

Evaluating agri-environmental policies: lessons learned and challenges ahead

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Using evaluation to enhance the rural development value of agri-environmental measures, Pärnu, Estonia, 17-19 June 2008



Three questions on policy evaluation



- **What lessons and messages to take home from the conference?**
- **What insights on policy evaluation from work in the OECD?**
- **What are the policy evaluation challenges ahead?**



What insights on policy evaluation from work in the OECD?



Lessons learned: facts



- Environmental issues in agriculture are often highly location specific and some environmental impacts from actions taken by farmers can take a long time to appear
- Agriculture generates both positive and negative impacts on the environment that are the result of a wide range of driving forces, of which policy change is only one
- Understanding the multiple environmental impacts of changes in policies is complex
- Agri-environmental policy measures play an increasing role in agricultural policy in the EU, but still account for only a small share of budgetary support to farming



Lessons learned: concepts



- Environmental impacts from agriculture are externalities
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Lessons learned: tools



- indicators





Lessons learned: evaluation



- Evaluation evolving
- costs, demand imbalance



What insights on policy evaluation from work in the OECD?



The OECD



The Organisation for Economic Cooperation and Development is an inter-governmental organisation financed by its 30 member countries ...

...with the aim of fostering global economic growth, sustainable development and prosperity,

...acting as a hub for globalisation



The aim is to provide information and analysis on understanding the linkages between agriculture and the environment to help governments design and implement effective and efficient domestic and international policies

Policy Analysis

Policy Dialogue

Policy Advice



Past work



- Helsinki seminar
- Synthesis reports
- Arable crops
- Multifunctionality
- Policy targeting, transaction costs
- Evaluating agri-environmental policies



Current work



- **Indicators**
- **Inventory**
- **Modeling**
- **Cross-compliance**
- **Rural impacts**



Agri-environmental performance



- Overall, *mixed results* across and within countries
- *Land* used for agriculture and *soil* loss has decreased, but agricultural *water* use has increased
- Reduction in *nutrient surpluses* in some countries, easing pressure on water quality, but pockets of high concentrations
- Less *pesticide* application, but risks are unclear
- Slow-down in decrease in *biodiversity*
- Some reduction in *greenhouse gas* emissions
- Agricultural *output is increasing faster than inputs* – except for water use and energy



Agri-environmental policies



- *Targets or thresholds* for pesticides, water quality, ammonia and greenhouse gas emissions
- *Regulations* intended to meet targets are widely used
- *Payments* vary across countries – cost-sharing to meet regulations, compensating for income lost by adopting practices, and rewarding farmers for environmental services
- *Cross-compliance* important in EU, Switzerland, US (& Norway?)
- Use of *taxes and charges* is very limited
- *Market-based approaches*, such as tradable permits, and voluntary, co-operative efforts limited but growing



- **Stylised Agri-environmental Policy Impact Model (SAPIM)**
 - **Analyses the cost-effective policy measure(s) to achieve better environmental performance (applied to Finnish, Swiss, US and Japanese data)**
 - **A farm-scale model based on “representative farms”**
 - **Reflects specific agri-ecological and policy contexts**
 - **SAPIM also applied to biofuels policies**



Future work



- **Policy guidelines**
- **Climate change**
- **Innovative policies**
- **Water**



Tools in OECD to analyse linkages



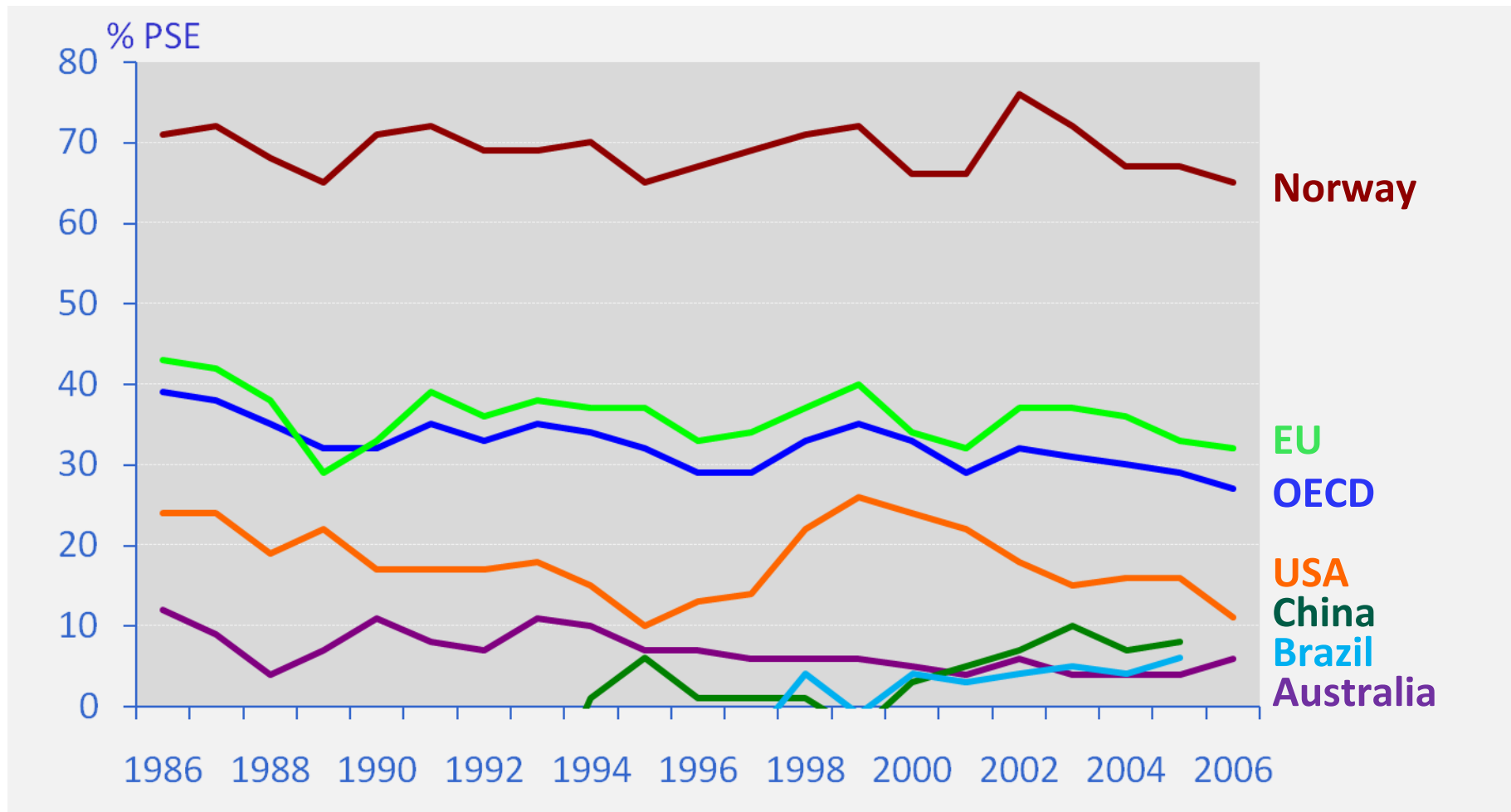
- **Support to agriculture (PSE)**
- **Policy characteristics (Inventory)**
- **Environmental performance of agriculture (Indicators)**
- **SAPIM model**



Producer Support Estimate



(Percent of Gross Farm Receipts)





Composition of support has changed



- In OECD share of support based on commodity output has fallen from 82% in 1986-88 to 55% in 2005-07
- In the European Union, the share fell from 91% to 43% and increased for input use, area and animal based policy measures, especially where production not required for eligibility to receive payments (Single Payment Scheme)
- In Norway, the share fell from 72% to 49% - and increased for area and animal based policy measures, but where production is required for eligibility to receive payments



What are the policy evaluation challenges ahead?



Linkages: challenges



- A mass of data on indicators but not always comparable through time and countries - and not in monetary units
- Many environmental effects are location-specific and take a long time to evolve and become apparent
- Linking biophysical and economic models is complex and interpreting results not easy
- Policy targets: inputs (practices) or outputs (performance)?
- Which method(s) to evaluate policy cost-effectiveness?



Trade and Agriculture Directorate



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