



INSTITUTO NACIONAL DE ESTATÍSTICA
STATISTICS PORTUGAL

» Agri-environmental Indicators

Portuguese perspective «

Statistics Portugal
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Summary

- ❖ Main concerns of AEI – PT view
- ❖ AEI as a statistical project
- ❖ Data collection constraints
- ❖ Recommendations





Main concerns of agri-environmental indicators


Measure

- Effects of agriculture on environment

Provide

- Data to policy makers about the state of environment, enabling them to establish policies of protection

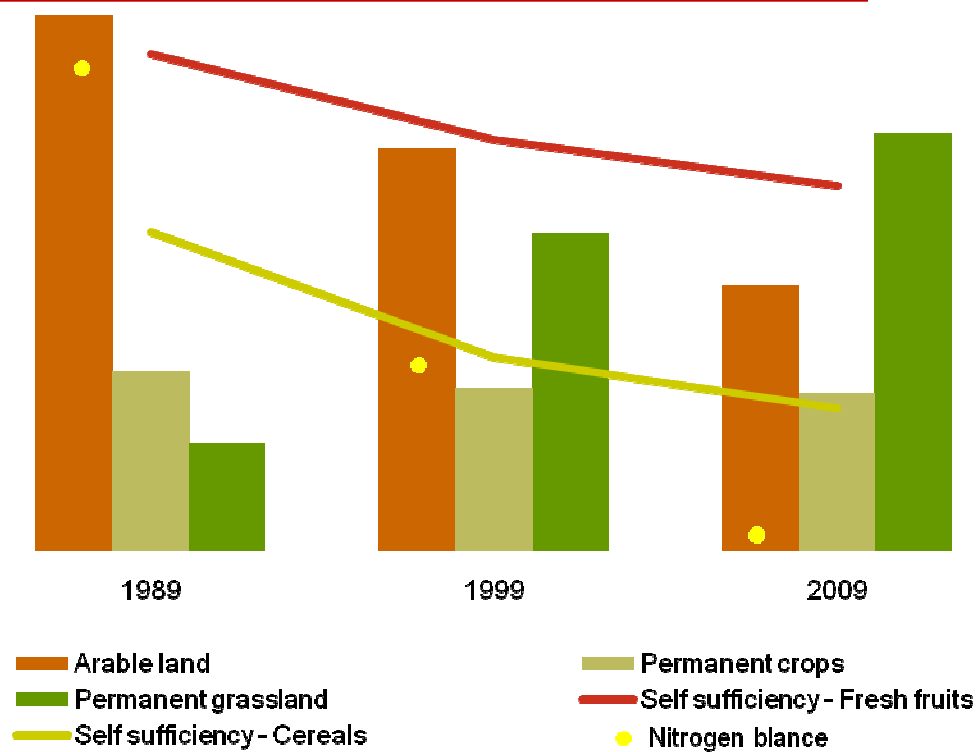
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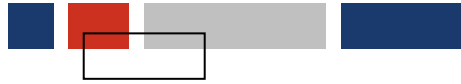
- The efficiency of those policies measures
- 





Effects of agriculture and environment





Effects of agriculture and environment

Portugal

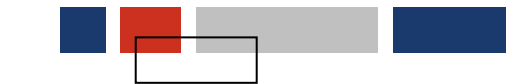
Still retain a relatively widespread set of characteristics that are closer to a sustainable model of development rather than intensive agriculture, such as small to medium size holdings, high fragmentation, restricted monocultures, great variability of crops, type soils and climate.

- ❖ Basic food products - Low degree of self-sufficiency
- ❖ Imports of agricultural and forest products represents 14,2% of total national imports;
- ❖ The security of domestic supply is becoming an essential value

Solution: Produce more and even better



Data to policy makers



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Publications

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Agri-environmental indicators
Issue year: 2009

Summary
The publication *Agri-environmental indicators* (AEI) provides the results of the most. These indicators try to identify, qualify, quantify and evaluate trends in the environment, namely in terms of pollution and natural resources depletion.

The AEI are organized according to DPSIR Model - Driver-Pressure-State-Impact-Response Forces, "Pressures", "State and Impact" and "Responses".

The presentation of the AEI focused in the analysis of trends and relative position. This option derived from acknowledgment that reference periods and geographical data sources were used to build the AEI. This fact is more evident for the internal the relative positioning of countries EU15.

The DPSIR model has been developed by the European Environment Agency (1995) between economic activities and the environment.

Publication - complete version
PDF (2733 Kb)

http://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_publicacoes&PUBLICACOESpub_boui=7487456&PUBLICACOESstema=5414367&PUBLICACOESmodo=2

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Database

Agriculture, forestry and fishing | Agro-environmental | Width geographical level

Indicators	(*)
Apparent consumption of mineral fertilizers by utilised agricultural area (kg/ha); Annual	Portugal
Energy consumption by utilised agricultural area (GJ/ha); Annual	Portugal
Distribution of utilised agricultural area (%) by Size class of inputs utilization; Annual	Portugal
Agricultural ammonia emissions by utilised agricultural area (kg NH ₃ /ha); Annual	Portugal
Agricultural emissions of green house gases by utilised agricultural area (kg CO ₂ eq/ha); Annual	Portugal
Females of local breeds (No.) by Animal specie; Annual	Portugal
Proportion of agricultural holdings with farm net value added by annual work unit below 50% of the average (%) by Geographic localization (Agrarian area); Annual	Agrarian region
Proportion of sole agricultural holders with 55 and more years old (%) by Geographic localization (Agrarian area); Annual	Agrarian region

(*) Geographic detail level for which data exists

1 of 2 >>

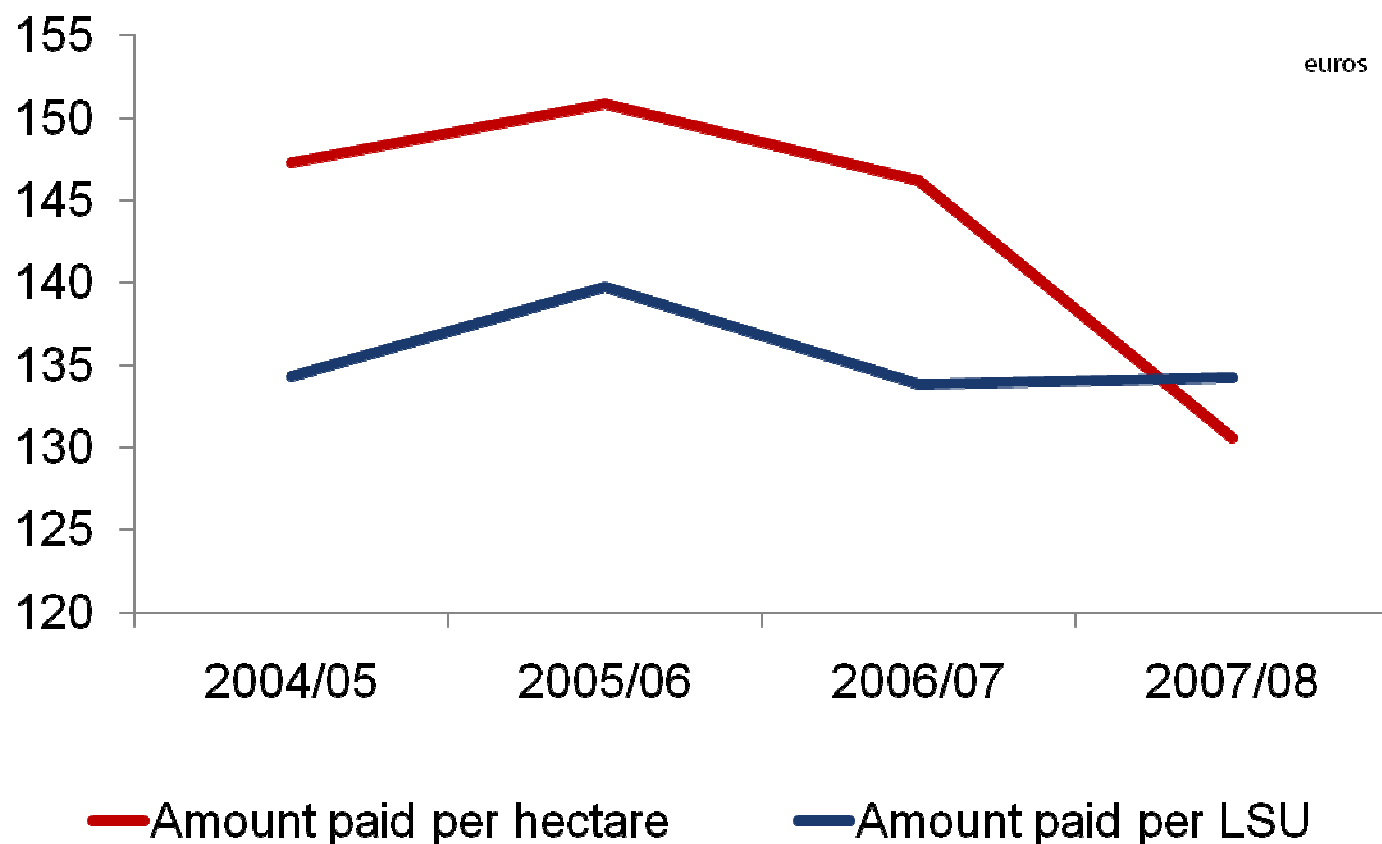
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The efficiency of those policies measures

Agri-environmental commitments





From a statistical point of view

- ❖ Respondent burden is too high
 - ❖ High degree of detail – too costly
 - ❖ The border line between academic exercises and statistics should be done
 - ❖ Statistics should not use to control
 - ❖ Quality must be assured
- The load response must be commensurate with the needs of users should not be excessive for respondents (*code of practice – principle 9*)
 - Cost benefit analysis should be done)
(Reg.(EC) N° 223/2009 of the European Parliament and of the Council of 11 March 2009 on European statistics)
 - Not always what is statistically significant is important! Academic exercises are important (eg: coefficients)
 - Guarantees should be given on the absence of any link with cross-compliance obligations
 - The statistics must be supported by appropriate statistical procedures, implemented from data collection until validation (*code of practice – principle 8*).

More accurate indicators means more costs to gather information...





Limits to data collection for AEI



❖ Too many small holdings

- 0 a < 5 ha – 76%
- >= 50 ha – 3%

❖ Great diversity of crops

❖ High fragmentation

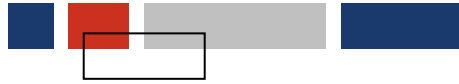
- 6 parcels per farm

❖ Farmers profile

- Age - 63
- School level – elementary school
- Agricultural training – only practical experience
- Source of income – pensions and allowances

Primary source of data - data collected at farm level through FSS does not necessarily guarantee a better reliability





Some examples

AEI 8 - Energy Use

Gj *per farm per year*

AEI 11.1 - Soil Cover

Number of **days** from sowing until crop is established

AEI 11.3 - Manure Storage

Storage capacity (**months**)

AEI 20 - Water Abstraction

Amount of water used *per ha and per crop per month*

AEI 22 - Genetic Diversity

Most dominant **varieties of seeds** used for the production of the main crops

AEI 25 - Population Trends of farmland birds

Bird counts on every farm on a regular basis





Limits to data collection for AEI

Administrative
sources

- ❖ Depend on policies
- ❖ Lack of completeness and validation procedures
- ❖ Delays on the implementation process
- ❖ Low coverage

Data spread over a large number of entities





Recommendations



- ❖ Financial support from CAP to agriculture and environmental statistics
- ❖ FSS or other surveys conducted at farm level
- ❖ FADN or similar approaches created specifically for agriculture/environmental statistics
- ❖ Cooperation with Universities and farmers associations

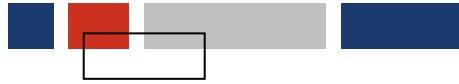
- Currently supports FSS, but is not enough!!

- Conventional surveys are not the best statistical tool to obtain data for AEI

- Overcome the constraints of gathering agriculture data from farmer through conventional surveys

- To be strengthened





Recommendations

❖ Policies vs Statistical data

❖ Time lag of EU Policies implementation should occur simultaneously in Member States

- Definition of policies should be accomplished in parallel with the discussion of data requirements and its implication for the EU Statistical Program!!!

- Example: Regulation EC n.º 1166/2008 predicted a list of variables related with Rural development measures, to be collected by the Agriculture Census. By the time of collecting data in PT, 1/3 of those mandatory measures were not questioned in Portugal because they were not yet implemented!!!





Recommendations



❖ The role of Eurostat

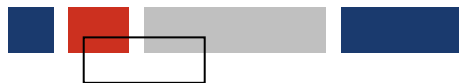
- Improve the coordination of Eurostat with other Commission Services.

A better coordination within Commission services should also be envisage

❖ Coherence between statistical data needs and statistical legislation

- *Eg: The Pesticides Regulation was discussed for a long time and finally it was approved but.... It not fulfil the needs, which at the time were already known...*





***“It is good to have an end to journey towards,
but it is the journey that matters, in the end!”***

Ursula K. Le Guin



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Thank you for your attention

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