



# MANAGING SMALL-SCALE FISHERIES CONFRONTED WITH SOCIO-ECONOMIC CHANGES IN NEW CALEDONIA (South Pacific)



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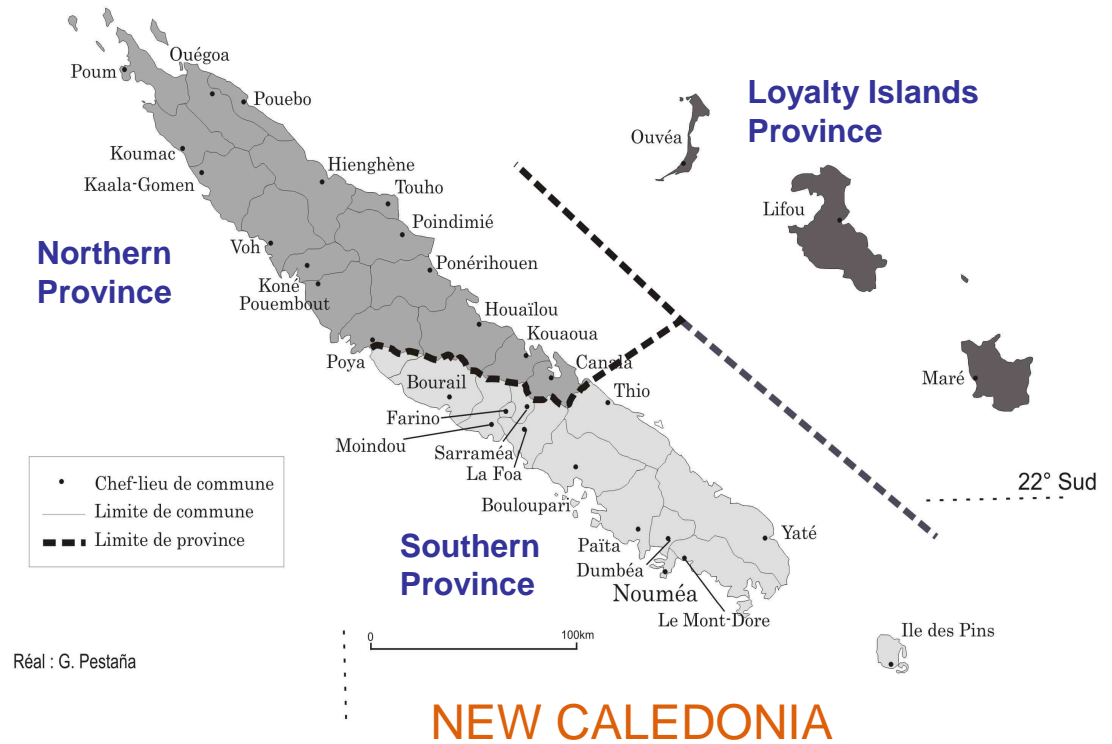


# 1. Introduction New Caledonia: a biodiversity and... a decolonization hotspot

■ A French territory on the way to emancipation and decolonization

■ Institutional transition including balance development: self-government, administrative division (3 provinces) & French State (public referee)

■ The Provinces rule economic development and land settlement





## 2. Material and Methods

An industrial mining project that serves the political decolonization process

■ An industrial and urban center in the northern Province for balancing the economic development of New Caledonia:

- A metallurgical plant will process nickel resources of Koniambo massif
- 4 billiards \$ US, 60 000 t Ni/year
- 4000 temporary jobs (2008–2012) and 1000 during the operating phase
- 2500 indirect or induced jobs
- A 200 to 300 % increase in human population (between 2001 and 2020) has been creating the 2d main urban area of New Caledonia



## 2. Material and Methods

### Management issues and implementation in the lagoon area



#### ■ Singular facts:

- A projet linked to the concerted decolonization process
- 51 % owned by public funds (Northern Province's holding)... and supported by local popluation
- A project located within a populated area (~15 inhab.km<sup>2</sup>)





## *2. Material and Methods*

### Objective of the study

#### ■ Expected impacts of the industrial project:

- To lead the development of the entire Province
- Major changes in the social structure in the neighborhood of the mining project
- Direct & indirect environmental impacts of infrastructures (road, excavation, embankment, etc.) and urbanization

#### Objective of the case study (COGERON Program):

➔ Identify development management issues & linked supporting public policies affecting uses in VKP lagoon area



## 2. Material and Methods

### Interview-based approach

#### ■ Study site: Voh-Koné-Pouembout (VKP) area

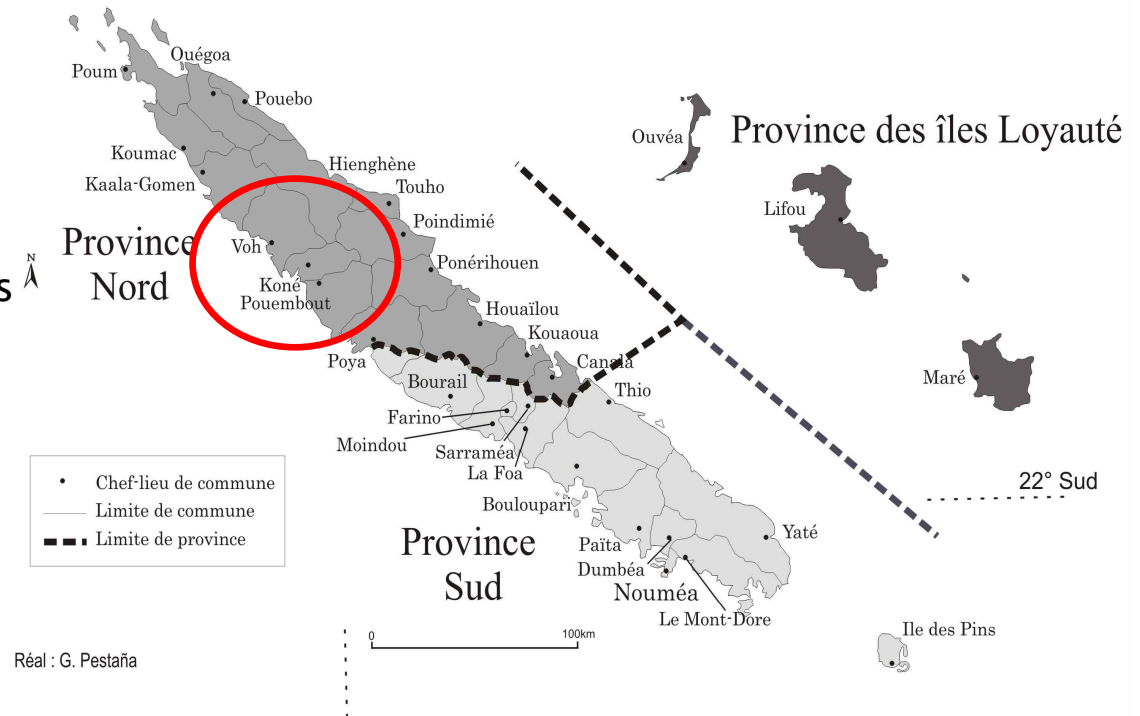
3 villages & 6 coastal Melanesian tribes  
(10 000 inhab.) 360 fishing boats

800 km<sup>2</sup> lagoon area

#### ■ Interview-based surveys:

3 surveys conducted in the VKP  
to valorize of local knowledge:

- fishing activities (*145 boat fishers*),
- commercial networks (*87 fishers & all stakeholders of the commercial sector*)
- perceptions of changes (*77 fishers*)







## 3.1. Fishing pressure: environmental issues

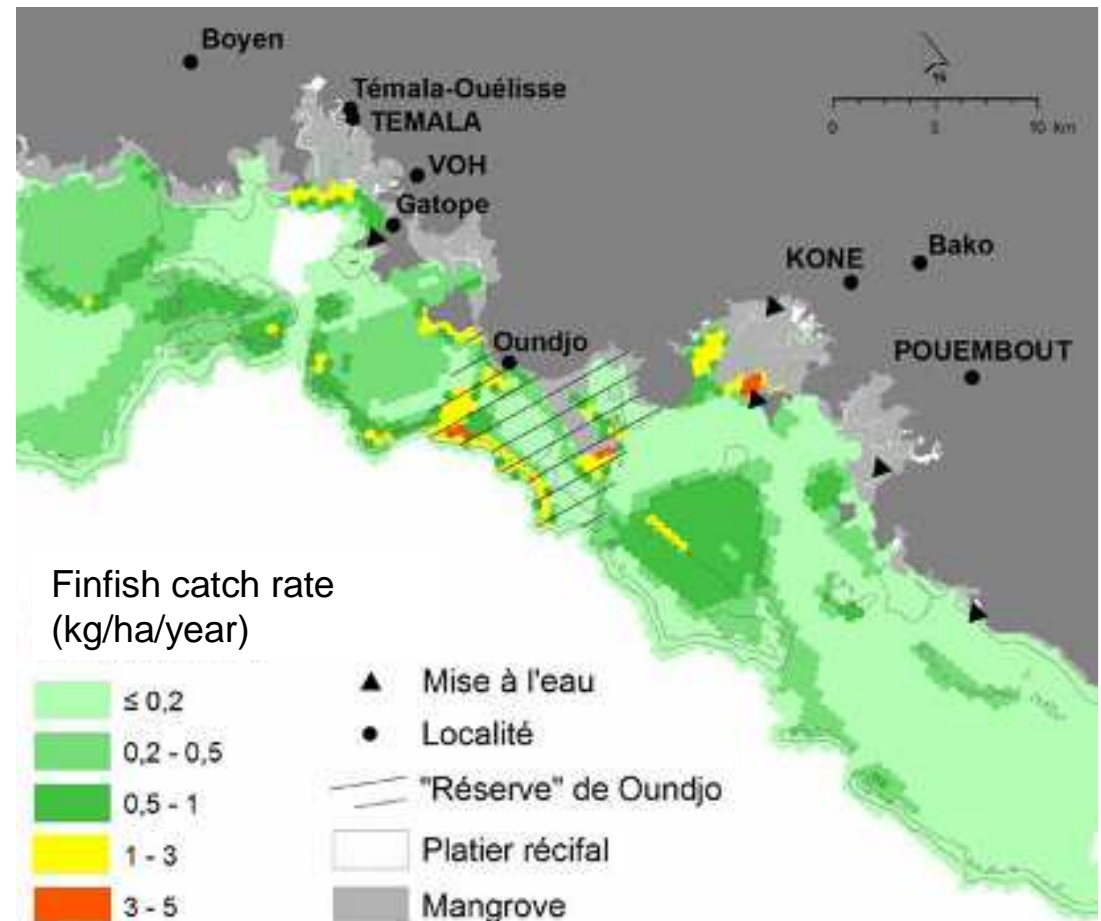


■ Diverse uses in the lagoon area

■ Coral reefs are perceived in healthy conditions

■ But fishers are worried about future trends (↗ fishing pressure)

➔ Is there a depletion risk in main target areas ?



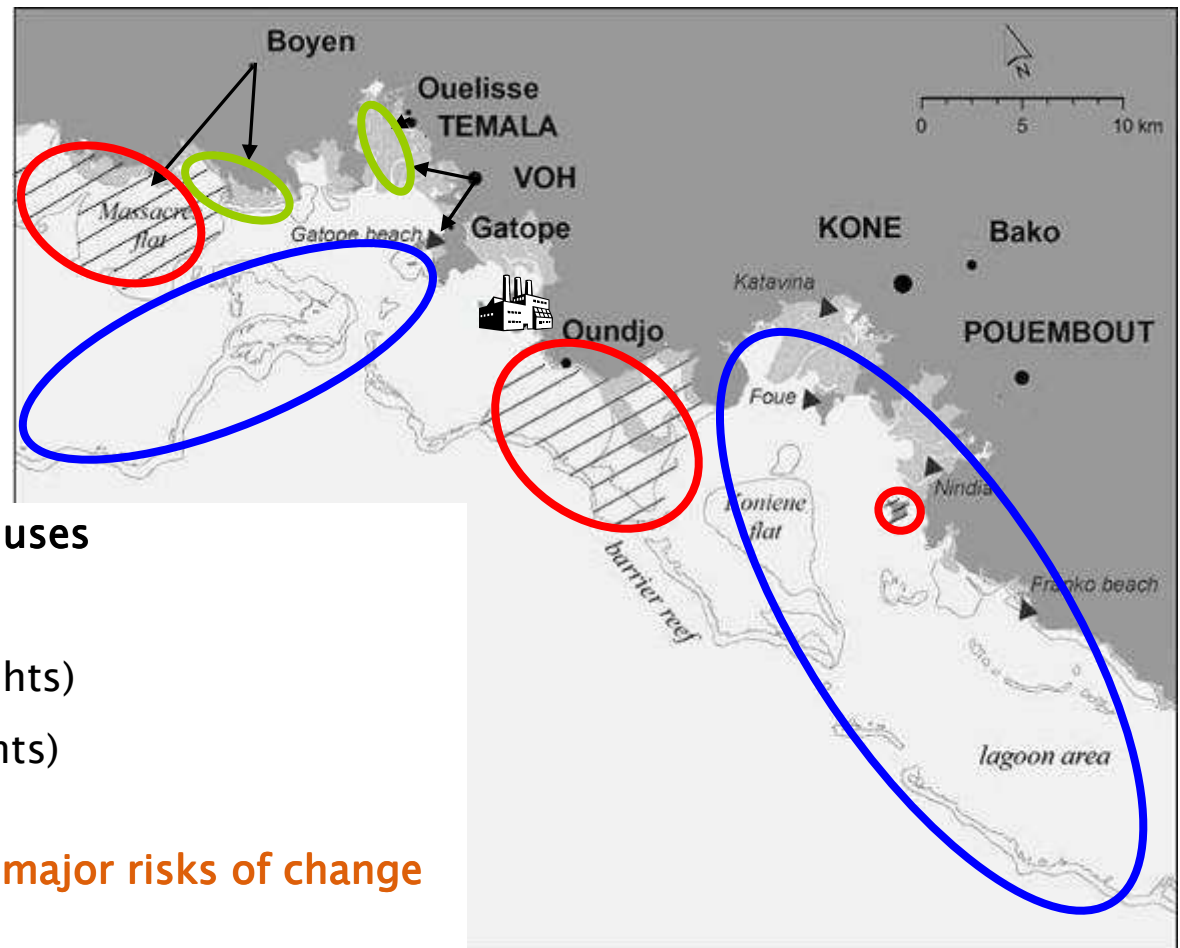




- 2 conflicting law systems  
French law and customary rights

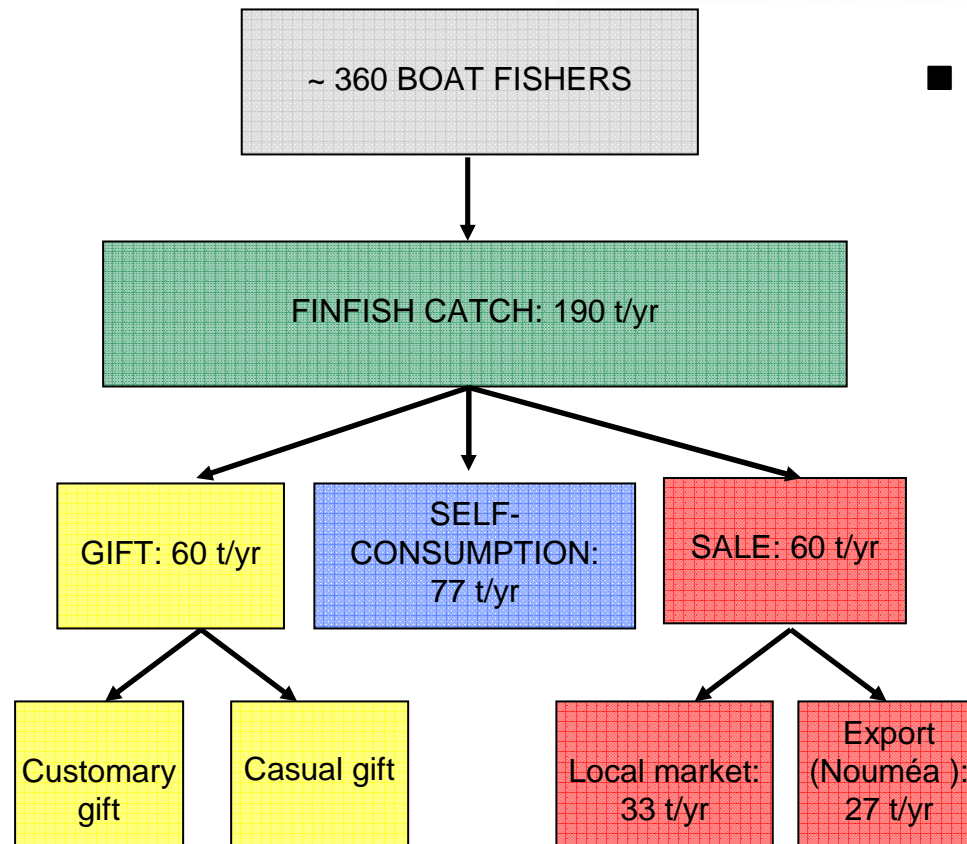
- Informal rules enforce separate uses
  - Free access areas (French law)
  - Restricted areas (customary rights)
  - Exclusive areas (customary rights)

➔ This spatial organization faces major risks of change due to the industrial project





### 3.3. Lagoon finfish fishery: social and economic issues



#### ■ High importance of fishing activities

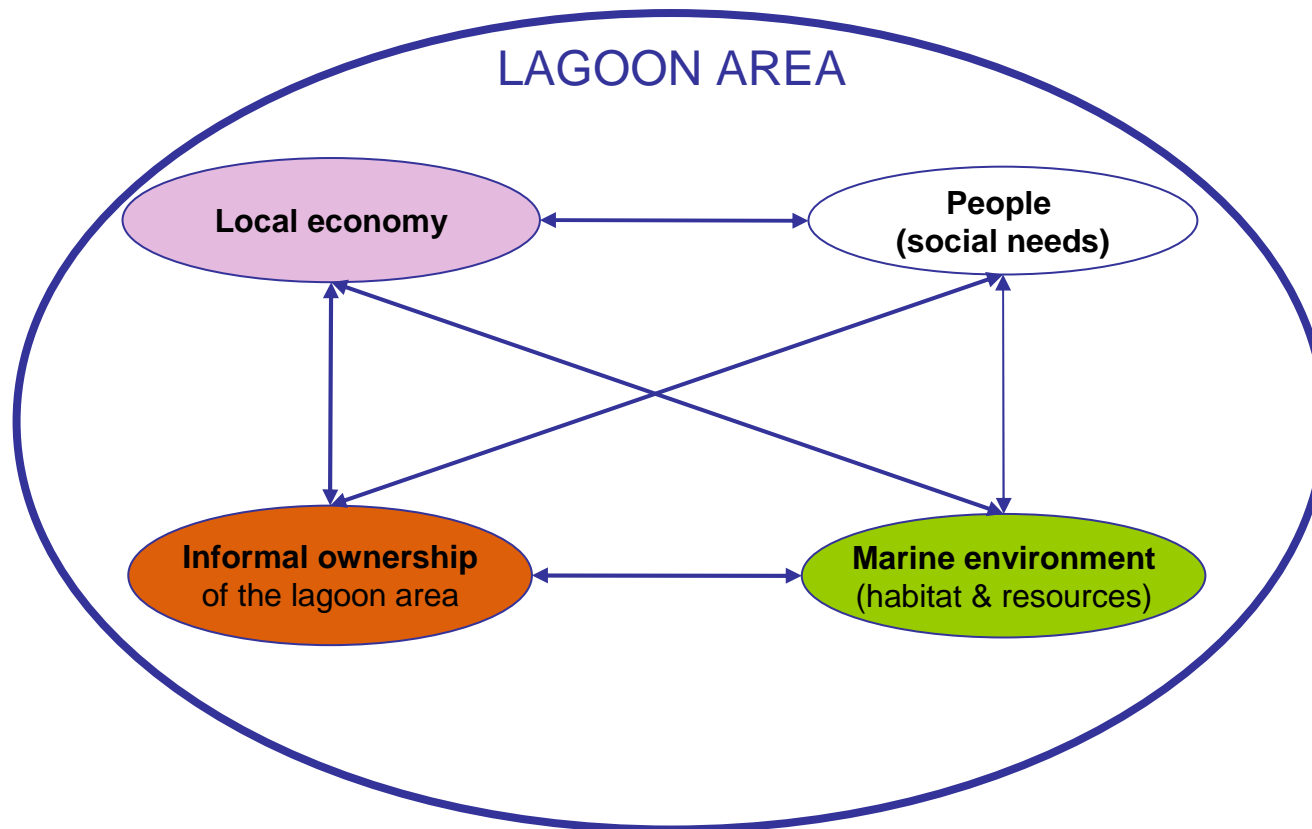
#### ■ Fish gifts: social role

- One-way or reciprocal gifts
- Customary gifts (ceremonies)

#### ■ Sale: economic role

- 6 fishers sale  $\frac{1}{2}$  of total catch
- 55 % of the catch is sold locally

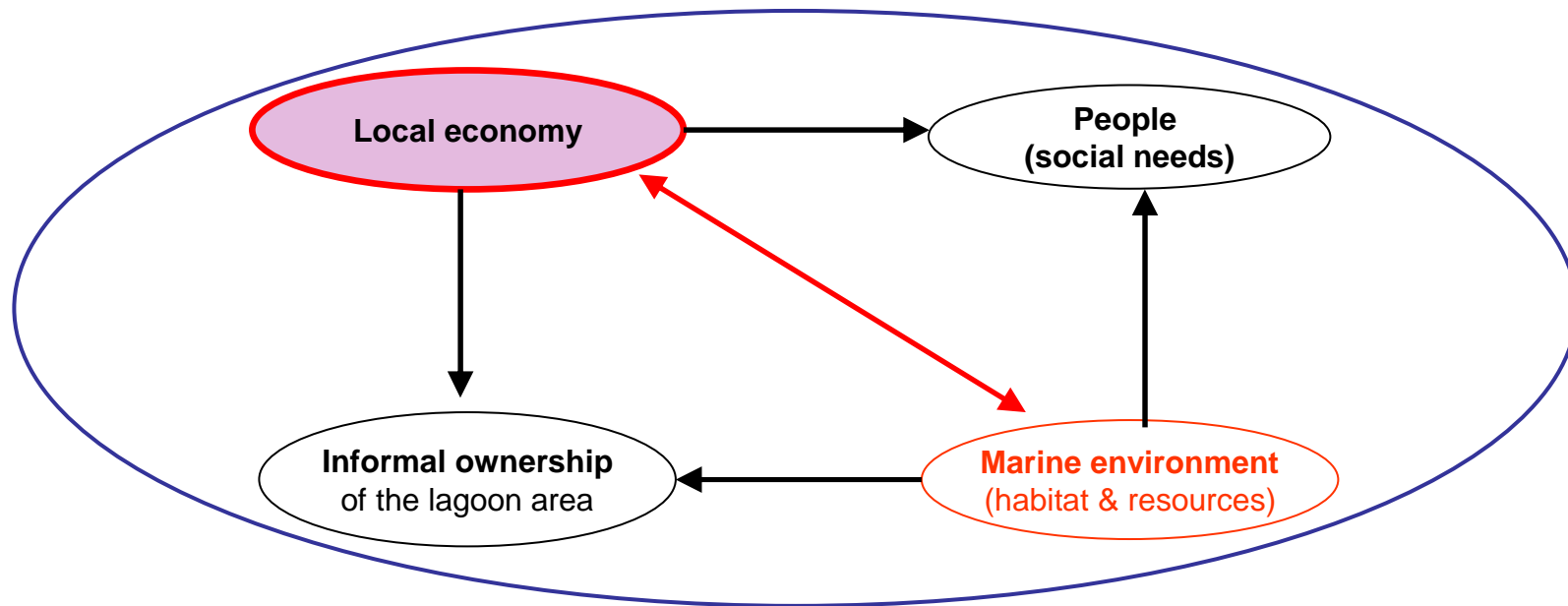
➔ The local market will have to provide + 90 t/yr in 2015 ! (cf. rise in population)



→ e.g. How this system will cope with a + 150 % rise in the demand for fish market ?



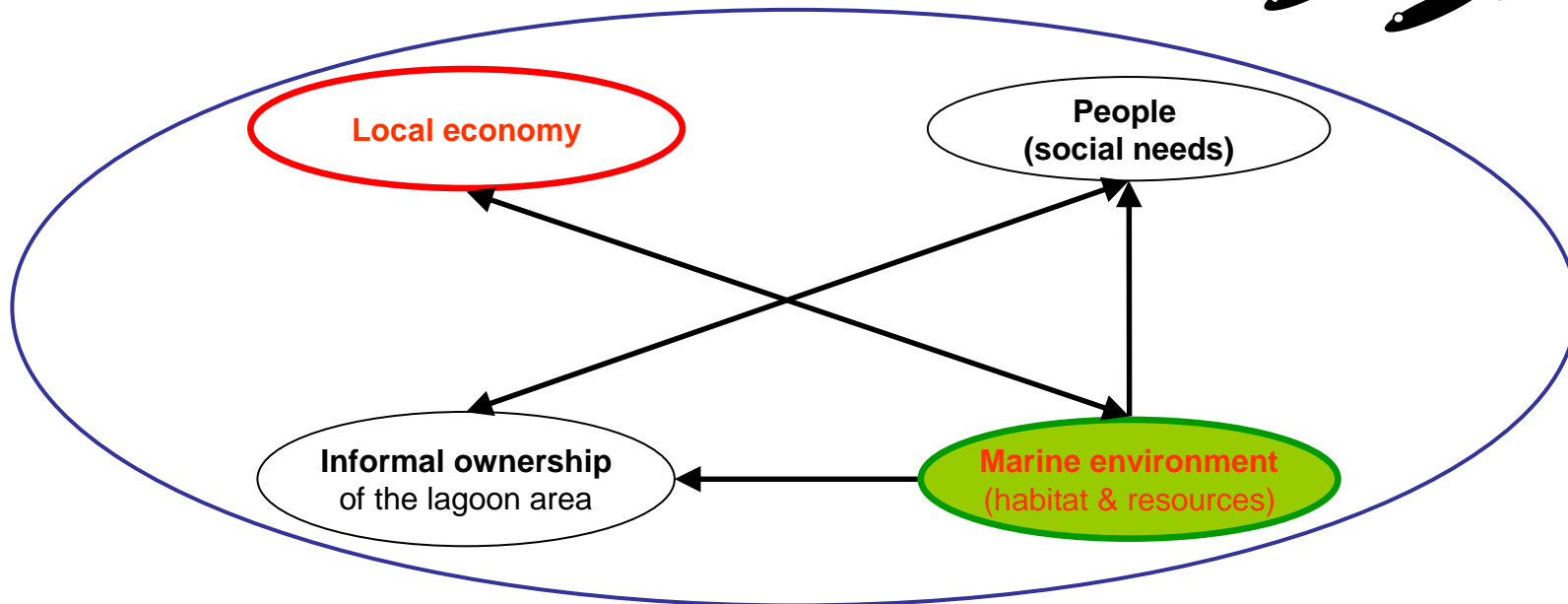
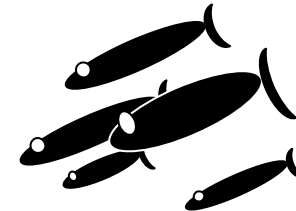
- Scenario 1 : Local fish supply  $\Rightarrow$  + 50 % catch in the lagoon  
 $\nearrow$  number of fishers OR  $\nearrow$  fishing intensity/fisher ?







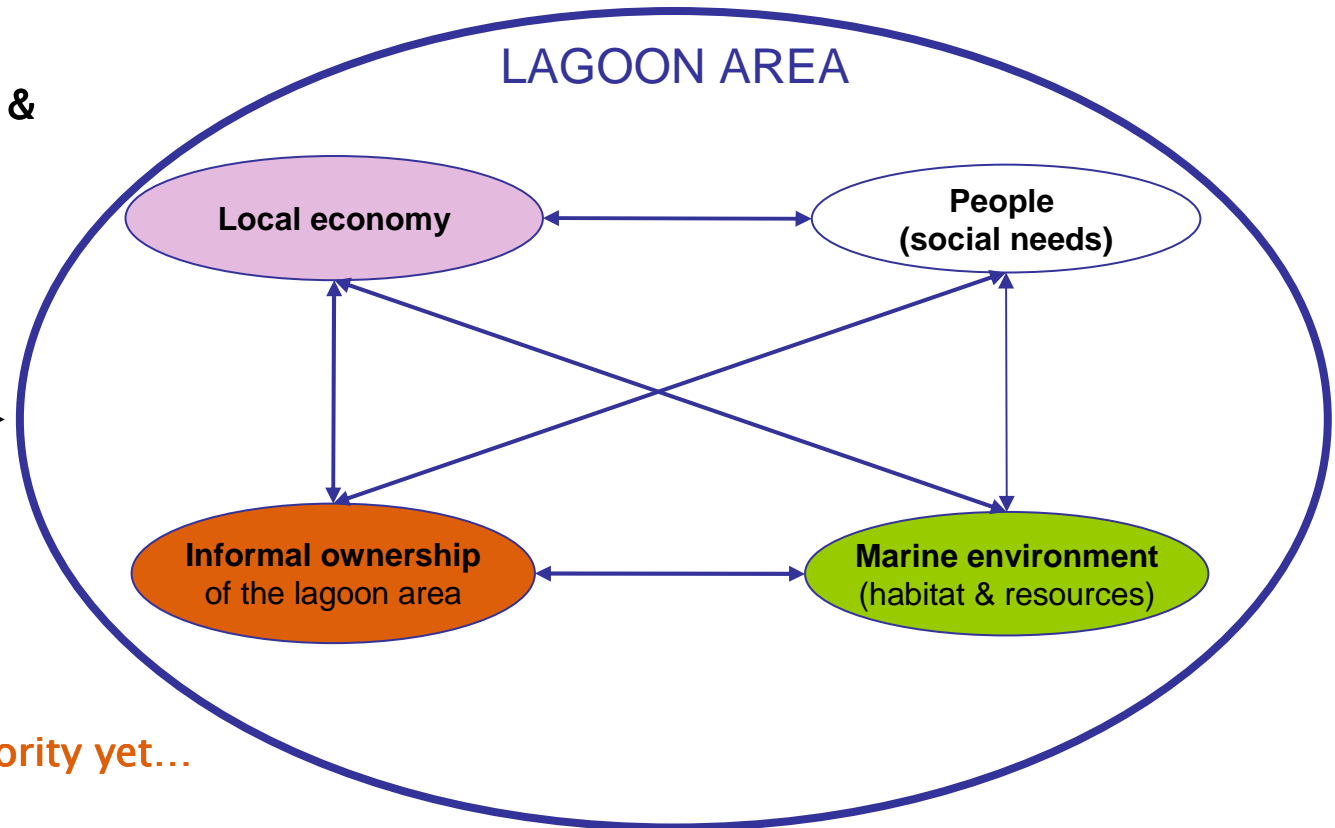
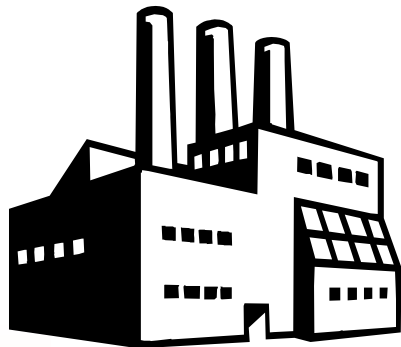
■ Scenario 2 : Fish imports & supply of pelagic fish





■ The functioning of the system is linked to the mining project itself and supporting public policies

■ A system & anticipating approach to management & policy making is needed



■ But not a political priority yet...