

(Re)allocating responsibilities and risks

WP 3.2: Implementing climate adaptation policies

Justin Dijk¹, Daan van Soest^{1,2}

¹Department of Spatial Economics and IVM, VU Amsterdam, ²Department of Economics and CentER, Tilburg University

What do we do?

This project focuses on how policy instruments such as taxes, tradable permits, (smart) subsidies, and procurement auctions can stimulate the supply of climate adaptation services in a way that is efficient, effective, legitimate and fair. Given the allocation of responsibilities and risks to the public and/or private domain (see WP 3.1), our project researches the conditions (e.g. heterogeneity in the private costs of supplying adaptation services, and voluntary participation rates) under which the implementation of specific economic instruments in the private domain offers the optimal solution for adaptation to climate change.

Key results and future research

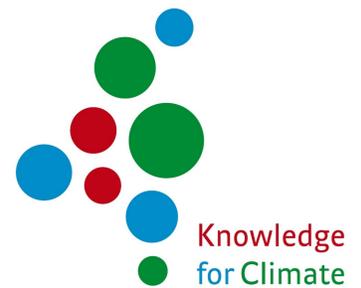
WP 3 has developed a framework to systematically evaluate different policy instruments and mixes of policy instruments. This framework combines the insights from legal, economic and policy science perspectives to form concrete advice regarding optimal mixes of policy instruments – to be used simultaneously, or consecutively.

The framework has been applied to a case study on natural climate buffers in Zeeland (Case 1). Here, the private supply of water storage and biodiversity services has hampered because private party compensation might have been too generous. Auctions, but also menus of contracts for private parties to choose from can offer a solution. For a given budget, contract menus can result in substantially larger amounts of services obtained – in the short and long run. This is especially true when the provision of services requires up-front investment costs as well as annual maintenance costs (and these costs components are negatively correlated).

In the near future, the results of lab experiments with students and ZLTO farmers in Noord-Brabant (Case 2) will help us develop an auction design that is able to overcome a key issue in many procurement auctions – the fact that sub-optimally few bidders effectively participate.

References

- Dijk, J.J., van Soest, D.P., and Ansink, E. (2012). The endowment effect and strategic behavior in repeated procurement auctions. Can government optimize conservation spending over time?, mimeo.
- Mees, H., Dijk, J., van Soest, D., Driessen, P., van Rijswijk, M., and Runhaar, H. (2012). Policy instruments for promoting adaptation to climate change. A framework for assessing public, private and/or interactive instruments and mixes, mimeo.
- Van Soest, D., and Dijk, J. (2011). De economische efficiëntie van agrarisch natuurbeheer. *Economische Statistische Berichten* 96 (4612S), 11-15.
- Van Soest, D., Dijk, J., and Arguedas, C. (2012). Can informational rents ever be avoided? Optimal conservation programs, endogenous investments, and heterogeneity in land owner preferences, mimeo.



Case 1: Natural Climate Buffers (Zeeland)

Case 2: “Water Vasthouden aan de Bron” (Noord-Brabant)

