

An aerial photograph of a city, likely Stockholm, showing a dense cluster of buildings along a waterfront. A large white rectangular box is centered over the image, containing text. The text is in a bold, black, sans-serif font. The background shows various building styles, streets, and a body of water with a few boats.

Environmental federalism – on multilevel governance and differences between Finland and Sweden’s work towards the EU

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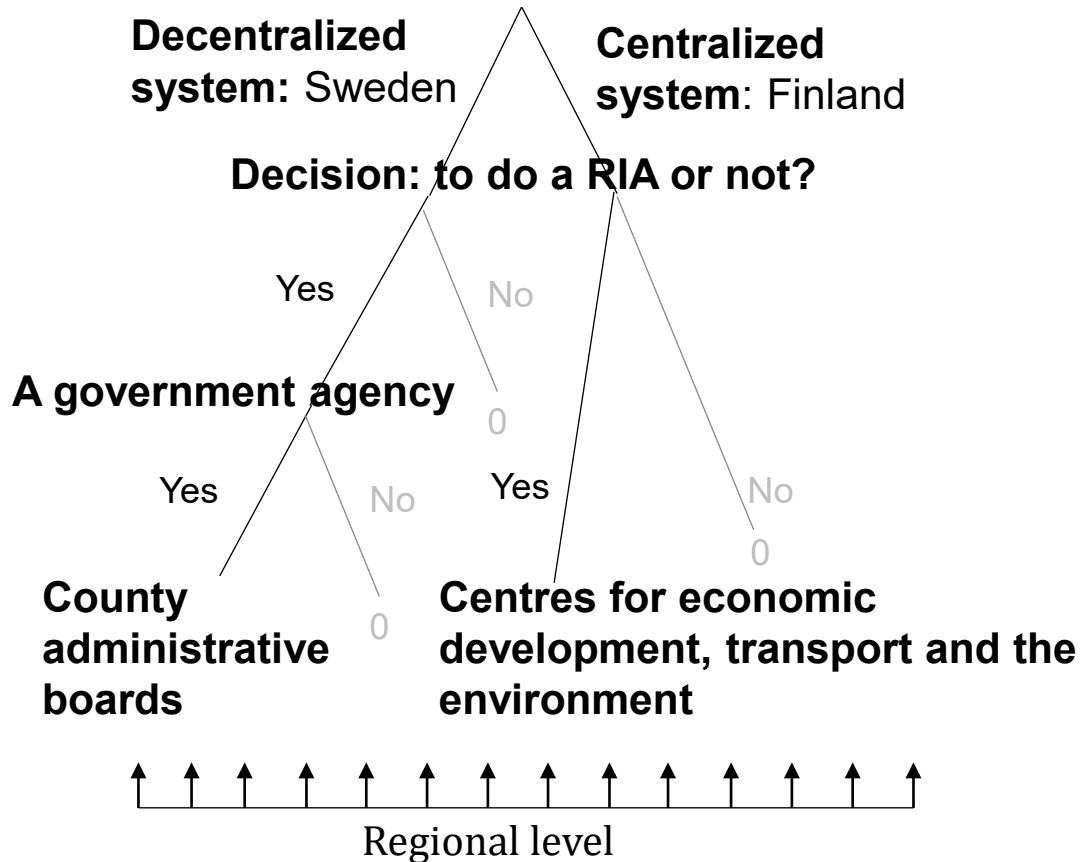
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Environmental federalism

- Federalism is about the interaction between administrations at multiple levels: local, regional, national, the EU, and how the location of decision-making power influences policy choices.
- We have compared the organisation of the government system in Finland and Sweden after these neighbouring countries, with a partly shared history, became members of the European Union in 1995.
- Based on this comparison, we have constructed a model of two small open economies, $i \in \{F, S\}$ that both consist of two regions, $r \in \{1, 2\}$ where regions 2 have a much lower population density and fewer firms than regions 1.
- We assume one of two types of externalities arising from emissions: regional or global.
- We assume that the EU determines the level of policy (e.g., a level of environmental quality, maximum concentration of a pollutant in water, soil, or air, maximum allowed emissions from a sector etc.).
- This policy is implemented by the national governments, either after consultation with regions or without information about regional differences.

The impact of institutions on the propensity to do a RIA



- Problem: To not to do a RIA leads to inefficient policy.
- The Finnish Council of Regulatory Impact Assesemet is located at the prime minister's offices.
- The Swedish Better Regulation Council is located at the Agency for Economic and Regional Growth and studies consequences to firms.

Sources of inefficiency in the centralized country

- Not doing an RIA yields no extra information → uniform policy in the entire country.
 1. For a global pollutant, this is optimal.
 2. For a regional pollutant, the policy is too lax for regions 1 and too stringent for regions 2: $\lambda_{i2}^* < \lambda_i < \lambda_{i1}^*$.
- The government can get information from the 15 Centres for Economic Development, Transport and the Environment about regional differences.
→ It can then implement optimal policy at least in these dimensions.

Sources of inefficiency in the decentralized country

- Not doing a RIA, given the small government ministries, does not provide enough information even to impose a uniform policy for the entire country.
 - Delegating the RIA to a government agency repeats the decision about a RIA or not.
 - The agency not doing a RIA implements a uniform national policy in a manner similar to the centralized country (see points 1 and 2 above).
 - However, the agencies are very specialized: take only one aspect of policy into account (environment, regional growth).
- The agency sets marginal benefits from emissions reduction equal not to marginal cost but zero
- Environmental policy too strict: $\lambda_i^e > \lambda_i$, for regionally differentiated policy $\lambda_{ir}^e > \lambda_{ir}^*$.
- An agency concentrating on economic/regional growth will not be able to internalize the externality.

Consequences for EU policy

- The country with a decentralized governance structure sets a stricter policy governing the global pollutant than is optimal from a global point of view.
- EU policy no longer optimal.
- If higher unemployment in the decentralized country does not cause an external effect on the EU labour (and other input) markets, the problem only concerns the decentralized country.
 - If there is a negative externality from labour market to other EU-countries, the inefficient environmental policy is a problem for the entire EU.
 - We do not consider possible positive effects, e.g., learning-by-doing more environmentally friendly technologies (Porter hypothesis) from strict environmental policy.

Empirical support for the model

- The model of Sweden may seem extreme.
- RIA is seldom done in Sweden (Better Regulation Council, 2023; Nerhagen et al., 2017; Nerhagen and Forsstedt, 2019).
- The Swedish Environmental Protection Agency has evaluated the use of RIA in environmental policy. They do not calculate the number of potential RIA:s vs actual ones, however. They also do not study the quality of the RIAs, only categorize them.
- SOU 2016:21 proposed a framework for climate policy in Sweden. Costs were quantified using the TIMES-Sweden model **after** a decision about the recommendations was already made.
- Ministry of the Environment (2022) notes that the outcome of an RIA done for the entire EU also applies to Sweden and that $MB > MC$. However, the European Environment Agency has shown that 0% of the population in urban areas in Sweden is exposed to concentrations above EU air pollution standards.

Fragmentation of the government system in Sweden vs Finland

Task	Responsible in Sweden	Responsible in Finland
Regulatory impact assessment	Agency for Economic and Regional Growth, Swedish National Financial Management Authority, SEPA for the use in the EOS system	The Finnish Council of Regulatory Impact Assessment at the Prime Minister's Office
Environmental protection and conservation	SEPA, County Administrative Boards	ELY Centres
Monitoring of the state of the environment		
Management of the cultural environment	National heritage board	
Guidance of land use and construction activities	Swedish National Board of Housing, Building and Planning	
Road maintenance	Transport Administration	
Road projects		
Traffic safety		
Transport system management	Transport Agency	
Public transport		
Regional business policy	Agency for Economic and Regional Growth	
Environmental permits	SEPA, County Administrative Boards	Regional State Administrative Agencies (AVI)
Use and quality of water	Agency for Marine and Water Management	SYKE
Expert services on the environmental area for relevant ministries	SEPA	
Nature conservation	SEPA, Swedish Forest Agency, Swedish Agency for Marine and Water Management	Metsähallitus

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Different implementation of EU directives

- Air quality directive:
 - Finland implemented the limit values in line with the directive.
 - Sweden chose a more strict implementation (SOU 2015:27).
 - Finland identified and deducted the contribution from sanding and salting in the measurement of PM 10 while Sweden did not.
- Action plans from 2016 regarding Directive 2014/94/EU on the deployment of alternative fuel infrastructure:
 - According to the evaluation EU(SWD 365) Finland fulfilled all its obligations.
 - Sweden did not fulfill its obligations and had to send in a revised and updated version of the action plan.

Conclusions

- The administrative system of a country can influence the effectiveness of environmental policies.
- Inefficiencies in our model arise from two sources:
 1. A government imposing a uniform national policy when a pollutant is a regional one.
 2. Imperfect information, which can arise from
 - i. Government ministries too small to do the analysis themselves
 - ii. From delegating analysis-making to agencies with too narrow (unidimensional) agendas.
 3. Not included in the model: EU policy to begin with being wrong, possibly due to insufficient input from the member states.

Conclusions

- The main consequence of ineffective environmental policies is a drag on the economy.
 - The implementation of EU directives becomes ineffective in the decentralized country.
- This may increase opposition towards the EU.

An aerial photograph of a city street intersection. A large white rectangular box is centered over the image, containing text. The street below shows a crosswalk, a bicycle lane, and a building with a red sign. The text inside the box reads: "Thanks for listening!" followed by "Contact: johanna.jussila.hammes@vti.se".

Thanks for listening!

Contact: johanna.jussila.hammes@vti.se

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