

# OSTROM WORKSHOP RESEARCH SERIES

## Frans de Vries

Department of Economics, University of Stirling  
Ostrom Workshop Visiting Scholar



“Transaction Costs, Communication,  
and Spatial Coordination in Payment  
for Ecosystem Services Schemes”

**Wednesday, April 27, 2016**

12:00 – 1:00 p.m.

Ostrom Workshop, 513 N. Park

Landowner participation and spatial coordination of land use decisions are key components for enhancing the effective delivery of ecosystem services from private land. However, inducing landowner participation in Payment for Ecosystem Services schemes for coordinating land management choices is challenging from a policy design perspective owing to transaction costs associated with participation. This paper employs a laboratory experiment to investigate the impact of such costs on participation and land use in the context of an Agglomeration Bonus (AB) scheme. The AB creates a coordination game with multiple Nash equilibria relating to alternative spatially coordinated land use patterns. The experiment varies transaction costs between two levels (high and low), which affects the risks and payoffs of coordinating on the different equilibria. Additionally, the possibility of communication is implemented between neighboring landowners arranged on a local network to facilitate spatial coordination. Results indicate a significant difference in participation under high and low transaction costs, with a lower uptake when transaction costs are high. This effect is, however, impacted by transaction costs faced in the past. Communication improves AB performance with the effect being greater for participants facing high transaction costs.



**Frans de Vries** is professor of environmental economics at the University of Stirling Management School (Scotland), teaching and working on issues in the overlapping domains of environmental, resource, and energy economics. Current research is related to designing and “test-bedding” the functioning of market-based environmental policy schemes. In this regard, he recently led a three-year project on *Designing Markets for Ecosystem Services Delivery*, which was funded by the European Investment Bank. Other significant research spans the interaction between environmental policy and technological change ([website](#)).

Presentations are open to the public (see our website for papers). You are welcome to bring your lunch. For questions, contact Allison Sturgeon ([sturgeon@iu.edu](mailto:sturgeon@iu.edu); 812/855–3151).