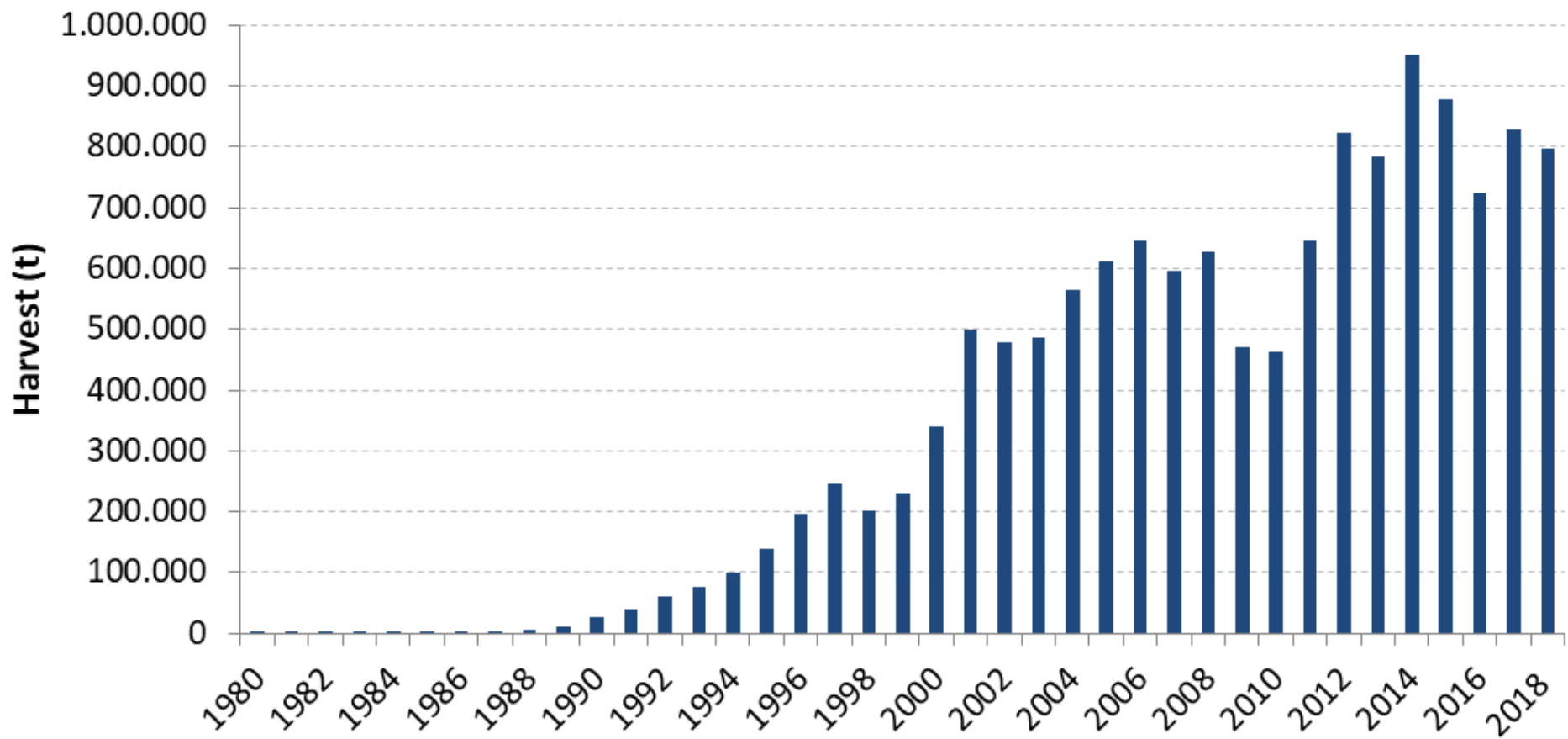


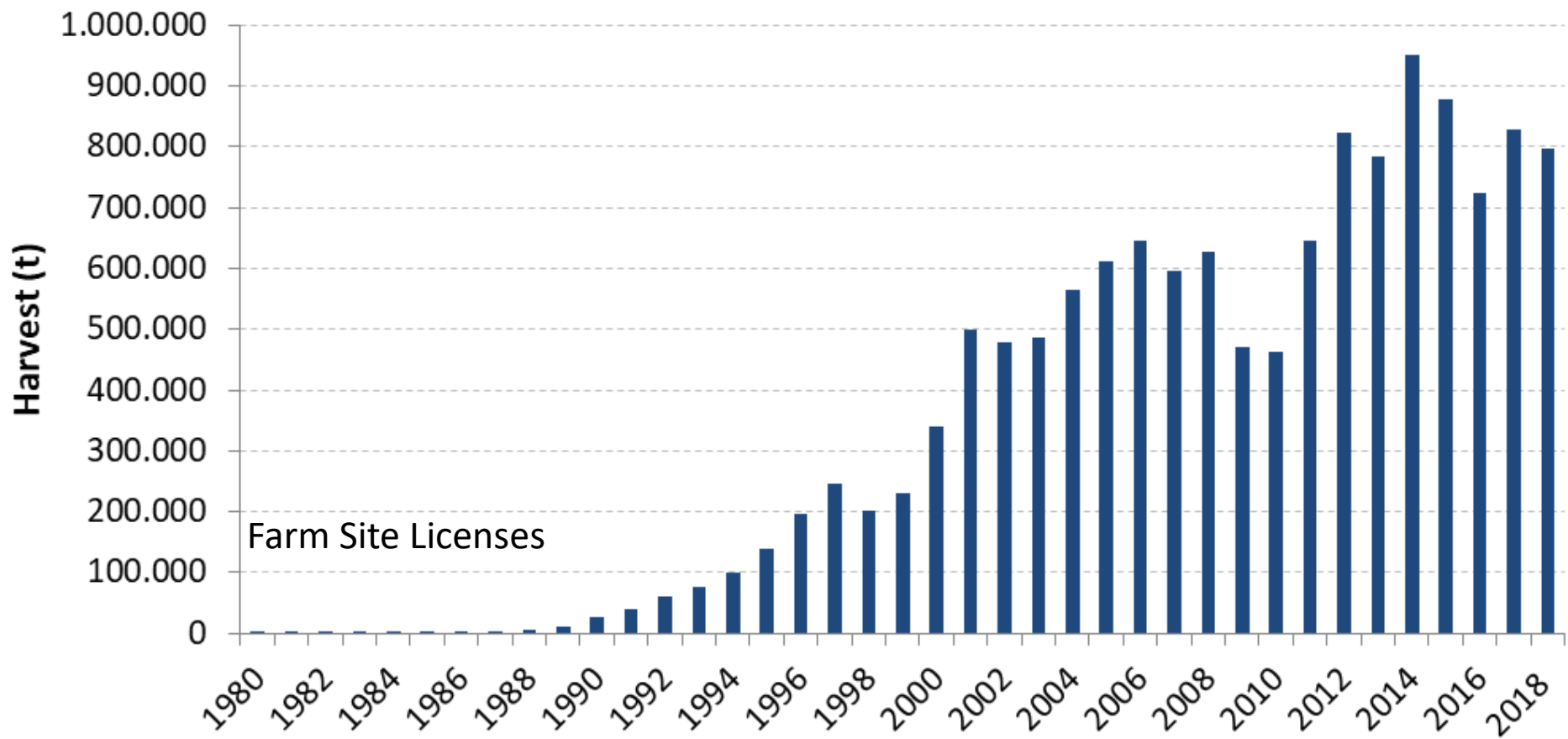
# Regulation in Chile

Puerto Varas, October 2018

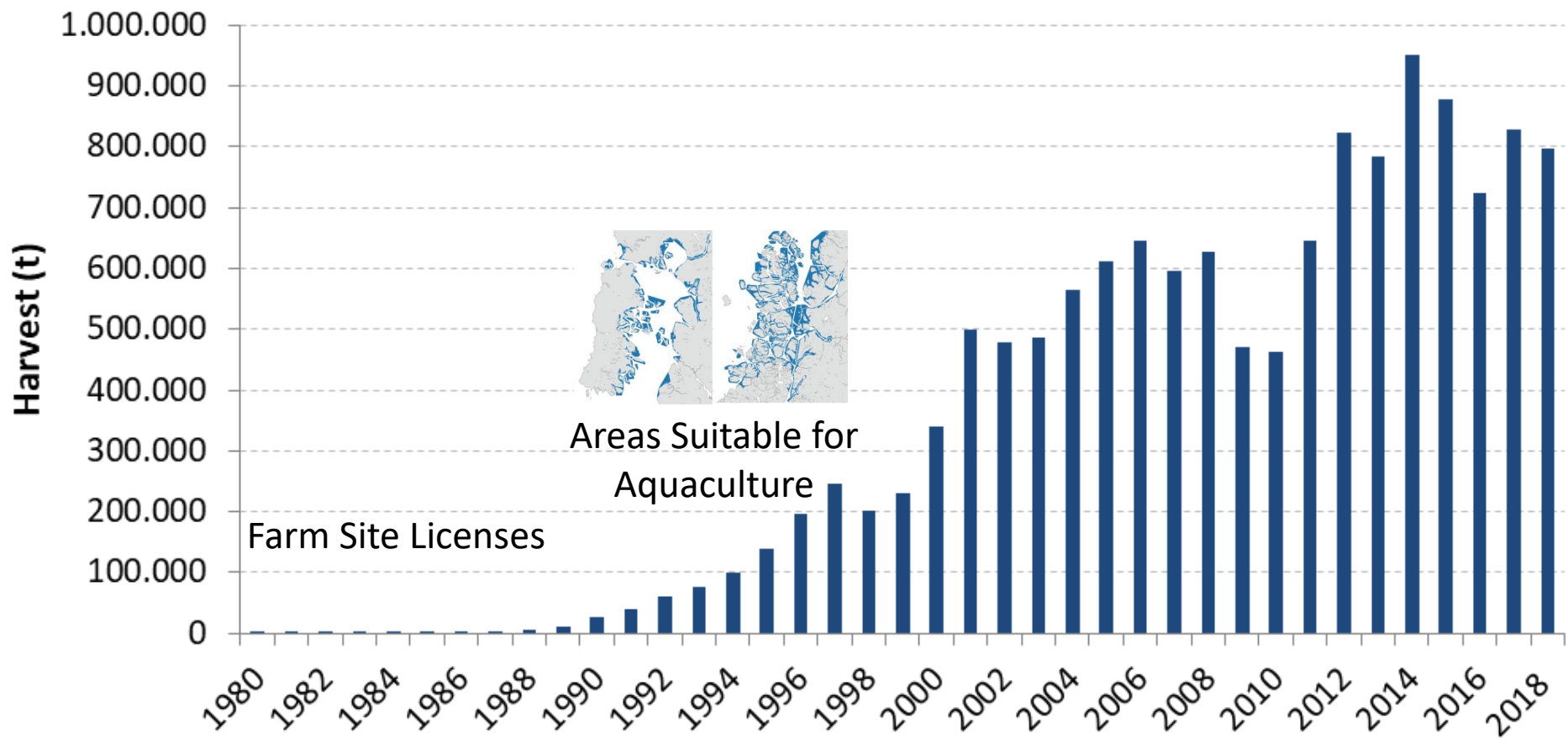
## ❖ Regulation in time



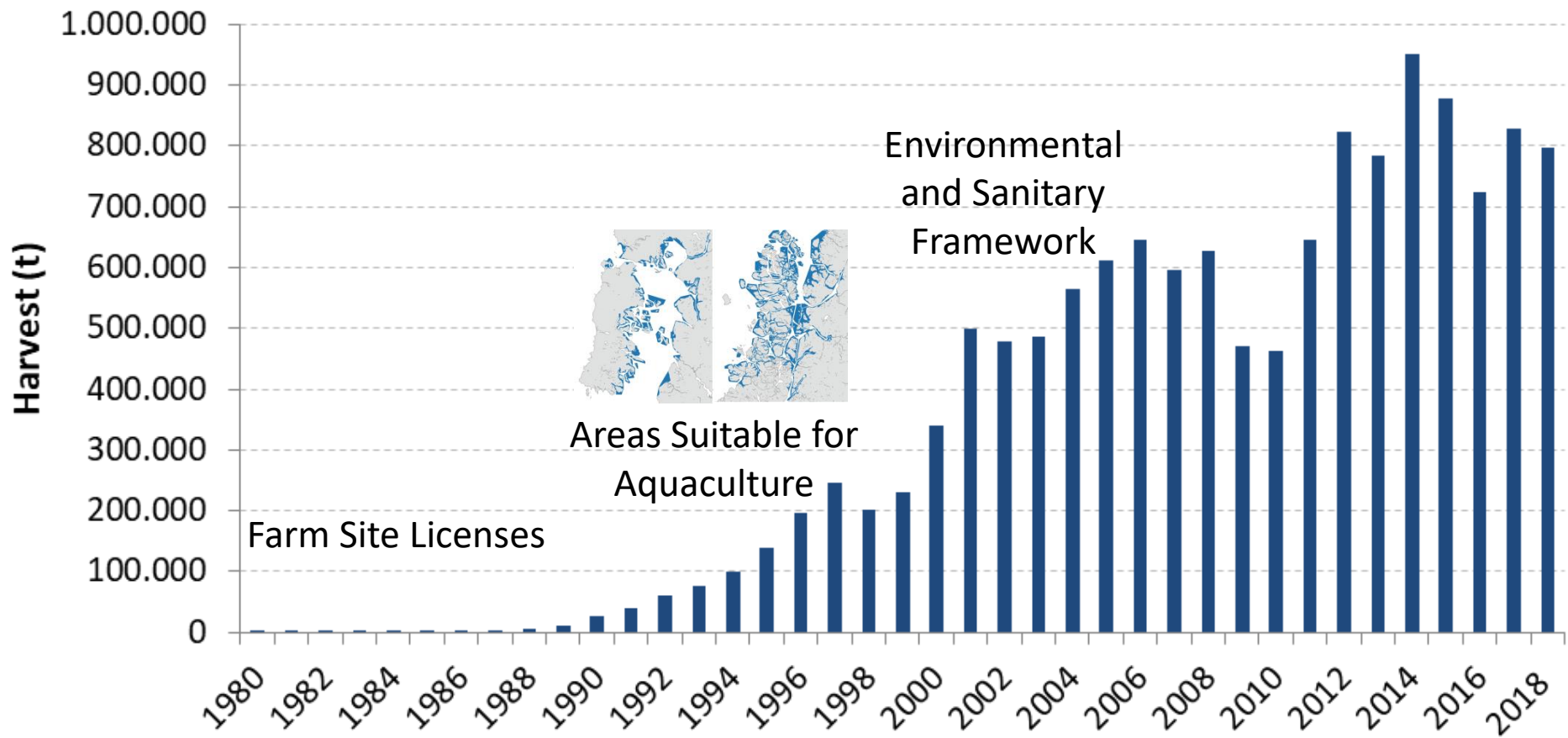
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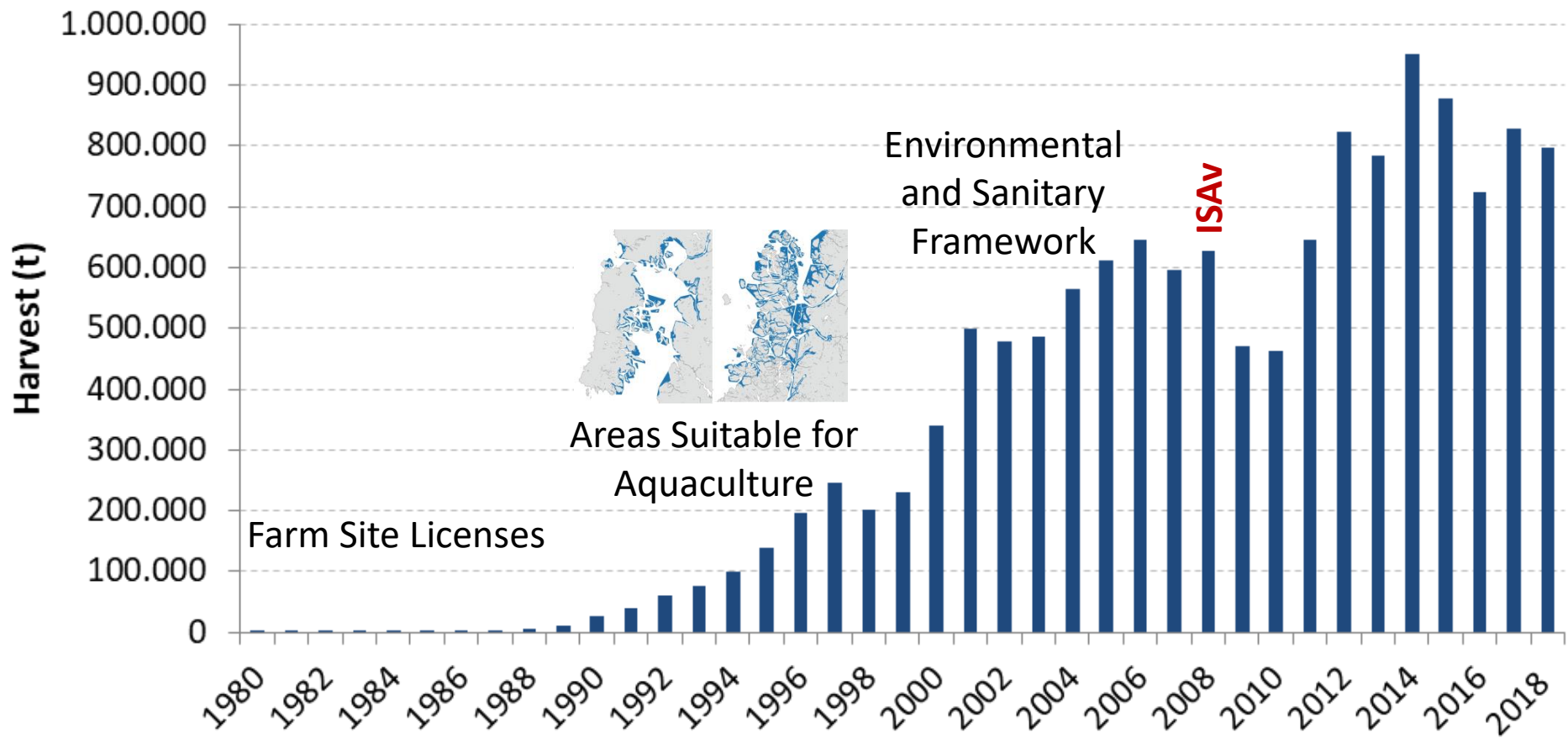
## ❖ Regulation in time



## ❖ Regulation in time



## ❖ Regulation in time



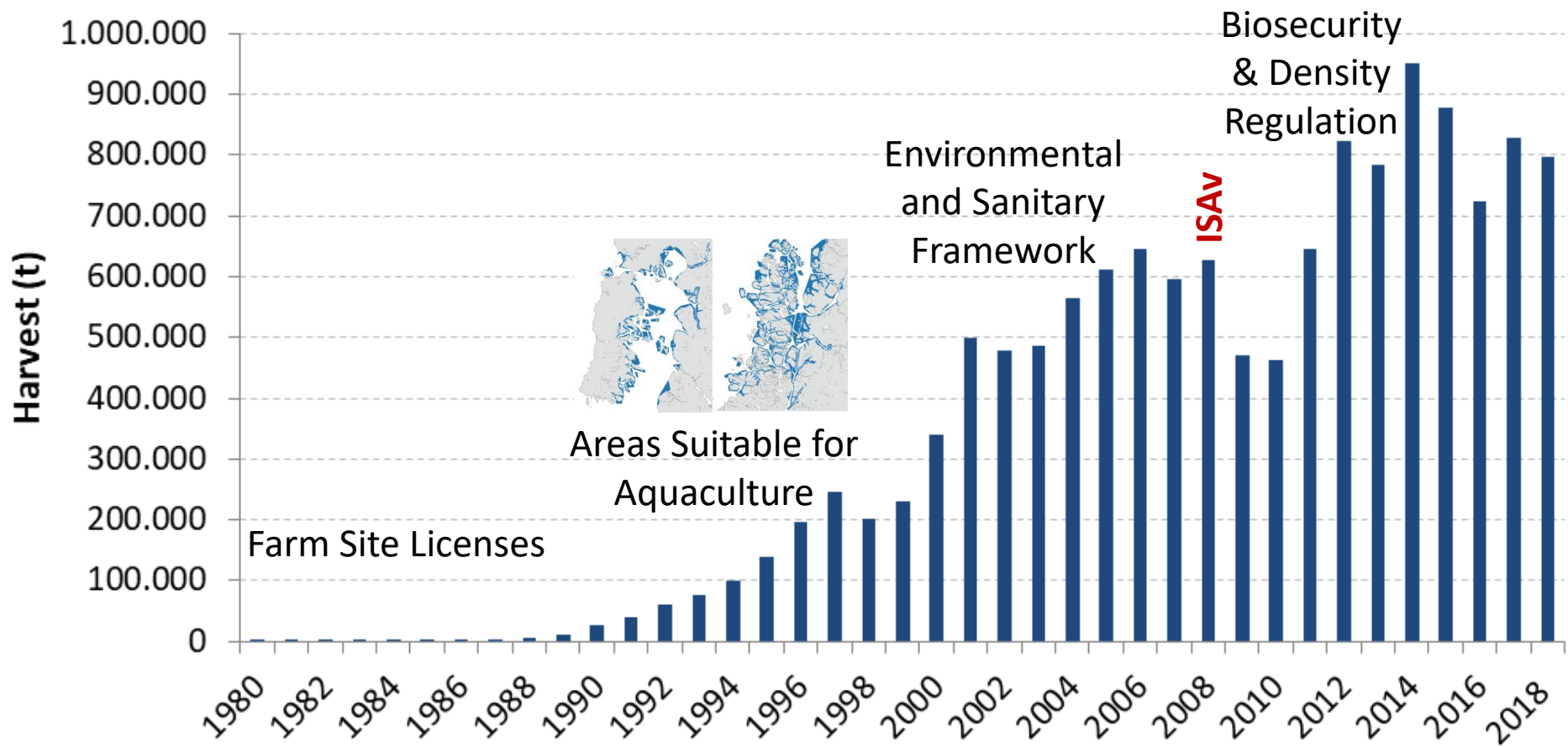
### ❖ Regulation in time



*Salmon farming develops in open aquatic ecosystems where neighboring farm sites may have a strong influence on each other's sanitary conditions*

**Hydrodynamics connects farm sites at varying distances**

## ❖ Regulation in time





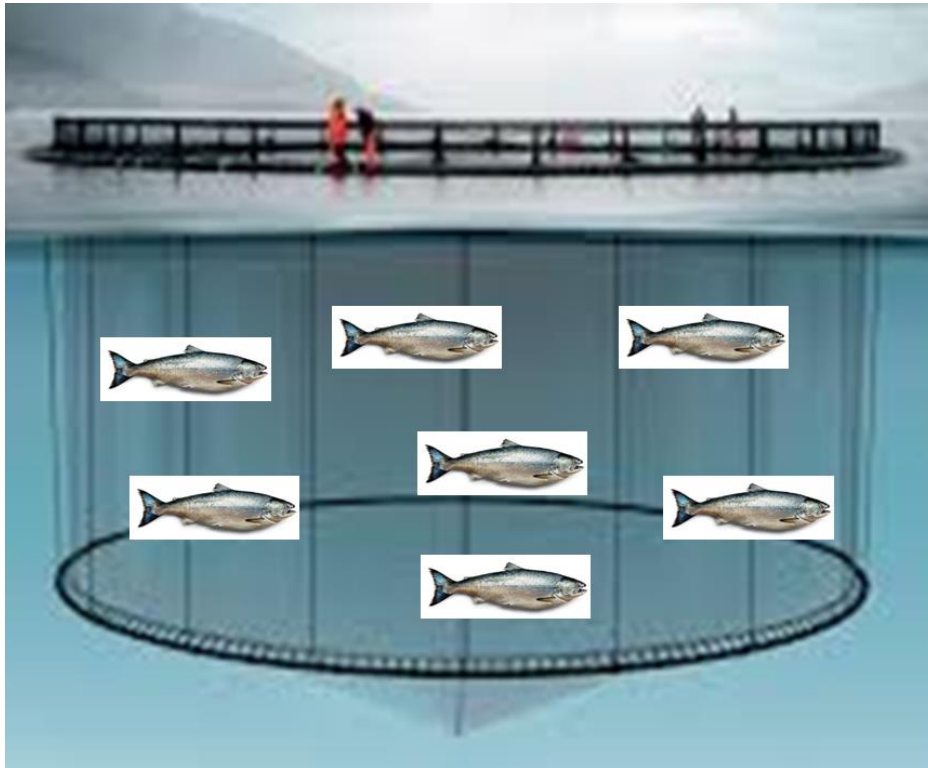
## ❖ Regulation in time



## ❖ Regulation in time



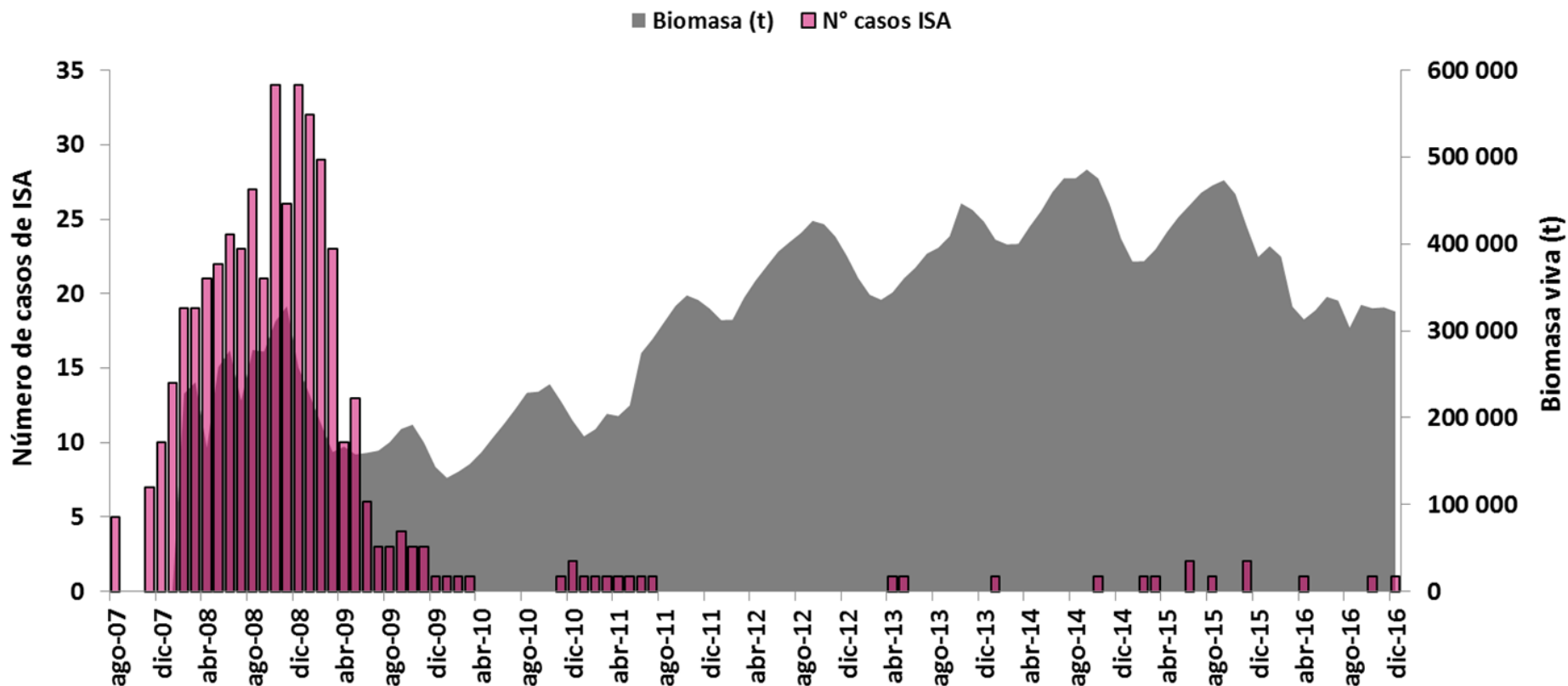
## ❖ Regulation in time



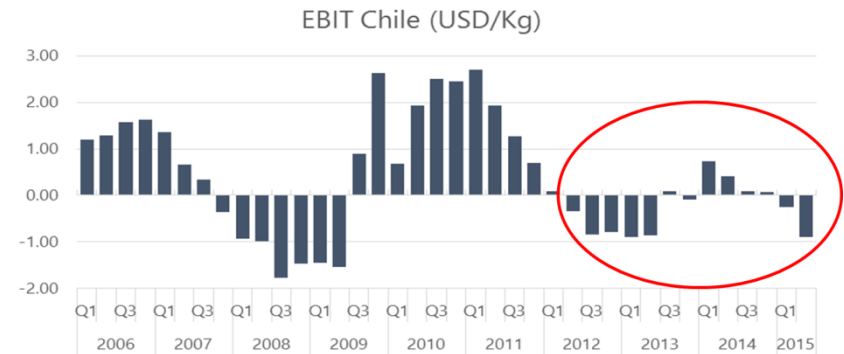
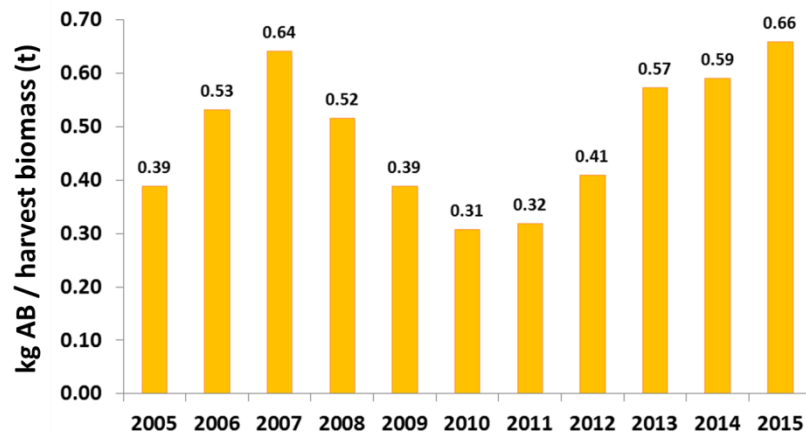
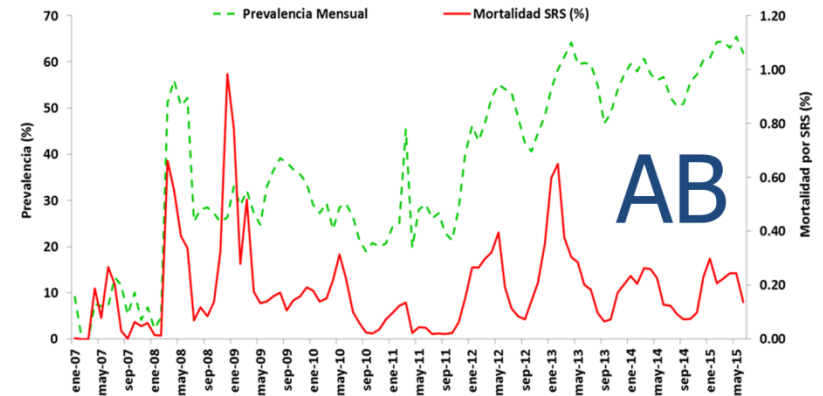
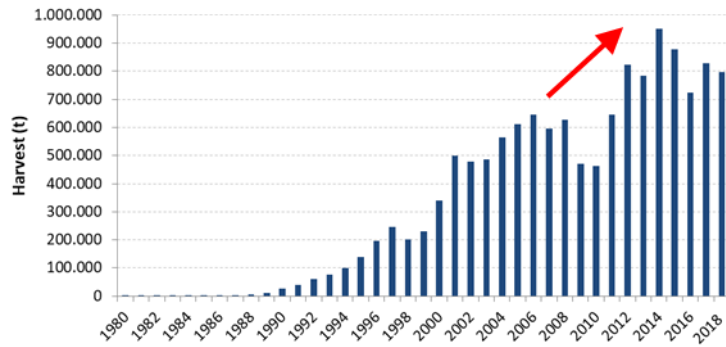
17 Kg / m<sup>3</sup>

## ❖ Regulation in time

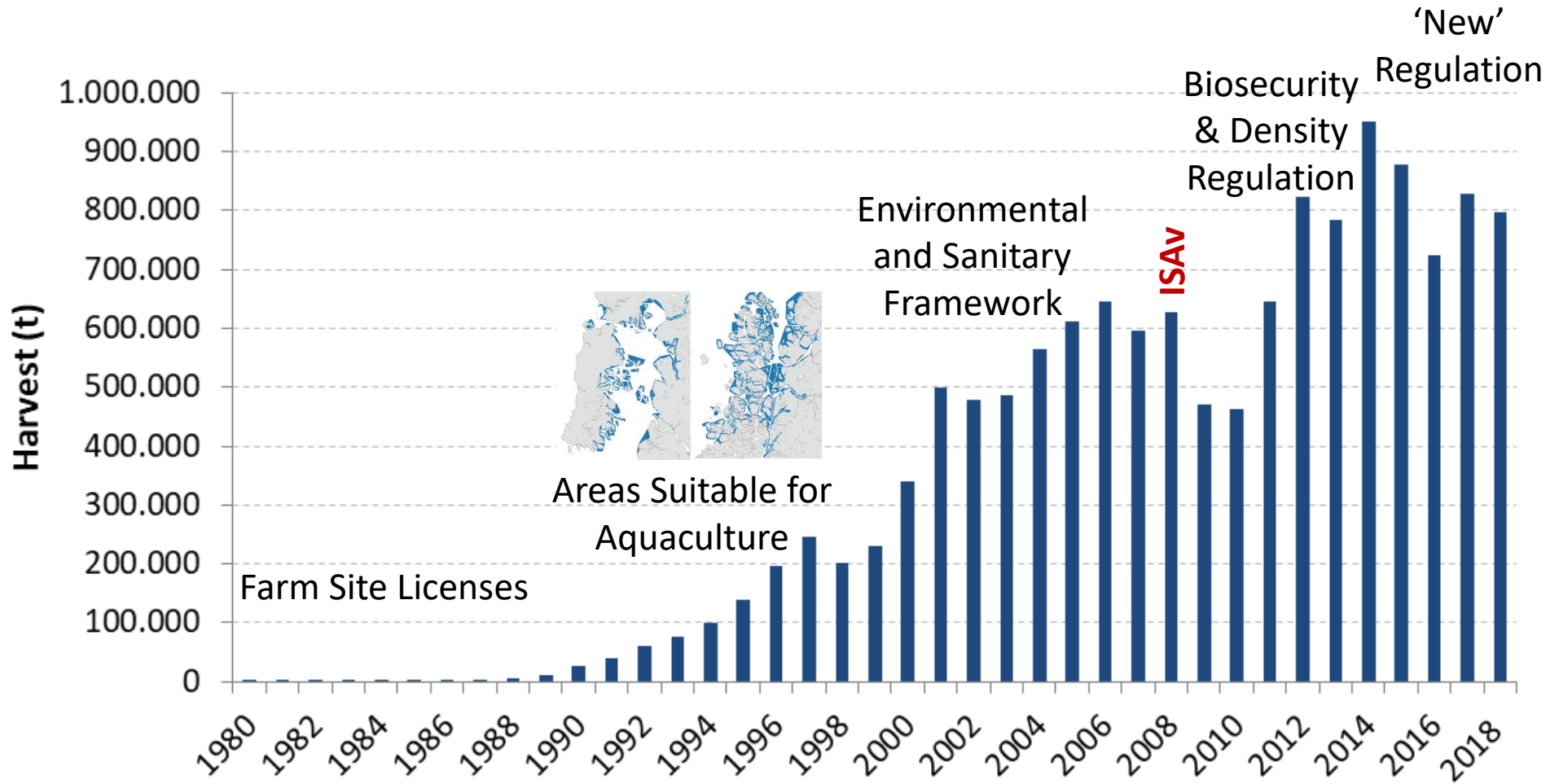
Evolución de los casos de ISA y su relación con la biomasa (Agosto 2007 - Julio 2015)



## ❖ Regulation in time



## ❖ Regulation in time



# ❖ New Regulation

## ☐ Principles

- ✓ Industry must operate within sustainable limits of production (i.e., carrying capacity; main disease challenges are density-dependant)
- ✓ Sanitary and environmental indicators must determine the level of production within a given area

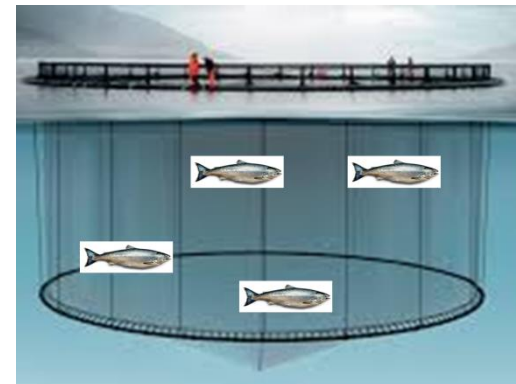
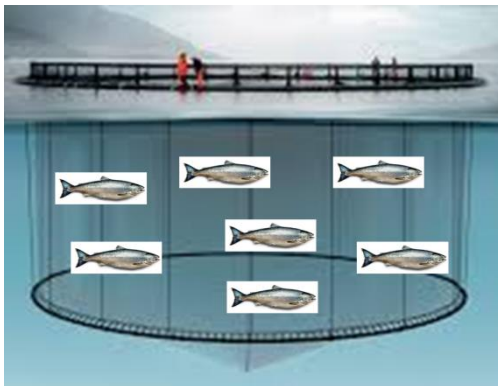
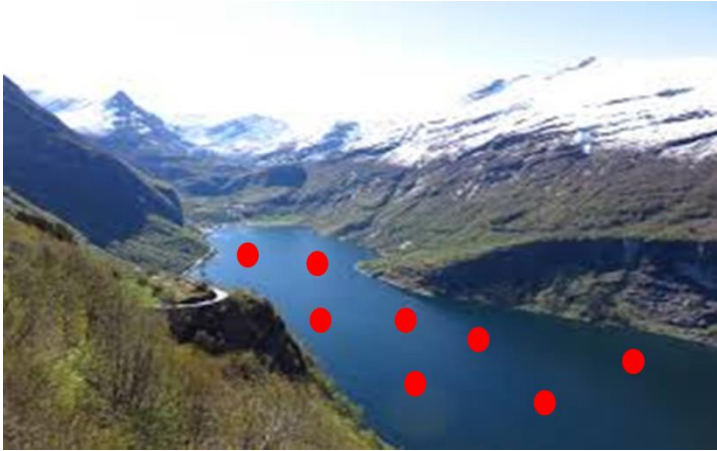
### ❖ New Regulation

#### ❑ Implementation

- ✓ Punish increases in production above a threshold
- ✓ Promote small increases in production based on sanitary performance
- ✓ Provide more flexibility to distribute production between sites

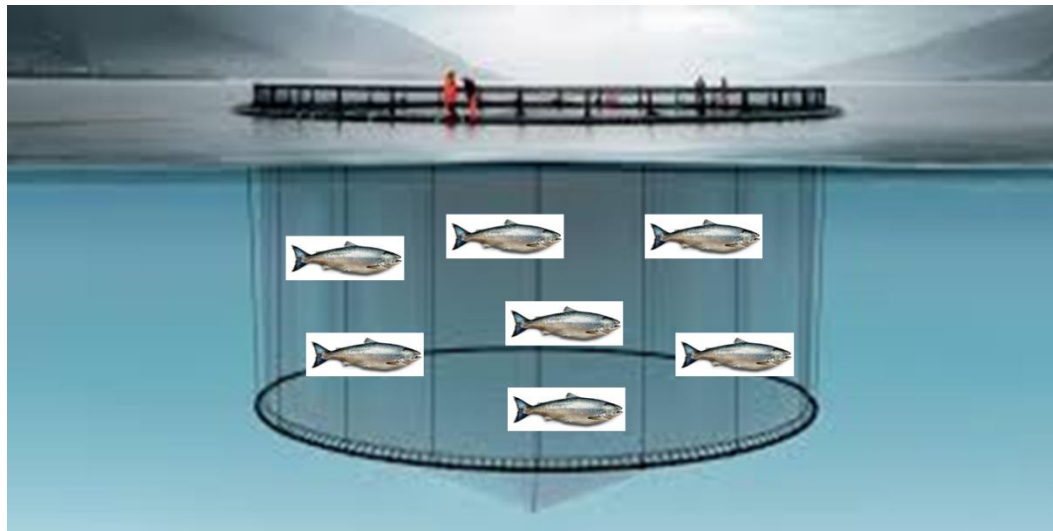


## ❖ New Regulation



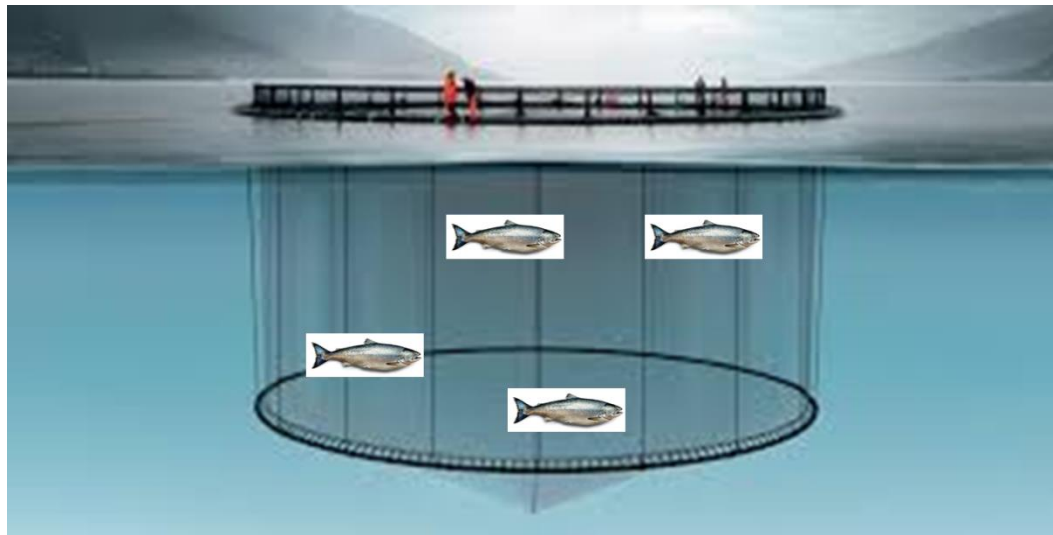
### ❖ New Regulation

*if – as a company – you commit to a management plan that regulates your production (t) based on sanitary performance, you are allowed to farm at the maximum density ( $\text{kg m}^{-3}$ ) permitted by law*



### ❖ New Regulation

*otherwise, you are subject to strict density restrictions which are proportional to production growth (i.e., tax on growth)*



## ❖ New Regulation



Areas Divided by Following Calendar

	First Semester	Second Semester
Even Year	1	2
Odd Year	3	4

*Companies must declare their stocking intention for all the sites they have in each combination, up to 10 months in advance of a site being allowed to stock after completing mandatory and coordinated area following*

ago-17	sept-17	oct-17	nov-17	dic-17	ene-18	feb-18	mar-18	abr-18	may-18	jun-18
					Even Year First Semester					
SD										

❖ New Regulation

	First Semester	Second Semester
Even Year	1	2
Odd Year	3	4

ago-17	sept-17	oct-17	nov-17	dic-17	ene-18	feb-18	mar-18	abr-18	may-18	jun-18
					Even Year First Semester					
SD										

1st Report

2nd Report

Regime Selection (Density or Stocking Reduction)

## ❖ New Regulation

### *Key Considerations\**

- ✓ *Companies must opt for one system or the other for all the sites they have in a 'year-semester' combination*
- ✓ *Density Regime consists of a strict density calculation for each management zone that is strongly influenced by stocking growth from all companies (i.e., as a company, you may not increase your stocking from one cycle to the next, yet still receive a low stocking density)*
- ✓ *Stocking Reduction Regime allows companies to stock at maximum stocking densities, in exchange of a stocking reduction as a function of company specific mortality and sea lice treatments on previous cycles (i.e., it is independent of the rest, unlike the Density Regime)*

- ✓ *Stocking declarations reflect stocking changes in a 26 month period, but stockings will not necessarily distribute evenly throughout this period.*

[illegible]

## ❖ New Regulation

### Key Considerations\*

ago-17	sept-17	oct-17	nov-17	dic-17	ene-18	feb-18	mar-18	abr-18	may-18	jun-18	jul-18	ago-18	sept-18	oct-18	nov-18	dic-18	ene-19	feb-19	mar-19	abr-19	may-19	jun-19	jul-19	ago-19	sept-19	oct-19	nov-19	dic-19	ene-20	feb-20																																					
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# ❖ New Regulation

### *Perspectives*

- ✓ *Onset of regulation in 2nd half of 2017 had a strong impact on stocking intentions declared in August 2017 (7% growth despite record high prices)*
- ✓ *Stocking declarations from February 2018 and August 2018 have seen larger increases than expected*
- ✓ *Government has made Density Regime stricter, enforcing 4 kg/m<sup>3</sup> as minimum density*
- ✓ *Proposal currently out to modify PRS (should have news in Nov '18)*