

# **Re-creating the commons: the French paradox. A comparative study of use-right governance systems for marine and groundwater resources in France.**

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# Property-rights and natural resources in France

- State property over Natural Resources in France was enforced through the building of the Crown Domain, and in particular the Maritime Public Domain [Colbert Ordonnance, 1681]
- The French Revolution reinforced the power of the central administration [Kiser and Kane 2001], but on the other hand, the Revolution ended with a sacralization of private property [Duhautoy, in prep.]

# Property-rights and natural resources in France

- French Fisheries Law of 1997: « France and its centralized government reject the idea of ITQs »  
=> no individual (private) rights on Natural Resources which belong to the Public Domain
- However, fisheries use-rights are sold on the vessels second-hand market since the early 1990s and a market for shellfish farming leasing grounds exists since 1915!
- Groundwater resources used by households and farmers were considered exclusively private until 1992
- In order to support cooperation between administration and users and among users, intermediate institutions have been re-introduced recently (shellfish farming: 1983; groundwater resources: 2006; fisheries: 1970-2011)

# Property-rights and natural resources in France

- Use-rights for NR, incl. CPR, in France have an ambiguous status between State property, private property, and CPR
- Objective: how to characterize and assess the use-rights governance systems for the three resources and industries (shellfish farming, marine fisheries, groundwater resources), from a historical and institutional perspective?

- Analytical framework

Ostrom (1990): use-rights as a bundle of rights embedded in multiple institutional levels, incl. Intermediate institutions

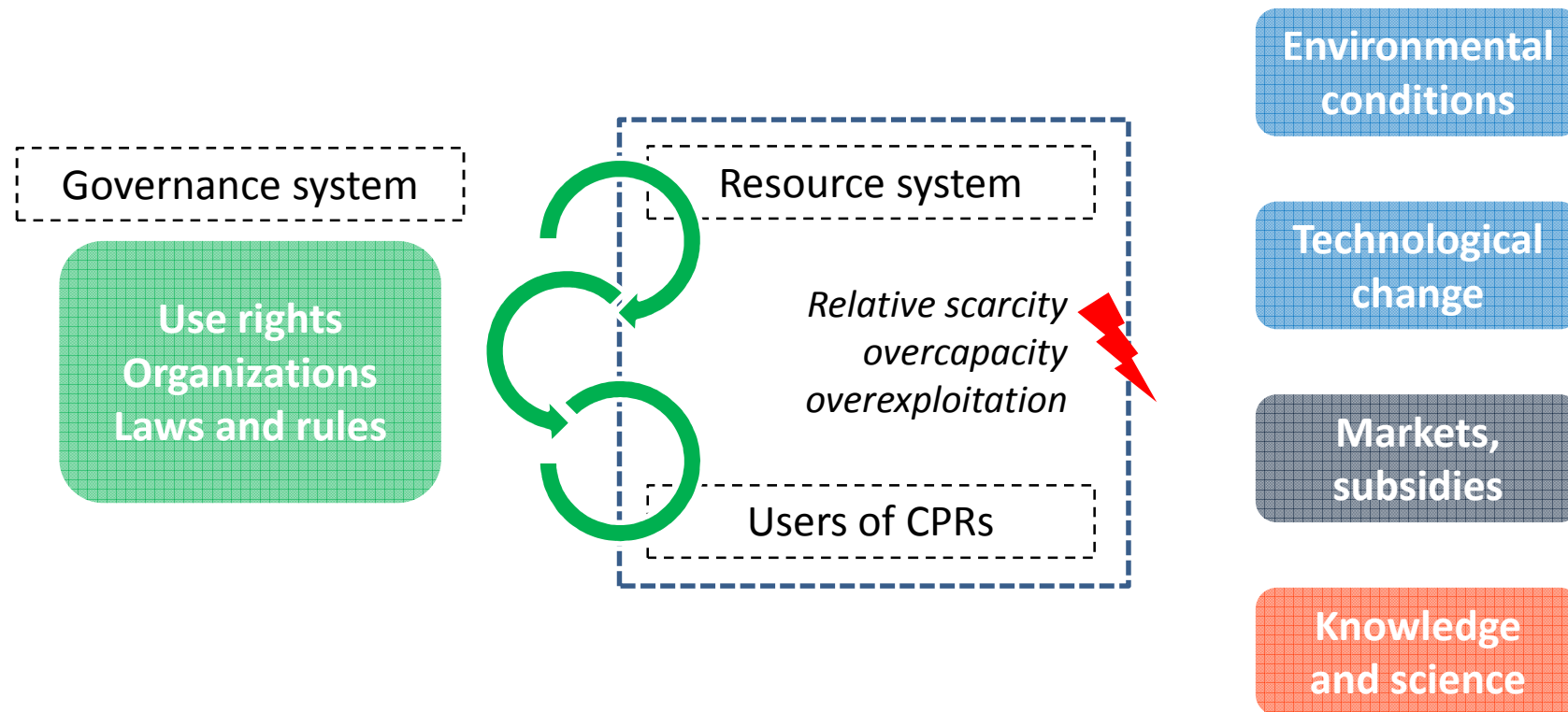
Bromley (1992): ownership of use-rights as institutional arrangements which combine various property regimes characteristics (incl. Common Property Regimes)

Various authors: criteria for assessing the coherence and efficiency of CPR management systems

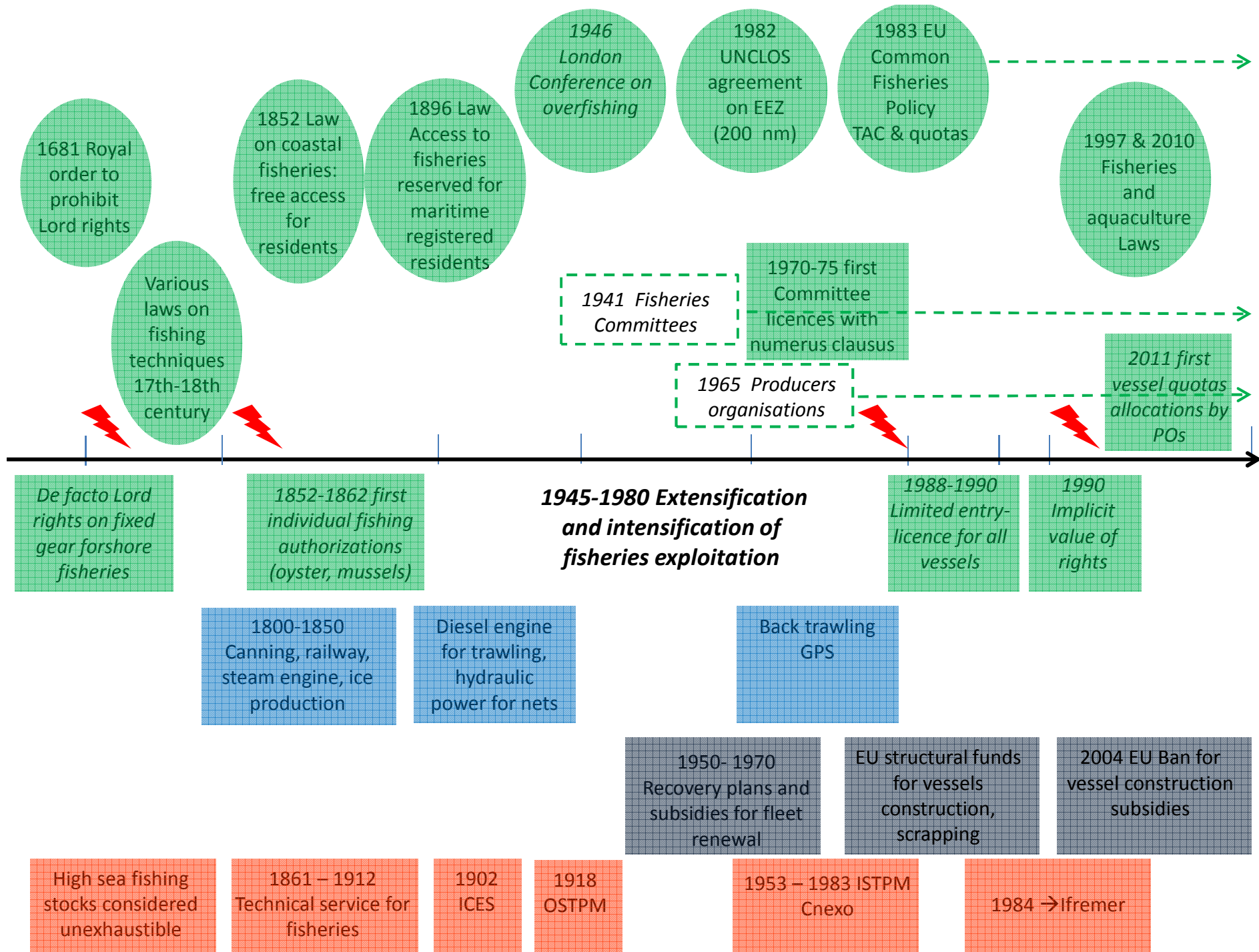
# Content of the study

- Historical analysis of the three industries: shellfish farming, marine fisheries and groundwater resources, all CPRs
- Institutional analysis
  - Governance systems of use-rights
  - Bundle of rights and extent of common property institutions
  - Coherence and efficiency of governance systems
- Discussion
  - Re-creating Common Property Institutions... without theorization... nor communities?

# Historical perspective: drivers of development pattern and institutional changes



# Historical perspective: fisheries





## Historical perspective: shellfish farming

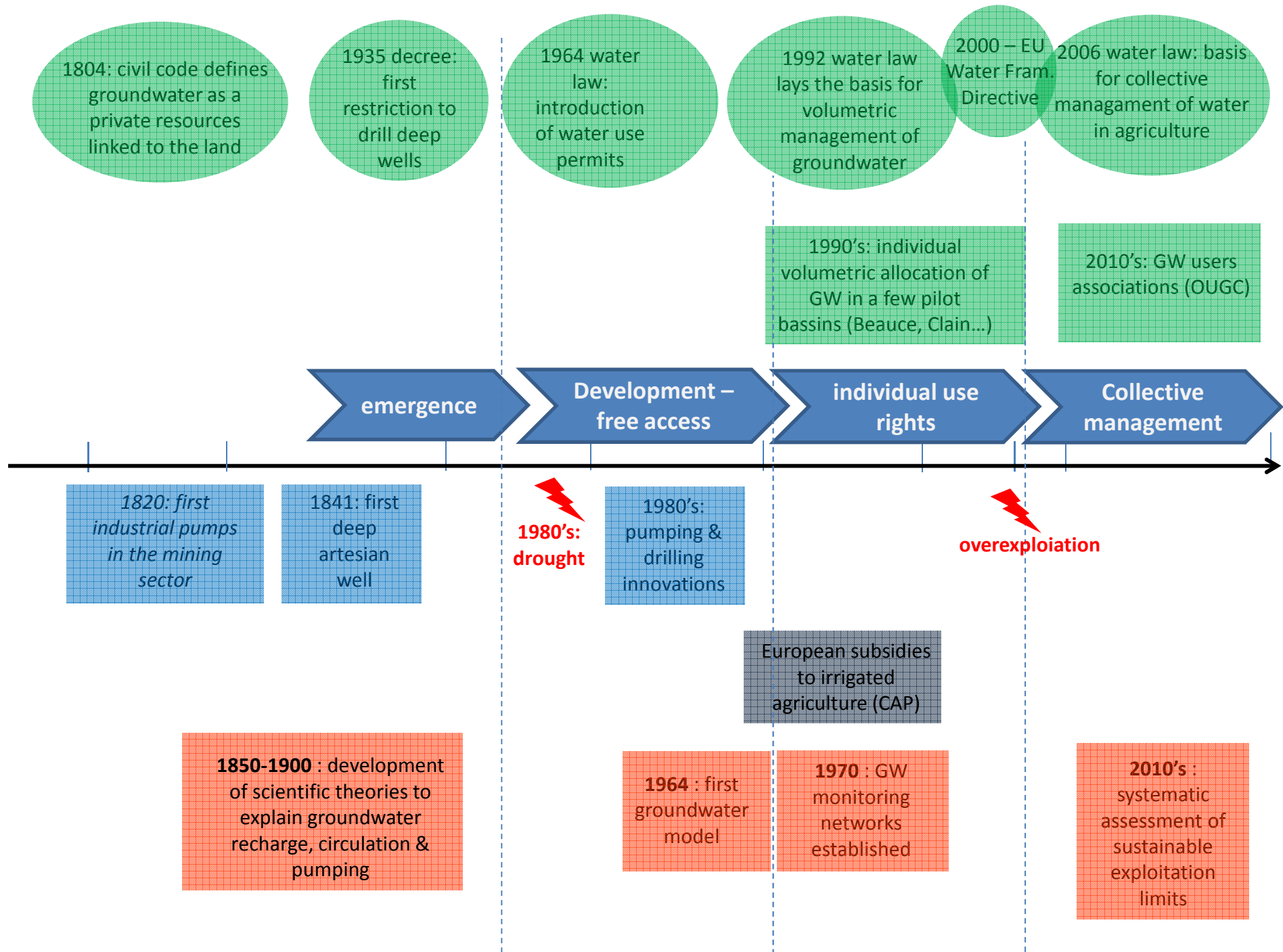
- An economic activity supported by the State and researchers since the 1850s, in order to « cultivate the sea » once wild oyster banks became overexploited
- An economic activity, strictly framed by the central administration authority over uses (MPD status + long history of coastal resources overexploitation): initially, the use-right for SF is a temporary autorisation which cannot be transferred
- A development pattern strongly driven by individual entrepreneurs' strategies, which create heterogeneity of the shellfish farmers community

## Historical perspective: shellfish farming

- Development started in the 1850s with the control of spat collection
- Two decrees (1915-1919) allowed the transfer of use-rights without financial compensations: a hidden market for use-rights started to develop
- The oyster industry collapsed twice: in the 1920s and in the 1970s, leading to change in cultivated species (native, then Portugese, then Japanese)
- New decrees were adopted in 1983 and 1997, which created local management institutions, while attempting to regulate the use-right market

## Historical perspective: groundwater resources

- GWR, an input for industrial activities, supply of urban areas and irrigation in agriculture
- Groundwater constitutes a private resource linked to land since the 1804 civil code.
- GWR use becomes progressively subject to State regulation to control external impacts
- Three phases: (1) development under a free access regime; (2) State management through individual allocations (but private appropriation) ; (3) establishment of collective management



## Historical perspective: summary

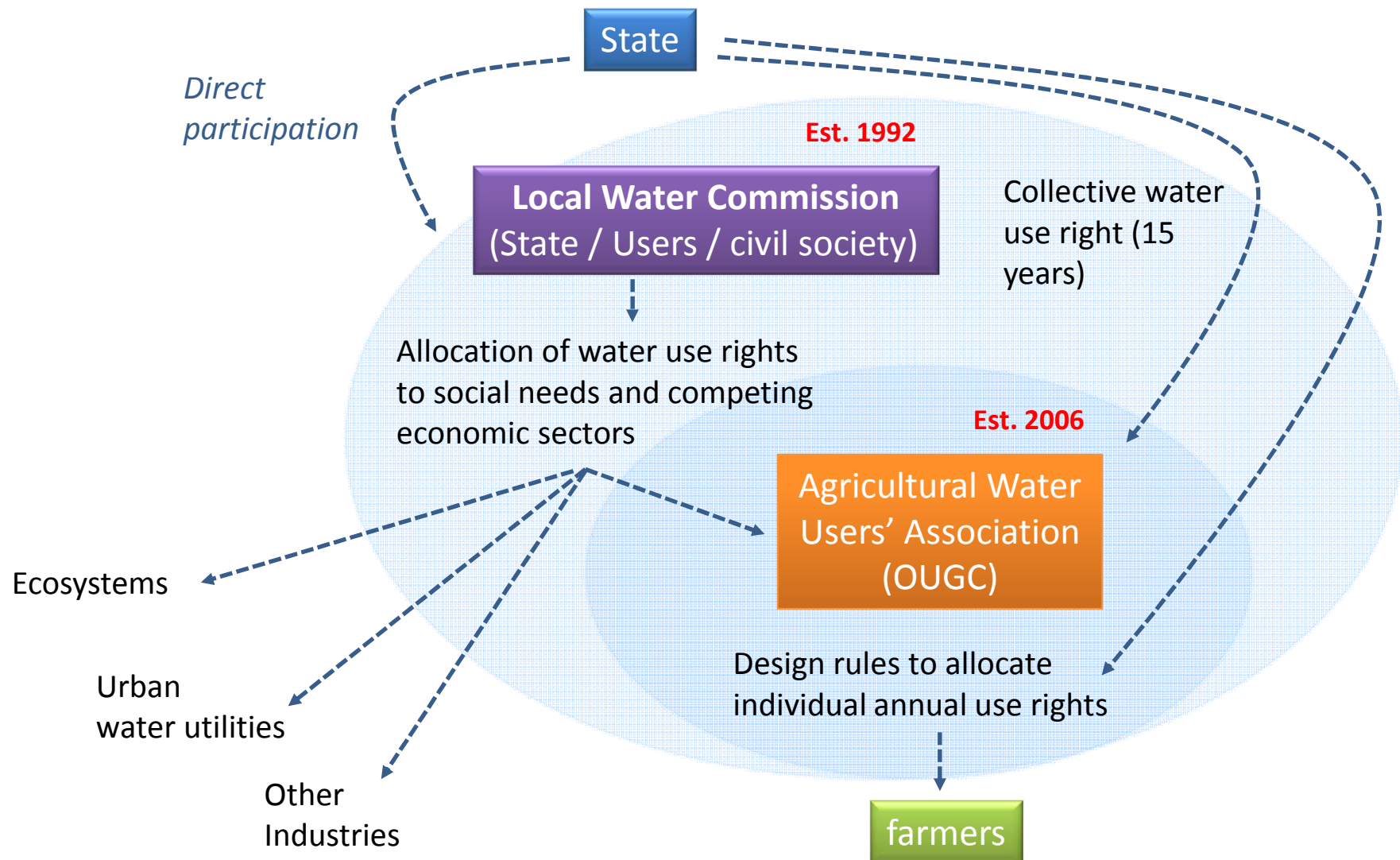
- Since the industrial revolution, exploitation of natural resources experienced intensification
- Entrepreneurs needed stable use-rights for their investments and looked for privatization of NR
- The State was not able to achieve its resource conservation objective (crisis) and to avoid privatization of use-rights (hidden markets)
- This resulted in the creation of **intermediate institutions**, aiming at improving resource conservation and use-rights allocation systems

## Institutional analysis 1: governance systems

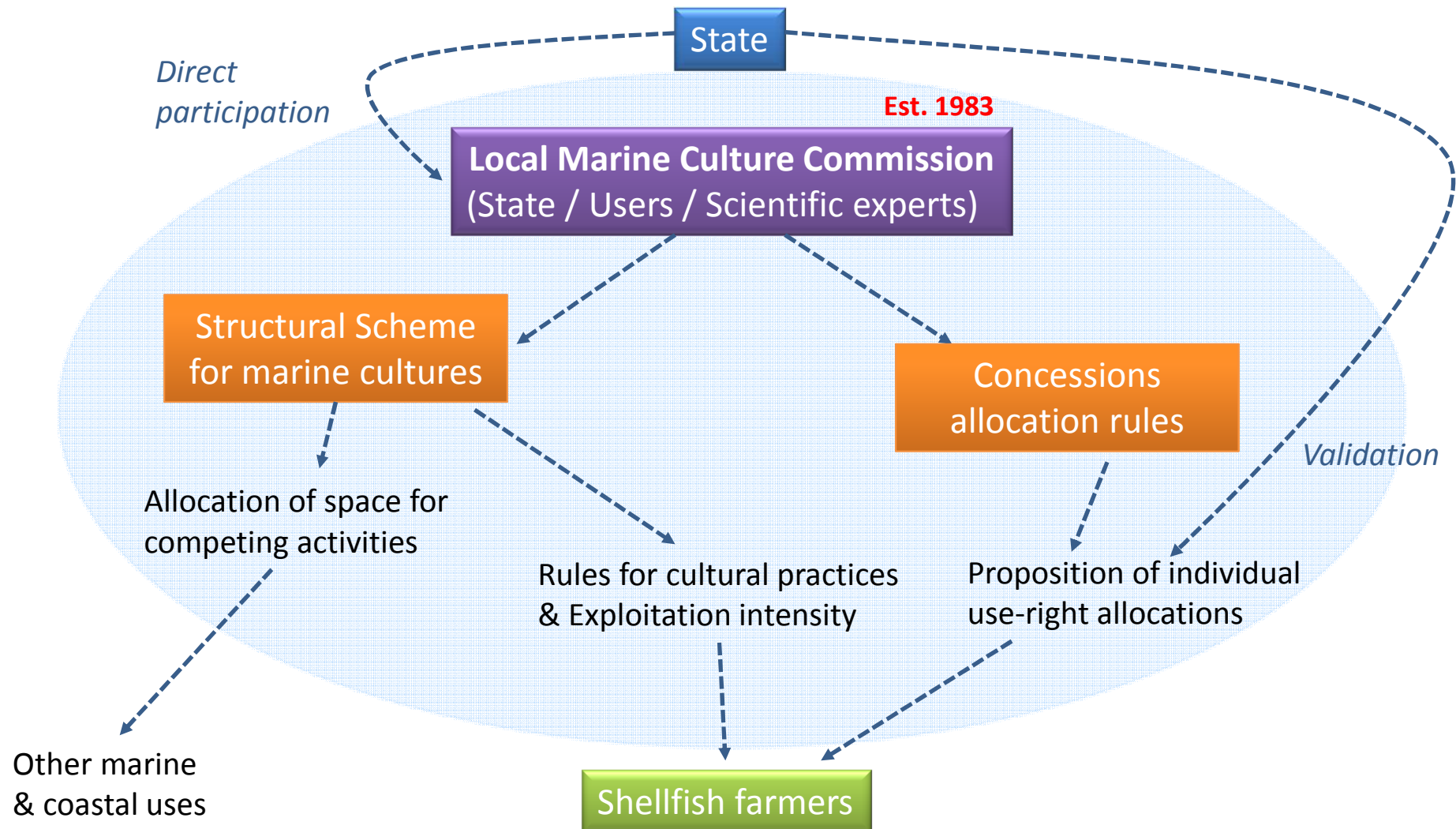
- Ostrom's approach of multiple levels and nested institutions: Constitutional Laws, local and operational rules, collective arrangements

An analytical framework for analysing intermediate institutions which are made of communities (local users and managers) who define operational rules and collective arrangements regarding use-rights

# Institutional analysis 1: governance system of the groundwater resource (> 2006)

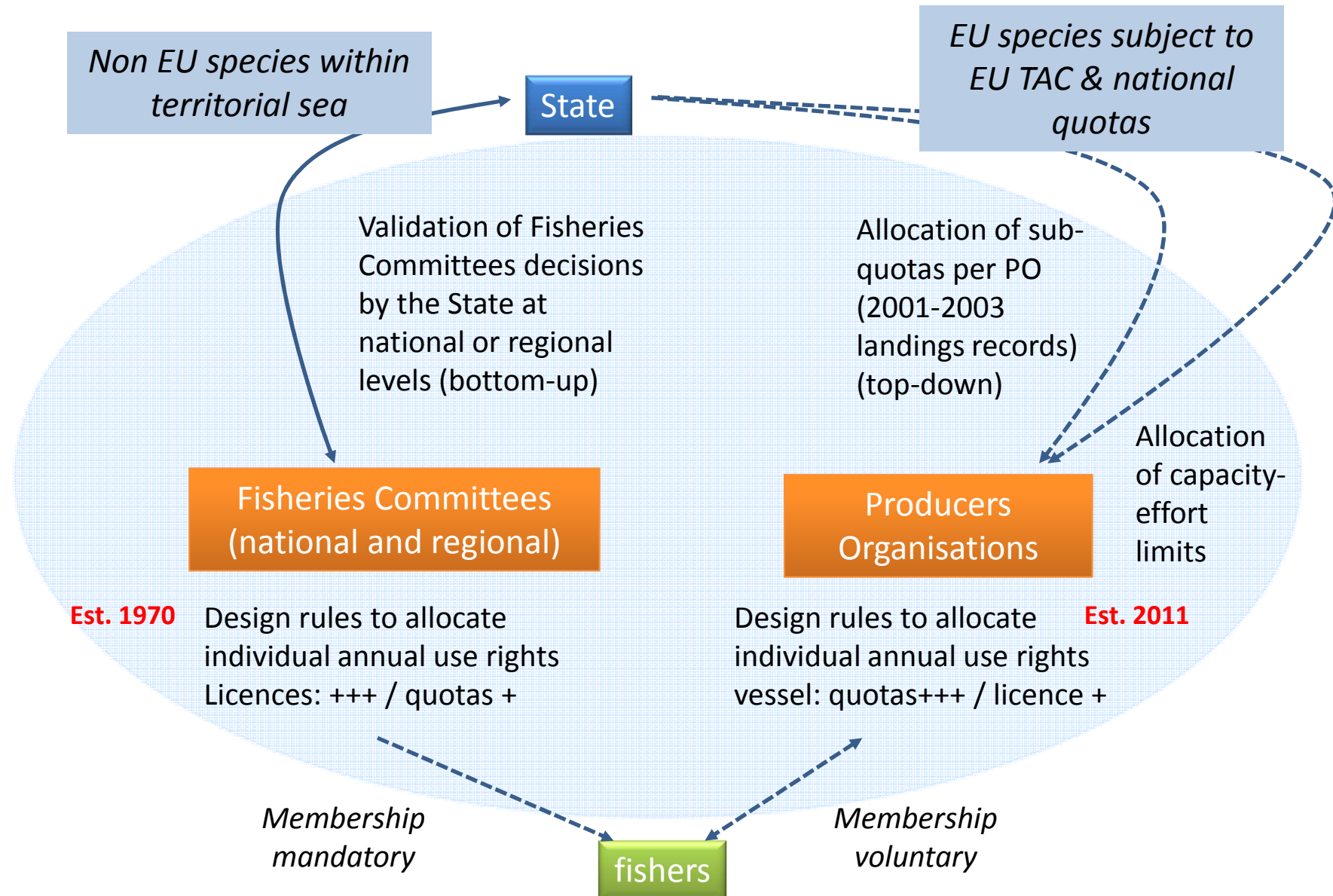


# Institutional analysis 1: governance system of the shellfish farming industry





# Institutional analysis 1: governance system of the marine fishery resources



## Institutional analysis 2: use-rights as bundle of rights

Intermediate institutions are very complex. They define:

- the resource to be used and managed,
- the use-rights owners who are allowed to participate to either the exploitation or the management of CPR,
- how use-rights are effectively used, allocated, etc.

Intermediate institutions function under a frame made of State or constitutional devices (laws, principles, property) while including arrangements obtained by private users of CPR

Next step of the analysis:

linking (individual or collective) use-rights and intermediate institutions in a more comprehensive analytical framework , based on Schlager and Ostrom (1992), and Bromley (1992)

# Institutional analysis 2: use-rights as bundle of rights

Analysing individual (and collective) use-rights as a bundle of rights, organised into two levels of rights

- Rights at operational level
  - Access: the right to enter a defined primary industry
  - Withdrawal: the right to obtain the « product » of a resource
- Rights at collective choice level
  - Management: the right to regulate internal use patterns and transform the resource by making enforcement
  - Exclusion: the right to determine who will have an access right, and how that right may be transferred
  - Alienation: the right to sell or lease either or both of the above collective-choice rights

[Adapted from Schlager and Ostrom 1992, pp 250-251]

## Institutional analysis 2: bundles of rights and property regimes

- Different kinds of property-rights holder: for Schlager and Ostrom (1992), it is possible to cumulate more and more rights from access and withdrawal (1) toward management (2), exclusion (3) and alienation (4) and thus to become authorized user (1), claimant (2), proprietor (3) or owner (4)
- However they acknowledged that these rights are independent from each other, and **may be held by individuals or collectivities** [Schlager and Ostrom 1992, p. 252]
- It is thus possible that **various property regimes** co-exist (private property, common property, State property) and apply to each of these different rights at the same time

## Institutional analysis 2: bundles of rights and property regimes

- “**Common property** represents private property for the group (since all others are excluded from use and decision making), while individuals have rights *and* duties\* in a common property regime”
- “The **property owning groups** vary in nature, size, and internal structure across a broad spectrum, but they are social units with definite membership and boundaries, with certain common interests, with at least some interaction among members, with common cultural norms, and often their own endogenous authority systems.”

[Bromley 1992, pp. 11-12]

*\* Bromley defines property as a benefit stream that is only as secure as the duty of all others to respect the conditions that protect that stream. This depends on who has the legitimate authority for enforcing those conditions.*

# Institutional analysis 2: property regimes in the fisheries governance system since 2010

	Non-EU stocks under licences	EU stocks under quotas
<b>Operational rights</b>		
<b>Access</b>	Private	Private
<b>Withdrawal</b>	Private-Common-State	Common-State-EU
<b>Collective-choice rights</b>		
<b>Management</b>	Common-State	Common-State-EU
<b>Exclusion</b>	Common-State	Common
<b>Alienation</b>	Private	Private

*Cascade definition of withdrawal rights from Inter-State to local arrangements*

*Transferability is prohibited but transfer of use right through the sale of vessels on the second-hand market*

# Institutional analysis 2: property regimes in the groundwater resources governance system (agricultural use)

	< 1992	1992-2006	> 2006		
<b>Operational rights</b>					
<b>Access</b>	Private	Private	Private		
<b>Withdrawal</b>	Private	≠ State	≠ Common		
<b>Collective-choice rights</b>					
<b>Management</b>	State	≠ State	≠ Common		
<b>Exclusion</b>	State	State	State		
<b>Alienation</b>	State	≠ Private	Private		

# Institutional analysis 2: property regimes in the shellfish farming governance system

	Law 1852-1853	Decreets 1915-1919	Decree 1983	Decree 1987	Decree 2009
<b>Operational rights</b>					
<b>Access</b>	State	≠ Private	≠ State	Private	≠ State
<b>Withdrawal</b>	Private	Private	≠ Common	Common	Common
<b>Collective-choice rights</b>					
<b>Management</b>	State	State	≠ Common	Common	Common
<b>Exclusion</b>	State	≠ Private	≠ State	≠ Private	≠ State
<b>Alienation</b>	State	≠ Private <sup>1</sup>	Private <sup>2</sup>	Private <sup>3</sup>	Private <sup>2</sup>

*Access and exclusion control are still a matter of conflict*

***Stable once implemented***

*State unable to control owners' use of the NR*

***CPR: MCC forces users to interact for defining a common management system which includes common withdrawal rules***



# Institutional analysis 3: coherence and efficiency of resource management systems\*

Considering three targets of the governance systems :

- Ecosystems (resource conservation, resilience)
- Enterprises (incentives toward investment, adaptation)
- Communities (equity, confidence, self-enforcement)

Qualitative assessment of associated tools:

- Low
- Medium
- High

*\* Adapted from Ostrom (1990), Devlin and Grafton (1998), Scott (2008) and Carpenter (2017)*

<i>Management target and tools</i>		<b>Groundwater</b>	<b>Shellfish farming</b>	<b>Coastal fisheries</b>	<b>EU Fisheries</b>
<i>Ecosystem</i>	<i>Resource unit definition</i>	High (aquifer)	High (production basin)	Medium (stocks)	medium (stocks)
	<i>Exploitation limitation</i>	High (total cap)	Medium (carrying capacity)	Medium (effort based)	Medium (quotas)
	<i>Ecosystem approach</i>	High (ecosystems are a priority)	Low (disease and invasion)	Low	Low
<i>Enterprise</i>	<i>Use-right exclusivity</i>	High (members of WUA)	High (individual)	High (individual)	High (individual)
	<i>Use-right duration</i>	Low (annual) – medium (gdfth)	High (35 years)	Low (annual)	Low (annual)
	<i>Use-right flexibility</i>	n. d.	Medium	Low	Low
	<i>Use-right transferability</i>	Medium (market but unsecure)	High (market)	Low-/medium+ (prohibited i.p.)	Low+/medium- (prohibited i.p.)
<i>Community</i>	<i>Allocation transparency</i>	Low (no publicity)	High (publicity)	Low-medium	Low (no publicity)
	<i>Distributive mechanisms</i>	Medium (redistribution of unused rights)	Medium (reserves)	Low-medium	Medium (reserves)
	<i>Community enforcement</i>	Low (emerging)	High (social control)	Medium	Medium
	<i>State enforcement</i>	Medium	Low	Medium	Low-Medium

# Institutional analysis 3: coherence and efficiency of resource management systems\*

- Groundwater resources: ++ resources exploitation limits and ecosystem approach; + redistribution of use-rights is possible on an annual basis; // individual use-rights not adapted to enterprises needs (lack of stability), transparency regarding allocation is low and community enforcement is only emerging
- Shellfish farming: ++ individual use-rights are well adapted to enterprises needs; + resources exploitation is limited since 1983; // however diseases continue to spread and transparency and redistribution have been re-introduced very recently
- Fisheries: + resources exploitation limits (TAC & quotas or licences); redistribution by fisheries organisations is now possible also for quotas; // not all species of interest are managed, individual use-rights not adapted to enterprises needs (lack of transferability) and transparency about allocation mechanisms is low

# Conclusion - Summary

- Governance systems for marine and water NR in France were originally placed mainly under the authority of the central State
- Entrepreneurs obtained privatization of their use-rights, based on labor and investment
- Individual strategies as well as institutional inefficiencies (lack of control, hidden markets) led to crisis since the 1970s
- In response, intermediate institutions were created in order to enforce cooperation between users and the administration and among users

# Discussion

- Concepts which are helpful for analysing these intermediate institutions : use-rights as bundle of rights and coexisting property regimes
- Efficiency of intermediate institutions: shared interests among users are a necessary condition for that purpose. When economic situations and strategies create too much internal discrepancies within the user community, institutions may be captured by some users group for rent-seeking motivations [Bromley, 1989; Ostrom, 1990; North, 1990].

# Discussion

- In France, the administration and the law have recently favoured the re-creation of institutions which are typical of a Common Property Regime. However, what is the State's perception of fishermen communities, shellfish farmers communities, farmers communities... if any?
- When recreating common property institutions, the State focuses on the coordination of withdrawal rights, which is a condition for ecological sustainability, but tends to neglect the allocation process which is a condition for maintaining a community of economic interests between the resource co-owners.
- *Re-creation of Common property regime without theorization nor communities?*
- *The Shellfish farming sector experienced capture of institutions by powerful enterprises which are also opinion leaders of the industry (Mongruel and Pérez Agundez 2012). Some French Fishermen have asked the Competition control administration to consider the allocation of quotas by Producers Organisations as unfair competition.*

# Discussion

- Jentoft (2000): “Fishermen are born, raised and live in local communities. They are enmeshed in cultural and social systems that give meaning to their lives and directions for their behavior. Their **fishing practices are guided by values, norms and knowledge that are shared within their community**. With the concept of the great French sociologist Emile Durkheim, we argue that overfishing/the **Tragedy of the Commons** may well be a consequence of ‘anomie’, that is normative confusion, which **occur when social ties are weak and moral standards unclear**. Therefore, it follows that communities that disintegrate socially and morally are a threat to fish stocks.”
- Can we expect to re-build efficient common property institutions, which necessitate shared values and norms, within societies which have experienced Karl Polanyi’s “Great transformation”?