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Making room for water: new territorial inequalities?

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Exclim Project (2009-2012)

- Exclim Project (funds: Ministry of the Environment): effects of climate change on space displacements: human migrations and land-use reconfiguration

- My case-study: displacement of activities linked to adaptation measures (managed retreat) in Flanders

  → to what extent CC works as re-organizing category of land-use?

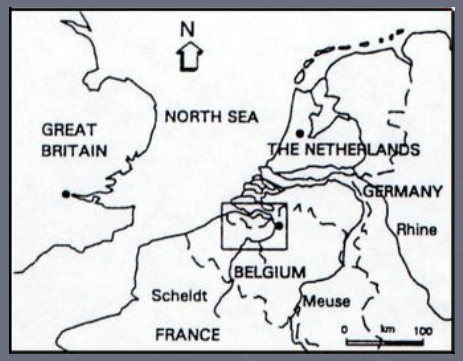
  → how climate change policy is operationalized in local contexts?

  → can we talk about territorial inequalities in the way in which adaptation is managed at the local level?

Managed-retreat as adaptation practice

- CC → increasing risk of flooding → non-structural solutions to adapt
- Managed-retreat (or "dépolderisation"): non-structural measure to face sea level rising / storm tides
  → giving room to water
- What is that about?
  It mainly concerns wasteland, forests or agricultural areas → dikes are breached, or lowered, to let river overflows once arable land. The land which is then submerged works as damper to floods
- re-organization of land use ▸ displacement or dismissing of (agricultural) activities to create areas for ecological flooding (protection + gains in biodiversity)

How does it work?



What is the social impact of such measures?

- such projects often encounter strong local oppositions
  → top-down solutions
  → NIMBY effect
  → lost/displacement of agricultural activities (lots of constraints)

- The question is: how to deal with the social acceptability of these projects on one territory?
- Who has to "pay" for the consequences of CC at local level?
- What about the territorial governance of risk of flooding connected to CC?

Methodology (2010-2011)

- Interviews to: famers, inhabitants, Water and See canal Department, members of the Regional of the Ministry of the Environment, of the Agriculture, local communication enterprise, civil security service, academics, environmental associations, local representatives

- Participation to open-day visits,

  Belgian European Presidency on Climate Change

Flooding in Flanders: Sigma Plan

- Important floods '50-'70s → **Sigma Plan** I (defensive/structural approach)
- At the end of the '90s, the Flemish Governmental Agency for Water and Sea Canals (WSC), posed a major problem concerning the defensive strategy

→ in the future traditional defensive solutions in the region would not be neither economically sustainable nor efficient

- Scientific data (IPCC, 1995) give evidence of sea level rising linked to climate change and of an escalating threat of heavy storms and floods
- 2001-2009 **Updated Sigma Plan** (mainly non-structural measures such as managed-retreat
- 2867 ha of farmland concerned in the project areas

2097 ha the amount of farmland lost to the development of areas

Kruibeke-Basel- Ruppelmonde Flood Control Area

- 2003: Updated Sigma plan → the implementation of 600 hectares flood controlled area called Kruibeke-Basel-Ruppelmonde (KBR-FCA), from the name of the concerned towns, 12 km far from Antwerp in the Scheldt estuary.

- Reconfiguration of land use
  - the concerned area is an ancient polder devoted to farming activities
  - the project implies a complete transformation of land use → all farming activities have to be dismissed. Big expropriation programme (still ongoing)
  - from about 70 farmers to 10-15 farmers by 2013

- very hard local opposition from the local major (top-down), inhabitants (fear of being flooded), farmers (lost of agricultural land), environmental associations (lost of forests)

- At local level CC/adaptation are a non-issues

Since 2005 KBR Flood Control Area circulates in official documents as adaptation measure

- In national documents: Updated Sigma Plan for the Tidal Scheldt River (2001-2009), National Climate Plan 2009-2012, Flemish Adaptation Plan (forthcoming)
- in international conferences (for example, "Adapting to Climate Change: Lessons for London", Greater London Authority, London, July 2006; Climate Adaptation Conference, Belgium EU Presidency, Bruxelles, November 2010)
- In scientific papers as "best practice" of adaptation (Couderé & Dauwe, 2005; Goeldner-Gianella, 2009-2010; etc).

- Attraction for researchers/planners interested in adaptive interventions:

  - delegation from the U.S. Army which visited the site looking for the best practices to adopt in post-catastrophe New Orleans;

  - a Russian engineer who came with the same intent, to learn about existing measures to prevent floods;

  - and last but not least, myself - from a French CNRS Laboratory – interested on climate change and land-use reconfiguration.

Gap between the discourse on adaptation and its local implementation

- In official documents nothing is said how a flood control area should look like or how to deal with its local implementation

►► gap between the conception/discourse of adaptive measures (at national/international level) and the local practicability of adaptive solutions

►►► the adaptation measures do not intervene on a tabula rasa: it is a matter of local viability (opportunities/constraints/translations)

A serving territory ?

- Gap between a diffused risk (flooding, sea level rising) and local solutions (a part of territory is devoted to specific function of protecting or "serving" a wider community) → a **serving territory**
- Inequalities among territories in the face of risk
- Then more reflection is needed on:
  1. what is the perimeter of risk and how a single solution is connected (or not) to that perimeter?
  2. Strong connection between risk management and land use policy
  3. definition of a protocol of action?
- To what extent can these projects become acceptable?

  It depends on the possibility of involvement of local communities in creating local opportunities of new development (eco-tourism, leisure possibilities, gains in terms of biodiversity)

Thank you!