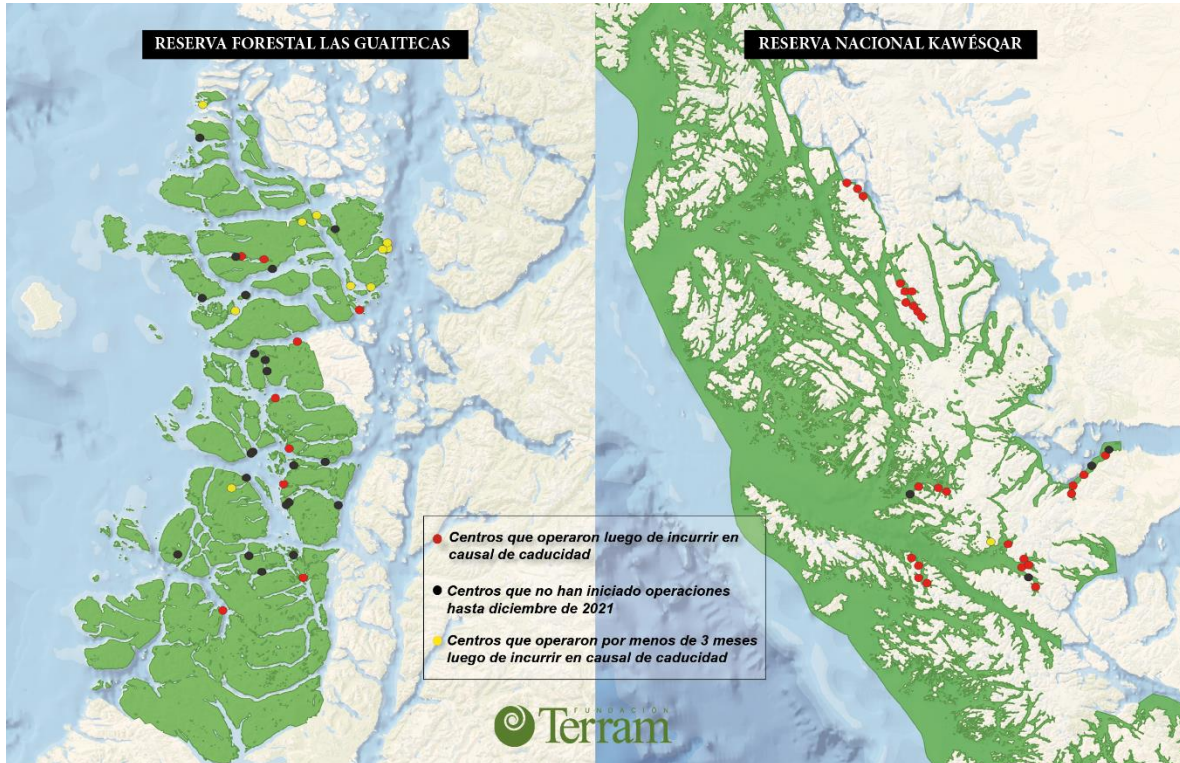


Salmon Farms in Protected Areas:

34 CONCESSIONS ARE OPERATING DESPITE BEING SUBJECT TO GROUNDS FOR TERMINATION



Seventy salmon farming concessions located inside protected areas should have been terminated on the grounds of not having commenced activities within the legal timeline. Despite this, only three of them were reported by the National Fisheries and Aquaculture Service, and none have been terminated by the Undersecretary of the Armed Forces, thus allowing 34 farming centers to start operations and to reap major economic benefits for their owners, while representatives from the salmon farming industry indicate that a resolution from the Undersecretary of Fisheries and Aquaculture published in 2013 would allow these farming centers to bypass these grounds for termination.

By Maximiliano Bazán, Terram Foundation journalist.

Salmon farming has held an increasingly significant place within Chile's export matrix. According to numbers from the Central Bank, Chile almost doubled its share of non-copper good exports over the last decade, going from 6.9% in 2010 to 12.5% in 2021, when it reached US \$5.18 billion.

The salmon production process consists of different stages, starting with the reproduction and breeding of fish in fresh water, which are then transferred to the fattening centers located in the ocean, where, once harvested, they are processed in onshore plants. The salmon are then put to market, almost entirely to other countries, and sent by sea or air.

The salmon fattening stage at sea uses an aquaculture concession granted by the Undersecretary of the Armed Forces (SSFFAA in Spanish). These concessions are primarily located in the regions of Los Lagos, Aysén, and Magallanes, which have a significant amount of land and marine area declared as a protected area by the government, due to their high ecological value. According to information from the Undersecretary of Fisheries and Aquaculture (Subpesca in Spanish), the vast majority of salmon industry concessions inside protected areas are located in three different places: 312 concessions in Las Guaitecas Forest Reserve; 66 in Kawésqar National Reserve, and 19 in Alberto De Agostini National Park.

As per data from the National Fisheries and Aquaculture Service (Sernapesca in Spanish) obtained by Terram Foundation via the Transparency Act¹, out of the 397 salmon farming concessions currently valid as of January 2022 inside these three protected areas, **the owners of 70 concessions did not commence operations for at least one year since the respective Port Authorities handed over the concession, which represents grounds for termination according to Article 142 letter e) of the General Fisheries and Aquaculture Act.** Despite this, the Undersecretary of the Armed Forces (SSFFAA, the agency in charge of maritime concessions) did not decree the termination as established by law. This has allowed, up until at least December 2021, for salmon farming centers from seven parent companies, to be able to start their fattening operations of this introduced species inside protected areas of Chilean Patagonia and enjoy tremendous profits.

Of the 70 concessions that are subject to termination distributed in Kawésqar National Reserve and Las Guaitecas Forest Reserve, 25 had not recorded farming activities as of December 2021, totaling from two to 19 years without operations since the date on which the SSFFAA approved handing over these concessions to the respective owners. **Another 11 concessions, after being subject to the same grounds for termination, registered operations of less than three months,** which would be an insufficient period of time to complete a salmon production cycle that normally ranges between 14 and 22 months in the ocean, depending on the species.

The reason for maintaining a concession without any activity, as opposed to returning or terminating it, is due to the fact that these are a scarce commodity, because they can only be located in certain areas established by the government as Areas Suitable for Aquaculture (AAA in Spanish), and it is not possible to establish salmon farming concessions outside of these areas. Furthermore, their market value will depend on their productive potential, which is determined by their spatial, sanitary, environmental, and climatic conditions, as well as the physical and chemical parameters of the water column.

Thus, aquaculture concessions are sold or subleased and are considered as economic assets in companies' accounting records, and consequently, also as collateral used by their owners to request loans from banks or even to support plans for expansion.

¹ Application Code No. AH010T0001526.

MAP OF SALMON FARMING CONCESSIONS THAT WERE SUBJECT TO TERMINATION DUE TO FAILURE TO COMMENCE OPERATIONS WITHIN ONE YEAR OF THE CONCESSION HANDOVER



Source: Created by the authors based on information from Sernapesca obtained through the Transparency Act (Code No. AH010T0001526).



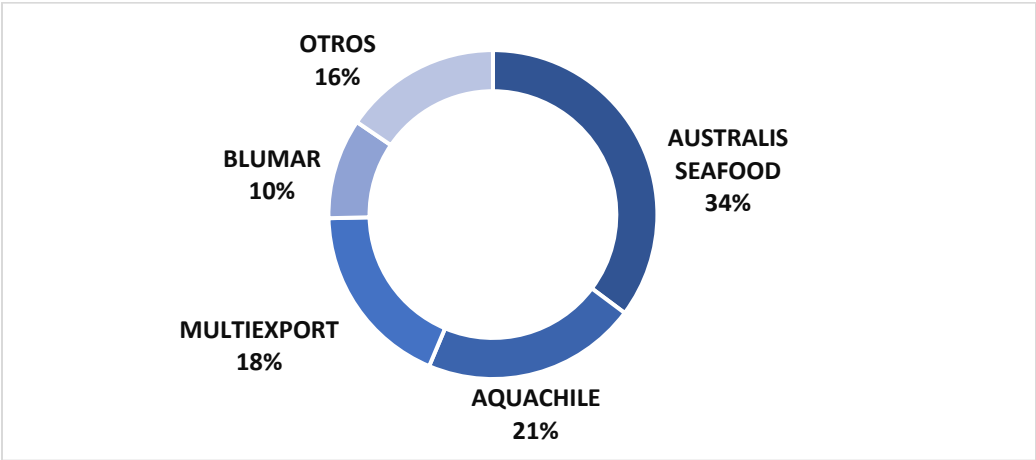
Source: Created by the authors based on information from Sernapesca obtained through the Transparency Act (Code No. AH010T0001526).

THE BENEFICIARY COMPANIES

The 70 concessions that were not terminated belong to nine parent companies and one natural person, with 84% of them concentrated among the four main beneficiaries: 24 from Australis Seafood, 15 from AquaChile, 13 from Multiexport, and 7 from Blumar.

Regarding the calculation to determine the number of concessions subject to grounds for termination, it should be noted that the months corresponding to the mandatory fallow periods decreed by Subpesca were subtracted, as established by law, as well as the months from March to November 2020 as a result of Resolutions No. 886 and No. 2305 issued that year by the same agency, which suspended the term for establishing grounds for termination due to not starting operations within twelve months, among other procedures, as a result of the Covid-19 pandemic.

DISTRIBUTION BY COMPANY OF THE 70 SALMON FARMING CONCESSIONS THAT WERE NOT TERMINATED BY SSFFAA, DESPITE BEING SUBJECT TO GROUNDS FOR TERMINATION



Source: Created by the authors based on information from Sernapesca obtained through the Transparency Act (Code No. AH010T0001526).

To measure the effects of this oversight by the authorities, Terram Foundation reviewed the Environmental Qualification Resolutions (RCA in Spanish) for each of the 34 farming centers that began operations despite this situation, and identified that, as a whole, **they have a maximum authorized production of 202,499 tons of salmon for each productive cycle: 174,176 tons (86%) in Kawésqar National Reserve in the Magallanes Region, and 28,323 tons (14%) in Las Guaitecas Forest Reserve in the Aysén Region.**

AUTHORIZED PRODUCTION FOR COMPANIES WHOSE CONCESSIONS WERE NOT TERMINATED BY THE SSFFAA, DESPITE BEING SUBJECT TO TERMINATION, AND WHICH LATER WENT ON TO BEGIN SALMON FARMING OPERATIONS

Parent company	Number of Concessions	Authorized biomass (Tons)
AUSTRALIS SEAFOOD	12	60,348
SALMONES MULTIEXPORT	9	58,480
AQUACHILE	6	49,083
BLUMAR	3	20,000
CERMAQ	2	7,168
INVERMAR	1	4,000
CULTIVOS YADRÁN	1	3,420
TOTAL	34	202,499

**The 11 farming centers that operated for less than 3 months are not counted.*

Source: Created by the authors based on information from Sernapesca obtained through the Transparency Act (Code No. AH010T0001526) and from the SEA (Environmental Assessment Service) information available on its website.

By December 2021, these 34 salmon farming centers had carried out a total of 50 productive cycles, some of which are still in progress. When calculating the number of cycles for each center, these 50 cycles translate into over 306,000 tons of salmon produced, according to what is authorized by the SEA. **This estimated production, made possible thanks to Sernapesca and SSFFAA's oversight, is equal to an estimated economic benefit of \$2.45 billion dollars in sales for the seven beneficiary companies**, calculated at the average sales price of salmon during the first quarter of 2022, according to data from the National Customs Service (\$8 per kg.).

ESTIMATED PRODUCTION OF THE 34 FARMING CENTERS WHOSE CONCESSIONS WERE NOT TERMINATED BY THE SSFFAA DESPITE BEING SUBJECT TO GROUNDS FOR TERMINATION DUE TO NOT COMMENCING OPERATIONS WITHIN A YEAR OF THE CONCESSION HANDOVER*

Parent company	Productive cycles	Estimated production (tons)
AUSTRALIS SEAFOOD	18	90,588
AQUACHILE	9	90,583
MULTIEXPORT	10	65,360
BLUMAR	4	27,000
CERMAQ CHILE	5	17,920
INVERMAR	2	8,000
CULTIVOS YADRÁN	2	6,840
TOTAL	50	306,291

**It should be noted that not all farming centers have the same number of productive cycles or authorized tons. In addition, the 11 farming centers that operated for less than 3 months are not counted.*

Source: Created by the authors based on information from Sernapesca obtained through the Transparency Act (Code No. AH010T0001526) and from the SEA (Environmental Assessment Service) information available on its website.

Australis Seafood, a company belonging to the Chinese-owned Joyvio Group, registered 12 farming centers that in total carried out 18 productive cycles thanks to the SSFFAA's oversight that did not decree termination of its concessions, which appear under the names of the different companies that it either directly or indirectly controls: 4 from Australis Mar, 3 from Salmones Islas del Sur, 3 from Acuícola Cordillera, 1 from Procesadora de Alimentos ASF, and 1 from Salmones Alpen.

According to their respective environmental permits, the 18 productive cycles initiated between 2016 and 2021 account for a maximum production of 90,588 tons of salmon, which is a very significant number considering that Australis Seafood harvested an average of 88,171 tons of salmonids per year from 2019 to 2021, as specified in its [2021 Sustainability Report](#).

One of the 12 sites the company was able to operate was the Córdova 3 fattening center, located on the southwest shore of the Córdova Estuary in the municipality of Punta Arenas, and inside the Kawésqar National Reserve. This concession was handed over on November 27, 2014, and operations began 22 months later in September 2016, according to Sernapesca's operations log, which means this concession remains subject to grounds for termination, even when deducting the six months of mandatory fallow dictated by Sernapesca for this farming center.

According to current regulations, once a concession is approved, the owner has three months to ask the Port Authority to physically hand it over. According to the information provided by the SSFFAA via the Transparency Act, this deadline was not met by Australis Seafood at the Córdova 3 farming center, since the request was made on October 20, 2014, four months after the SSFFAA approved the concession. This situation has been repeated in several other cases from the 70 farming centers described in this report.

Australis Seafood's Córdova 3 center has been undergoing a [sanctions procedure](#) filed by the Superintendency of the Environment (SMA in Spanish) since July 2021, for having exceeded the maximum authorized production of 5,967 tons by 3,450 tons (equivalent to 58% more than what was authorized) during the productive cycle from September 2016 to July 2018, precisely when the concession should have been terminated by the SSFFAA.

In their arraignment, the SMA categorized this as a *serious* violation, in addition to the aggravating circumstance of an Environmental Report (INFA) that was communicated in March of 2019, eight months after the end of the harvest, with results showing conditions of anaerobiosis or anoxia. This means that intensive salmon farming in that area could have caused a decreased availability of oxygen in the water column, which leads to the appearance of some organisms and the absence of others and thus alters the aquatic ecosystem, as detailed in the SMA report.

According to INCAR researcher Doris Soto, producing more than 9,000 tons of salmon during a cycle exemplifies very high intensity. *"When compared to Norway, the largest salmon producer in the world, the farms there do not produce more than 4,500 tons, and on average, they do not exceed 3,500 tons, scattered over large areas. In Chile, this average must be around 4,500 tons, which translates into 225 tons of nitrogen from feces and feed remains deposited on the sea floor, generating a significant environmental footprint, unless there were very strong currents, which is clearly not the case of this Australis farming center if it was still anoxic after eight months."*

Regarding the capacity of marine ecosystems to regenerate, the biologist points out that *"it will depend on the amount of nutrients received and the capacity of the particular site to regenerate. Biodiversity is lost if there is a prolonged absence of oxygen, so regeneration will depend on the presence of species in adjacent areas that can recolonize, as well as the state of the sea floor to be colonized."*

In addition to the farming center located in the Córdova Estuary, **the Chinese company has two other ongoing sanctions procedures for overproduction inside the Kawésqar National Reserve**, (1) one filed by the SMA in March 2022 for exceeding the maximum authorized production of 5,967 tons by 1,491 tons in its Morgan farming center located in the municipality of Natales, and (2) another filed in June 2022 for producing 3,302 tons over the authorized 4,320 tons at its Retroceso Estuary center during the 2018-2019 cycle, located near Isla Riesco in the municipality of Río Verde, and for which the company self-reported in its Compliance Report for another incident of overproduction of 2,049 tons at the same Retroceso Estuary center, but this time during the 2020-2022 cycle.

In this latter case, the 2022 [environmental monitoring report](#), which the company must complete as part of the environmental commitments of its RCA, indicates that when compared to the 2013 sampling, there is a significant decrease in the number of signs that indicate the presence of the *huillín* (Southern river otter), one of the endangered species that inhabits the reserve, which would be due to human intervention, namely salmon farming activity, and specifically the transit of boats and the remains of materials, ropes, and mooring lines around the farming center.

After asking Australis Seafood for this information, the company merely stated that "none of the aquaculture concessions under our ownership have been subject to any grounds for termination stipulated in the General Fisheries and Aquaculture Act (LGPA), nor are they undergoing any procedure for termination."

The second company benefiting most from the SSFFAA's oversight regarding not decreeing the termination of salmon farming centers was AquaChile, part of the Agrosuper group, which was able to carry out nine productive cycles from 2018 to 2021 through its subsidiaries Exportadora Los Fiordos Ltda, with 3 centers inside Las Guaitecas Forest Reserve, and AquaChile Magallanes SpA, with 3 centers in Kawésqar National Reserve, located in the same sector, or Salmon Concessions Group (ACS in Spanish).

The authority's oversight allowed AquaChile to achieve harvests of up to 90,583 tons of salmon, as authorized in their respective RCAs, a relevant volume even for the country's largest salmon producer, which in 2021 reached 202,196 tons harvested for a total of US \$1.183 billion in sales, as reported by the company in its [2021 Integrated Report](#).

Until December 2021, AquaChile's three farming centers located in the Kawésqar National Reserve kept their second productive cycle going after the oversight by the authority, despite the fact that they had not started operations in over three years since the respective concessions were handed over. Together, these three centers can produce up to 41,500 tons per cycle, which translates into 6,414 tons of feces that will accumulate on the sea floor within the 289 hectares of concession that AquaChile has in Staines Sound, according to their environmental permits.

According to Alejandro Buschmann, researcher at the I-mar Center of Universidad de Los Lagos, although it is quite common that waste is deposited mainly underneath the farming cages and for these particles to not be carried far, from his perspective *"there are impacts that are not regulated and that have been less studied, such as the entry of dissolved inorganic nitrogen through fish excretion, which remains in the ocean's surface layer where light still reaches and can be used by algae, thus facilitating the generation of harmful algal blooms in nearby sites."*

Harmful algal blooms (HABs), commonly known as red tide (a type of HAB), occur when the density of certain types of algae in aquatic environments increases excessively, which can cause the death of some organisms and contaminate species and ecosystems. This consequently brings about negative effects on economies that depend on the ocean.

The third company that benefited the most from the authority's oversight was Multiexport S.A., which was able to start 10 productive cycles in 9 farming centers after 3 to 9 years without starting operations from the time the SSFFAA approved handing over the respective concessions. According to the maximum production authorized in its RCAs, **Multiexport was able to produce up to 65,360 tons of salmon through these 10 productive cycles initiated between 2018 and 2021.**

Multiexport is controlled by Alberto del Pedregal Labbé, Martín Borda Mingo, José Ramón Gutiérrez Arrivillaga, and Carlos Pucci Labatut, who share ownership with the Japanese group Mitsui and the U.S. group Cargill.

Of the 9 farming centers, 7 are located in Taraba Estuary inside Kawésqar National Reserve, under the name of its subsidiary Multiexport Patagonia S.A., while the remaining 2 are located in Las Guaitecas National Reserve.

THE LEGAL FICTION OF OPERATIONS

When asked about the 70 farming centers that would be subject to termination, Carlos Odebret, President of the Magallanes Salmon Farmers Association, which includes Australis Seafood, AquaChile and Multiexport, among other companies, said that *"according to the information available so far, there is no precedent of concessions that have been declared as terminated due to this reason."*

Regarding the general rule, Odebret says that *"Subpesca, in its official communication No. 1939 from 2013, states that the coordinated fallow through a management plan and the mandatory sanitary fallow that occurs in the first year means that the indicated operation is in compliance with the law."*

Regarding this point, Christian Paredes, a Terram Foundation attorney, sustains that *"the legal effect of the legal fiction of operation indicated in the resolution consists only of suspending the period for calculating the concession's grounds for termination, but in no case does it exempt the owner from the obligation to effectively start operations once the mandatory fallow period has ended."*

STATEMENTS FROM THE COMPTROLLER'S OFFICE

The Comptroller General of the Republic has issued three statements on whether voluntary fallows at farming centers represent an exception from incurring grounds for termination. First, in [ruling No. 25,006](#) from 2018, it indicated that an amendment proposed to the sanitary regulations governing salmon farming, which intended to not consider voluntary fallow periods established in management plans for the purpose of being subject to grounds for termination, did not abide by the law because it contradicted Article 142 letter e) of the act.

Then, in [ruling No. 24,952](#) from September 2019, the comptroller supported the SSFFAA's criteria, which had denied the request of Exportadora Los Fiordos (part of AquaChile) to extend the stoppage period of activities, under the argument that the mandatory and voluntary fallows would serve for this purpose, which, according to the company, would have been validated by Sernapesca through official communication No. 43,100 from 2014. In its ruling, the Comptroller's Office pointed out that in order to authorize this extension of the timeframe and prevent the concession from being subject to grounds for termination, it must first have effectively started farming operations, so that according to the law, the legal fiction of operation would not apply.

In May 2020, following a request from the Chilean Salmon Industry Association (Asociación de la Industria del Salmón de Chile A.G.), through [ruling No. 8811](#), the Comptroller's Office reaffirmed the adjustment of criteria applied by Sernapesca, which stopped deducting the farms' periods of voluntary fallow when establishing grounds for termination, in accordance with the law.

In its conclusions, the comptroller body pointed out that this change of criterion would not be retroactive, since the concession owners could not foresee that these fallows would cause legal consequences other than those reported by the authority, so it should apply to the farming centers that started stoppages upon the issuance of this criterion, on October 5, 2018.

For the president of the Magallanes salmon farmers, *"deducting the sanitary fallow periods began with the Comptroller's Office ruling No. 24,952 of 2019, so we understand that this new interpretation should be applied from the time the ruling was issued onwards."*

RESPONSE FROM THE AUTHORITIES

In order to clarify which of the 70 concessions that would have been subject to grounds for termination underwent voluntary fallows during the period in which they did not start operations, and therefore could bypass the grounds for termination, Terram Foundation reviewed the list of management plans published by Sernapesca. For the resolutions that were possible to gain access to, it was identified that **although most of the sectors where these concessions are located were part of management plans, none of the 70 farming centers on the list would have been subject to voluntary fallow during the period when they would have been subject to grounds for termination.** In some cases, Sernapesca rejected requests for voluntary fallow for not complying with the regulations.

It is worth mentioning that it was not possible to access a significant number of management plan resolutions to corroborate the details because the Sernapesca [web platform](#) does not contain updated links, despite this being an obligation within the framework of its active transparency; the

agency was thus asked to correct the error in order to provide access. Sernapesca responded by channeling this via a request for information through the Transparency Act and answered² by simply sending a link to the very same website.

To find out why these 70 farming centers that should have been subject to grounds for termination were not in fact terminated, Terram Foundation contacted the **SSFFAA**, which announced that they would consult on the background information with their legal team before issuing a statement. In spite of this, and after insisting several times, the agency stated through **Galo Eidelstein** that they would not speak on the issue.

With the same objective, Terram Foundation contacted the **former Undersecretary of the Armed Forces, Alfonso Vargas Lyng**, who was in charge of the agency during the first and second administrations of Sebastián Piñera, from 2010 to 2014, and then from November 2019 to March 2021, to learn about the criteria applied by the SSFFAA in matters regarding terminations but did not obtain any answers.

According to Paredes, *"the concessions that were subject to termination at the time still have the same status and cannot be understood as remedied due to operations that commenced later, so the responsible authority, which is the Undersecretary of the Armed Forces, has the obligation to terminate them."*

After reviewing the background information, Constanza Silva, **Sernapesca Deputy National Director (A) of Aquaculture**, said that "there are farming centers [on the list] that are not subject to grounds for termination, others that have already been reported to the SSFFAA, and others that will be reported to the institution in the report issued every six months."

Despite being consulted, the deputy director did not want to specify which centers were experiencing these situations, but she did add that *"the farming centers that would be subject to grounds for termination based on the analysis were reported to the SSFFAA, may continue operating as long as the resolution authorizing the activity is in force, and a resolution from the SSFFAA terminating the concession has not been issued. Therefore, we cannot prevent the technical project from being carried out in the concession area."*

To clarify whether any of these 70 salmon farming centers that would have been subject to grounds for termination were actually reported by Sernapesca to the SSFFAA within the framework of its supervisory powers, Terram Foundation requested this information from the sectoral agency through the Transparency Act. They were referred to the SSFFAA, which redirected the request back to Sernapesca after asking for an extension to deliver this information.

Despite the hurdles placed by Sernapesca, the Transparency Council accepted the injunction³ filed against it by Terram Foundation and pointed out that it had unnecessarily delayed the resolution of a request for access to public information that is within its competence.

Upon reviewing the information, it was identified that, of the 70 concessions listed in this report, only three of them were reported by Sernapesca to the SSFFAA, all within Las Guaitecas Forest

² Application Code No. AH010T0002007.

³ Injunction Decision Case No. C3359-22.

Reserve, including the following farming centers: Goñi Channel (code 110875), owned by Cultivos Yadrán, reported in 2016 and 2020; Sector II, Goñi Channel (code 110938), owned by Salmones Camanchaca, reported in 2016; and the Benjamin 3 center (code 110868), owned by Salmones Multiexport, reported in 2021. Despite this, none of the concessions were terminated by the SSFFAA, according to Subpesca's [National Aquaculture Registry](#), updated as of July 2022, where all of them appear as valid.