

Evaluation of landscape amenity benefits in multifunctional agricultural accounts

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Introduction

Landscape provision by agriculture:
 → *service* function to society & nature
 → part of agriculture's multifunctionality

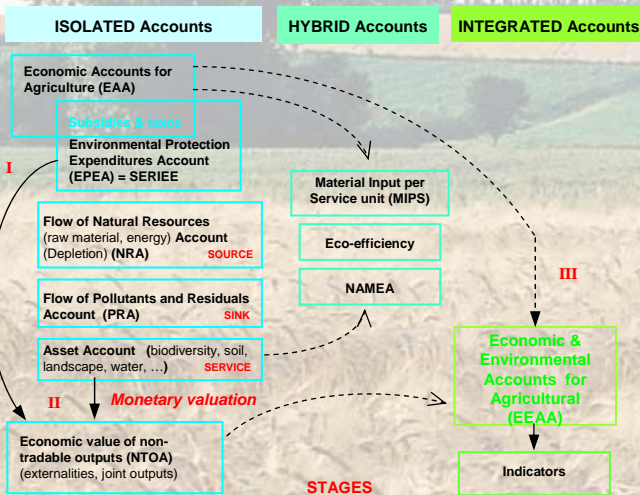
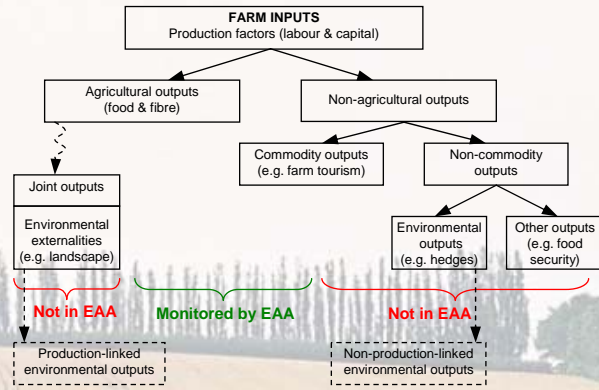
Problem

- no "reward" for amenities: non-commodity goods
- benefits for society not in the conventional economic accounts (EAA)

Objective

Evaluating the sector's multiple functions & monitor the related policies.

- ⇒ Requires indicators that comprise:
- the sector's economic value
 - environmental concerns
 - non-market functions



Solution:

Integrated Economic and Environmental Accounts for Agriculture (EEAA) [1,2,3]

The EEAA extend the conventional EAA with environmental issues, valued in monetary terms. The sector's private costs and benefits are integrated with external 'social' ones, i.e. commodity goods and services with non-commodity ones. As both positive and negative externalities are accounted for, the EEAA enable impact analysis of policy instruments, not only on agricultural income, but also on societal welfare.

Within the EEAA, the EPEA highlights the environmental subsidies and taxes, i.e. the transfers between society and agriculture. Their effect in the total of the EEAA, however, is neutral.

The case of landscape amenities

The agricultural landscape has various values:

- Social value
 - use value ⇒ revealed preference
 - ⇒ data from other markets to estimate proxies for the non-commodity good (by benefits transfer)
 - ⇒ assume that landscape has value for
 - residents
 - tourists
 - recreationists
 } Internalise in EEAA [3]
- non-use-value
- Intrinsic value

Conclusion

- The total benefits of the agricultural sector may be increased by over 12 % of the sector's private benefits, when external social benefits from landscape amenities are accounted for.
- The principal interest of the EEAA lays not as much in the absolute value of each section, but rather in their relative weight and the overall evolution of their share in total cost/benefit over time

Elements of the EEAA for landscape amenity provision for Belgium in 2001

	Private cost and benefits	Million euro	
	Gross value added at basic prices	2814.19	Conventional EAA (include costs related to landscape provision)
-	Consumption of fixed capital	- 606.18	
	Net value added at basic prices	2208.02	
+	Other (subsidies - taxes) on production	110.49	Transfers between society and agriculture
	↳ Subsidies for landscape provision	1.68	
	Net value added at factor costs	2318.51	
	External social benefits		
-	↳ Subsidies for landscape provision	- 1.68	
+	Residential value	210.41	External environmental benefits to be internalised in the EEAA
+	Tourist value	41.90	
+	Recreational value	?	
=	Environmentally adjusted value added	2569.14	

References

- [1] Verhaegen E., Wustenberghs H., Lauwers L. (2003) Elements for "green accounts" for the agricultural sector. TAPAS 2002, Environmental Aspects of Agricultural Accounts, Execution report. CAE, Brussels.
- [2] Wustenberghs H., Verhaegen E., Lauwers L., Mathijs E. (2004) Monitoring agriculture's multifunctionality by means of integrated nation-wide accounting. Paper presented at the 90th EAAE Seminar, Rennes, France, 28-29/10/2004, <http://merlin.lusignan.inra.fr:8080/eaac/website>
- [3] Wustenberghs H., Verhaegen E., Lauwers L., De Haes E., Vervaeke M. (2005) Towards integrated economic and environmental accounts for agriculture. TAPAS 2003, Environmental Aspects of Agricultural Accounts, Execution report. CAE, Brussels, <http://www2.vlaanderen.be/ned/sites/landbouw/publicaties/cle/index.html>

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