic competition or encourages
collusion as a tool to improve sales conditions.

## Government and Authorities

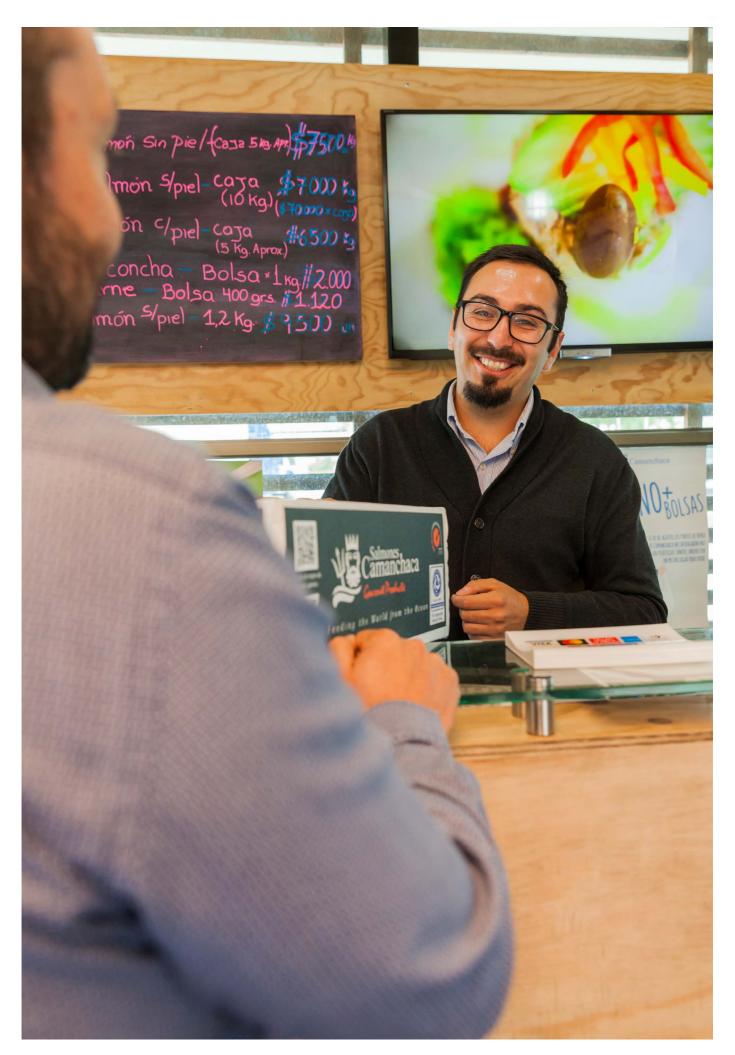
- COMPLIANCE. The employees of Salmones
   Camanchaca must fully comply with all applicable regulations and laws, thus contributing
   to the common good and social order. Each
   individual has a duty to report any violations
   and/or incidents of noncompliance.
- TRANSPARENCY. We maintain communication with authorities through technical meetings and official correspondence, in addition to maintaining regular communication with hatcheries regarding relevant information.

## Neighboring Communities & Society

- ETHICS. We promote universal ethical values, support the economic and social growth of the communities in which we operate, and respect the environment through a perspective of longterm sustainability.
- LOCAL COMMITMENT. We encourage the hiring and training of local community members so that employees can acquire tools that allow them to progress organically.
- COMMUNICATION. We maintain formal communication channels in each of our facilities through "Open Doors" with the community and through our website and social media networks (Facebook, Instagram, and Twitter).

## Shareholders and Investors

- SUSTAINABILITY. We continue to develop strategies and plans that secure the long-term profitability of the Company by creating value for shareholders, balancing the interests of other groups (employees, suppliers, customers, communities, etc.), and ensuring compliance with all applicable regulations.
- CREATING VALUE. Our goal is to provide shareholders with consistent returns in line with their investment. Accordingly, the Company must conduct itself so as to provide timely information to the market, thus allowing shareholders to make decisions with the appropriate tools, without favoring certain groups or investors.
- COMMUNICATION. Our investors are informed quarterly on our performance in board meetings, shareholder reports, and shareholder meetings, and annually through our Annual Sustainability Report available at <a href="https://www.salmonescamanchaca.cu/en/inversionistas/">www.salmonescamanchaca.cu/en/inversionistas/</a>



## Materiality Analysis

For our 2018 report we have reviewed our evaluation of material topics based on a systematic analysis of the priorities of our stakeholders, the impacts of our operations, and global trends in sustainability reports. The purpose of our materiality analysis is to identify and prioritize topics that (i) have a social, economic, or environmental impact on our value chain, (ii) are relevant to our stakeholders, and (iii) have any strategic relevance to our business. The method that we have used for our 2018 materiality evaluation is as follows:





## 1) Identification and prioritization of our stakeholders

The identification of our stakeholders is done through a systematic evaluation and review of our communities and relevant national and international actors.

A) COMMUNITIES: Our social responsibility program "Camanchaca Amiga" is our main tool for identifying stakeholders in our local communities. This is our community relations program, which maintains direct relationships with the local communities in the regions in which we operate (Tarapacá, Copiapó, Bíobío, y Los Lagos) through a series of activities, from open community meetings to local fairs and school activities (for more information see Chapter 04, Our Communities).

B) NATIONAL AND INTERNATIONAL ACTORS: Relevant actors, both national and international, are identified through a systematic analysis of reports and relevant international media. Our main national and international actors include NGOs, governmental agencies and regulators, and national and international investors.

## 2) Identification of material topics

The identification of material topics was accomplished through a review of the aspects mentioned in previous meetings with local communities and through a systematic analysis of relevant international reports and media (for example, GlobeScan). Additionally, we established a benchmark among local and international salmon farming companies and examined companies that are considered to be world leaders in sustainability. This allowed us to obtain a broader view of the social and environmental aspects that drive discussions about sustainability, through which companies decide to act on a local and global scale.

## 3) Prioritization of the material topics

Material topics were designated by the importance they had for the interested parties and their business value. For each material topic, scores were given by interested parties and their sustainability teams. These scores were based on previous data analysis and reports from interested local and international parties on a scale from 1 to 3 (low, moderate, or high importance). The scores on the impact of each material topic were assigned on a scale from 1 to 10 in a workshop with company executives.

As a result of this analysis, the following material topics have been considered in the development of this report:

OUR BUSINESS	OUR PEOPLE	OUR COMMUNITIES	CARING FOR THE ENVIRONMENT	OUR SALMON	OUR FUTURE
Financial Health	7 Human Rights	Community Relations and Local Development	Regulatory Compliance	<b>22</b> Fish Health and Welfare	28 Innovation
<b>Q</b> Global Salmon Market	B Labor and Union Relations		Biodiversity Conservation	Use of Antibiotics	Research and Development
Communications and Transparency	9 Organizational Climate		Fish Escapes	Use of Antiparasitics	
4 Supplier Policy	Job Creation		18 Waste Management	Efficient Use of Natural Resources	
Corporate Governance and Ethics	Training and Development		Use of Antifouling Agents	Quality and Safety of Our Product	
6 Supply Chain	12 Health and Safety		Water Resource Management	27 Satisfaction of Our Clients	
	Gender Equity		Energy Sources and Greenhouse Gas Emissions		



## Sustainable Development Goals

On September 25th 2015, world leaders adopted a set of global goals that aim to eradicate poverty, protect the planet, and ensure that all people enjoy peace and prosperity as a part of the new sustainable development agenda.

At Salmones Camanchaca we understand that the private sector must make a concrete contribution to sustainable development and that is why we have adopted this agenda as a part of our business strategy. By using this agenda as a guide, we are able to identify our social, economic, and environmental impacts that add value to society and as a result strengthen our reputation and relationships with various stakeholders. Salmones Camanchaca contributes to eight of the United Nations Sustainable Development Goals (2, 3, 4, 8, 9, 12, 14 y 17).

Throughout this report, the relevant Sustainable Development Goals will be reflected in each chapter.





**CHAPTER 02** 

## Our Business

It is no longer enough to simply run a first-rate business; we must also be capable of demonstrating our commitment to producing world-class salmon in a responsible and sustainable way. This means committing to raising our standards and meeting the needs of a new consumer.

It is for that reason that our goal is to be a key player in the industry, demonstrating leadership through our quality aquaculture practices, which we have been developing since 1987, as well as through our continued concern for the communities and environments in which we operate, which guarantees that we will continue to lead in increasingly demanding future scenarios.

### SUSTAINABLE DEVELOPMENT GOALS THAT WE CONTRIBUTE IN THIS CHAPTER



## **2.1** By 2030, put an end to hunger and ensure that all people have access

to a healthy diet

8 DECENT WORK AND ECONOMIC GROWTH

### 8.7

Take measures to eradicate forced and child labor

### 8.8

Protect labor rights and promote safe and secure working environment for all workers



### 9.2

Promote inclusive industrialization and, by 2030, raise industry's share of employment and GDP



### 1719

By 2030, build on existing initiatives to develop measurements of progress on sustainable development

31

## Financial Health

One of our main objectives is to provide shareholders with consistent returns in line with their investment, creating value that sustainable over the long-term.

In order to meet these expectations, we focus on developing an excellent product, responding to the changing needs of our customers, adapting to new situations, and outlining actions for specific challenges.

We provide timely information to the market, allowing shareholders to make decisions with relevant and up to date information. This financial information always shows the financial reality of the Company and is based on an efficient, transparent, and consistent accounting system, in accordance with existing laws and standards. We develop strategies and actions that ensure the long-term sustainability and profitability of the Company, while also creating value for shareholders and balancing the interests of all identified groups. In 2018, Salmones Camanchaca harvested 48,496 tons WFE of Atlantic salmon, an increase of 41.7% compared to 34,213 tons WFE in 2017, meeting the estimated harvest from the beginning of the period.

The average price for Atlantic salmon in 2018 was US\$ 6.12/Kg WFE, 2.7% lower than in 2017. In 2018, revenue reached US\$ 332.3 million, 63.6% higher than US\$ 203.1 million from 2017. This increase is explained by a 66.5% growth in the volume of our company-farmed Atlantic salmon sold.

In 2018, the price of company-farmed Atlantic salmon sold by Salmones Camanchaca decreased by US\$ 0.17. In that context, the EBIT/Kg WFE was US\$ 1.38, higher than US\$ 1.19 in 2017, which is explained by improvements in cost and larger production scales that offset the price reduction.

Earnings before taxes reached US\$ 59.9 million in 2018, an increase of 39.5% compared to US\$ 42.9 million in 2017. Likewise, net profits after taxes reached US\$ 44 million in 2018, an increase of 38.8% compared to US\$ 31.7 million in 2017. Meanwhile, distributable net income reached US\$ 47.5 million. Subject to the approval of the Ordinary Shareholders Meeting to be held on April 26th, 2019, the dividend payable, taking into account 30% profit distribution, will amount to US\$ 14.3 million, equivalent to US\$ 0.22 per action.

US\$ (thousands)	4Q 2018	4Q 2017	Δ%	2018	2017	Δ%
Revenue	95.698	78.250	22,3%	332.301	203.070	63,6%
Gross profit before fair value adjustments	30.057	18.217	65,0%	92.737	58.211	59,3%
EBITDA before fair value	27.480	15.795	74,0%	83.354	52.474	58,8%
EBIT before fair value	24.508	13.196	85,7%	72.085	41.794	72,5%
EBIT Margin %	25,6%	16,9%	51,9%	21,7%	20,6%	5,4%
Fair Value	-6.690	-2.699	-	-4.825	5.301	-
Profit (lost) during period	10.398	4.854	114,2%	44.017	31.721	38,8%
Earnings per share (US\$)*	0,1575	-	-	0,6669	-	-
Harvests (ton WFE)	13.944	16.284	-14,4%	48.496	34.213	41,7%
Harvests (ton GWE)	12.550	14.656	-14,4%	43.646	30.792	41,7%
Sales (ton WFE salmon company-farmed)	15.730	13.469	16,8%	50.032	30.049	66,5%
Sales (ton GWE salmon company-farmed)	14.157	12.122	16,8%	45.029	27.044	66,5%
Ex-cage cost (US\$/Kg live weight)	2,83	2,94	-3,6%	3,06	3,03	0,9%
Ex-cage cost (US\$/Kg WFE)	3,05	3,16	-3,6%	3,29	3,26	0,9%
Ex-cage cost (US\$/Kg GWE)	3,38	3,51	-3,6%	3,65	3,62	0,9%
Processing cost (US\$/Kg WFE)	0,80	0,84	-4,8%	0,89	1,02	-12,7%
Processing cost (US\$/Kg GWE)	0,89	0,93	-4,8%	0,99	1,13	-12,7%
Price (US\$/Kg WFE)**	5,90	5,68	3,8%	6,12	6,29	-2,7%
Price (US\$/Kg GWE)**	6,56	6,31	3,8%	6,80	6,99	-2,7%
EBIT/Kg WFE (US\$)***	1,58	0,99	59,6%	1,38	1,19	16,3%
EBIT/Kg GWE (US\$)***	1,75	1,10	59,6%	1,53	1,32	16,3%
Financial Debt				50.243	100.439	-50,0%
Net Financial Debt				37.100	99.593	-62,7%
Equity Ratio				54%	36%	52,0%

<sup>\*</sup> After Fair Value, distributed in 66,000,000 shares after the 1Q 2018 IPO
\*\* Corresponds to billing in US\$ divided by tons sold, excluding transactions with third-party raw materials
\*\*\* Excludes results from joint accounts with trout business and transactions with third-party raw materials

## Global Salmon Market

The growth of the global supply of Atlantic salmon was close to 5% in 2018, with a slightly lower growth expected in 2019, consistent with the current regulatory market of producing countries.

The growth of the Chilean supply in 2018 was close to 20% and for 2019 is estimated to be between 1% and 2%. The growth in 2018 is the result of an abnormally low base in 2017, rather than the country's potential expansions.

## **Projections**

A significant part of the flow produced by the 2018 EBITDA was invested in biomass growth and used in fixed assets. This translates to harvest estimates in the coming years, with around 55 thousand tons WFE of Atlantic salmon and 4 thousand tons WFE of Coho salmon expected in 2019.

To see the harvest totals in Salmones Camanchaca farm sites, the corresponding trout harvest must be added. Between 6 and 8 thousand tons WFE are estimated in 2019, an odd year.

Thus, harvest volumes for all species are estimated at 65 thousand tons WFE for 2019, while salar and coho harvest volumes for 2020 are estimated at 55 thousand tons WFE and 4 thousand tons WFE, respectively.

The increase in Atlantic salmon harvests for 2019, compared its 2017 equivalent, is estimated at about 21 thousand tons WFE. Of this estimation, 4,300 tons correspond to growth under the low-density (reduced) regimen, while the rest of the growth falls under the PRS regimen without density restriction, achieved through both the use of breeding rights originating from sites leased to third parties and from joint-venture partnerships. As a result, somewhat higher cultivation costs would be expected due to density conditions and, although to a lesser extent, the use of higher-cost nonpharmacological antiparasitic treatments, as well as the use of new technologies designed to mitigate the risks of harmful algae blooms.

Regarding expected 2019 and 2020 coho salmon harvests, these have been bred under a low-density regime, so higher than usual costs are also expected.

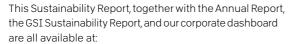


## **Communication and Transparency**

In 2015, we published our first corporate sustainability report as well as our first GSI report, following our goal to improve the transparency of the industry.

This document is the fifth Annual Sustainability Report, which covers 2018 performance in the financial, environmental, and social matters identified as material by the Company. We publish each report annually on our website and it is disseminated among our various stakeholders.

In 2018, Salmones Camanchaca reported six essential facts to the Commission for the Financial Market, the details of which are available in the Company's Annual Report.



www.salmonescamanchaca.cl/en/sustentabilidad/salmones/







## Supplier Policies

Following our corporate mission to promote the economic, social, and environmental progress of the country, we believe that the development of a small and mid-sized businesses is one of the key components in the development of the country, as well as one of the main sources of employment.

In this regard, suppliers have become part of our corporate priorities, as they are a fundamental part of our supply chain.

One of our main commitments to our suppliers is timely payment for their services and products in accordance with agreed upon payment conditions. This is why we renewed our commitment to all of our small and mid-sized suppliers in 2018, maintaining our Pro Pyme Seal certification, a distinction verified by KPMG and granted by the Ministry of Economy.

In 2018, Salmones Camanchaca had commercial relationships with 1,342 suppliers of goods and/or services, with a billing total of US\$ 294.3 million, up 39.9% from 2017. This is consistent with the increase in Company activity in 2018, when it increased its harvests to 48,500 tons WFE from 34,200 in 2017.

The 10 largest suppliers accounted for 48.6% of expenses, invoicing US\$142.9 million. The leading two suppliers, which are feed companies, together billed US\$ 87.5 million and accounted for 29.7% of the total. Our main supplier was Biomar Chile S.A. with US\$ 58.9 million in billing and 20.0% of total billing received.

All of our suppliers must comply with Law 20.393 on Criminal Liability of Legal Entities.

## The most significant concepts were:



38% 6% Construction



**12%**Inputs



9% Processing



6%
Medication and
Laboratory
Services



21% Operational Services and Inputs



8% Transportation and Logistics

### Corporate Governance and Ethics

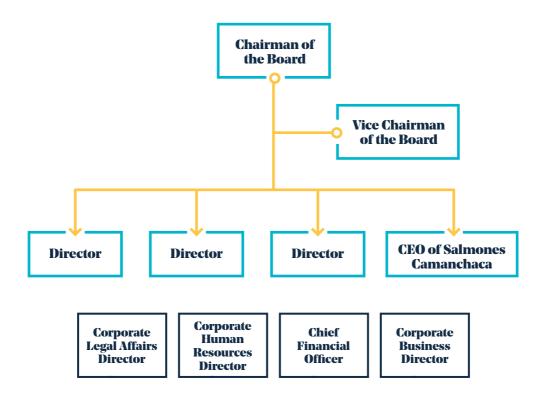
As a public company traded on both the Santiago and Oslo stock exchanges, we are committed to making continuous improvements in our processes, structures, and mechanisms of control to promote best practices in accountability and financial performance.

The main corporate governance body of the Company is a Board of Directors with five members that serve two-year terms and can be re-elected. The Board holds shareholders' meetings, which include an annual general meeting held during the first quarter of the year and can also include extraordinary meetings that can be held at any time deemed necessary.

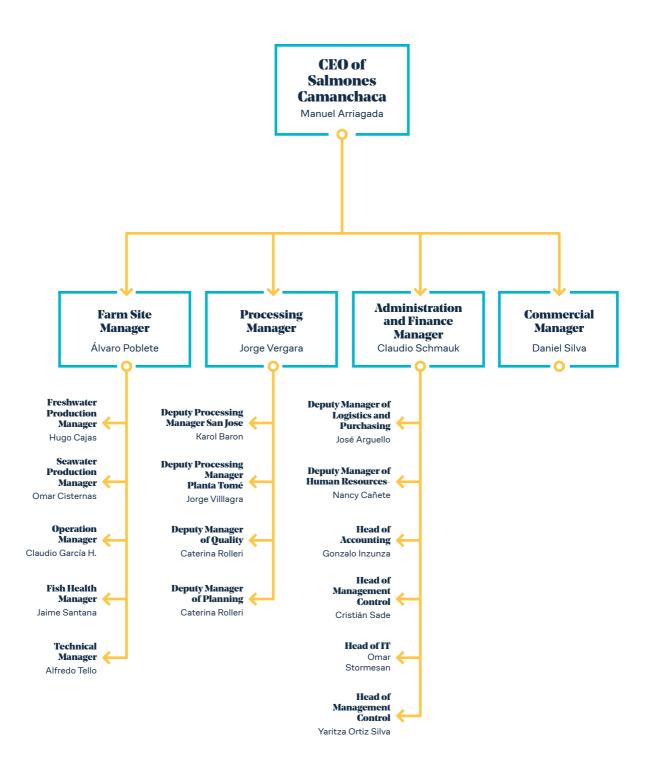
The Board of Directors of the Company has a Corporate Governance Handbook, which is available for download at <a href="https://www.salmonescamanchaca.cl/en/">www.salmonescamanchaca.cl/en/</a>. A mechanism has been approved by the Board to address compensation, termination benefits, and incentive packages for key executives.

The Board elects a Chairman and Vice-Chairman. It meets monthly with the Company's Chief Executive Officer to review business strategy and performance in corporate sustainability matters.

The Company has an External and Official Auditor in charge of the Crime Prevention Model that report directly to the Board.



The organizational and corporate structure, as well as any significant changes that may have occurred during the reporting period can be found in the 2018 Annual Report published on our website: www.salmonescamanchaca.cl/en/



### Anti-Corruption Policies

Corruption, abuse of power, and bad corporate practices have devastating effects on institutions and economies. That is why we have established an Ethics and Conduct Policy and Crime Prevention Model, maintained adequate communication within company structures, and formalized related procedures. These tools are constantly reviewed by the Board to ensure effective compliance.



### Ethics and Conduct Policies

Ethical behavior by all employees in the everyday performance of their professional duties is a key component of the Company's culture and values.

This behavior is particularly important and should always strictly comply with standards, regulations, and laws. Employees must show respect for the dignity of others and the communities in which they work as well as care for the environment.

In order to define these behavior guidelines, the Company has a Code of Corporate Conduct and Ethics applicable to all persons within the Company that is available on its website:

www.salmonescamanchaca.cl/en/inversionistas/

#### Crime Prevention Model

As a subsidiary of Compañía Pesquera Camanchaca, Salmones Camanchaca's Crime Prevention Model (CPM) was recertified in November 2017.

View our CPM and Certification at: <a href="https://www.salmonescamanchaca.cl/en/inversionistas/">www.salmonescamanchaca.cl/en/inversionistas/</a> In 2018 we did not receive any complaints for non-compliance with the Crime Prevention Model that the Company maintains.



# **Supply Chain**

The salmon production cycle lasts around three years, from spawning by breeders to harvest and sale. In that cycle, our salmon traverse three regions in Chile in search of optimum conditions so that the farmed production process mirrors their natural development as closely as 4 Distribution possible, beginning with the first stage and logistics in freshwater and then moving to the pristine waters of the Company's sea farm sites located in the Los Lagos and Aysén regions. Eggs and smolt production 3 Added-value processing **5** Customers Sea grow-out site

#### Río del Este Hatchery – Breeders

(12 months)

As part of the Genetic Enhancement Program in Polcura, breeders are obtained and then transported by land to the Río del Este hatchery in the town of Ralún, Los Lagos Region. Here, at the mouth of the Petrohué River, we obtain male and female gametes that are then used in the fertilization process. The eggs then undergo a selection process in order to identify those that meet the highest quality standards. Once they reach their last state ("eyed eggs"), the eggs are moved 28 km northeast to our Río Petrohué recirculating hatchery to continue the process.

#### Río Petrohué Hatchery

(4 months)

This hatchery was one of the first in the world to use a recirculating system for farming Atlantic salmon. One of the main benefits of this type of system is significant water savings (compared to other types, such as open-flow hatcheries). It also allows for good control of all environmental variables such as oxygen, temperature, pH, etc.

Recirculating systems reduce the risk of fish escapes and interaction with wildlife and allow for strict traceability.

Río Petrohué supplies its tanks using water from deep wells (very pristine and temperature-constant), which is optimal for this type of farming. Petrohué receives eyed eggs from Río del Este and keeps them under ideal temperature conditions. After approximately 30 days of incubation, the fry hatch (are born). At this stage, a fry weighs between 0.2 and 0.3 gr. After being intensely fed for a period of three to four months, they reach a weight of 5-7 gr. and are then moved to larger freshwater units for their final growth phase.

#### **Smolt Production Unit (SPU)**

(4 months)

The last stage of production in fresh water takes place in the Smolt Production Unit (SPU). The SPU tanks are adapted to farm larger fish and optimize control of the most critical process that fish undergo in fresh water, which is the acclimation to the major change of environment from fresh water to sea water. This period lasts between three to four months, at which point the fish weigh around 120 gr.

#### Rio de la Plata Hatchery

This is an open-flow hatchery located in Hueyusca, district of Purranque. This hatchery produces fry that will undergo smoltification in our lake site, Playa Maqui, located on Lake Llanguihue.

#### Playa Maqui - Frutillar

In addition to the Smolt Production Unit, the Company has a smoltification farm site in Llanquihue Lake (Los Bajos sector, district of Frutillar). This site has produced coho salmon since the end of 2018. 87% of this facility's staff are local residents.

#### **Grow-Out Sites**

(15 - 18 months)

Once the smolt are ready to continue growing, they are moved using ground and sea transport from the town of Ensenada, district of Puerto Varas, to the various grow-out sites in the Los Lagos and Aysén regions.

For salmon, the grow-out stage sees better results in cold water, making southern Chile the ideal place to complete the growing process.

During the grow-out process, seawater teams use an automatic feeding system that today can even be activated remotely when weather does not permit them to enter the site. Other technology has been added to monitor feed consumption, extract mortalities, and wash nets on site (only for nets without antifouling paint), all of which makes our teams more efficient.

When the fish have reached the right size, they are transferred in wellboats to the primary processing plant in Calbuco.

#### San José Primary Processing Plant, Calbuco

Los Lagos Region

Quihua Island, district of Calbuco, is home to our primary processing plant and temporary fish storage facilities, which are capable of processing 80 thousand salmon per day. The processing plant is responsible for harvesting seawater production in the Los Lagos region.

It has sufficient capacity to also provide harvesting services for other companies in the region and can export fresh chilled head-on salmon directly to countries like Argentina, Brazil and China.

#### Surproceso S.A. Quellón Primary Plant

Fish from seawater sites in the Aysén Region are harvested in Quellón at the Surproceso plant, which has a processing capacity of 115,000 fish per day. Salmones Camanchaca owns one third of this company and also has a holding site adjacent to the facilities. This has allowed the Company to optimize its work in San José while providing harvest services to other companies in Calbuco.

#### **Tomé Secondary Plant**

All products that require added-value processing are transported in closed containers to the district of Tomé, Biobío Region, ensuring cold chain preservation. This beach town is home to a plant that can process 250 tons of salmon per day, including stages such as filleting, deboning, portioning, freezing, and vacuum sealing. Given the plant's proximity to Chile's capital city, fresh-chilled products can be exported from the Tomé Plant to the United States.

#### Polcura Hatchery - Genetic Enhancement Program (GEP) (3-4 years)

The process begins at the Polcura Hatchery, Biobío Region, near Laguna del Laja National Park and the river of the same name. At these facilities, the Company's Research and Development and Freshwater divisions have jointly developed the Genetic Enhancement Program (GEP) for salmon over the last 17 years.

The GEP is one of Salmones Camanchaca's greatest strengths, allowing the Company to control production variables by studying the genetic component of populations from their outset in order to ensure optimal yields throughout the production cycle.

Some of the activities that are carried out as part of the GEP in Polcura for genetic selection purposes include:

- 1. Selection of fish with high genetic values for resistance (population/family genetic value)
- 2. Yearly production of breeders for 100% of Company's egg production
- 3. Challenge testing to evaluate resistance to disease
- 4. Challenge testing to evaluate the effects of coinfection versus single infection
- 5. Challenge testing to evaluate the effect of vaccinations on fish selection
- 6. Start of genomic selection for SRS resistance (QTL marker)



CHAPTER 03

## Our People

#### SUSTAINABLE DEVELOPMENT GOALS THAT WE CONTRIBUTE IN THIS CHAPTER



#### 8.3

Promote development-oriented policies that support job creation and entrepreneurship

#### 8.5

By 2030, achieve full and productive employment and decent work for all, including equal pay for work of equal value



#### 9.2

Promote inclusive industrialization and, by 2030, raise industry's share of employment and GDP

## Human Rights

As established by the Universal Declaration of Human Rights, the recognition and inherent dignity of the equal and inalienable rights of all members of the human family is the foundation of freedom, justice, and peace in the world. At Salmones Camanchaca we are aware of the impacts, direct and indirect, that our actions, operations, and investments can have on human rights, and we ensure that these are respected fully in every decision we make.

At Salmones Camanchaca, one of our objectives is to promote dignity, respect, diversity, and non-dis-

crimination in safe working environments based on people's own merits. We respect human rights and commit to ensuring that there is no discrimination nor forced or child labor in any forms within our business.

The Company maintains reporting channels in all of its facilities, through mail, email, or our website: www.salmonescamanchaca.cl/en/contacto/

In 2018 we did not receive any complaints on discrimination, forced or child labor, nor any other type of human rights violation.

# Labor and Union Relations

We foster constructive and respectful relationships with the unions that exist in our Company and seek to develop greater sustainability throughout Camanchaca's business. These unions must have space to participate as they require, through a framework of mutual respect and commitment to the activities and objectives of our company. These unions represent the interests and concer-

ns of Camanchaca employees, which are met by pursuing the growth and development of union members as well as the Company itself. All of this is governed by current legal framework.

In 2018, 35.97% of our employees were covered under collective bargaining agreements, forming part of one of the three union groups.

# **Organizational Climate**

For Salmones Camanchaca, it is essential to build a satisfying work environment where our people are motivated and committed to their performance. Therefore, Salmones Camanchaca has been conducting an Employee Satisfaction Survey for several years.

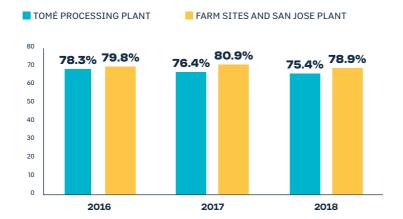
The survey is conducted annually through the digital HR platform HCMFront, using a Likert scale to assess the degree of satisfaction among our employees with respect to a variety of topics considered relevant for our company's climate.

The survey consists of 78 questions that evaluate dimensions such as: Sense of Belonging, Autonomy, Recognition, Creativity and Innovation, Cohesion and Teamwork, Challenge and Organization of Work, Leadership, Communication, Security, and Health.

Evaluating the satisfaction of our employees in each of these dimensions gives us the concrete information needed to develop programs that allow us to continue to improve the well-being of our employees.

#### **Employee Satisfaction Survey**

(% of satisfaction)



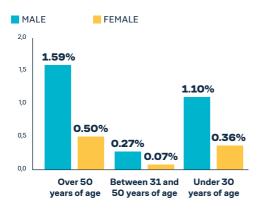
## Job Creation

One of the main challenges that companies face is the search, identification, and retention of the best talent. This is extremely challenging due to global competition, especially as organizations grow increasingly aware that shaping their labor force with the best talents is the main guarantee of success.

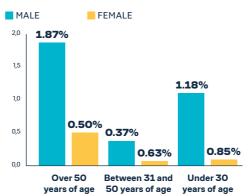
At Salmones Camanchaca we are constantly focused on attracting and retaining talent, supporting professional development, and ensuring the health and safety of our employees. These themes are the priorities of our human resources management. Our people are one of our main management focuses and serve as strategic allies in obtaining successful business results and opportunities for improvement. They allow us to be a sustainable and efficient company by reaching high levels of productivity and challenge us to open new development opportunities for our employees, with the aim to ensure the inclusion of all stakeholders and meet new norms and standards.

In 2018, our staff grew to 1,349 members, including farm sites in the Los Lagos, Aysen, and Biobio regions as well as the plant in the Biobio region.

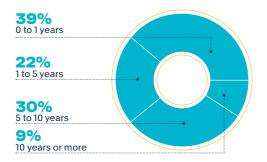
#### Hiring 2018

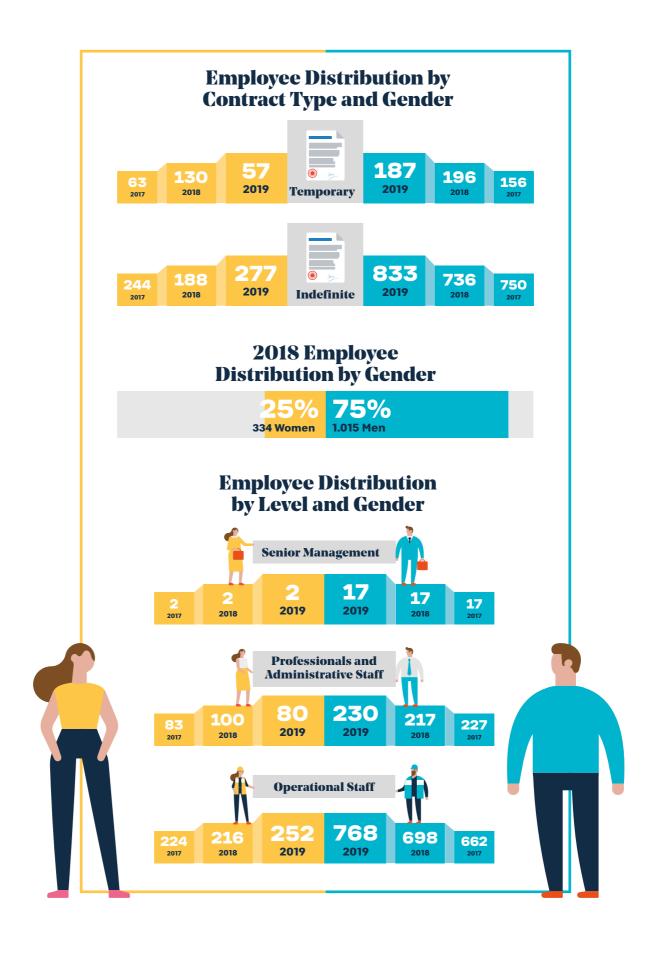


#### **Turnover 2018**



#### **Years of Service at Salmones Camanchaca**





# Training and Development

Salmones Camanchaca considers professional development to be a fundamental tool for retaining talent. We believe that our employees have countless skills and competencies that provide considerable value to the Company. Each year,

training programs on regulatory, technical, and soft skills topics are designed and implemented. These aim to mold well-rounded professionals who focus on continuous improvement and are efficient and empowered in their positions.

# 943 employees were trained in 2018. The following section presents detailed information on our training efforts:

Amount of hours invested in training Tomé
11,670
HOURS

Farm sites
11,599
HOURS

Total
23,269

% MEN TRAINED	% WOMEN TRAINED	% EXECUTIVES TRAINED	% ADMINISTRATIVE STAFF TRAINED	% OPERATIONAL STAFF TRAINED
22.4%	9.7%	0.4%	15.9%	15.7%
56.2%	11.8%	4.6%	54.2%	9.1%
78.6%	21.4%	5.0%	70.2%	24.8%

## Training and **Development Activities**

Through our challenge to be a great company to work for and to understand the importance of furthering the development and growth of our employees, professional development activities are carried out annually in different sectors.

- COMPETENCY TRAINING AND LEADERSHIP
   DEVELOPMENT PROGRAM: Supervisors from
   the Tomé Plant completed a two-year program
   during which they strengthened the technical
   and leadership skills needed to best perform
   their jobs...
- CORPORATE LEADERSHIP PROGRAMS FOR PROFESSIONALS AND SUPERVISORS: As a company we propose that managers, supervisors, and assistants can all be staunch representatives of Camanchaca's Leadership profile. For this reason we have developed a series of yearly modules focused on boosting empowerment, self-awareness, and the interpersonal skills of all professionals with this role.
- REFRESHER COURSE FOR SEAWATER SITE
   ASSISTANTS: In order to increase knowledge
   and share best practices, a 24-training was
   conducted during which the Company's his tory, processes, and projects were thoroughly
   reviewed. Additionally, speakers from important
   partnership companies were invited to pre sent on aquaculture in the year 2030, coming
   challenges and how to confront them, as well
   as how to exercise intersecting skills such as
   leadership, communication, and teamwork.
- GROUP COACHING SESSIONS FOR DEPART-MENT HEADS AND PROFESSIONALS: These initiatives seek to foster a culture of leading management professionals, focusing not only on profitable objectives but also on organizational and sustainability objectives in order to achieve excellent results, as well as develop intersectional skills in the various roles they fulfill.
- FOUNDATION STUDIES: Once again through the Foundation Studies Program, Salmones Camanchaca Tomé has assisted 12 employees with the opportunity to complete their secondary education.



#### Performance Evaluation

At Salmones Camanchaca we use 2 assessment systems: Results-based performance management and competency-based performance management. Through these, we define goals and skills to strengthen and refine throughout the year, together with progress feedback and closing procedures. This annual development process includes 100% participation of directors, supervisors, and administrative staff, while operational staff have an evaluation system that is directly related to their performance and tied to their compensation.



# Health and Safety

Ensuring the care and integrity of people is a key component of the Occupational Health and Safety area, which mainly focuses its work on the improvement of working conditions, the protection of occupational health among workers, and the constant strengthening of safety culture.

In 2018, there was a slight increase in our lost time injury rate, however, there was also a significant decrease in the absence rate, a goal achieved by strengthening our efforts on this front. Our goals will always be focused on continuous improvement, so we are always looking for new ways to raise our occupational health and safety standards in order to minimize workplace accidents and ensure the safety and integrity of our people.

#### **Health and Safety Indicators**

Year	No. of Accidents	No. of Days Lost	Lost Time Injury Rate	Absence Rate	Fatal Accidents
2016	14	651	4.7	0.20%	0
2017	26	651	8.94	0.20%	0
2018	34	402	10.45	0.12%	1

#### Main OHS management strategies in 2018:

- By maintaining direct contact with each person and the tasks they perform and increasing the number of workplace visits, we have been able to review unsafe on-site behaviors. We then work with site managers to define and implement preventative and corrective measures to minimize the occurrence of workplace accidents.
- Furthermore, we have implemented a robust campaign to encourage the reporting of incidents in sites so that we can act before an event occurs.
- Permanently applied checklists that help us to detect substandard conditions on time
- We improved the completion and compliance control of field reports

- Operationally, we have reviewed the Risk Matrices with all parties, allowing us to detect residual risks in the process. This has allowed us to improve and sharpen our identification of hazards and better assess risks through the experience of our employees.
- With regards to training, we continue to reinforce self-care and prevention-based culture, which, considering that 90% of accidents occur mainly due to unsafe behavior, is why we resumed the BAPP Behavioral Program with the ACHS.



CHAPTER 04

## Our Communities

Society demands that companies have a social purpose. To prosper over time, each company must not only offer quality financial performance, but also demonstrate how it contributes positively to society. Companies must be beneficial to all, including shareholders, employees, customers, and the communities in which they operate.

#### SUSTAINABLE DEVELOPMENT GOALS THAT WE CONTRIBUTE IN THIS CHAPTER



#### 3.4

By 2030 reduce by one third premature mortality from non-communicable diseases through prevention and promotion of mental health and well-being



#### 4.7

By 2030 ensure that all learners acquire knowledge and skills needed to promote sustainable development



#### 12 8

By 2030 ensure that people everywhere have the relevant information and awareness for sustainable development

## Community Relationship and Local Development

Social accountability has reached the point where it is no longer simply a competitive advantage, but a requirement to maintain relevance. Here at Salmones Camanchaca, we see this as a guiding principle that is deeply rooted in our corporate strategy.

We know that in order to achieve our full potential, we must maintain a healthy and open relationship with the communities in which we operate.

Our community commitment takes shape through the social responsibility program "Camanchaca Amiga," which has been consolidated in the different territories where we have operated since 2012. This program has been recognized by public and private institutions for its constant collaboration and reliability within various fields.

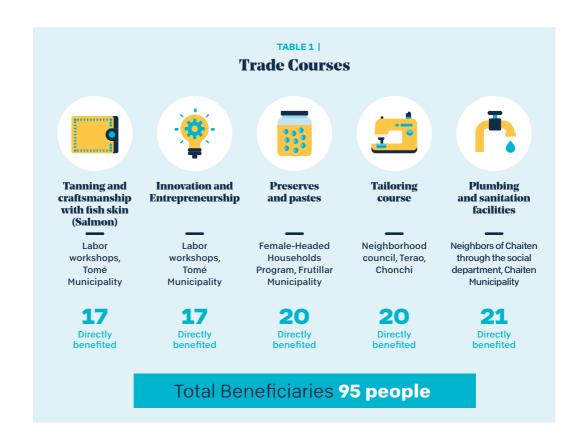
We developed this program with the conviction that the development of production activities is only possible through constant dialogue with our neighbors, which is achieved by respecting the interests and concerns of various stakeholders and maintaining constant harmony with the environment.

This program aims to be a contribution to local development across 3 regions by implementing projects and programs that have been born from trustworthy relationships, respect, and persistent collaborative work within different communities over 6 years and under the pillars of action that have accompanied us from the beginning:

#### 1. Community Outreach Pillar

We seek to create a space for dialogue, where all of our operations can be transparently discussed. In communities where the dialogue has an exceptional track record, the gatherings aim to promote projects for the benefit and development of the local communities. It is in this respect, for example, that the Environmental Monitoring project is created (Table 3).

One activity with a positive impact every year is the Trade Courses program (Table 1), which offers extra working tools to residents of various communities. In 2018, 5 certifications were completed.



#### 2. Caring for the Environment Pillar

A highlight of this pillar is our annual participation in International Coastal Cleanup Day, organized by the General Management of the Maritime and Merchant Marine Territory (Directemar). In 2018 we sponsored the gathering of around a thousand people in the communities surrounding our facilities, who managed to collect 15 m<sup>3</sup> of waste from the coastlines of Tomé, Ensenada, Llanquihue Lake, Quihua Island, Melinka, and Contao. This activity is distinguished by the participation of educational establishments, local authorities, and public institutions, which marks it as transversal accomplishment within the various districts.

The Sustainable Schools program was continued, which supports the Environmental Certification for Educational Establishments (SNCAE) from the Ministry of Environment. Two more establishments in the district of Chaiten were added in 2017, and the major achievement of 2018 was the execution of the Ministry of Environment's "Forjadores Ambientales" program in 3 establishments.

TABLE 2 | **Sustainable Schools** 



munity to participate in are planned based on these SNCAF requirements. In this way. we have developed activities such as:

Annual activities for the entire school com-

- → Educational field trips on the recognition of local flora and fauna
- Paper and cardboard recycling
- → Planting of native trees and beautification of establishments
- → Construction of greenhouses
- > Formation of environmental organizations through "Forjadores Ambientales"
- > Eco Art Contest (made with reused materials)
- And more

under its "Camanchaca Amiga" Caring for the Environment pillar since 2017.

Sustainable Schools works to support the environmental education of neighboring schools through formal education and by supporting the attainment of the National Certification System for Educational Establishments (SNCAE) from the Ministry of Environment.

In March of 2018, a ceremony was held to deliver the certification banner to the Los Camanchaca has included this program Lagos Region establishments that took part in this program in 2017. The following levels of certification were obtained from the work performed:

- → Mauricio Hitchcock School in Contao, district of Hualaihué - Excellent level
- Epson Rural School in Ensenada, district of Puerto Varas - Basic Level
- → San José Rural School, district of Calbuco - Basic Level

An accomplishment to be highlighted from the Caring for the Environment pillar is the signing of the Clean Point partnership agreement with the Puerto Montt Families Foundation.

### **Clean Point Agreement With The Puerto Montt Families Foundation**

The main objective of the agreement is to support the use of only Clean Point in the district and thereby support its permanence.

In 2018, this supported the removal of more than 6 tons of waste, which became raw material that was returned to the cycle without generating additional waste



#### 3. Healthy Living Pillar

For the fourth consecutive year, the Live Cooking event (Table 5) was held on Bellavista Beach, district of Tomé, which invites the entire community and visitors to try Camanchaca products and learn to prepare them in different ways. In 2018, nearly 2,500 people participated in activities such as cultural fairs and school health fairs, which were held by neighborhood organizations.

The Camanchaca School Cup was held in Tomé with 24 educational establishments from the district and more than 450 children participating. This initiative forms part of the Sports Programs that are carried out for the benefit of this community throughout the year (Table 4).

#### TABLE 4

#### **Sports Programs**

Camanchaca School Cup 2018, for a healthier and more active life.

Camanchaca School Futsal Cup, September 5th and 6th, 2018, Tomé Schools.

More than 450 children from 24 establishments in the city of Tomé participated, divided into 24 male teams and 13 female teams. Children were born between 2005 and 2007 and from the areas of:

Punta de parra, Dichato, Cocholgue, Tomé, Rafael, Coliumo, San Carlitos, Menque, Bellavista, Tomé Alto, Millahue, California.

#### **Tomé District Surf Classes**

Summer school opens with surf lessons for 180 children, including girls from the districts of Tomé and Dichato, as well as 20 boys from the Esperanza Foundation.

#### TABLE 5

#### Live Cooking, Tomé

Fourth Version of "Live Cooking" Salmones Camanchaca.

Nearly 2,500 people participated in the fourth version of "Live Cooking" on Saturday, February 17th, 2018 at Tomé's Bellavista Beach. The aim was to promote healthy diets among community members through entertaining activities. Chef Miguel "El Serrucho" Valenzuela delighted the public with a Salmon and Mackerel-based tasting presentation.

"Live Cooking" is part of the "Camanchaca Amiga" Program, which aims to deepen and strengthen the Company's relationship with its workers and neighboring communities. Below we present a summary of indicators, projects, and programs executed in 2018:



Scope of our activities 2018



#### Perception Study

In 2018 we conducted a Perception Study in the town of Contao to evaluate the opinions held by authorities, the media, and social organizations on Salmones Camanchaca. This study allowed us to compare present community perceptions to a study carried out in 2014 and helps guide our work in the territory, prioritizing issues that are most relevant to our stakeholders.



#### Results of the Perception Study in the Contao area



The creation of local employment is still considered to be a significant contribution for the community.



The negative perceptions associated with bad environmental behavior has diminished but has not disappeared.



The relationship with the community has been strengthened but the management of some problems and the delivering of support is still slow.



The contribution that Camanchaca makes has a short range and the expectations of the community do not match with what the Company has given. The usufruct that the Company has within the territory is greater than what it gives back to the community.

The "Camanchaca Amiga" Program has achieved greater recognition in the territory. Both the community and authorities are open to receiving more technical information regarding the Company's operation and community activities.

## Relationships with indigenous communities

Today, business management is defined by two major forces: the economic perspective in a highly competitive context and a greater social pressure that requires the private sector to play a more active role in sustainable development.

For this reason, it is essential to create a setting that allows us to better address the demands of the various social groups that we have relationships with, as well as increase our awareness of the impact we have on the communities where we are immersed.

In this way, our relationships with groups that have not typically been considered key players, such as indigenous communities, have become centerpieces in our business management.

Our objective is to collaborate with local and indigenous communities, and, keeping with their ancestral values, to safeguard and care for the environment and native animal and plant species (customary use).

Since 2014, Salmones Camanchaca has built relationships based on mutual respect with the indigenous communities where we operate. These efforts have given rise to round table discussions which seek to promote mutually beneficial actions and projects.

The Planning Table for Territorial Sustainability for the Coast of Hualaihué, established in 2015, brings together several local actors and users of the municipal coastline to discuss local development, the environment, and tourism, among other matters. In 2006, the Association of Indigenous Communi-

ties of Hualaihué began the Coastal Marine Spaces for Native Peoples (ECMPO) civil process, which is rooted in the Lafkenche Act. Salmones Camanchaca has actively participated in the ECMPO request process. One of the first achievements resulting from this process occurred in 2018, when the Regional Commission on the Use of Shorelines (CRUBC) approved the association's ECMPO request.

This is in addition to the relationship building we have done since 2017 with the indigenous communities Aduen of El Dao and Daniel Cheuquemán of Isla Marimeli, which filed the the Isla Quihua and Isla Marimeli ECMPO requests, respectively. In 2018, we took part in various working meetings with both communities, seeking to create open dialogue regarding the interests surrounding coastline usage and future development prospects for both the Isla Quihua coastline (district of Calbuco) and the Reloncaví Estuary (district of Cochamó).

Similarly, Salmones Camanchaca also began a relationship with the Pu Wapi Indigenous Community of Aysén Region in 2018, expressing support for the ECMPO requests of this community.

In all of these instances, we have served as facilitators and coordinators to ensure the timely delivery of information regarding the company's and/or the industry's intended coastline usage. This has allowed us to achieve greater harmony with the indigenous communities in the territories in which we operate.

In 2018, we have not received any reports on the violation of the rights of indigenous communities in the areas where we operate.



**CHAPTER 05** 

# Caring for the Environment

The responsibility to advance towards a sustainable society must be shared by different sectors of society; businesses are fundamental to this transition since they must comply with state regulations, take responsibility for their impacts, and create value for society.

This is why at Salmones Camanchaca we have decided to be proactive in caring for the environment through the application of this commitment and the incorporation of sustainability criteria throughout the entire salmon production cycle, from production planning to the distribution of our products.

Due to the nature of our operations, communities in the Biobío, Los Lagos, and Aysén regions are inevitably affected by our activity. Therefore, the Company's primary strategic focus is the control and mitigation of impacts associated with biodiversity, emissions, waste, and the efficient management of natural resources such as water and energy. In addition to committing to comply with all applicable regulations, we voluntarily meet certifications such as ASC and BAP.

#### SUSTAINABLE DEVELOPMENT GOALS THAT WE CONTRIBUTE IN THIS CHAPTER



By 2030, substantially reduce waste generation through prevention, reduction, recycling, and reuse



Encourage the adoption of sustainable practices and sustainability reporting



Prevent and significantly reduce marine pollution of all kinds by 2025

67

## Regulatory Compliance

Regulatory compliance is considered the basis of our operation and of the productive and environmental strategies devised by the Company. Our Company operates under legal framework established by various Chilean regulatory entities such as the National Fisheries Service, the Department of Labor, and the Superintendences of Health and Environment. All of our facilities are frequently inspected by these authorities to verify compliance with established guidelines.

In order to exceed these guidelines with the aim of controlling and minimizing violations of legal standards, an indicator of the number of fines paid during 2018 has been established. The total of US\$ 128,285.80 corresponded to one environmental fine and two labor fines.



We are continuously supervised by Sernapesca to ensure compliance with current regulations. In case of non-compliance, we at Salmones Camanchaca have adopted the necessary measures to correct the violations in the shortest time frame possible and we continually administer tools for improvement to avoid recurrence.

Furthermore, we voluntarily certify our processes and products with international standards such as Best Aquaculture Practices (BAP) and Aquaculture Stewardship Council (ASC), which address environmental, social, and regulatory issues.

At Salmones Camanchaca, our strategy involves the certification of 100% of our production under

the BAP standard. Currently, all of our grow-out sites, Hatchery Petrohué, and our Tomé processing plant are certified under this standard. Additionally, we are progressing towards increasing the quantity of grow-out sites holding ASC certification. This number increased to 4 in 2018, and we expect to double it in 2020.

Additionally, we maintain a record on the percentage of biomass harvested and voluntarily certified under standards such as BAP and ASC. 100% of biomass harvested is BAP certified, and in 2018 the percentage of ASC certified biomass grew to 29%. This was 18% more than the previous year, or an increase of more than 10,000 tons in comparison with 2017.

	BA	<b>NP</b>	ASC		
Year	Harvested Biomass WFE (Ton)	% of Certified Biomass	Harvested Biomass WFE (Ton)	% of Certified Biomass	
2016	32,644	98%	3,841	12%	
2017	34,213	100%	3,820	11%	
2018	48,496	100%	14,304	29%	

# **Biodiversity Conservation**

Biodiversity conservation is essential in maintaining the integrity of the ecosystem services provided to humanity. Among these are water purification, the pollination of wild and crop plants, the renewal of the air we breathe, and the maintenance of fisheries.

Salmon production depends on each of these services, and it is a concern of our Company to make good use of them, bearing in mind that our productive activity has the potential to directly or indirectly impact their integrity in the areas in which we operate.

#### Number of Employees Trained in Wildlife





Salmones Camanchaca, like our stakeholders, pays close attention to factors that can cause unwanted effects on biodiversity. These include fish escapes, impacts on the marine environment, interactions with wildlife, careless use of resources (raw materials used to manufacture fish feed), failing to protect the genetic integrity of wild populations, and its possible impacts on critical habitats or on habitats of high conservation value.

Regarding the latter, none of our facilities are located in protected areas or in areas of high conservation value. However, we are located near some national parks such as Vicente Pérez Rosales National Park, LLanquihue National Reserve, Las Guaitecas National Reserve, and Pumalín Park.

For this reason, and because world-class salmon must grow in a pristine and pollution-free environment, we are committed to minimizing environmental pollution and to protecting wildlife in the locations where our company's supply chain operates. This is achieved through ensuring the excellence of our operations, the efficient use of natural resources such as water, energy, and feed delivered to our fish, and strict management of all our waste.

In addition to all of this, all company personnel are trained to understand our possible effects on flora and fauna and to learn about the species that inhabit the places where we operate. In this regard, a series of trainings on waste management and interaction with wildlife are conducted for freshwater and seawater personnel.

We are constantly working to ensure that all our company personnel are trained in the aforementioned issues, in addition to ensuring compliance with legal regulations and avoiding impacts on any protected area.

In order to carefully monitor interactions with wildlife and episodes of mortality, a record is kept on the number of animals that are killed each year. In 2018, there has been no evidence of the deaths of any mammals or birds at the sites.



## Fish Escapes

This topic is of utmost importance to the Company because of its impact on local biodiversity, which affects both wild fauna and the communities that depend on these species.

The prevention and control of fish escapes is one of the industry's most important tasks. Since there is not enough scientific knowledge on the high level of impact that salmon as an introduced species could have on the local fauna, the Company has established plans for the control and prevention of fish escapes.

The control of fish escapes prevents interactions between non-native and native species at the sites where operations are conducted. In order to avoid an escape event, we implemented a fish containment plan in 2013 focused on the prevention of such events.

This plan examines possible risks of the farm site, and these risk assessments include a classification based on oceanographic conditions using methods proposed by strict international standards,

such as NS9415. Periodic inspections are also carried out through an ROV (Remotely Operated Vehicle) that certifies that both surface-level and underwater structures, such as modules and anchoring lines, are kept in proper condition.

The status of our facilities is checked by trained personnel in charge of managing the sites. Moreover, the Company also focuses its efforts on preparing farm site personnel ahead of possible escapes so that they can be familiar with the fastest and most efficient containment methods and be prepared to act if necessary. All grow-out site staff must have training in both fish escape contingency plans and the containment or prevention of escapes.

Aquaculture companies are required to report the occurrence of fish escape events to the National Fisheries Service and to activate fish escape contingency protocols. To monitor these episodes, we maintain a record of the number of escapes occurring and the quantity of escaped fish. In 2018 we have not had any escapes from our farm sites.



## Waste Management

8 million tons of plastic end up in the world's oceans each year. For this reason, waste management is a primary focus for Salmones Camanchaca. This is why the Company has committed, through its implementation of a waste management policy initiated over 8 years ago, to produce responsibly and to properly manage the waste that it generates.

To comply with this policy, Salmones Camanchaca has service contracts with companies specialized in treating the waste generated through our activities. These companies recycle waste such as paper and cardboard, different types of plastic, Styrofoam and iron, along with any recyclable materials from the farm sites located between the Biobío and Aysén regions, as well as from processing plants and administrative offices in Puerto Montt.

Other materials must be disposed of in landfills and are managed by companies that have all necessary authorizations to properly treat them or dispose of them in places with the appropriate permits.

Since 2018, our farm sites and administrative offices in Puerto Montt have been working with recycling companies in the Los Lagos Region, such as: Greenspot (Plastic and Styrofoam), Recollect (plastic, Styrofoam, and ropes), and Recimar (plastic and cardboard).

The same year, we began recycling initiatives in freshwater and seawater sites, such as the installation of lecterns to facilitate the collection of plastic within freshwater sites and the initiative to separate and store disposable plastic water bottles. This was first implemented on a pilot basis in four seawater sites, and in the year 2019, it is expected that every Salmones Camanchaca farm site will recycle these products. Additionally, we will conduct training sessions with external staff from a company specializing in recycling in order to encourage and further equip personnel.

Furthermore, we have begun to disclose waste movements according to the categorization developed by Intesal from SalmonChile; this will allow us to quantify the types of waste we are producing.

The Company, as part of its commitment to sustainable salmon farming, has proposed training the majority of farm site employees in order to support them in the separation of waste and the provision of information to the Intesal platform, since this is a tool to control and improve our current waste management strategy.

In 2018, 990 personnel were trained in different types of waste management, including staff from the freshwater and seawater divisions, the San José plant, and administrative personnel.



In 2018 in the Tomé processing plant, training on waste separation and management has been reinforced to both company employees and contractors. Thanks to this, we were able to train 802 people in total, including internal staff and contractors. This is equivalent to over 100 hours of training.

	Contractors	Processing Plant Employees	TOTAL
Personnel Trained	304	498	802
Training Sessions	60	64	124
Hours of Training	60	48	108

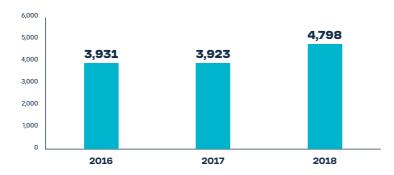
In order to create a registry of the waste generated by the Company and real progress regarding a solid waste recycling strategy, we established indicators of solid waste generation, recycling percentage, and intensity (kg waste/ton WFE).

To gain a better visualization of indicators and to establish a reference regarding recycled waste, a separation between solid waste and organic waste was established.

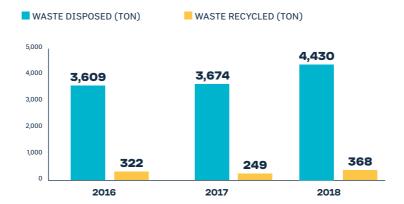
The data on solid waste management is shown below:

#### **Waste Generated**





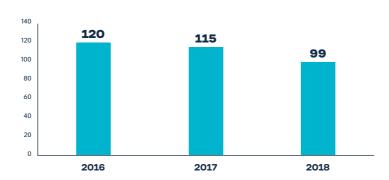
### **Disposal and Recycling** (Tons)



#### **Waste Generated**

(Intesity)

KG OF WASTE / TON WFE



After analyzing results from the past three years in all our production units—including hatcheries, farm sites, and production plants—4,798 tons of waste were generated in 2018, which is equivalent to an increase of 18.2% when compared to 2017. This increase is explained by the 29% increase in biomass produced, an increase in the number of plants, and an increase in working personnel.

This is reflected in the waste intensity indicator; in 2018 intensity decreased by 14% compared to 2017. This signifies that 2018 saw greater efficiency in waste management, as a smaller amount of waste was generated per ton of fish produced.

Moreover, the recycling indicator indicates an increase in the percentage of waste recycled annually, as it increased from 6% in 2017 to 8% in 2018. This demonstrates an increase of 119 tons recycled compared to 2017, due to better management of recycling techniques and an increased ecological awareness from the personnel.

#### **Nutrient Recovery**

Throughout the most recent years, we can see that new production systems are changing the current economic model to a circular economic model, which aims to promote sustainable economic growth. One of the pillars of this model is the reuse of materials that, until now, were discarded. These materials are now reintroduced in the production system as raw materials or valuable resources.

The recovery of nutrients and organic matter in secondary raw materials with added value transforms a waste management problem into an economic opportunity and reduces the vulnerability of the sector.

One of the biggest sources of waste in our operation is the organic waste generated in our facilities, such as farm site mortalities, in addition to viscera, trimmings, and bones from our processing plants in Tomé and San José.

Proper management of these organic wastes is vital in minimizing the damage to the environment, which could otherwise cause inconvenience to the native population through its smell or the presence of pests that could generate its inadequate management.

At Salmones Camanchaca, we have managed to recover organic waste and sell it to reduction plants which transform it into other usable products, such as fishmeal and fish oil. This means that in 2018 all of these wastes offered value rather than being sent to landfills.

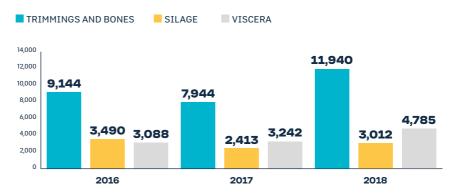
Meanwhile, 100% of the organic sludge generated in our hatcheries in Petrohué River, Pocura River, East River, and Silver River are treated by vermiculture for later use as humus in facility gardens.

This way, these wastes are reintroduced to the system, contributing to a more circular business model and requiring that only a smaller percentage is disposed of in authorized landfills.



In order to monitor the amount of organic wastes generated by the Company and the differentiation of these, we have an indicator of nutrient recovery, which indicates tons generated annually from the previous three years.

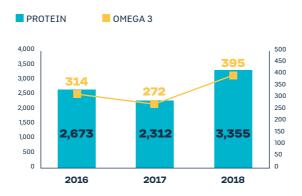
#### **Nutrient Recovery (Tons)**



We can observe an increase in the three types of waste compared to 2017, in trimmings and bones, silage, and viscera, at 33%, 20%, and 32%, respectively. This is due to the increase in biomass produced in 2018, which was 29% higher than in the previous year.

Of the nutrients recovered in our operations, we can consider some to be more significant in terms of their importance for human consumption, such as protein and omega 3 fatty acids. Consequently, we have calculated their volumes based on the total organic waste recovered from our operation as an indicator of our activity.

#### **Nutrient Recovery** (Tons)



# **Use of Antifouling Paint**

One of the strategies in maintaining excellent animal welfare conditions is the use of clean nets that offer good oxygenation, and another measure that has been established is the use of nets with antifouling paint. The latter is a residue of importance due to its adding of copper to the environment and the water column as net workshops wash and repair these nets.

The use of this paint is necessary to avoid seaweed and shellfish adhesion, which can increase the weight of the net and cause stability problems in the modules and reduce the exchange of fresh water. However, if it is not managed properly and due to the presence of biocides, this paint is capable of disturbing benthic invertebrates and the spawning of native species.

The management of the use of antifouling paint is vital for the protection of marine ecosystems, since its excessive use can cause problems in native fauna and contaminate nearby water sources that are used for consumption.

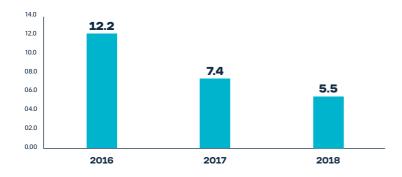
In accordance with this and our sustainable production strategy, we only use antifouling paint in predator nets, which are not washed on site, and are instead sent to net workshops that have all legal authorizations needed for their operations.

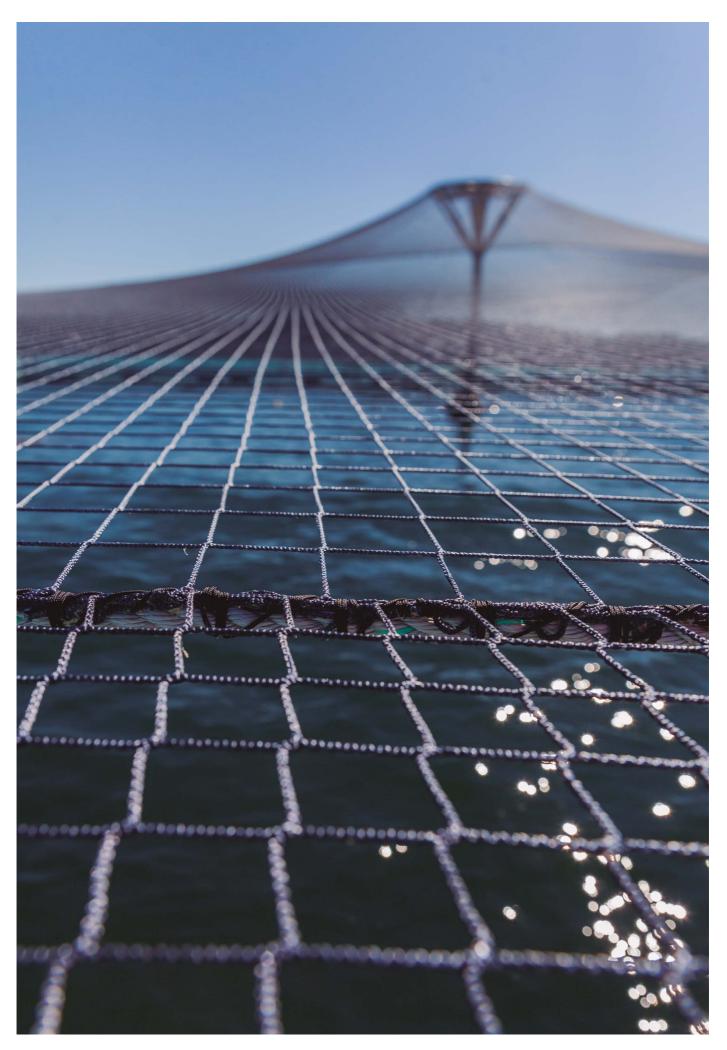
The use of antifouling paint is regulated through the refinement of the spare parts from treated nets in the sites and treated nets are replaced with on-site cleaning of untreated nets.

In order to maintain control over the use of antifouling paint, we built a usage indicator, measured in liters per ton produced. In 2018, there has been a decrease of 2% in the use of antifouling paints compared to 2017, or a 26% decrease overall. This was mainly due to higher annual production and to the strategy implemented by the Company, which since 2013 has maintained a permanent decline in the use of this product.

#### Use of anti-fouling paint

(It/ton LWE)





## **Water Resources** Management

Water use is an issue of global concern because it is a scarce resource in certain areas of the planet. The rise of global temperatures combined with human factors have caused a decrease in the volume of this resource available for use, both in consumption and production.

Because our process is vertically integrated from egg to fish harvest, our area of influence is composed of rivers in the foothills of the Andes, lakes, estuaries, fjords, and channels that closely impact the ocean.

In this way, protecting water quality is one of the most important points that we take into account when designing Company sustainability strategies, which when added with the maintenance of high water quality, generates strong sanitary Water quality control helps us to measure nutrient concentrations found in the water column and determine if these cause any serious problems to the environment, in which case it would be necessary to intervene in the Company's activities to reduce nutrient concentrations released.

Water quality management is carried out according to the process where it is used. We provide details about this on the following pages:



#### **Hatcheries:**

Reproduction stages take place at our hatcheries, culminating with smoltification in the lakes and estuaries of the Andean foothills. Our main strategy is to comply with national environmental regulations, however, over the last 4 years we have pushed ourselves to obtain voluntary certifications, which establish stricter environmental criteria than national regulations. Following this, we have established bases for the development of sustainability strategies in the sites, with the goal of improving our practices and processes.

#### Río Petrohué



Boasts the chain of custody certification. To ensure the fulfillment of this standard, an environmental monitoring program of our effluents has been implemented.



Also has this certification, together with the Tomé processing plant and grow-out sites, receiving a 4-star rating for the final product. For compliance with this standard, fish farming must include strict monitoring of effluents, proper community practices, and animal welfare, among others.

#### Playa Maqui



Smolt production in the lake is certified to assure clients that they have been raised under strict environmental standards with periodic water quality monitoring.

#### Río del Este



The production of eggs is certified under this standard in order to ensure that the processes involved in this process are carried out under strict environmental monitoring.

#### **Grow-out site**

At our grow-out sites, which are located in estuaries, fjords, bays, and canals throughout the Los Lagos and Aysén regions, we have developed and implemented systems that monitor the biological and physical oceanographic variables that are most relevant to farming fish. These initiatives include programs for monitoring internal and external phytoplankton, monitoring of nutrient contribution, and systems for real-time oxygen and temperature logs.

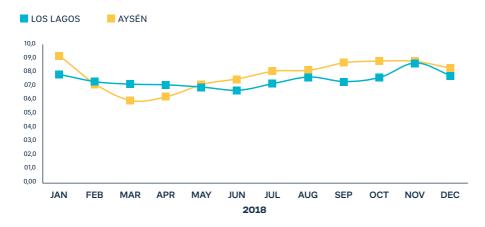
That has enabled us to react with contingency plans in a timely manner when we have suffered adverse environmental conditions, such as harmful algae blooms and low oxygen levels. In addition to allowing us to estimate the oscillation patterns in variables analyzed, we can prepare ourselves with adequate equipment for the contingencies that can be presented.

To fulfill our commitment to the management of water quality and sustainability of the industry, we chose to certify the centers with the following internationally accepted certifications as a guide to best aquaculture practices and implement them in all Company farm sites.

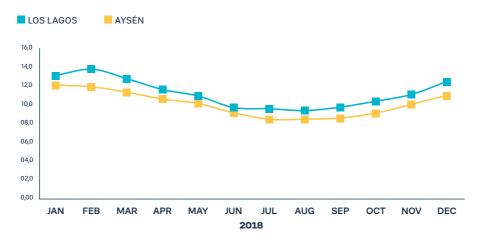
- Aquaculture Stewardship Council (ASC): In 2018, 4 of our sites have this standard, and we hope to certify the majority by 2020. To accomplish this, we have to periodically monitor the level of nutrients in the water column and its influence on the sites' environment.
- Best Aquaculture Practices (BAP): With a commitment to comply with environmental standards and establish continual improvement programs, we have decided to certify 100% of our grow-out sites with the requirements of this standard, including permanent monitoring of water quality at each site and the contribution of nutrients to the environment.

Next, the monthly averages of the measurements of dissolved oxygen and temperature, completed in our grow-sites in 2018 for the Los Lagos and Aysén regions, are taken by automated teams that generate online information for all our facilities. These parameters are very important for proper productive, sanitary, and environmental management. They are also daily measures of oxygen saturation, salinity, and water transparency.

#### Dissolved Oxygen (Mg/It)



#### Water Temperature (Degrees C)



Furthermore, although there are no standards in Chile to evaluate water quality, Salmones Camanchaca has performed periodic monitoring of nutrients since 2015.

To do so, the water column is sampled and analyzed by accredited laboratories, who compare a sample from the farm site to a reference point of a minimum distance of 500 meters.

The parameters analyzed in the water column are, Total Nitrogen, Ammonium (NH4), Nitrate (NO3), Total phosphorus and Orthophosphate. This information is very useful in ensuring that the nutrient contributions of our facilities are within the carrying capacity of the mass of water.

In 2018, we monitored the nutrient contributions to the environment in 8 of our operating neighborhoods for a total of 14 centers analyzed, located in areas of the Los Lagos and Aysén regions.

According to this information, it can be concluded that the direct supply of nutrients to the environment did not significantly affect the contents of the body of water. In most months, water samples were similar to the results of the control stations at a reference site located 500 meters away from the edge of the site.

#### **Efficient Use of Water**

Water is the cradle of any aquaculture operation, and it is also one of the major global concerns due to the decrease in freshwater sources and constant droughts in many places of the world. In this way, the efficient management of its use is one of the main commitments of the Company. The main sources of freshwater used in our processing plants are surface waters (rivers and watersheds) and well water. In the case of our hatcheries, we use water from the river and deep wells. By adopting measures to optimize the resource, cubic meters of water have been minimized used per ton produced. This is key to maintaining a competitive position in the future.

In order to maintain a greater control of water use at Salmones Camanchaca, we have been quantifying freshwater volumes used in our San José and Tomé processing plants since 2016, and in 2017 we incor-

porated the measurement of water volume used by our hatcheries. Our goal is to decrease the amount of water used per ton of salmon produced in order to ensure the sustainability of our business.

In our operations, we maintain a record of the water used in both hatcheries and processing plants. In 2018, we started operating Rio de la Plata again, which had remained inactive in 2017—despite this, the total cubic meters used of freshwater decreased by 8% between 2017 and 2018. Meanwhile, in the processing plants, San José increased its use of water due to an increase in production. The Tomé processing plant, despite increasing its consumption by 24%, decreased the use per ton produced by more than one percentage point compared to 2017. This can be explained by increased efficiency in the management of plant processes.

Processing Plants (m³)	2016	2017	2018
San José	42,474	43,562	134,018
Tomé	278,840	287,885	377,908
Total Jan - Dec	321,314	331,447	511,926

Processing Plants (m³/Ton WFE)	2016	2017	2018
San José	1.0	1.3	2.3
Tomé	10.0	10.4	9.0

Hatchery (m³)	2017	2018
Polcura	19,261,093	15,254,490
Río del Este	5,811,860	5,454,734
Petrohué	1,231,966	2,483,857
Rio de la Plata		1,027,838
Total Ene-Dic	26,304,919	24,220,920

# **Energy Sources and Greenhouse emissions**

(by GreenTicket)

The global population needs quality foods that do not compromise the ability of future generations to produce their own food. Seafoods have a low environmental impact compared to food produced on land. Although 70% of our planet is covered by oceans, only 2% of food consumed comes from the sea. In that context, the salmon industry has an important role to play in making the seafood diet more sustainable.

Salmon production is the most efficient source of protein when compared to other sources of protein. However, all food production carries an environmental impact that varies from product to product and between countries, regions, and companies. The consumption of energy in production activities releases greenhouse gases (GHG) into the atmosphere, leaving a carbon footprint that is expressed in tons of equivalent carbon dioxide (TCO<sub>2</sub>-e). Efforts

to measure and reduce atmospheric emissions within the salmon industry have the potential to strengthen the sustainability of the sector.

Following these goals, Salmones Camanchaca measured the carbon footprint of activities in the Freshwater, Grow-out, Plant, and Office areas for the second consecutive year. Through monitoring its annual footprint, Salmones Camanchaca monitors its performance while increasing its standards of transparency and commitment to the improvement of environmental indicators.

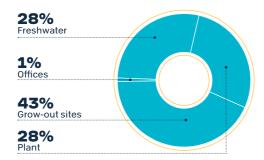
The calculation of the emissions was done through the application of various emissions factors, the consumption of different fuels, electricity, and waste generation. These emission sources are described in the following table according the scope included in the analysis.

AREA	SCOPE	EMISSION SOURCE	DESCRIPTION	DETAILS
Freshwater Grow-out Plant Offices	Scope 1	Direct	Fuels and Refrigerant gases	Direct emissions produced by burning fuel at facilities, the use of refrigerant gases in equipment owned by the Company in the Plant Area, and fuel consumption of Company vehicles
Freshwater Grow-out Plant Offices	Scope 2	Indirect	Electricity	Indirect emissions from the burning fossil fuels by power generation companies.
Freshwater Grow-out Plant	Scope 3	Indirect	Waste	Indirect emissions produced by waste collection, transportation, and decomposition in landfills.

#### **GLOBAL RESULTS AND ANALYSIS**

For 2018, Salmones Camanchaca reported total GHG emissions of 30,904,748 tCO $_2$ -e. Growout sites represent most of the emissions, at 43%. Freshwater facilities and Plant units share an equal contribution of the GHG inventory, each accounting for 28% of the total. Due to the nature of its activities, administrative offices only account for 1% of the total GHG.

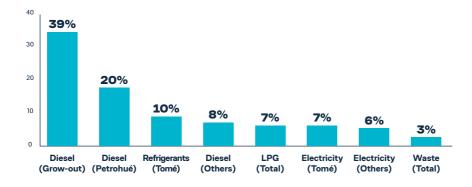
#### **Emissions per area**



AREA	Emisiones GEI (tCO <sub>2</sub> -e)
Freshwater	8,624.35
Grow-out sites	13,118.05
Plant	8,747.27
Offices	415.07
Total	30,904.74

#### **Total GHG Emissions**

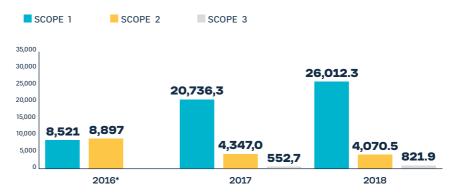
According to main contributing sources of all scopes.



The main emissions correspond to the total consumption of fuels and refrigerant gases of the Company in all its areas, equivalent to 84% of total emissions; the burning of fuels contributes a 74% of the emissions, while the remaining 10% corresponds to the consumption of refrigerant gases.

The following graph compares the results obtained in relation to the emissions of previous years:

#### Emissions by Scope (t $\mathrm{CO_2}\text{-}\mathrm{e})$



While the intensity of our emissions analyzed in the last 3 years is presented in the following graphic:

#### **Emission intensity** (t $\mathrm{CO_2}$ -e / Ton harvested WFE)



\* In 2016, the calculation of Scope 3 was not carried out, which corresponds to the waste emissions



#### WHEN MAKING A COMPARISON WITH THE PREVIOUS YEAR:

In 2018, the Company's total emissions were 21% higher than 2017. While in 2018 the total GHG inventory reached 30,904.74 tCO $_{2}$ e, in 2017 that total represented 25,636.06 tCO $_{2}$ -e.

This variation is due almost exclusively due to increases in three sources of Scope 1:

- In 2018, diesel consumption for logistics in grow-out sites increased by around 140%, from 1,095,379 liters in 2017 to 2,606,253 liters in 2018.
- In 2018, diesel consumption in Freshwater Petrohué increased by 13%, which led to an increase in emissions of 752 tCO<sub>2</sub>-e.
- The use of R-22 refrigerant gas at Tomé Plant increased by 31% in 2018, increasing emissions by 740 tC=,-e.

However, the electricity consumption of the Tomé Plant network was reduced by 46% in 2018, from 9,508,685 kWh in 2017 to 5,102,673 kWh in 2018. This decrease is partly due to the installation of LED lights in plant facilities, which produced an emissions savings of approximately 1,000 tCO $_{_7}$ e.

It is important to note that although the net emissions in tons of CO<sub>2</sub> increased in 2018, their intensity decreased in comparison with 2017, demonstrating a decrease in the consumption per ton of biomass harvested, and meaning that a lower amount of CO<sub>2</sub> emissions of per ton of harvested salmon was released.

Salmones Camanchaca has made a commitment to reducing its GHG emissions and will announce specific GHG reduction goals in 2019.



**CHAPTER 06** 

# Our Salmon

At Salmones Camanchaca we are proud to produce exceptional salmon that are raised in the planet's purest water, Chilean Patagonia. Our salmon are a source of healthy and sustainable protein, which contributes not only to the health of our millions of consumers but also to the minimization of global protein production's environmental footprint.

At the center of our production strategy is the health and welfare of our fish, the efficient use of natural resources, the quality, safety, and security of our product as well as the responsible use of veterinary medicines.

### SUSTAINABLE DEVELOPMENT GOALS THAT WE CONTRIBUTE IN THIS CHAPTER



2.1

By 2030, put an end to hunger and ensure that all people have access to a healthy diet

2.4

By 2030, ensure sustainable food production systems



3.4

By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and promotion of mental health and well-being

# Fish Health and Welfare

Animal health and welfare is a crucial element of any responsible and sustainable animal production system. Animal welfare is regulated internationally by the OIE (World Organization for Animal Health) and is a part of all international certifications of good practices in aquaculture.

Fish health and welfare is a matter of priority for us. That is why the monitoring of environmental variables in the water column, implementation of biosecurity measures, vaccination of 100% of our fish, use of functional feeding with specific diets for each production phase, and constant health checks of the fish are all integral parts of the Company's production and sanitation strategy.

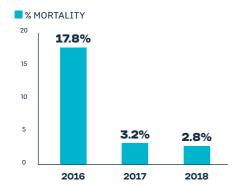
As part of our commitment to provide our fish with the best farming and sanitary conditions, we use the latest pharmaceutical disease prevention tools available and we employ a dedicated team of veterinary doctors who are specialized in salmon and focused on the early detection of conditions that could affect the health and welfare of our fish. In 2018, we at Salmones Camanchaca decided to vaccinate 100% of our fish with Pharmaq's new Alpha Ject Live SRS vaccine. This is the latest technological development in preventing infection with Salmon Rickettsial Syndrome, the main infectious disease affecting farmed salmon in Chile. Through this decision, we hope to reduce the use of antibiotics and the impact of the disease on the health and welfare of our fish.

Similarly in 2018, we also increased the number of sites treated with Lufenuron—a new antiparasitic manufactured by Elanco—which is delivered to the fish prior to their transfer to the sea and has been shown to significantly reduce the sea lice infection Caligus rogercresseyi. This has allowed us to reduce the amount of treatments in the sea, decrease fish handling, and decrease total use of antiparasitic treatments.



#### 12-Months Rolling Mortality

(Total)



#### 12-Months Rolling Mortality

(Infectious causes)



Transport Mortality

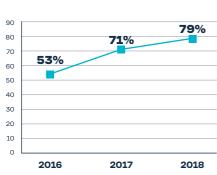


**Mechanical Damage Mortality** (Total)

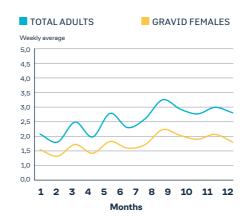


#### Percentage of Living Biomass Vaccinated with LiVac





#### Sea Lice Carriers





# Use of Antibiotics

The use of antibiotics in animal production is an issue of global concern due to its potential implications in the development of antibiotic resistance, particularly in those of value to human medicine. In animal production, the responsible and supervised use of antibiotics is essential to ensure the health and well-being of subjects when prevention methods are insufficient.

At Salmones Camanchaca, antibiotics are used exclusively when there is a clinical diagnosis from a veterinarian and an associated prescription.

The use of antibiotics in our Company—and in the salmon industry in general—is almost exclusively needed to treat Piscirickettsia salmonis infections, the cause of the syndrome known as SRS.

Salmones Camanchaca only uses antibiotics that are nationally and internationally approved for use in fish and does not use those listed as highly critical for human health by the World Health Organization (WHO).

#### **Consumption of Antibiotics**

#### GR API/TON BIOMASS 55.284 600 60.000 48.205 500 50,000 40.000 400 300 30.000 580 490 451 100 10.000 2016 2017 2018

## **Number of Treatments per Site** (Closed cycle)



Our short-term goal is to significantly reduce the use of antibiotics in relation to our production level. In order to accomplish this we have implemented the following strategy:



TIMELY DIAGNOSIS AND
TREATMENT OF PISCIRICKETTSIA
SALMONIS INFECTION



100% VACCINATION OF OUR FISH WITH THE PHARMAQ'S ALPHA JECT LIVAC VACCINE



PERFORM AN ANALYSIS OF THE EVALUATION, REGISTRATION, AND EFFECTIVENESS OF ALL ANTIBIOTIC TREATMENTS PERFORMED



USE OF FUNCTIONAL AND
HIGH-ENERGY DIETS IN ORDER
TO SHORTEN PRODUCTION CYCLES
AND LOWER THE RISK OF
INFECTION

# Use of Antiparasitic Treatments

The responsible use of antiparasitic treatments to control sea lice (Caligus rogercresseyi) is extremely important in maintaining the therapies' effectiveness over time and for the minimization of the use of chemicals in the sea. Sea lice is the main health challenge of salmon farming around the world, and requires responsible and coordinated efforts among production companies, pharmaceutical companies, and the authorities in order to achieve the most effective and efficient use.

The use of antiparasitic treatments at Salmones Camanchaca is regulated by our veterinarians, who determine which product to apply along with the required dosage. They are also responsible for monitoring the amount of antiparasitic treatment within the fish population until it has been completely removed before the pre-harvest process. All antiparasitic agents used are approved for use in fish and are authorized by the destination markets of our fish.

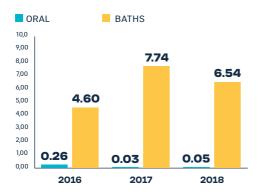
A central part of our sea lice infection management is the coordination of antiparasitic treatments

between different companies and sites within an operating area. This is achieved through active participation in the Caligus Program, which is managed for the industry by the consulting firm AquaBench. The objective of the program is to encourage collaboration and continuous improvement of health practices to control sea lice.

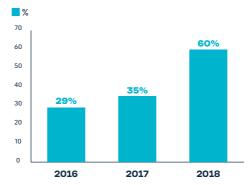
In 2018, we made the decision to increase the number of farm sites treated with Lufenuron, the latest pharmaceutical development in preventing the Caligus rogercresseyi infestation. Lufenuron is an antiparasitic treatment delivered to fish orally during the freshwater stage; this offers them protection for 6 to 8 months once they arrive to the sea. This strategy, combined with the use of functional and high-growth diets, will allow us to reduce the risk window and, consequently, the use of antiparasitic treatments in the sea.

Additionally, Salmones Camanchaca has led efforts to introduce technologies that allow the control of Caligus without drugs. The first tests with these technologies should be performed during Q4 of 2019.

## Use of oral antiparasitic treatments and bath treatments (Gr/ton)



### Percentage of sites treated with Lufenuron



## Efficient Use of Natural Resources

By 2050, it is estimated that the world's population will reach 9 billion people and that the use of natural resources will double. This represents an extraordinary challenge for humanity and is the responsibility of all institutions, industries, and people committed to sustainable development and the future of humanity. As net producers of protein, we have a duty to efficiently use the natural resources that we use as inputs in our production process.

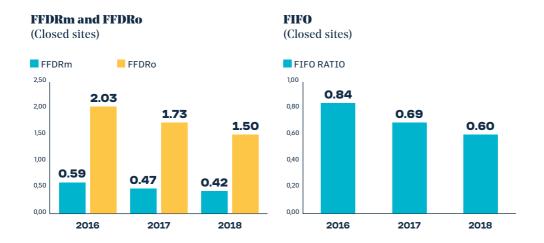
Our main production input is the feed used to raise our fish, so our diligence and proactivity in using the most efficient and sustainable diets have a significant impact on our operation's footprint.

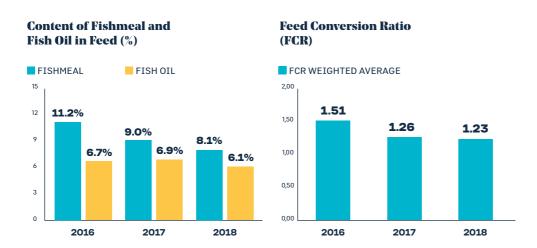
At Salmones Camanchaca, we use a biennial bidding process to assign the feed that will be delivered to our fish. Among the considerations required of our suppliers are the traceability of their raw materials, the expected efficiency in the growth and conversion of feed, the expansion of research and development regarding new diets, and the possession of international certifications in good practices and environmental management.

100% of fishmeal and fish oil used in our diets is sourced from fish feed plants certified as complying with sustainability standards such as Global GAP, BAP, IFFO, and MSC. This guarantees that the raw materials used—both marine and terrestrial—originate from authorized sources and fisheries not listed on the International Union for Conservation of Nature (IUCN) red list.

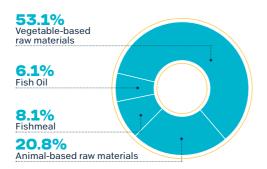
At every Salmones Camanchaca farm site, feed is delivered under the strict supervision and control of professionals trained in the use of underwater cameras that monitor the feed delivery rate and the fish feed rate, which allows us to deliver the correct amount of feed and significantly minimize losses. Potential losses caused by mechanical fractures of the feed pellets are also monitored during this stage.

For us, it is an ongoing objective and challenge to improve the efficiency of our diets, as well as the efficiency of the transformation of feed into biomass.





### Raw material content in feed (%)



## **Quality and Safety** of Our Product

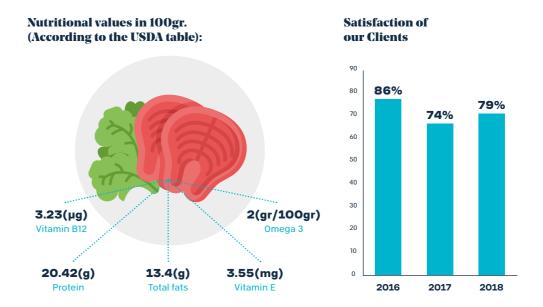
Food safety is a matter of global and central pertinence to any company involved in the production, processing, handling, and/or sale of food.

At Salmones Camanchaca, we ensure the quality and safety of our salmon by implementing internal policies and international quality standards. Our processing plants are certified under ISO 9001, HACCP, and BAP standards. Additionally, in 2012 we executed actions to certify 100% of our annual production in compliance with the BAP standard throughout the production chain (hatchery, growout sites, and processing plants; in addition to using feed suppliers certified under the same standard).

The exceptional nutritional quality of our salmon is achieved through the use of the best salmon diets available on the market

One of our concerns is to deliver our products to our customers that meet the agreed upon specifications and do not represent a risk to their health and safety; for this reason we regularly and continually evaluate the satisfaction of our clients with the aim of identifying potential problems and continuously improve our product and service.

In 2018 we have not received notifications related to health and safety risks of our clients.



For additional information on our products and their packaging, view the following link:  $\underline{www.salmonescamanchaca.cl/en/productos/salmon/}$ 



#### Global Production<sup>1,2</sup>

Global production of farmed salmon and primary livestock products, measured in tons.

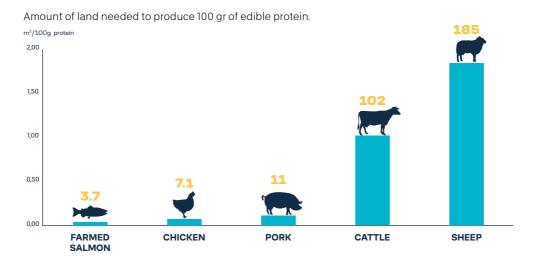


#### Carbon Footprint<sup>3</sup>

The carbon footprint measures the total greenhouse gas emissions caused directly or indirectly by the production of a product. Measured in grams of equivalent carbon dioxide  $(CO_2e)$  per normal portion (40 gr) of edible protein in the product.

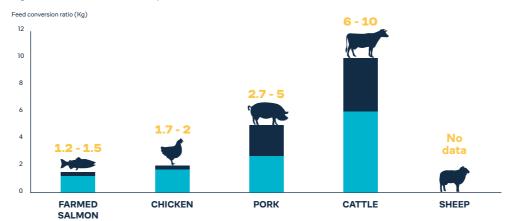


#### Land Use<sup>4</sup>



#### Feed Conversion Rate<sup>5</sup>

The Feed Conversion Rate (FCR) measures the productivity of different methods of protein production, indicated in kilograms (kg) needed to produce a kilogram of animal body weight. A low FCR represents a greater conversion efficiency.



#### **Edible Portion<sup>6</sup>**

The edible portion is calculated by











#### **Surface Used** (Source: Technological Institute of Salmon)

Comparison between surface (ha) used in Chile for beef vs. salmon production.

	2018 annual production (ton)	Surface used (ha)
Salmon	840,146	3,745
Beef cattle	201,044	380,401

#### References (GSI Sources)

- Food and Agricultural Organization (FAO) of the United Nations Statistical Division FAOSTAT
   FAO of the United Nations Fisheries and Aquaculture Department Fishery Statistical Collections
- The Environmental Cost of Animal Source Foods
- 4. Reducing Food's Environmental Impacts Through Producers and Consumers 5. Feed Conversion Efficiency in Aquaculture: Do we Measure it Correctly?
- 6. Atlantic Salmon. The Super Chicken of the Sea



**CHAPTER 07** 

# Our Future

The world is facing a scenario in which the availability of finite resources over time has been seriously compromised by their overexploitation.

This situation drives the need to identity priorities to consolidate and create a more competitive, responsible, and sustainable economy, oriented according to a framework in which innovation is essential for progress and the assurance of human well-being.

### SUSTAINABLE DEVELOPMENT GOALS THAT WE CONTRIBUTE IN THIS CHAPTER



## 9.5 Enhance research and upgrade industrial capacities



By 2030, build on existing initiatives to develop measures of progress on sustainable development

## **Genetics**

#### The Company's DNA

Genetic improvement is an essential component of aquaculture, since it allows for the continual improvement of the efficiency of any production and economic model in addition to generating positive impacts on public health and the environment.

Our Genetic Improvement Program uses a family selection mechanism, which modifies the gene structure (genotype) of a population in order to produce a physical performance different than that of the original population. This is measured in our own farm sites, thus adding value to our estimates. It is important to note that Salmones Camanchaca's genetic modification program does not modify the DNA of its fish, genetically alter the fish through transgenesis, nor use any other molecular genetic technique that could modify or alter the nature of the salmon themselves. Our Genetic Improvement Program (PMG) was initiated with a stock of the Lochy strain of Atlantic salmon (Salmo salar) acquired in 2004 and founded its first base

population in 2006 (YCO6). This strain is characterized by its high growth rate and the considerable seasonality of its breeding and harvest.

The Genetic Improvement Program is one of the key foundations of the Company. Through its implementation, we have achieved a design and structure recognized by the industry, in particular for being one of the only carriers of the Lochy strain. This undoubtedly gives our work a seal of exclusivity and has even spurred interest in the scientific community.

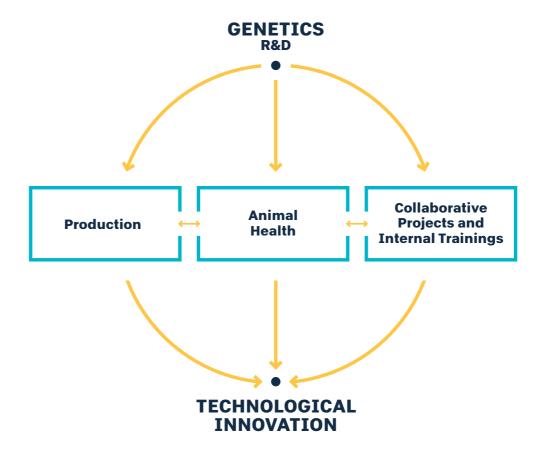
Salmones Camanchaca was one of the ground-breaking companies nationwide, not only through its development of a salmon production model based on genetic selection and inbreeding control of its populations (2005) but also through the full reproduction of freshwater salmon (2007-2010) and the management of the photoperiod to produce eggs throughout the year (2010).



# Research, Development, and Innovation

Linked to the development of the Genetic Program, the Research and Development (R&D) area of Sal-The main focuses addressed mones Camanchaca began in 2016 by this area are: as a way to consolidate previous efforts to develop internal research projects within various areas of the company. **Production Animal** Health **Collaborative Projects and Internal Trainings** 

Together, these focuses contribute to technological innovation, a key element that accounts for the Company's competitiveness and strong performance.





#### **Production Focus**

This mainly addresses projects that promote and indicate the efficiency of the productive system. Its key objective is to shorten the production cycles during the grow-out phase; additional major initiatives that stand out are: The farming of monosex fish, projects to deseasonalize the breeding and harvest of the Lochy strain, the evaluation of hybridization models between high-growth and low-maturity strains, the development of ultrasound models to predict maturity, and the analysis of quality traits in fish through the use of images.

#### Details of the latest projects with a production focus



# Production of pathogen-resistant fish

#### Activity

Selection of breeders according to their genetic value for growth, yield, quality (color) and disease resistance.

#### Objective

Provide Atlantic salmon eggs of high productive performance.

#### **Sustainability Contribution**

Shorter harvest times, quality improvements, and decreased use of antibiotics.



# Production of hybrid fish

#### Activity

Create crossbreeds from a high-growth strain (Lochy strain) and a low-maturity strain (Fanad strain).

#### Objective

Evaluate the productive performance of fish originating from hybrid crossbreeds.

#### **Sustainability Contribution**

Less time invested in the control of maturity and harvesting.



## Production of monosex fish

#### Activity

Divide and group fish acording to their sex through the use of ultrasound imaging, then breed them in sea sites (male or female).

#### Objective

Harness the individual productive traits of males and females in production. Males of greater growth. Females of higher quality and performance.

#### **Sustainability Contribution**

Harvest efficiency and performance enhancement.



# Deseasonalize the reproduction and harvest of the Lochy strain

#### Activity

Evaluation of the response to the photoperiod during grow-out and reproduction.

#### Objective

Deseasonalize the production of the Lochy strain (eggs, smolt, and grow-out).

#### **Sustainability Contribution**

Decreased harvest time.



#### **Animal Health Focus**

Constant search for tools that contribute to the reduction in the use of antibiotics and antiparasitics as well as the improvement in our productive performance and support of the environment.



# Production of pathogen-resistant fish

#### Activity

Challenges of fish families in controlled trials of infection and coinfection (*Piscirickettsia salmonis* and *Caligus rogercresseyi*).

#### Objective

Develop progenies from parents with high genetic value regarding resistance to *Piscirickettsia salmonis* and *Caligus* rogercresseyi.

#### **Sustainability Contribution**

Improve the health status of our fish and decrease the use of antibiotics and antiparasitics.



# Use of genomic technologies

#### Activity

Search for genetic markers associated with SRS resistance. Genome-wide association study using 130,000 SNP markers.

#### Objective

Genome-wide identification and selection of breeders for resistance with the purpose of developing progenies more resistant to *Piscirickettsia salmonis*.

#### **Sustainability Contribution**

Improve the health status of our fish and decrease the use of antibiotics and antiparasitics.



# Design of a 50 K SNP CHIP exclusive to Salmones Camancacha

#### Activity

Search for specific markers of our fish population (Lochy and Fanad), mainly associated with pathogen resistance.

#### Objective

Genome-wide identification and selection of breeders for resistance with the purpose of developing progenies more resistant to *Piscirickettsia salmonis*.

#### **Sustainability Contribution**

Improve the health status of our fish and decrease the use of antibiotics and antiparasitic drugs.



# Collaborative projects and internal training focus

An important aspect of the area is that it has been able to interact with various universities and state agencies in the development of and collaboration on research projects, which undoubtedly generates cooperation between organizations and contributes to the socialization of knowledge and the development of new technologies and harvesting strategies, both for the Company and for the national industry.

## Disease Resistance in Salmonids:

Genetic analysis of co-infection of the Sea Lice Caligus rogercresseyi and the bacteria Piscirickettsia salmonis.

#### Universities

Universidades Pontificia Universidad Católica de Valparaíso, Universidad de Valparaíso, Universidad de Waterloo (Canada).

#### Source of Funding

National Commission for Scientific and Technological Research (CONICYT).

#### **Sustainability Contribution**

Public knowledge regarding the genetic resistance to co-infection (Caligus rogercresseyi & Piscirickettsia salmonis)

# Heritability and genetic correlations of traits of growth performance and quality in Lochy strain of Atlantic salmon (Salmo Salar)

#### Universities

Universidad De Chile.

#### Source of Funding

Salmones Camanchaca.

#### **Sustainability Contribution**

Master's thesis Public knowledge regarding heritability and genetic correlations in Atlantic Salmon.

## Disease Resistance in Atlantic Salmon:

Understanding mechanisms that explain resistance and tolerance to co-infection of the Sea Lice Caligus rogercresseyi and the bacteria Piscirickettsia salmonis

#### Universities

Pontificia Universidad Católica de Valparaíso.

#### Source of Funding

National Commission for Scientific and Technological Research (CONICYT).

#### **Sustainability Contribution**

Public knowledge regarding fish immunity and response to the use of vaccines.

#### Immune status of Salmo salar in field conditions and its relationship with the P. salmonis infection:

Basis for incorporation of immunomodulatory peptides in diet as a new drug for pathogens and SRS

#### Universities

Pontificia Universidad Católica de Valparaíso.

#### **Source of Funding**

Chile's Ministry of the Economy's Sanitary Management in Aquaculture program Strategic Investment Fund (FIE).

#### **Sustainability Contribution**

Public knowledge regarding immune activity in farmed fish and the development of treatments alternative to the use of antibiotics for genetic co-infection (Caligus rogercresseyi & Piscirickettsia salmonis).

# Detection of signatures of selection and domestication in Atlantic salmon using a high-density SNP array.

#### Universities

Universidad de Chile.

#### **Source of Funding**

Doctoral Thesis (CONICYT)

#### **Sustainability Contribution**

Public knowledge regarding the genetic variation of farmed populations.

112

As a further complement to the area, the Company has trained staff through various courses associated with genetic improvement, all within the framework of human capital formation, emphasizing the following:

# Salmon genetic improvement course

#### Objective

Understand the fundamental principles of salmon genetic improvement.

Duration	Personnel Trained

8 hours 50

## Salmon immunology course

#### Objective

Understand basic principles of immunology in fish and how this contributes to the vaccination design.

Duration Personnel Trained

4 hours 1

# Genetic resistance to pathogens in aquaculture seminar

#### Objective

Discuss the worldwide progress of scientific research, regarding the genetic resistance to pathogens in salmon.

**Duration** Personnel Trained

4 hours 50

#### **Master's of Aquaculture**

#### Objective

Advanced training at a graduate level.

Duration Personnel Trained

2 years

# Technological innovation and entrepreneurship in aquaculture workshop

#### Objective

Promote the development of skills related to technological innovation in aquaculture.

Duration Personnel Trained

16 hours 3

# Pathogens and immunity in aquaculture research seminar

#### Objective

Deliver an update of the investigation on fish pathogens and immunity.

**Duration** Personnel Trained

8 hours

# Studies in implementation of genetic enhancement in fish with genomic selection

#### Objective

Develop skills to implement a genomic database management system in the PMG.

**Duration** Personnel Trained 32 hours 3

**CHAPTER 08** 

# 2018 Recognition

Salmones Camanchaca was the first salmon farming company to register in the "Huella Chile" program. "Huella Chile" is a program developed by Chile's Ministry of Environment, whose objective is to promote the quantification, reporting, and management of greenhouse gas (GHG) emissions from public and private institutions.





**CHAPTER 09** 

# Trademarks and Memberships

Salmones Camanchaca is a member of the following organizations:









#### **Our Brands**











Deloitte Advisory SpA Rosario Norte 407 Las Condes, Santiago Chile Fono: (56) 227 297 000 Fax: (56) 223 749 177 deloittechile@deloitte.com www.deloitte.cl

## INDEPENDENT REVISION SUSTAINABILITY REPORT 2018 Salmones Camanchaca S.A.

Mr. Alfredo Tello Gildemeister Technical Manager Salmones Camanchaca S.A.

Of our consideration:

We have reviewed the following aspects of the 2018 Sustainability Report of Salmones Camanchaca S.A:

#### Alcance

Limited assurance engagement of the adherence of the contents and indicators included in the 2018 Sustainability Report to the GRI Standards, regarding the organization's profile and material indicators arising from the materiality process that the Company carried out following said Standards related to the economic, social, and environmental dimensions.

#### **Standards and Assurance Process**

We have carried out our task in accordance with the guidelines of the International Standard on Assurance Engagements Other than Audits or Reviews of Historical Financial Information (ISAE 3000) issued by the International Auditing and Assurance Standard Board (IAASB) of the International Federation of Accountants (IFAC).

Our review has consisted in an inquiry process involving different Salmones Camanchaca S.A units and management areas, involved in the process of developing the Report, as well as in the application of analytic procedures and verification tests, which are described in the following items:

- ✓ Meetings with those responsible for the delivery of information and preparation of the 2018 Sustainability Report.
- ✓ Analysis of the adherence of the contents of the 2018 Sustainability Report to the GRI Standards: Core option, and review of the indicators included in the report in order to verify that they are aligned with the protocols established in the Standards, and whether the fact that some indicators are not applicable or not material is justified.
- ✓ Verification, through tests of quantitative and qualitative information corresponding to the GRI Standards indicators included in the 2018 Report, and its adequate gathering from the data provided by Salmones Camanchaca S.A. information sources.

#### Conclusions

✓ The assurance process was based on the indicators established in the materiality process carried out by Salmones Camanchaca S.A.. Once those indicators were identified, prioritized, and validated, they were included in the report. Regarding the verified indicators, we can say that no aspect has arisen to lead us to believe that the Sustainability Report has not been prepared in accordance with the GRI Standards in those areas identified in the scope.

#### Responsabilidades de la Dirección de Salmones Camanchaca S.A.y de Deloitte

- The drafting of the 2018 Sustainability Report, as well as its contents are under Salmones Camanchaca S.A. responsibility, which is in charge of the definition, adaptation, and maintenance of the management and internal control systems from who the information is obtained.
- Our responsibility is to issue an independent report based on the procedures applied in our review.
- This report has been prepared exclusively by Salmones Camanchaca S.A request, in accordance with the terms established in the Engagement Letter.
- We have developed our work according to the standards of Independence established in the Code of Ethics of the IFAC.
- The conclusions of the verification made by Deloitte apply to the latest version of the Salmones Camanchaca Sustainability Report received on July 24, 2019.
- The scope of a limited assurance engagement is essentially inferior to a reasonable assurance engagement, thus, we are not hereby providing opinion about the 2018 Salmones Camanchaca Sustainability Report.

Fernando Gaziano Partner August 2, 2019



STANDARD		CONTENTS	PAGE	OMISSIONS
GRI 102: General Disclosures,	9	102-1 Name of the organization	8	
	Profile	102-2 Activities, brands, products, and services	9	
2016		102-3 Location of headquarters	8	
		102-4 Location of operations	9	
		102-5 Ownership and legal form	8	
		102-6 Markets served	12 - 13	
		102-7 Scale of the organization	9 - 10	
		102-8 Information on employees and other workers	11	
		102-9 Supply chain	9 and 42	
		102-10 Significant changes to the organization and its supply chain	There have been no significant changes during this period	
		102-11 Precautionary principle or approach	34	
		102-12 External initiatives	29 and 112	
		102-13 Membership of associations	115	
	Strategy	102-14 Statement from senior decision-makers	16	
		102-15 Key impacts, risks, and opportunities	Annual report page 12	
Ethics and Integrity		102-16 Values, principles, standards, and norms of behavior	40	
	Governance	102-18 Governance structure	38	
	Stakeholder Engagement	102-40 List of stakeholder groups	22	
		102-41 Collective bargaining agreements	48	
		102-42 Identifying and selecting stakeholders	27	
		102-43 Approach to stakeholder engagement	27	
		102-44 Key topics and concerns raised	28	
	Reporting Practices	102-45 Entities included in the consolidated financial statements	32, Annual Report page 44	
		102-46 Defining report content and topic Boundaries	26	
		102-47 List of material topics	28	
		102-48 Restatements of information	There have been no significant changes during this period	
		102-49 Changes in reporting	There have been no significant changes during this period	
		102-50 Reporting period	19	
		102-51 Date of most recent report	Our last report was published in Oct 2018	
		102-52 Reporting cycle	19	
		102-53 Contact point for questions regarding the report	8	
		102-54 Claims of reporting in accordance with GRI Standards	19	
		102-55 GRI content index	118	
		102-56 External Assurance	116	

STANDARD	CONTENTS	PAGE	OMISSIONS
GRI 103 Management Approach	103-1 Explanation of the material topic and its Boundary	Described in each material topic	
	103-2 The management approach and its components	Described in each material topic	
	103-3 Evaluation of the Management Approach	Described in each material topic	
201 Economical Performance	201-1 Direct economic value generated and distributed	32	
204 Procurement Practices	204-1 Proportion of spending on local suppliers	37	
205 Fight against Corruption	205-1 Operations assessed for risks related to corruption	38	
	205-2 Communication and training about policies and anti-corruption procedures	40	
GRI 302	302-1 Energy consumption within the organization	91	
Energy	302-2 Energy consumption outside the organization	91	
	302-3 Energy intensity	91	
GRI 303 Water	303-1 Interactions with water as a shared source	86	
GRI 304 Biodiversity	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	71	
	304-2 Significant impacts of activities, products, and services on biodiversity	72	
305	305-1 Direct (Scope 1) GHG emissions	87	
Emissions 2016	305-2 Energy indirect (Scope 2) GHG emissions	87	
	305-3 Other indirect (Scope 3) GHG emissions	87	
	305-4 GHG emissions intensity	89	
306 Effluent and Waste of 2016	306-2 Waste by type and disposal method	74	
307 Environmental Compliance	307-1 Non-compliance with environmental laws and regulations	68	
401 Employment	401-1 New employee hires and employee turnover	50	
2016	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	52 and 53	
403 Occupational Health and Safety 2016	403-1 Worker representation in formal joint management-worker health and safety committees	115	
	403-2 Types of injury and rates of injury, occupational illnesses, lost days, absenteeism, and number of work-related injuries or fatalities	55	
404 Training and Education 2016	404-1 Average hours of training per year per employee	52	
	404-2 Programs for upgrading employee skills and transition assistance programs	52	
	404-3 Percentage of employees receiving regular performance and career development reviews	53	
405 Diversity and Equal Opportunity	405-1 Diversity of governance bodies and employees	51	

STANDARD	CONTENTS	PAGE	OMISSIONS
GRI 406 Non-Discrimination	406-1 Incidents of discrimination and corrective actions taken	48	
GRI 408 Child Labor	408-1 Operations and suppliers at significant risk for incidents of child labor	48	
GRI 409 Forced or Compulsory Labor	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	48	
411 Rights of Indige- nous peoples	411-1 Incidents of violations involving rights of indigenous peoples	48 and 64	
416 Customer Health and Safety	416-1 Assessment of the health and safety impacts of product and service categories	103	
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	68	
GRI 419 Socioecono- mic Compliance	419-1 Non-compliance with laws and regulations in the social and economic area	68	

#### **Glossary of terms**

#### 1. SMOLT:

Denomination given to juvenile salmon at the time of their physiological adaptation to living in a marine environment.

#### 2. LWE (Live weight equivalent):

Live fish produced in a production unit.

#### 3. WFE (Whole fish equivalent):

Fish bled and gutted inside a processing plant.

#### **4. PRIMARY PROCESS:**

Salmon processing that involves the slaughter, bleeding, and gutting, not including the product transformation.

#### **5. SECONDARY PROCESS OR ADDED-VALUE:**

Refers to the product transformation through methods such as freezing and vacuum packaging.

#### 6. MT:

Metric Tons

#### 7. HA:

Hectares

#### 8. FCR:

TFeed conversion ratio, calculation includes the mortality of the period

#### 9. e FCR

Economic feed conversion ratio, excluding dead biomass.

#### 10. FOB VALUE:

Used to value exports and is defined as "free on board." Refers to the sale value of products in their place of origin, plus the cost of freight, insurance, and other expenses needed to send the product to the customs office of exit...

#### 11. USD:

American Dollar.

#### 12. ROLLING MORTALITY:

Mobile mortality calculated based on the last 12 months.

#### 13. FI:FO (Fish in, Fish out):

Dependency rate of fisheries, according to the Global Aquaculture Alliance.

#### 14. FFDRm (Forage fish dependency rate – meal):

Dependency rate of fisheries - Fish flour, according to the Aquaculture Stewardship Council.

#### 15. FFDRo (Forage Fish Dependency Rate - oil):

Dependency rate of fisheries - Fish Oil, according to the Aquaculture Stewardship Council.

#### 16. Anti-Fouling:

Paint application used for the farm site nets to prevent fouling.

#### 17. Fouling:

The accumulation of a biological growth on the surface of submerged structures.



Acid-free and chlorine-free paper, 100% Recycled.



Paper made with wind energy, contributing to care for the environment.

**Design**Costabal & Rivas

**Contact** (56 2 ) 2955 5374

**Print** Fyrma Gráfica



Sustainability Report

2018

In reference to the GRI Standards guidelines and the 2030 Agenda for Sustainable Development. Verified by Deloitte.