Wastewater management in the industrial zones of the Vietnamese Mekong Delta: A spatial approach to understanding failures

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Overview of presentation

- Field findings: Wastewater management (WWM) failure

- Comparison with other similar research
  - 3 broad analytical approaches
    - Different country, different day, same problem
    - Aspatial

- My analytical approach: spatialised one
  - What is “spatialising”, how to spatialise analysis
**Why**

Institutional analysis: considers actors, rules, strategies, community attributes, physical conditions, material conditions, transaction costs of coordination, and outcome

**How**

Semi-structured interviews with authorities, companies, and households in 4 provinces along the Hau River (An Giang, Can Tho, Hau Giang, and Soc Trang)

Media analysis

**What**

Overview of industrialisation.

Effects of industrial production on water.

Current situation of WWM in industrial zones
Previously presented findings

- Industrialisation in Delta: “light” and low-tech

- WW Management has failed

- Reasons concur with previous analyses:
  - Low capacity
  - Weak institutions; fragmented institutional arrangement
  - Weak legal framework
  - Poor monitoring and enforcement
  - Unfavourable economic conditions
Analytical approaches to WW management

- **Main categories**
  - Economic
  - Legal
  - Capacity/institutional

- **Shortcomings**
  - Descriptive and also mostly prescriptive
  - Yet also acontextual
  - Doesn’t address the socio-economic-politics of Vietnam

**No real or new insights!**
Noticing “the spatial”

- Inductive process.
- Literature review of Vietnam’s socio-political economy
  - Administrative-geographical motif in literature:

  - Central govt
    - National level
      - Ministry
        - Province
      - Division
        - District
      - Office
        - Ward/Commune
        - Area/Hamlet

- Analysis of legal framework → organisational and operational territories, administrative scales and hierarchies
- Analysis of interviews. Actors’ perceptions → place meanings

“The spatial”? 

- Territory, place, scale, boundaries, networks, regions, etc.
  - Physical and/or abstract
- Literature: tends to mono-dimensional work.
  - Multidimensional analysis more fruitful (Jessop et al 2008)

Why (not)?

And how? 

- Inductive but can be turned deductive: Looking for spatial parameters in subject of study, actors and rules involved with it.
Spatialisng analysis

Understanding WWM in industrial zones
Where do territory, place and scale feature?

Looking at:
Interviews with provincial authorities, environmental protection bodies, households suffering from pollution
Legal framework for WWM

And finding:
:: Meanings they associate with the IZ as place
:: Operational boundaries/territory
:: Prescribed operational boundaries/territory
:: Administrative or organisational hierarchies. Scales of environmental governance
“Administrative positions” of entities involved in environmental protection in IZs

- Organisational scales of administration correspond to the physical scales of administration.
- Governmental organisations have clear physical territories of operation.
- Unlike the industrial zone management agencies (to left), the environmental protection agencies (to right) have a more pronounced hierarchy, which circumscribes their operations.
Conclusion

- Basically: problem of “spatial fit”

- Benefits of considering more than just one spatial aspect
  - Administrative and organisational hierarchies [scale]
  - + Operational mandates [territory]
  - Place meanings that shape (in)actions [place]

- Goes past the usual explanations for WW management failure. Contextualises.

Questions and feedback are welcomed!