

# FISH TRANSPORT IN THE CHILEAN SALMON INDUSTRY



**SERNAPESCA**

Ministerio de  
Economía, Fomento  
y Turismo

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# Transport in salmon farming

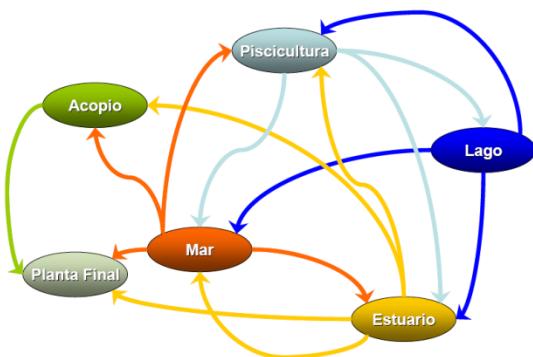
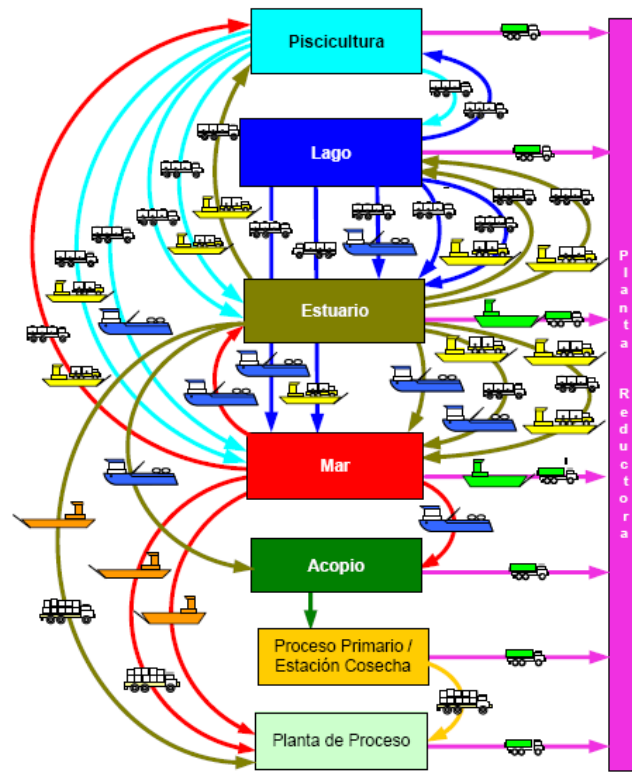
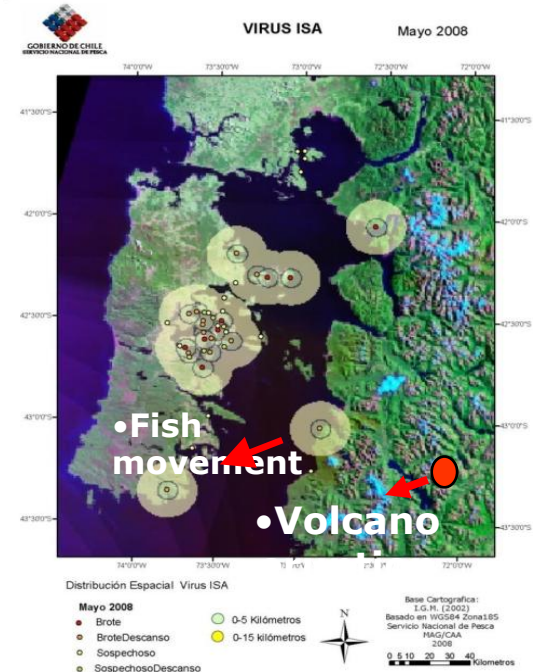
- There are movements through the entire production chain: stockings, harvest, feed, workers and services.
- It is a key logistics factor for a modern, agile and sustainable industry.
- Because of the kind of movements it is a critical element in the control of environmental and health variables that may affect the status of an area, region or country.
- Vessel Monitoring System (VMS) mandatory since 2011



# •Complex geography



# •Natural Disasters



# •Complex logistics



# Movement control

- Since 2008 every movement of fish must be approved by SERNAPESCA through a Sanitary Movement Certificate (CSM).
- It is requested online by the user through the SIFA platform.
- SERNAPESCA evaluates the background (ISAv status of fishes, navigation tracks, destinations, processing plant requirements).
- Every certificate has a serial number, indicates origin, destination of the fishes, trucks and vessel that are going to be used, etc.



Folio de Certificado de Autorización de Movimiento: 622019070178  
 Fecha Emisión: 01-08-2019 12:08 AM  
 Folio CSM Asociado: 09028267

### AUTORIZACIÓN DE MOVIMIENTO DE ACUICULTURA

De conformidad con lo dispuesto en la resolución Ex. N° 1971 del Servicio Nacional de Pesca se autoriza:

Información Autorización			
Tipo de Origen   Origen	Centro de Acuicultura   100409 CENTRO LEUTEFU		
Titular	87752000-5 TORNAGALEONES S.A., GRANJA MARINA		
Región   Comuna   Sector Origen	X REGION   Quellón   ENSENADA A LEUTEFU, ISLA TRANQUIL CANAL, QUEBLEN		
Tipo Procedencia	Propia		
Tipo Movimiento	Movimiento Destino Indirecto		
Tipo Carga a Transferir	Coccha Viva		
Especie a transferir   Cantidad a Transferir	SALMON DEL ATLANTICO   15.897		
Peso Promedio [KG]	5.444		
Biomasa [KG]	86.543,286		
Tipo Destino   Destino	Acopio Flotante   500014 sin nombre (Acopio Flotante)		
Fecha Inicio de Movimiento   Fecha Fin de Vigencia	01-08-2019 - 04-08-2019		

Documento Tributario			
Tipo Documento	Fecha Documento	Número Documento	Rut
Guía de Despacho	01-08-2019	221707	87752000-5

Transporte Marítimo			
Tipo Embarcación	Nombre Embarcación	CA/CB	Matrícula
Wellboat	PATAGÓN V	CB 8076	3088 VALPO

Observaciones: Sin Observaciones

Tipo Certificado: junto al Documento Tributario, deberá acompañar la carga durante todo el trayecto debiendo quedar una copia en el origen y el destino. En el caso de destino a peces a pluma de proceso para consumo humano, los peces que se encuentran evidentemente enfermos de la coccha, deberán ser apartados y destinados a mortalidad.




62201907019





# Ground transportation

- All movements must be authorized through a sanitary certificate issued by Sernapesca.
- Biosecurity measures to prevent the spread of pathogens.
- There should be no leaks or spills of water during transport.
- The welfare of transported fishes should be considered at all times.





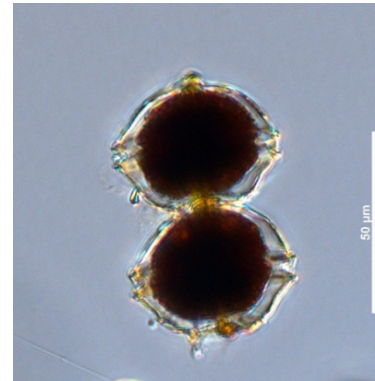
## Marine transport

- More than 920 ships authorized by SERNAPESCA.
- 60 wellboats and 25 fishboats authorized to transport live fish.
- A General Sanitary Disinfection Program regulates the disinfection of effluents and effluents of these vessels to avoid any possible dissemination of pathogens.



# Harmful Algal Blooms

- Harmful Algal Blooms (HAB) impact both sanitary and environmentally.
- To control its dissemination, transport measures must be taken:
  - a. navigation track setting.
  - b. closed navigation in "HAB areas".
- C. Satellite monitoring of movements. VMS System (Vessel Monitoring System)



# Disease control

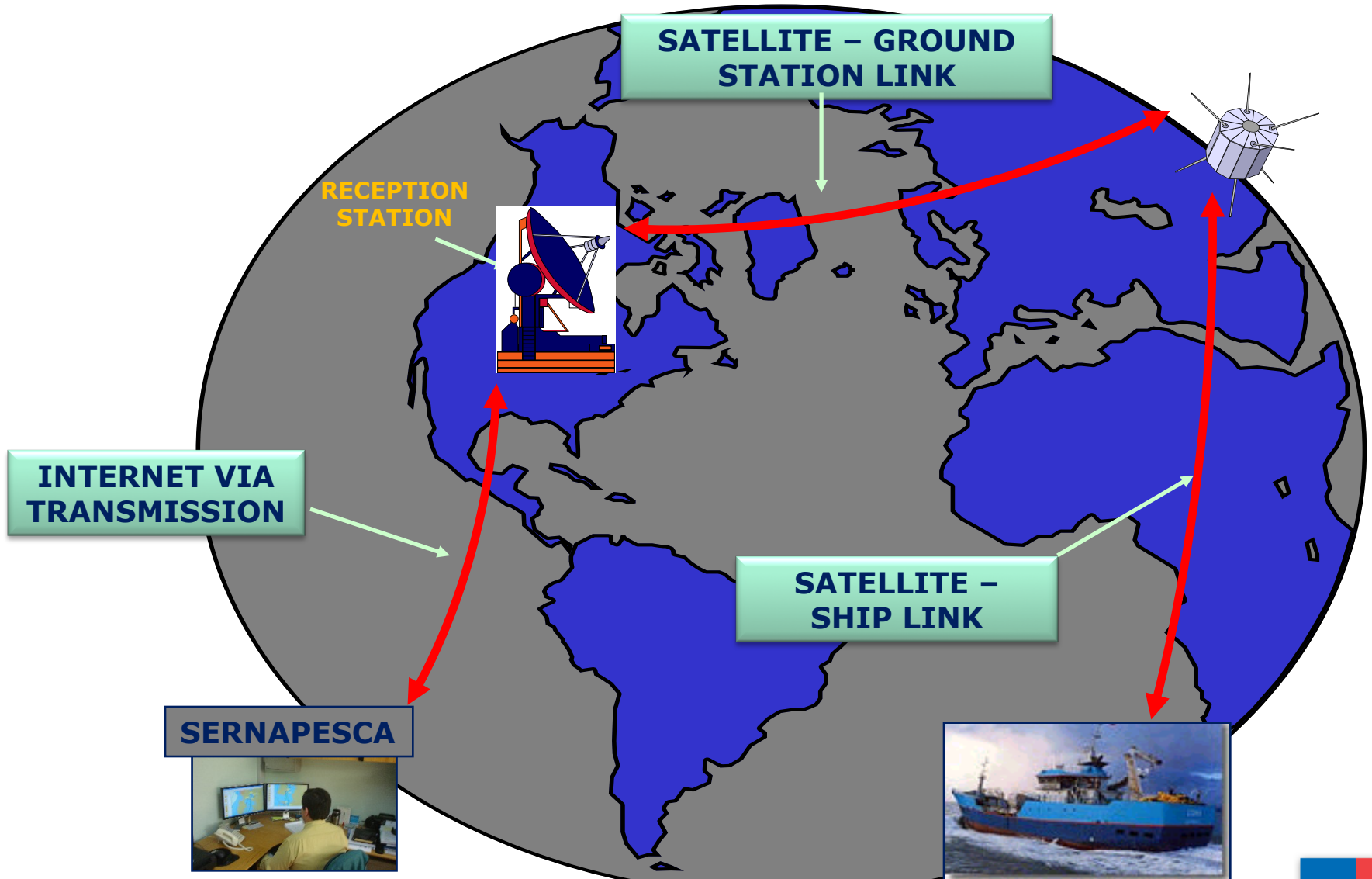
- In disease occurrence control, measures must be taken:
  - a. Movement restrictions.
  - b. Navigation track setting to reduce the risk of dissemination.
  - c. Satellite monitoring of movements. VMS System (Vessel Monitoring System)





# VESSEL MONITORING SYSTEM (VMS)

## FLUX OF INFORMATION

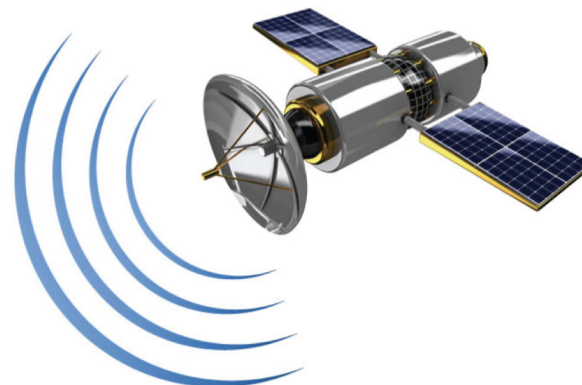
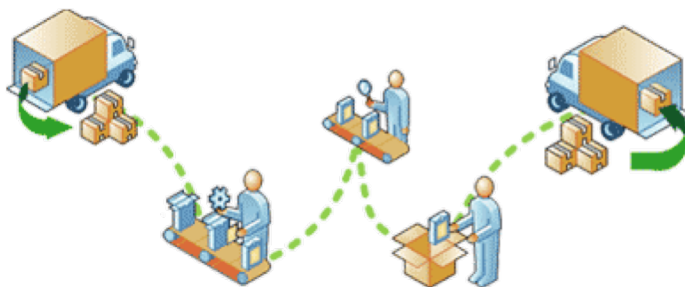




# Conclusions

## Keys factors in transport

- Control of Movements - traceability
- Biosecurity/HAB measures has to be taken
- Vessel Monitoring System.



# Thank you



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