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 billion 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 2nd 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 population

  • A project located within a populated area (~15 inhab.km²)
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 km² 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. Results
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?
3.2. The lagoon area is ruled and divided by territory issues

- 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

**FINFISH CATCH:** 190 t/yr

- **GIFT:** 60 t/yr
  - Customary gift
  - Casual gift
- **SELF-CONSUMPTION:** 77 t/yr
- **SALE:** 60 t/yr
  - Local market: 33 t/yr
  - Export (Nouméa): 27 t/yr

**High importance of fishing activities**

**Fish gifts: social role**
- One-way or reciprocal gifts
- Customary gifts (ceremonies)

**Sale: economic role**
- 6 fishers sale ½ 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)
3.4. The social ecological system of VKP lagoon: 4 major stakes

- Local economy
- People (social needs)
- Informal ownership of the lagoon area
- Marine environment (habitat & resources)

*e.g.* How this system will cope with a + 150% rise in the demand for fish market?
Scenario 1: Local fish supply ⇒ +50% catch in the lagoon

- number of fishers OR fishing intensity/fisher?
Scenario 2: Fish imports & supply of pelagic fish

- Local economy
- People (social needs)
- Informal ownership of the lagoon area
- Marine environment (habitat & resources)
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…