Chilean Discard Law

Implementation of Discard and Incidental Catch Research Programs and Mitigation Plans in Chilean Fisheries 2013-2017

Undersecretariat for Fisheries and Aquaculture

Chilean Government

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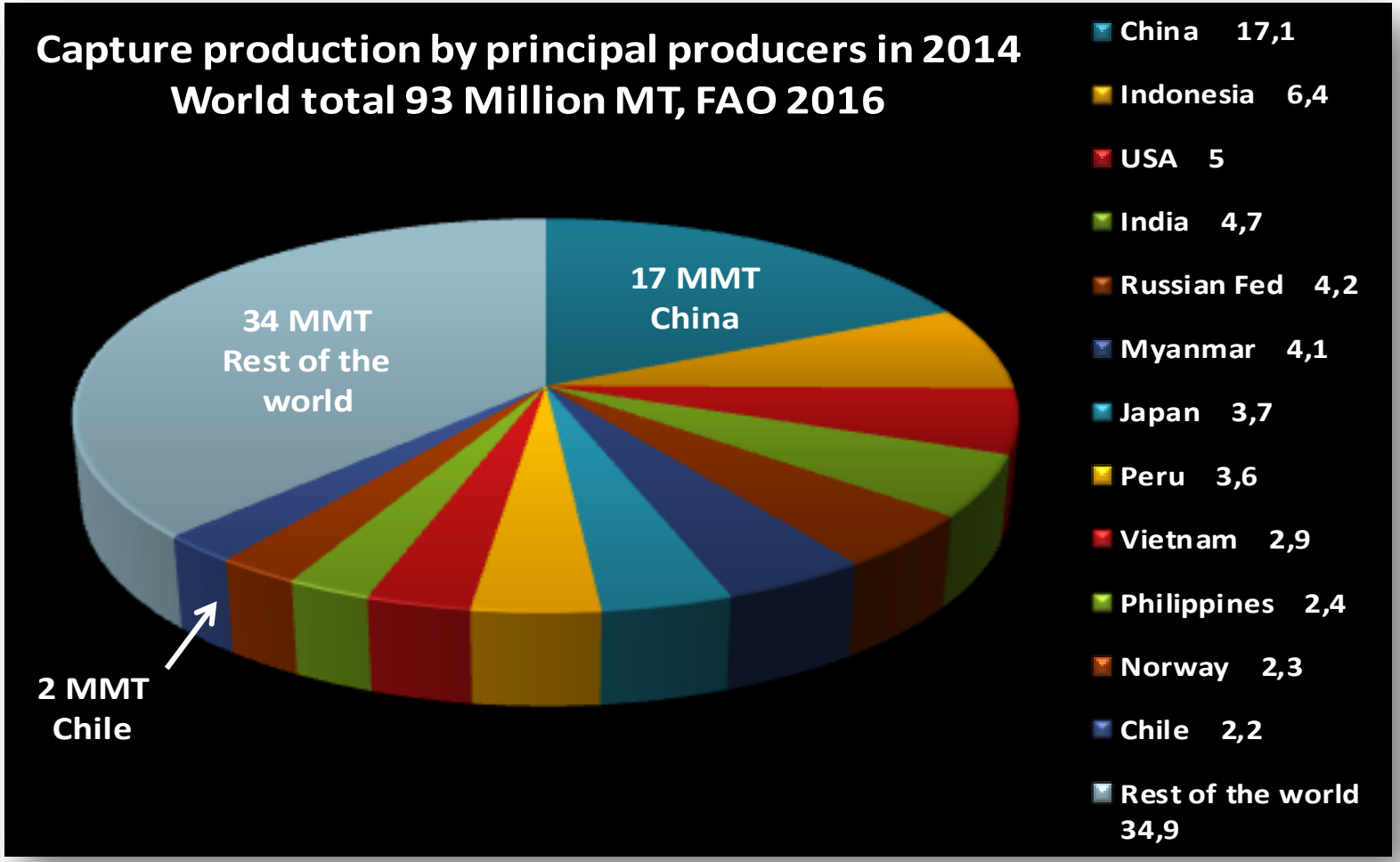
DiscardLess Project Conference, Rome 2017 March 10th 2017

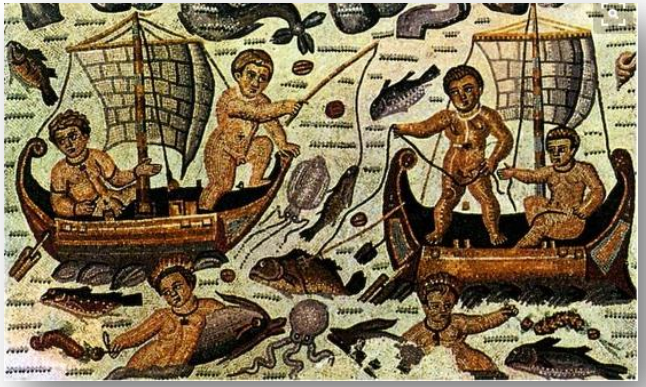
Chilean fisheries in the global context 2014

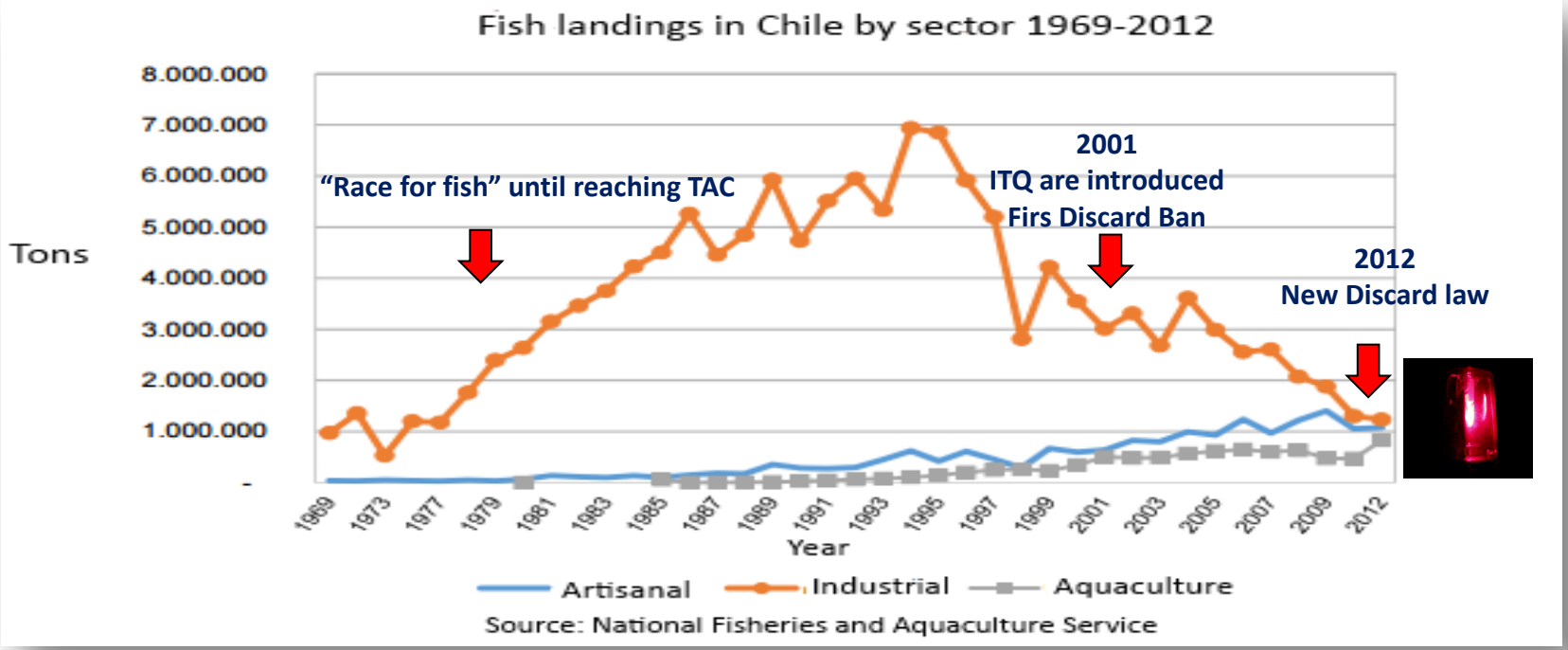


- ✓ 160 Industrial vessels
- ✓ 13000 Artisanal vessels (3-18 meters)
- ✓ 100000 Fishermen plus processing plants workers

A little of history on regulation of discards in Chile…

As in most of the world's fisheries, through history, regulatory conditions, economic reason, technological restrictions or even cultural aspects have induced discards of unwanted fish

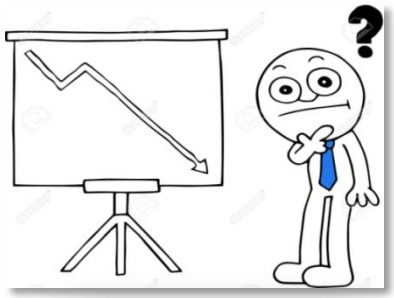


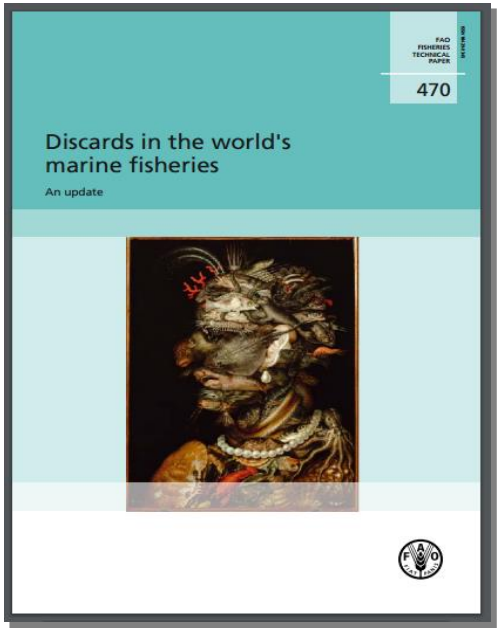


First Discard Law N°19713 /2001

- ✓ The sharp decline in abundance of some fish stocks and the need to account for all fishing mortalities (not only landed fish), led to a **first discard ban in Chile in 2001**.

- ✓ It was a good attempt but regulation became dead letter because of its unrealistic approach
  - Only penalized discards did not differentiating between species or sizes, did not try to understand the nature of this practice neither considered a progressive solution
  - Heavy sanctions to offenders (30% quota discount)
  - Lack of extensive research and enforcement programs at sea
  - Discards continued as always but still unknown to fisheries managers



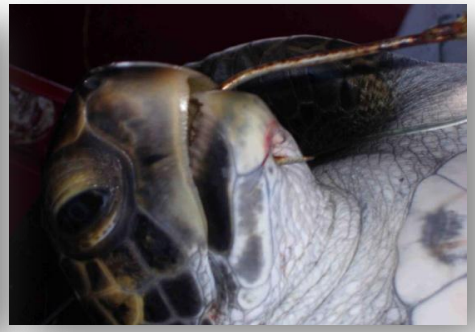


September, 2012 → New Chilean Discard and Incidental Catch Law

Concepts of Discard and incidental catch are re defined/incorporated

discard: *the action of returning to the sea hydro biological species captured (target and bycatch)*

incidental catch: *turtles, seabirds and marine mammals accidentally caught*



Control mechanisms and sanctions (vessel owners & captains) are incorporated for those engaged in these practices during fishing operations

Amendments are made to observers regulations to improve working conditions and data coverage and quality

at first sight it seems just another discard ban…

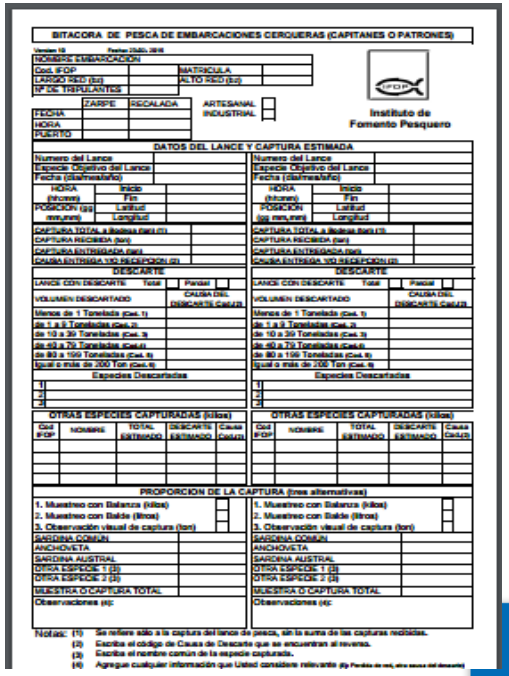
But more than penalizing, the aim is understanding and mitigating these practices

- Law introduced exceptions to the discard ban conditional on a minimum 2 years **Fishery Based Research Programs** to quantify and identify the causes of discards and incidental catch, to later develop specific mandatory mitigation plans. **These will be enforced!!**

- The exceptions to the ban were introduced to avoid changes in fishing behavior of the participating fleets. However, all other regulations must be obeyed including closures, gear restrictions, quotas, etc.

- **Sources of information**

Observers on board



BITACORA DE PESCA DE EMBARCACIONES CERQUERAS (CAPITANES O PATRONES)

Instituto de Fomento Pesquero

DATOS DEL LANCE Y CAPTURA ESTIMADA

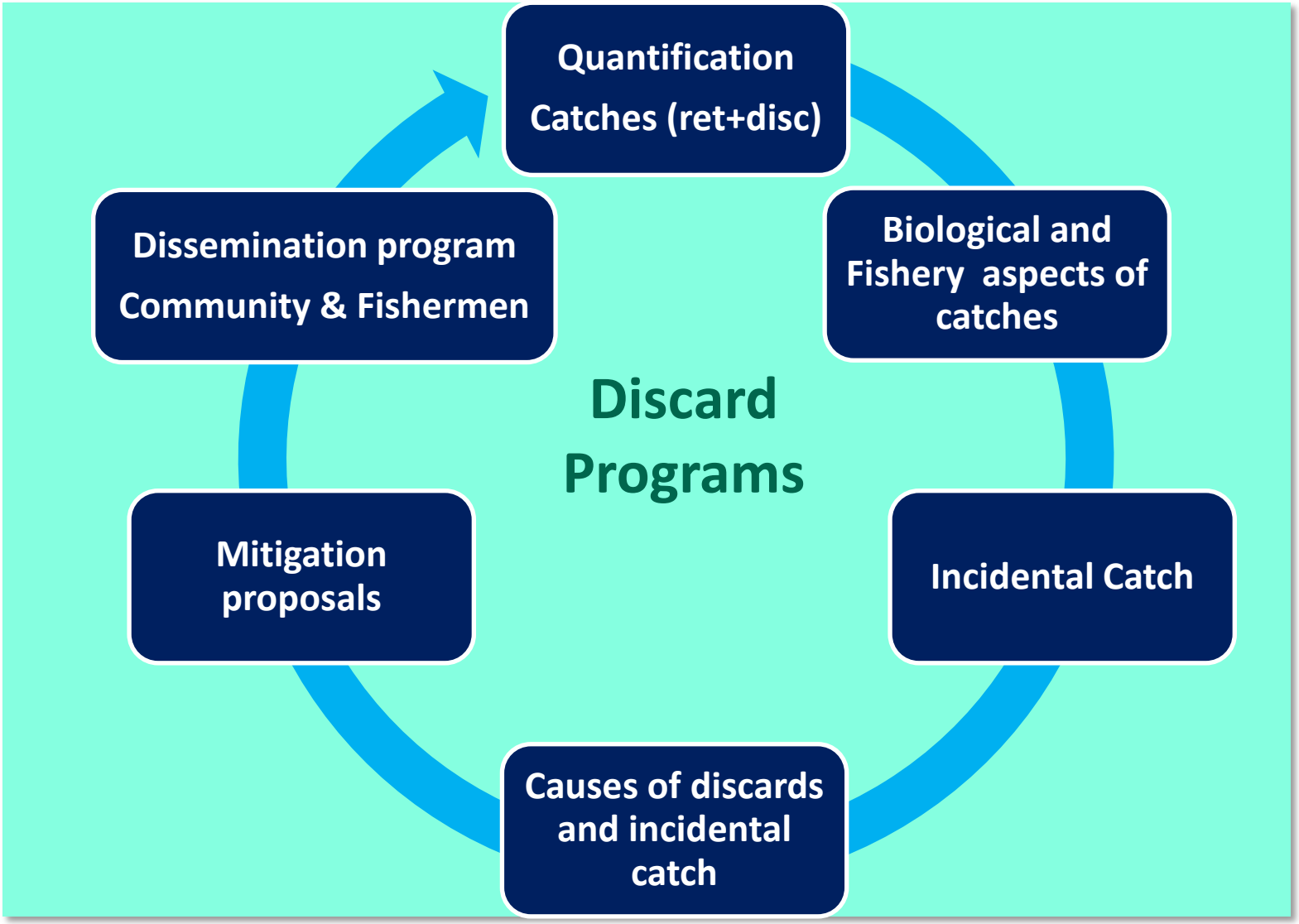
DESCARTE

OTRAS ESPECIES CAPTURADAS (kilos)

PROPORCION DE LA CAPTURA (tres alternativas)

Fishermen´s self report

Objectives of the discard and incidental catch research programs



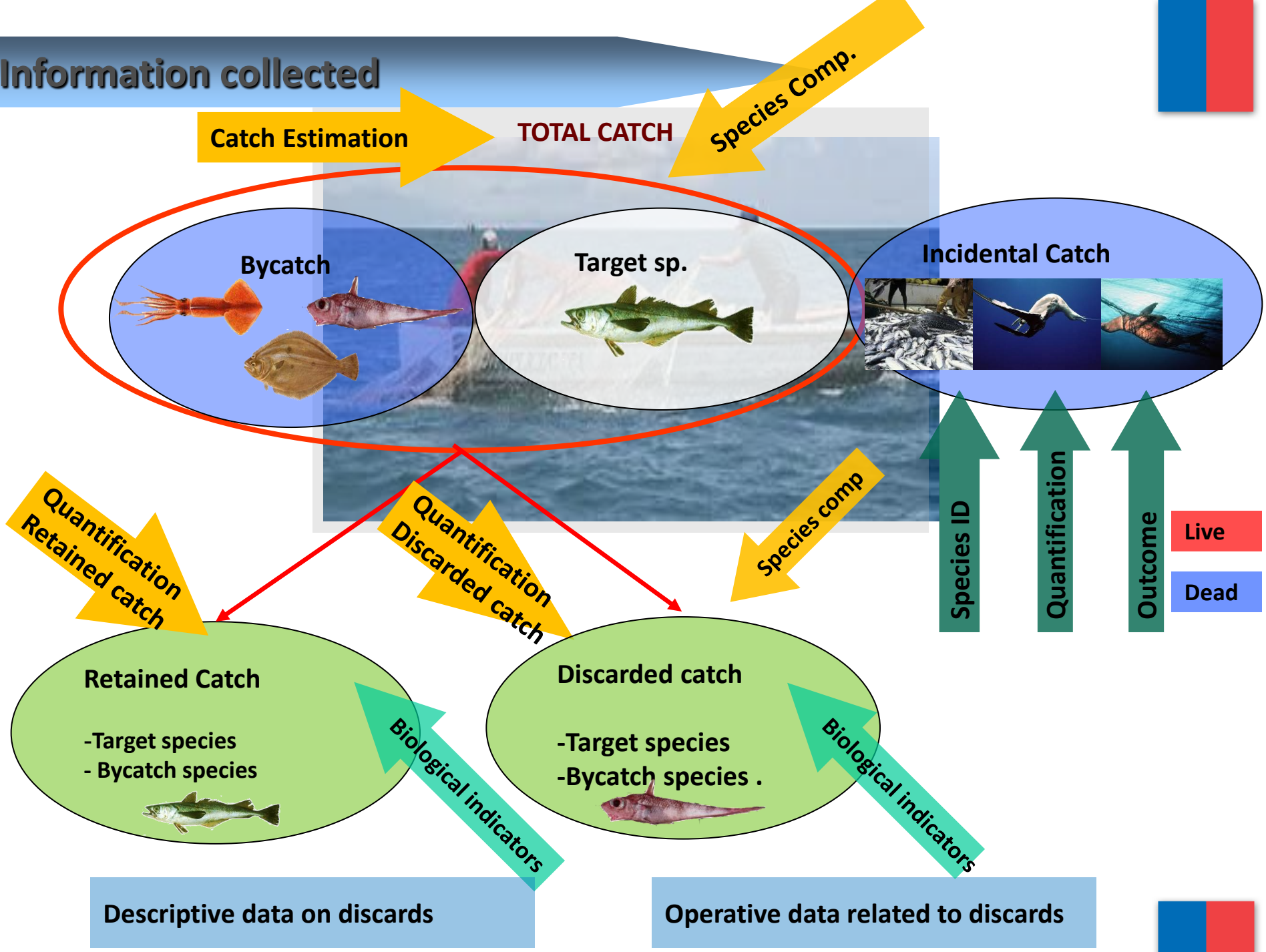
Administration of the discard programs

Program	Fishery	Target specie	Years of study/Budget/ N° Observers								Regions of study Currently half of the country
			2013		2014		2015		2016		
			U$ 250000		U$700000		U$ 1100000		U$ 1100000		
			5 OC		10 OC		18 OC		22 OC		
			Industrial	Artisanal	Industrial	Artisanal	Industrial	Artisanal	Industrial	Artisanal	
Demersal	Crustaceans	Shrimp	TRAWLL		TRAWLL	ARR	TRAWLL	TRAWLL	TRAWLL	TRAWLL	II-VIII
		Red squab lobster	TRAWLL		TRAWLL	ARR	TRAWLL	TRAWLL	TRAWLL	TRAWLL	XV-IV y V-VIII
		Yellow squab	TRAWLL		TRAWLL	ARR	TRAWLL	TRAWLL	TRAWLL	TRAWLL	III-IV y V-VIII
	Demersal fishes	Chilean hake	TRAWLL	GILLNET	TRAWLL	GILLNET	TRAWLL	GILLNET	TRAWLL	GILLNET	IV- 41° 28 6
		Hoki	TRAWLL		TRAWLL		TRAWLL		TRAWLL		V-X
		Hoki	TRAWLL		TRAWLL		TRAWLL		TRAWLL		XI-XII
		Southern hake					ARR/PAL	LONGL	ARR/PAL	LONGL	XI-XII
		Southern blue whitting					TRAWLL		TRAWLL		XI-XII
		Golden kingklip					TR/LL	LONGL	TR/LL	LONGL	XI-XII
		Chilean seabass					LONGL		LONGL		XII

Program	Fishery	target specie	Years of study/Budget/ N° Observers								Regions of study Currently the entire country and international waters
			2013		2014		2015		2016		
					U$ 570000		U$ 830000		U$ 830000		
			5 OC		10 OC		16 OC		18 OC		
			Industrial	Art	Industrial	Artisanal	Industrial	Artisanal	Industrial	Artisanal	
Pelagic	Pelagic fisheries	Sardine/Anchovy	Discard not monitored		P SEINE	P SEINE	P SEINE	P SEINE	P SEINE	P SEINE	V
		Sardine/Anchovy			P SEINE	P SEINE	P SEINE	P SEINE	P SEINE	P SEINE	VII
		Sardine/Anchovy			P SEINE	P SEINE	P SEINE	P SEINE	P SEINE	P SEINE	VIII
		Sardine/Anchovy							P SEINE	P SEINE	IX
		Sardine/Anchovy			P SEINE	P SEINE	P SEINE	P SEINE	P SEINE	P SEINE	XIV
		Austral sardine				P SEINE		P SEINE	CANCELLED		X
		Jack mackerel					P SEINE		P SEINE		V-X y ORP
		Anchovy					P SEINE		P SEINE		XV-II

- ✓ 40 Observers
- ✓ U$ 2MM
- ✓ 20 fisheries
- ✓ Most fleets
- ✓ Most gears
- ✓ Covering the Entire country

Information collected



Discard Law incorporated new obligations for vessels owners and crews regarding observers

- ✓ Mandatory embarking of observers in designated vessels. **No observer → No fishing**.
- ✓ Up to 2 observers per vessel in industrial fleet
- ✓ Vessel owners must ensure that crews provide extensive cooperation to observers
  - Full access to equipment and catch
  - Sampling stations, audiovisual records allowed
  - Safe working conditions, and appropriate space
  - Adequate accommodations, food and treatment

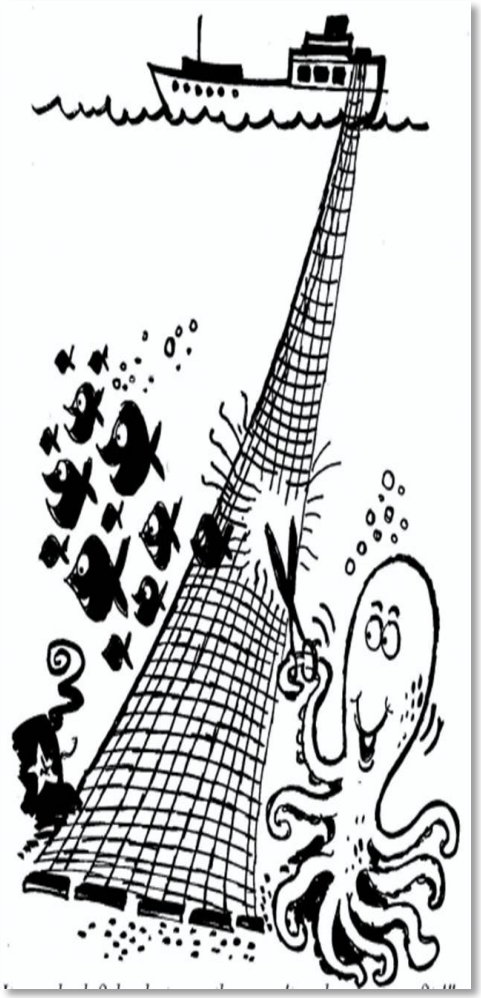
- ✓ fines for those who obstruct the work of observers
  U$ 250-25000
- ✓ Mandatory PLBs, No PLBs → No embarking
- ✓ Information collected by observers is managed by the Government but is of public access may be required by any institution for further analysis

To prevent their presence influencing fishing practices, observer programs are extended but with the exclusive objective of collecting biological and fishery data to be used in scientific advice for fisheries management and conservation, without any jurisdiction in compliance.

Discard and Incidental catch Mitigation Plans
Elaborated by The Government but discussed within each Fishery Management Committee
Plans will be mandatory and enforced

Each Plan will consider the research Programs results and must include:

- ✓ **Management measures** and **technological means** to reduce discards and incidental catch
- ✓ **Mandatory** discard or mandatory retention (Market development)
- ✓ **A monitoring program** to evaluate the effectiveness of the measures adopted by the plan
- ✓ **A training program** for fishermen
- ✓ **A dissemination program** to fishermen and the community
- ✓ **A code of conduct** or good fishing practices
- ✓ **Government incentives** for innovation in systems aimed to reduce discards and incidental catch



ALTERNATIVES TO SOLVE THE PROBLEM OF DISCARDS

The basic bycatch equation

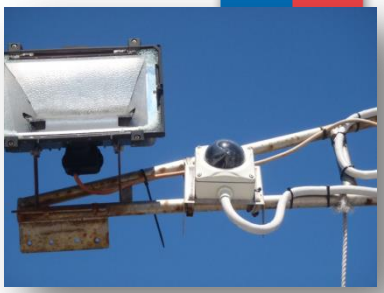
Bycatch = Effort × catch per unit of effort

GOAL:

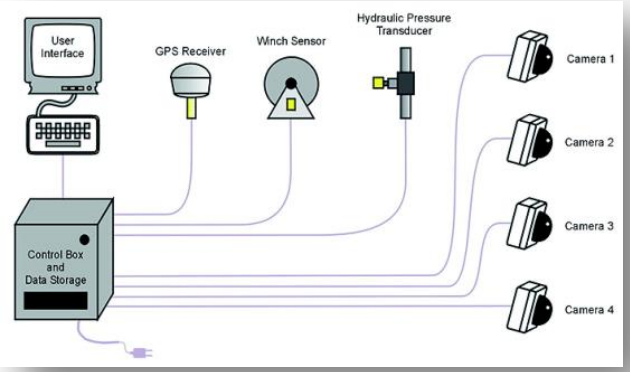
REDUCING DISCARDS AND INCIDENTAL CATCH

- **AVOID UNWANTED CATCH**
- **RELEASE UNWANTED CATCH**
- **IMPROVE MODIFY REGULATION**
- **RAISE AWARENESS EDUCATE**

How did we solve the monitoring of compliance with the regulation on on discards and incidental catch?
Once the fleet starts operating in a regulated discards phase



- ✓ Vessels > 15 meters shall install and keep operative during the entire fishing trip an **EMS to detect , register and quantify discards at sea and incidental catch**
- ✓ Installation and maintenance of the EMS in charge of vessel owners
- ✓ Vessels must follow protocols, EMS compatible, to manipulate discard and incidental catches
- ✓ Sanctions to vessel owners and skippers related to EMS (suspended until enacting regs.)
- ✓ Collection and processing of images registered by EMS held by the National Fisheries Service or certified external entities
- ✓ New regulations on EMS shall consider results of the discard programs
    - Specific EMS requirements by gear, fishery and vessel types
    - Rights and obligations of fishing users regarding EMS
    - Safeguards to prevent manipulation and interference EMS



- **EMS in the entire Industrial fleet in 2017**
- **EMS in the artisanal fleet > 45 ft. in 2020**

Mandatory EMS on board to monitor compliance wiyh mitigation plans (discards and incidental catch)

MINISTERIO DE ECONOMIA, FOMENTO Y TURISMO
SUBSECRETARIA DE PESCA Y ACUICULTURA
REGLAMENTO DISPOSITIVO DE REGISTRO DE IMÁGENES

APRUEBA REGLAMENTO DEL DISPOSITIVO DE REGISTRO DE IMÁGENES PARA DETECTAR Y REGISTRAR DESCARTE.

D.S.Nº 76

SANTIAGO, 08 MAYO 2015

VISTO: Lo informado por el Servicio Nacional de Pesca y Acuicultura mediante Oficio ORD./DN/Nº 51992 de fecha 24 de septiembre de 2014; lo dispuesto en el artículo 32 Nº 6 de la Constitución Política de la República de Chile; en el Decreto con Fuerza de Ley Nº 5 de 1983; el

January 20th 2017 Ends process of elaboration and review of EMS systems

DIARIO OFICIAL
DE LA REPUBLICA DE CHILE
Ministerio del Interior y Seguridad Pública

I CUERPO

LEYES, REGLAMENTOS, DECRETOS Y RESOLUCIONES DE ORDEN GENERAL

SUMARIO

Normas Generales

PODER EJECUTIVO

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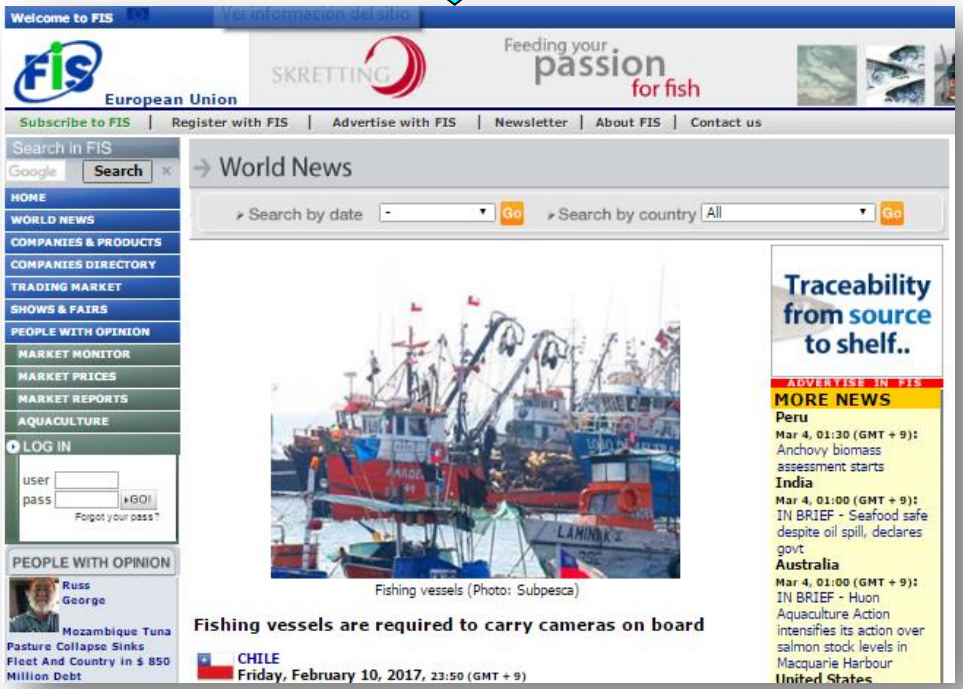
CORTE SUPREMA

OTRAS ENTIDADES

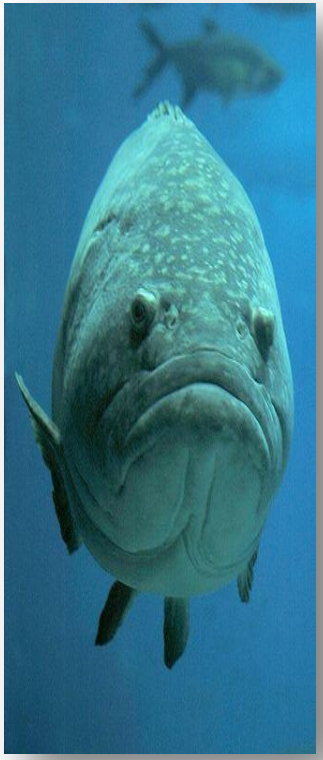
BANCO CENTRAL DE CHILE

February 10th Regulation on EMS is published in the Official Gazette and enters into force



So far everything seems clear and simple….

Except that in the real world…

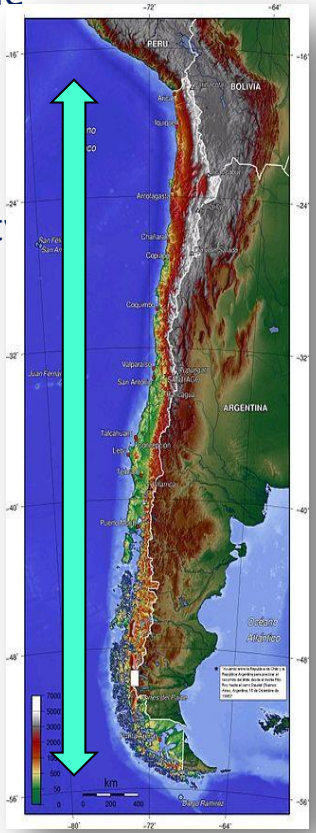


- ✓Most fishing quotas are at historic lows, fishermen worried about the studies´ outcome.
- ✓As in many parts there was not confidence in management decisions.
- ✓Extremely diverse fishing fleet: Industrial to subsistence.
- ✓Including aquaculture, Chile Ranks 10th in the world: significant activit
- ✓A challenge to cover

  12 757 registered artisanal vessels

  160 operating industrial vessels

- ✓Huge EEZ (11th in the world) 3,6 MM km²
- ✓**An intense socialization and dissemination work needed before, during, and after the implementation of research programs, otherwise they will fail**



Then, we decided to start with an intensive socialization work about the new regulation, a task for everyone ... but especially for observers

- ✓ Workshops with vessel owners and fishermen along the entire country to socialize the new Law and Research Programs
- ✓ Workshops with international experts on bycatch and mitigation to build capacity in Chile
- ✓ Discussing and adjusting methodologies of study, incorporating fishermen´s view in order to achieve consensus and minimize interference with normal operations
- ✓ Workshops to discuss preliminary results
- ✓ Encouraging mitigation strategies before enacting the mandatory reduction plans

Of course ... a lot of dissemination, and providing tools

Dissemination videos

Species ID Books for Fishermen

Used in self report

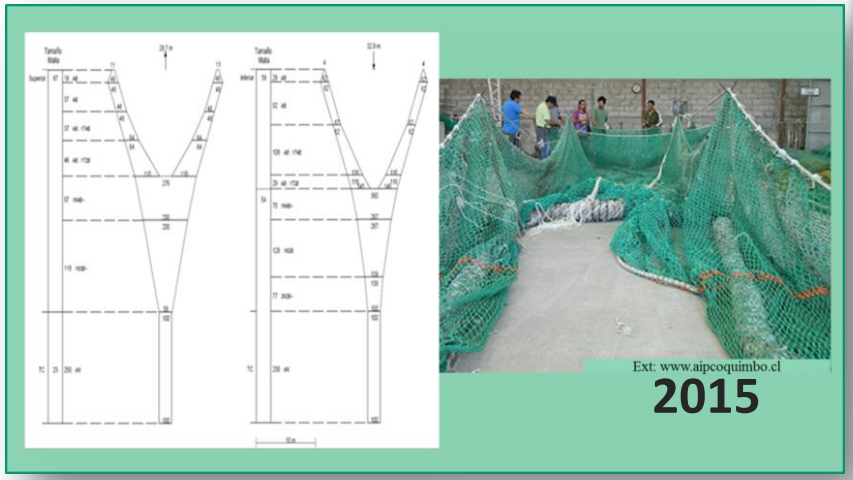
Informing about roles and rights of observers, specially in unaccustomed fleets

Training of fishermen in filling out logbooks,

Installing mailboxes at ports for fishermen forms

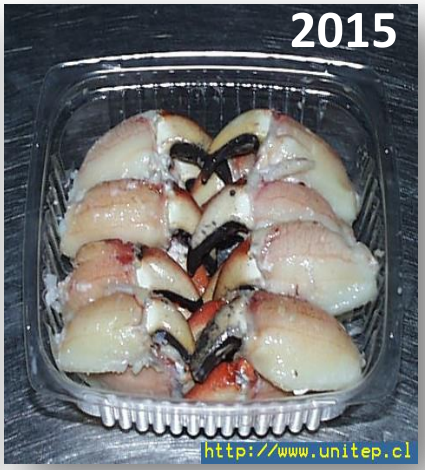
Some mitigation strategies and good practices currently in use…

Excluder grids in hake fishery
VOLUNTARY



Trawls used by fleet targeting crustaceans were standardized and regulated through the establishment of mandatory features
MANDATORY

Flow scales for accurate measurements of bycatch factory trawler fleet
VOLUNTARY

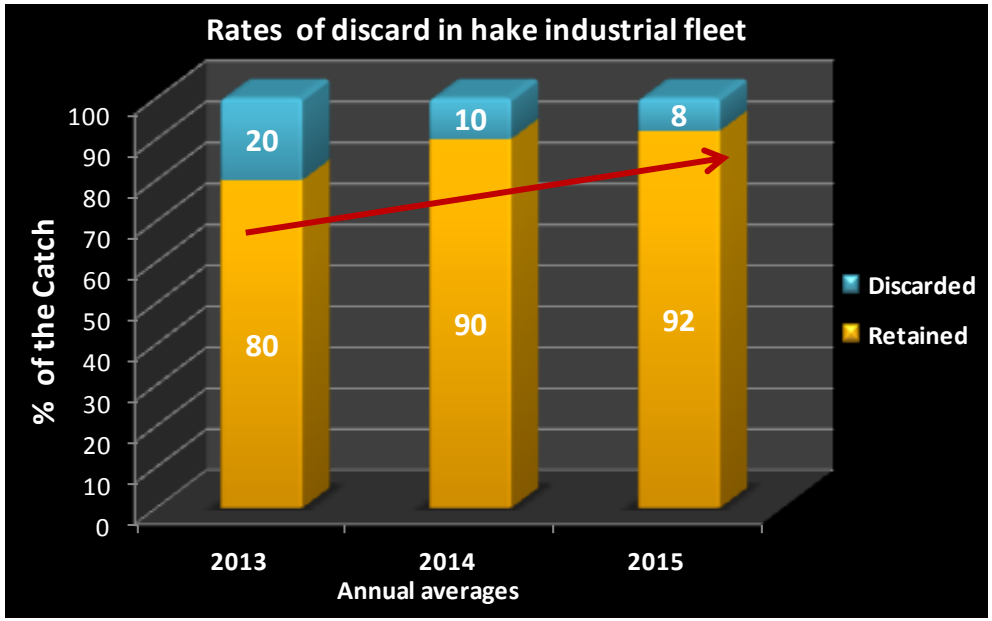


New products made from discarded in crustaceans fleet
VOLUNTARY

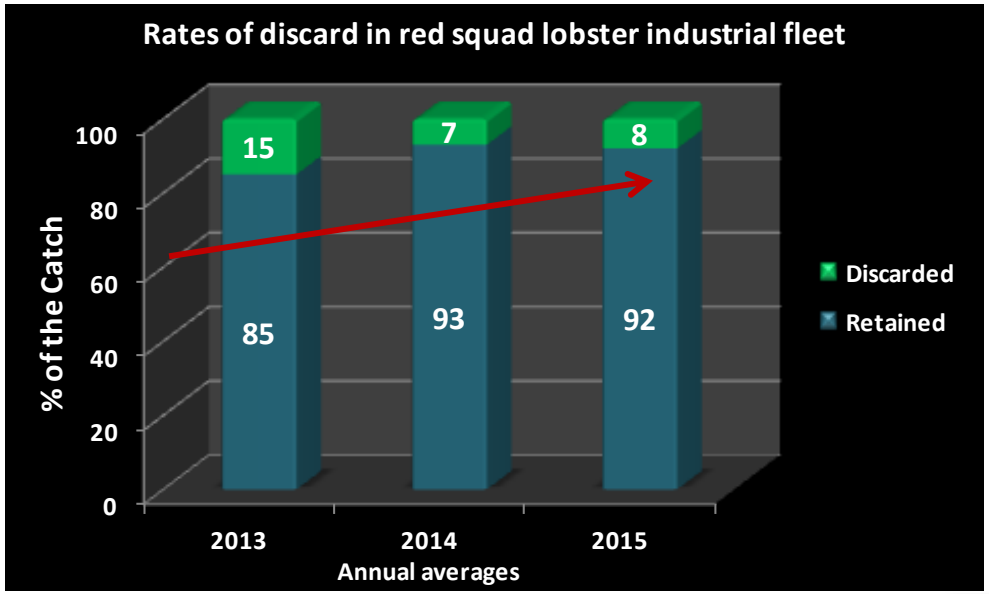
Industry funded nationwide campaigns to increase fish consumption including “rare fish”

Source: FUNDACIÓN COCINAMAR **www.cocinamar.cl**

Some good indicators …



Source: Institute For Fisheries Development (IFOP), Chile



Thank you for your attention, welcome questions