How to fix EU:s failing agri-environmental payment schemes?

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CAP heavily criticized for inadequate environmental payoff

My aims

- Discuss additional (economic efficiency) problems that come part and parcel with payments based on poor evidence.
- To present a potential solution.
Overview of my talk

- Payments to farmers are not based on (sufficient) evidence of environmental benefits (Juliana).

- Other ramifications beyond failing to achieve environmental goals are:
  1) Benefits come at unnecessarily high costs (cost-effectiveness)
  2) Lack of incentives to continually improve environmental performance (dynamic efficiency)
  3) Reduces farmers’ willingness to participate in environmental stewardship schemes (engagement)

- Challenge/Solution: Measuring environmental performance at the farm level.
Cost-effectiveness means getting more bang for the taxpayers’ buck

- Resources are being wasted on measures that are not cost-effective and even no effect at all

Baltic Sea costs reduced by **€500 million** annually if HELCOM plan was based on cost-effectiveness

Ecological Focus Areas: no effect means gasily failure


Example: current buffer-strip scheme has unnecessarily high abatement costly

Buffer strips: a potentially cost-effective measure

Currently, placement is not spatially optimized

Substantial increase in cost-effectiveness if payments were based on results.

Dynamic efficiency: improving environmental performance over time

- What would happen if farmers were rewarded for continually improving environmental quality through innovations and more effective technologies?


How to promote farmer engagement in environmental stewardship?

- The extent to which the instrument is consistent with farmers’ preference for making their own decisions about how to manage their land, including achieving environmental objectives.

Farmers would apply their knowledge and skills to solving environmental problems, as they have shown great creativity in improving food production.

Solution: base payments on evidence of environmental results

- **Result-based payments** guarantee efficient solutions:
  - Achieve environmental goals by definition
  - Automatically find cost-effective solutions (by principle of equi-marginal costs)
  - Reward farmers for continual environmental improvement
  - Promote farmer engagement

Models can provide evidence of results...

...thereby realising the efficiency gains of a result-based scheme.

Modelling can work!

Sidemo-Holm et al. (2018) demonstrate that modelling results is feasible.

We have both data, GIS and computing power.

Simply accounting for slope and soil type dramatically improves on current payment scheme to buffer strips.

Summary: Fixing problems with agri-environmental payment schemes

• Current action- or measure-based schemes wasting scarce resources:
  – Environmental values
  – Cost-effectiveness
  – Dynamic efficiency
  – Farmer engagement

• Efficient environmental governance requires structures that are based on evidence.

• Models provide a way to overcome the measurement problem that has hindered implementation of result-based schemes.

'Don't Let the Perfect Be the Enemy of the Good'
Thanks for your attention!

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