



OECD's Approach to Agri-Environmental Policy Monitoring and Analysis

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Aim of OECD agri-environmental work

To provide information, indicators and analysis on understanding the linkages between agriculture and the environment to help governments design and implement environmentally effective and economically efficient policies

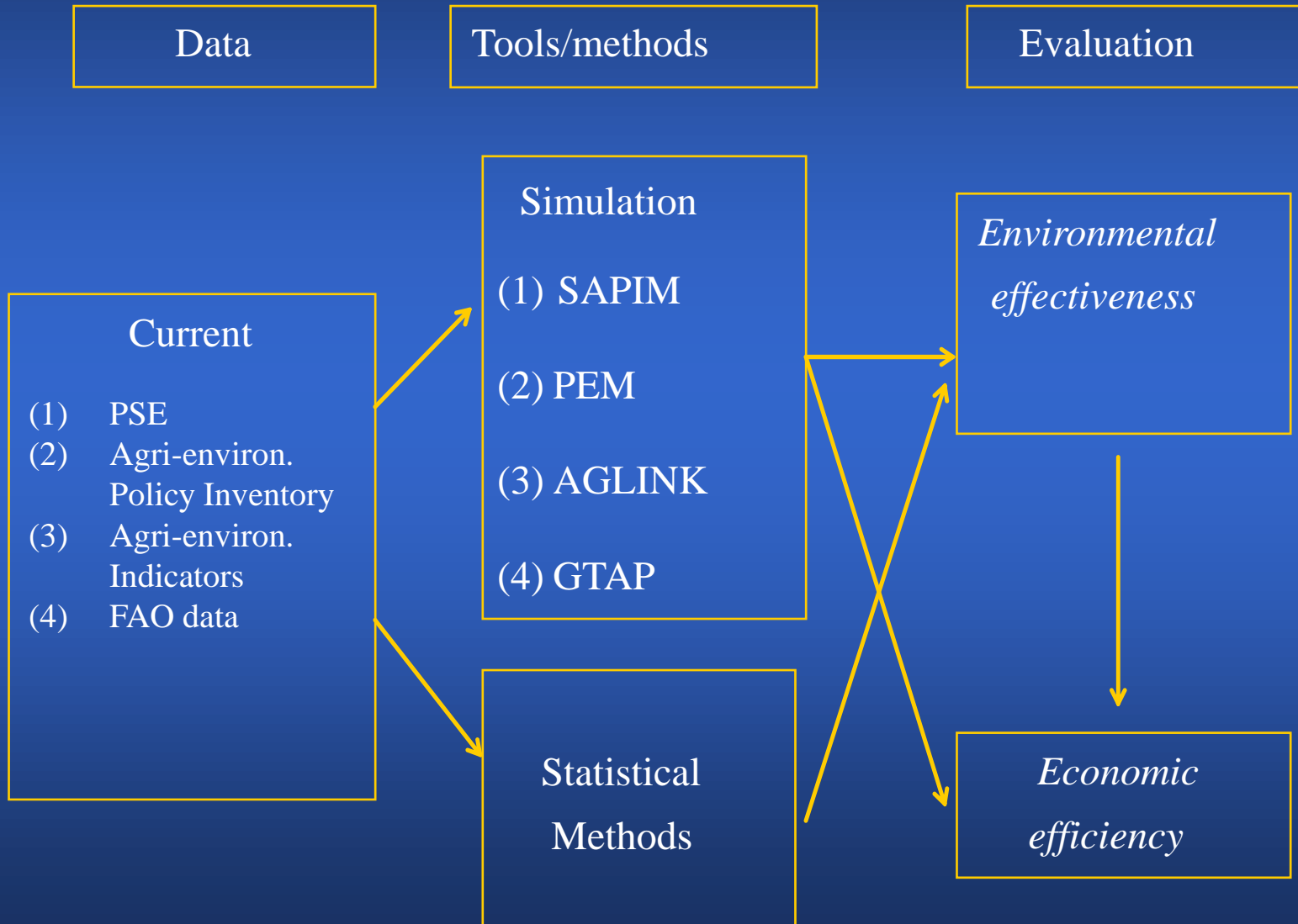


Background

- Abundance of food but agricultural and other pressures on land, water, air, biodiversity
- Climate change both affected by and impacting on agriculture and the environment
- Policies in agriculture often in conflict in terms of their impact on the environment, both for better and for worse
- Agricultural policy reforms, international trade and environment agreements affecting agriculture and the environment
- Markets for environmental goods and services are often absent or work poorly



Linking data and tools/models for evaluation of environmental and economic outcomes

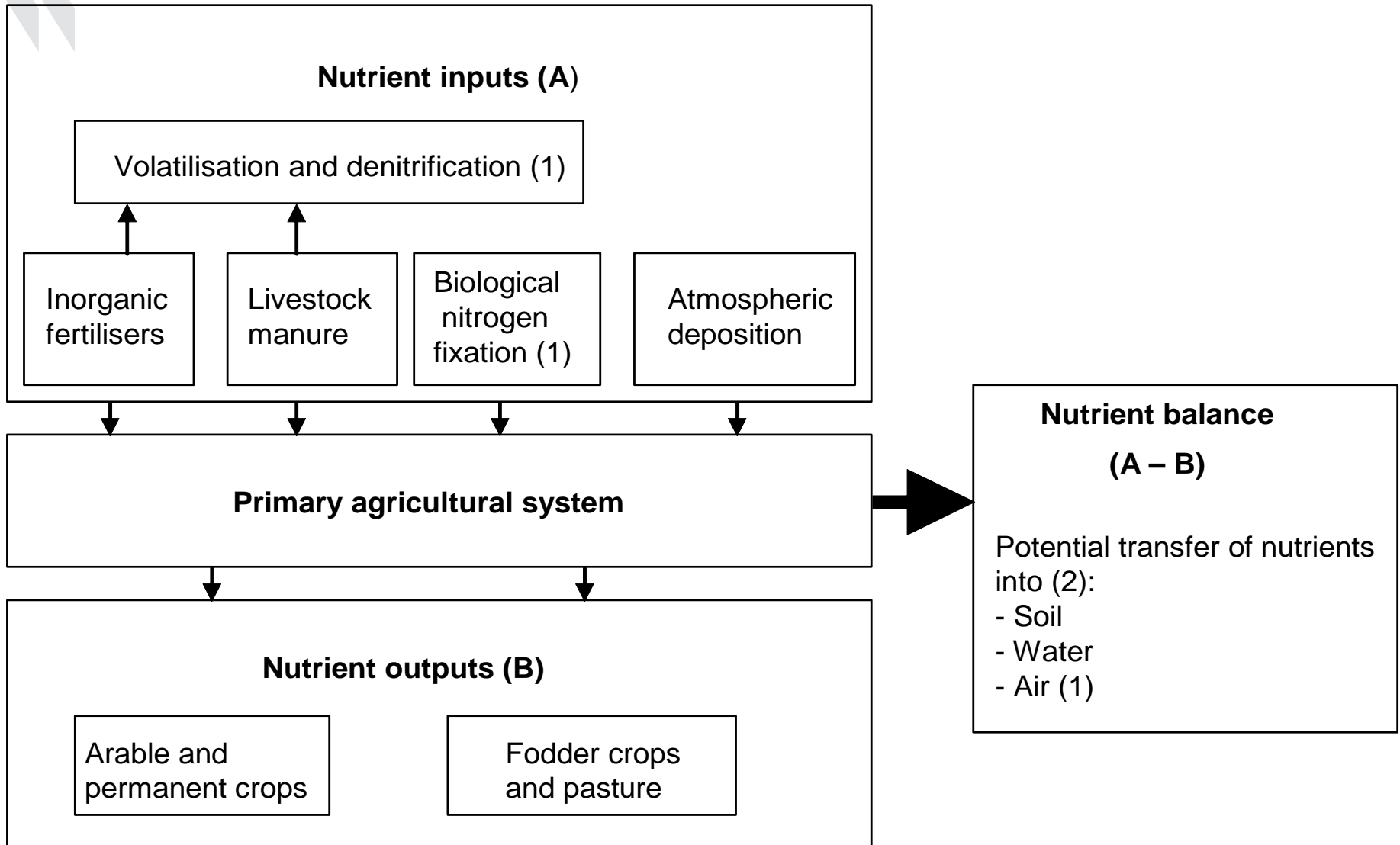




OECD Agri-environmental performance: 1990 to 2004 (indicators)

- Overall, mixed results across and within countries, while agricultural productivity has increased
- For most countries land used for agriculture and soil loss has decreased, but water use has risen
- Lower nutrient surpluses, easing pressure on water quality, but pockets of high concentrations
- Less pesticide application, but risks unclear
- Long term decrease in biodiversity has slowed in some cases
- Decrease in ammonia and greenhouse gas emissions for most countries

Main elements in the OECD gross nutrient balance calculation (nitrogen and phosphorous)

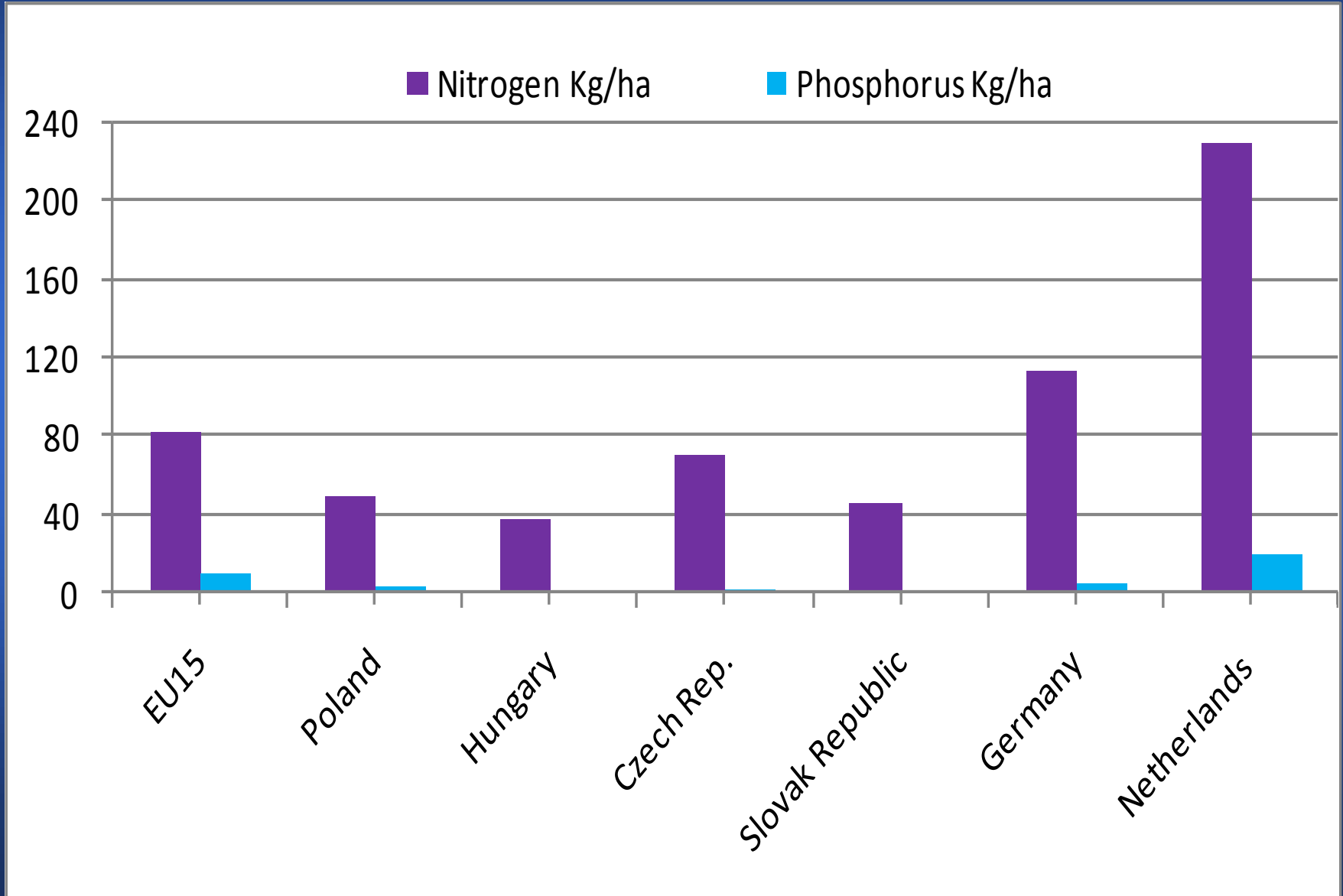


1. Applies to the nitrogen balance only.

2. Nutrients surplus to crop/pasture requirements are transported into the environment, potentially polluting soils, water and air, but a deficit of nutrients in soils can also occur to the detriment of soil fertility and crop productivity.

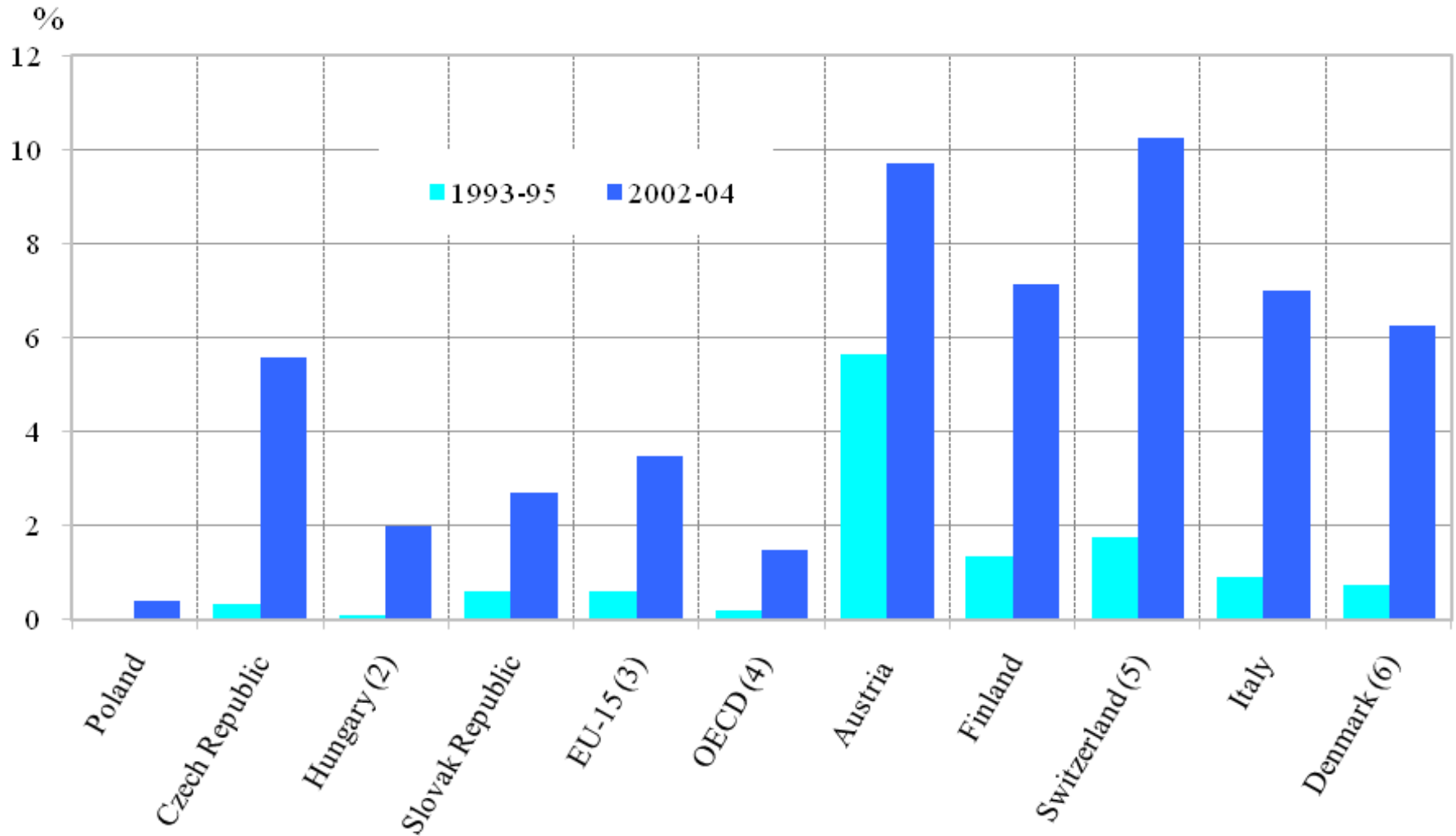


Nitrogen and phosphorus balances: Kg/ha of total agricultural land: 2002-04





Share of the total agricultural land area under certified organic farm management: 1993-1995 and 2002-04



Recent OECD trends in policy instruments (Agri-environmental policy inventory)

- *Targets or thresholds* for pesticides, water quality, ammonia and greenhouse gas emissions
- *Regulations* to meet targets are widely used
- *Payments vary across countries* – helping farmers for costs of meeting regulations, compensating for income lost by adopting certain practices, and rewarding farmers for environmental services
- Use of *taxes and charges* very limited, e.g. pesticides
- *Market-based approaches*, limited but growing, e.g. tradable permits, voluntary co-operative efforts

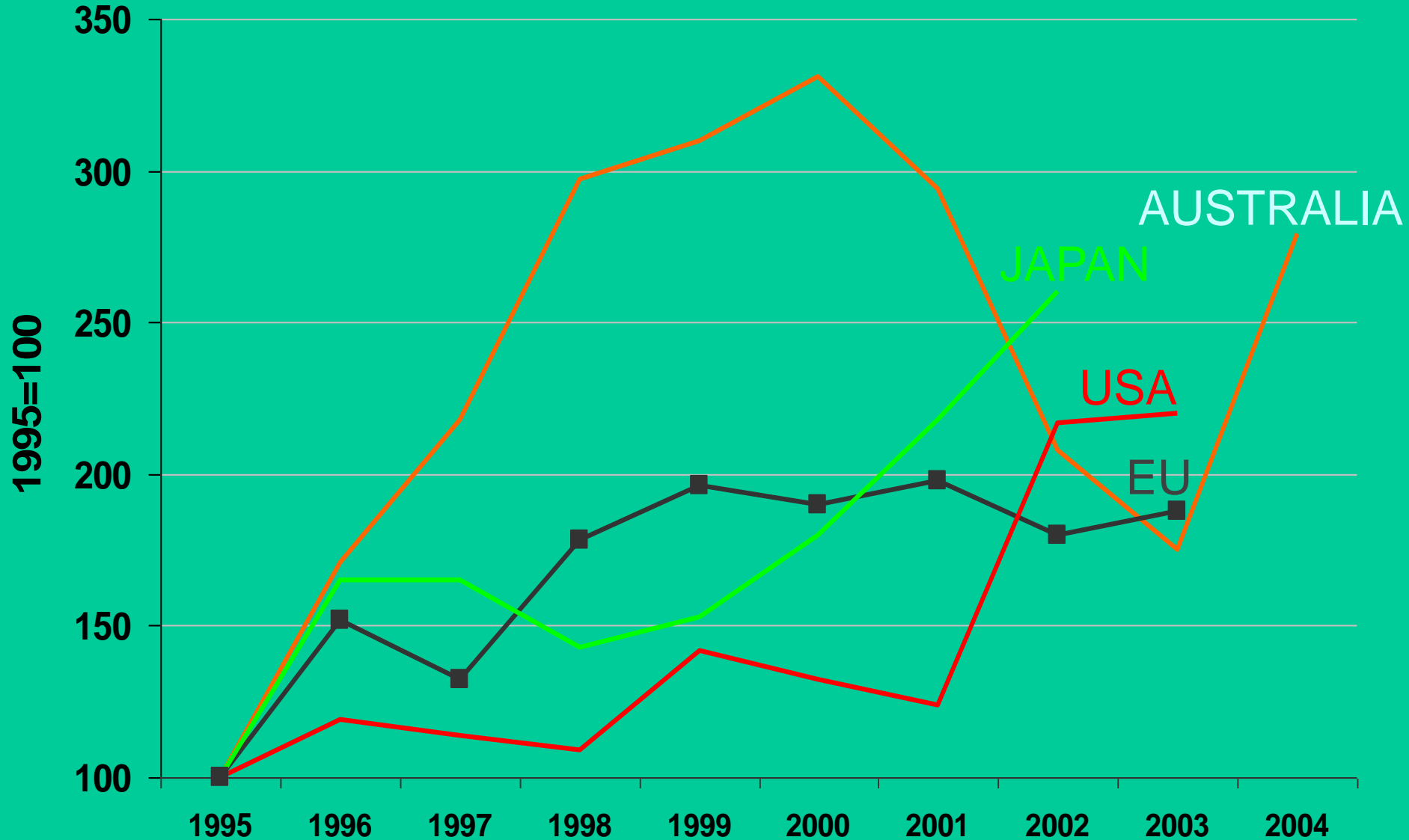


OECD policy trends with environmental impacts (Policy Inventory and PSEs)

- High but declining share of production-linked measures (91%, 1986-88 to 63%, 2004-06)
- Low but rapidly increasing direct support for the environment (e.g. payments for soil conservation), but many farm payments tied to environmental objectives (e.g. cross compliance)
- Significant environmental regulations (e.g. water and air quality)
- Limited but growing producer and agro-food industry led approaches (e.g. supermarket contracts)



Agri-environmental payments have increased rapidly since 1995





Developing SAPIM (Modelling)

- OECD's Stylized Agri-environmental Policy Impact Model (SAPIM) analyses the effects of policy measures (agri-environmental and area payments, taxes, buffer strips...) on the environment (nutrient run off and biodiversity), farm incomes, budgetary expenditure
- SAPIM provides a comparative analysis of different agri-environmental settings and policy measures
- SAPIM is a farm level model using data from Finland, Switzerland and the US (in progress)
- Results are to be published in 2008



OECD policy conclusions: how effective in terms of environmental outcomes?

- Policies are only one of many influences on production decisions leading to environmental outcomes
- Production-linked policy measures increase pressure on environment but may also contribute to the provision of some environmental services
- Many agri-environmental policy measures and environmental policies were established to offset environmental damage from unrestricted production-linked policy measures



OECD policy conclusions: how cost (economic) efficient?

- Cost of reducing environmental damage through agri-environmental payments that offset the damage from production-linked agricultural policy measures is higher than would otherwise be the case
- Payments for rewarding farmers for provision of environmental services are lower in the absence of cost-raising production-linked agricultural policy measures
- Production-linked support measures act as a disincentive to search for innovative market solutions to address environmental issues



Lessons learned from OECD experience

- Environmental sustainability is a widely-held policy priority, but policy action is still developing
- Most policies are production based and agri-environmental policy small share of support
- Property rights are only weakly enforced
- Cross compliance may improve the environment, but is poorly targeted and has limited efficiency
- Agri-environmental policy is often not evaluated
- Improving environmental performance would be less costly without commodity support measures



Current agri-environmental work: 2007-08

1. Natural resource and env. amenity policy evaluation:
 - Agricultural land-based rural amenities
 - Agriculture and bioenergy and bioeconomy
 - Sustainable management of water in agriculture
2. Analysis of policies and policy instruments:
 - Evaluating cross-compliance
 - Modeling policy-environmental outcomes
 - Input into agricultural trade agreements & MEAs analysis
 - Guidelines for effective agri-environmental policies
3. Improving and refining tools for policy analysis:
 - Agri-environmental policy inventory and PSE measurement
 - Core set of agri-environmental indicators
 - Agri-environmental modelling approaches



A closer look at OECD work on water

1. Why is the water and agriculture linkage important?
 - Share of agriculture in total OECD water use high, 45%
 - Agriculture water use growing faster than for other users
 - Overexploitation of groundwater by agriculture increasing
 - Economic costs of agri. water pollution high in many cases
 - Widespread support for irrigation water across OECD
2. What is the focus of agri-water work over 2007-08?
 - Improving measurement of water support in PSEs
 - Tracking agriculture's use of water (indicators)
 - Examining recent policy experiences and challenges related to agriculture's management of water resources
 - Identifying sustainable water management practice and effective policy and market approaches



Possibilities of further developing agri-environmental policy monitoring and analysis in Romania (and other Central and Eastern European countries)

1. Building on national progress to date, for example:
 - EU related reports -- *National strategic plan of rural development 2007-13* (2006)
 - OECD -- *Review of agricultural policies* (2002)
 - Romania's national reports to UN agencies: UNCCC (2006), UNFCCC (2006), CBD (2005),
2. Developing an information and analytical base:
 - Agri-environmental policy inventory
 - Agri-environmental indicators
 - Modelling policy impacts and future scenarios



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Thank you!
MULT, UMESC

www.oecd.org/tad

OECD Agriculture and Environment website:

www.oecd.org/agr/env

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