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“Development on the margin”

Efficiency of Market Based Instruments for Protecting Wetlands

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Abstract

Wetland management is connected with a number of important issues such as food security, biodiversity, water scarcity, tourism and climate change. Hence, the increasing exploitation, degradation and loss of wetlands have given cause for worldwide concern. Many of the problems stem from large externalities caused by the use of ecosystem services. To alleviate external effects, economists tout many market-based systems as a remedy. However, not all market-based systems are applicable under all circumstances, especially since ecosystem services are heavily interlinked: for instance, if property rights for a forest area are distributed with the purpose of bolstering tourism attracted by forest ecosystem services, it might help preventing forest degradation and loss. Yet, it may also have adverse effects on wood extraction or conversion of forest land into agricultural land, which might be well warranted. The overwhelming complexity and dynamics of an ecosystem demands a system of managerial institutions that can set the right incentives for all stakeholders to promote efficiency and still disentangle the relationships in a manageable fashion. Prime examples and methods often practised are certification and mitigation trading of ecosystem services.

This paper tries to find a recommended set of market-based systems to approach the problems circumscribed above. Using the example of agriculture and aquaculture, the paper analyses appropriate existing and possible market-based instruments, their applicability and their shortcomings. The findings suggest that the considered instruments have potential to increase welfare also within the context of wetlands. However, the strong interdependencies between different ecosystem services may limit their scope of impact. For example, targeted subsidies and product certification may be attractive given the (relatively) low requirements in terms of system infrastructure and monitoring, but fail to incorporate spill-over effects on other production activities.

Keywords: Ecosystem service, institutions, market-based instruments, wetland