EU Agricultural statistics

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Current and Imminent data Collection Challenges faced by Eurostat, International Expert Working Group, Niagara-on-Lake, Canada, June 26-28, 2011

<u>GENERAL BACKGROUND</u>

The Statistical Office of the European Union – Eurostat.

- A Directorate General belonging to the European Commission;

- There are around 900 posts in Eurostat. Of these, 73% are occupied by officials, 8% by experts from Member States and another 19% are occupied by other staff; Budgetary resources: around 65 million euro per year;

- Two Agricultural Units with around 45 posts belonging to the Directorate "Sectoral and Regional statistics"

GENERAL BACKGROUND

- **Its task is to provide the European Union with statistics at European level that enable comparisons between countries and regions.**

- **Eurostat has a yearly and multiannual statistical programme (2008-2012)**

- **Statistical law (Reg. 223/2009); Vision approach**

- **Singly Entry Point; SDMX for Data and Metadata**

- **Quality Chart; Data validation; National Methodological Reports and Cross-Check analysis**

- **Free data dissemination of non confidential data – Confidential data after anonymisation available for researchers**

EU AGRICULTURAL STATISTICS

The area is at the moment quite complex. It has been built up step by step since the beginning of Eurostat (1953), and is therefore sometimes not coherent enough.

A decision has been taken to reorganise the domain, a process which is presently under way. This means that important changes will take place the years to come.

EU AGRICULTURAL STATISTICS

An important part of the planned changes is simplification of the domain, easing the burden on respondents and national statistical institutes.

A key issue is setting up of a Core Survey and Satellite Surveys and the use of Farm Registers with the same unique identifier for each farm in both statistical and administrative registers.

1. Primary statistics

   1.1 Farm Surveys

       - agricultural census   (every 10 years)

       - farm structure surveys (every 3 years)

       - FADN   (annual)

       - livestock surveys   (cattle, pigs: twice a year; sheep&goat: once a year)

       - crop surveys   (annual)

EU Agricultural statistics

1. Primary statistics

    1.2 Dairy data   (monthly + annual)

    1.3 Slaughtering statistics   (monthly)

    1.4 Price data   (quarterly + annual)

EU Agricultural statistics

2. Derived statistics

2.1 Economic accounts for agriculture

2.2 Supply balance sheets

EU Agricultural statistics

3. Statistics under development

    3.1 Production method survey (agri-environment)

    3.2 Land Use and Land Cover Statistics - LUCAS

    3.3 Food safety

    3.4 Agri-environmental indicators

    3.5 Rural development indicators

A. LAND USE/COVER AND LANDSCAPE

The land use/cover statistics aim at showing the use/cover of the total area of approximate 433 million ha in the EU. The data are normally based on surveys or are estimates derived from different sources. The users of land use/cover statistics are found in agriculture, environment and rural development.

Land use/cover and landscape

Presently, land use data are collected in three statistical domains: agriculture, forestry and environment statistics. Additionally, there are also the regional statistics which collect land use data.

In addition, there is a survey, an EU system for land use/cover statistics, called Land Use and Cover Area frame Survey - LUCAS.

A. Land use/cover and landscape

Land Use/Cover Area Frame Statistical Survey (LUCAS):

This activity is centrally managed by Eurostat.

Objective:

- To obtain harmonised data at EU level on land use, land cover and certain environmental features
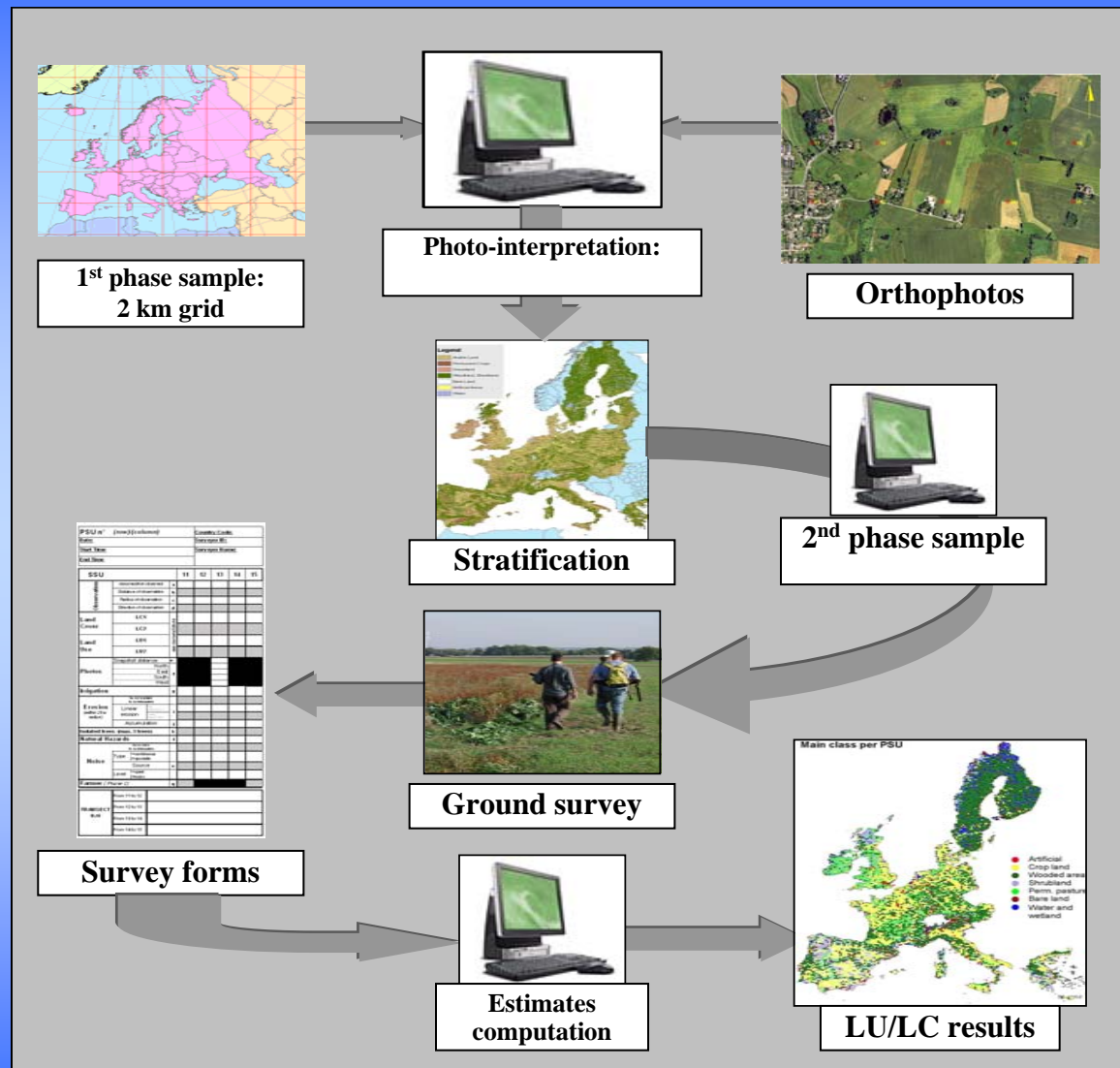- To have common methodology-nomenclature ensuring full comparability of results
- To analyse interaction agriculture-environment, landscape

Is based on a grid of points all over Europe for data collection

How does LUCAS work?

1st phase sample: 2 km grid

Photo-interpretation:

Orthophotos

Stratification

2nd phase sample

Survey forms

Ground survey

Estimates computation

LU/LC results

A. Land use/cover and landscape data

MOST PROBLEMATIC ISSUES

Land use statistics are normally based on surveys or are estimates derived from different sources. Considering the fact that data are transmitted to Eurostat in several domains, consistency is a problem.

A. Land use/cover and landscape

FUTURE ACQUIS

There are at the moment ongoing strategic discussions on how the land use/cover statistics can be improved in the EU by better integration of data and synergies between stakeholders (EU, national and local data providers) with an eventual full integrated LUCAS approach in the statistical system.

Additionally, it is likely that land use/cover statistics are better incorporated in crop production and agri-environmental statistics.

B. RURAL DEVELOPMENT STATISTICS

The development of rural areas is an important policy in the EU. Better statistics are needed to support the policy makers, especially concerning Axis 3 of the Common Monitoring and Evaluation Framework of the Rural Development regulation.

B. Rural development statistics

THE ACQUIS

There is no legal base rural development statistics as such and collection is based on voluntary basis, making use as much as possible of existing data.

C. AGRICULTURAL STRUCTURES

Farm structure statistics play a key role in the design, implementation, monitoring and evaluation of the Common Agricultural Policy (CAP). This role is likely to increase over time with enlargement and CAP reform (Review CAP post 2013; shift from product to producer support - environmental compliance - rural development).

C. Agricultural structures

The EU farm structure surveys (FSS) - censuses every ten years and intermediate sample surveys in between – are the backbone of the agricultural statistical system. They provide micro data on agricultural labour force, land use, livestock, equipment and they are the statistical basis for all sample surveys on land use, livestock and agricultural income.

C. Agricultural structures

The data are sent to Eurostat about 1 year after the survey in the form of micro data, i.e. the data are sent by farm.

Eurostat validates, processes and publishes the data.

EU27 (2007): 13.7 mio holdings; 172.5 mio ha UAA (40% of total area); 16.4 mio persons labour force; 9.0 mio AWU (75% family; 25% non family)

C. Agricultural structures

MOST PROBLEMATIC ISSUES

The FSS is a complex survey. Since the individual data are transmitted to Eurostat, it is imperative that they are fully harmonised.

Even small changes in population or thresholds have big influence on the time series.

C. Agricultural structures

FUTURE ACQUIS

The present Council/EP Regulation 1166/2008 is valid from 2009 onwards, but will probably be renewed. The new Regulation should be in place for the agricultural surveys from 2016 onwards.

It is foreseen that the basic system will be changed as new data needs have emerged. It is therefore foreseen that specific satellite surveys covering for example agro-environmental modules would be set up as part of the FSS.

C. Agricultural structures

FUTURE ACQUIS

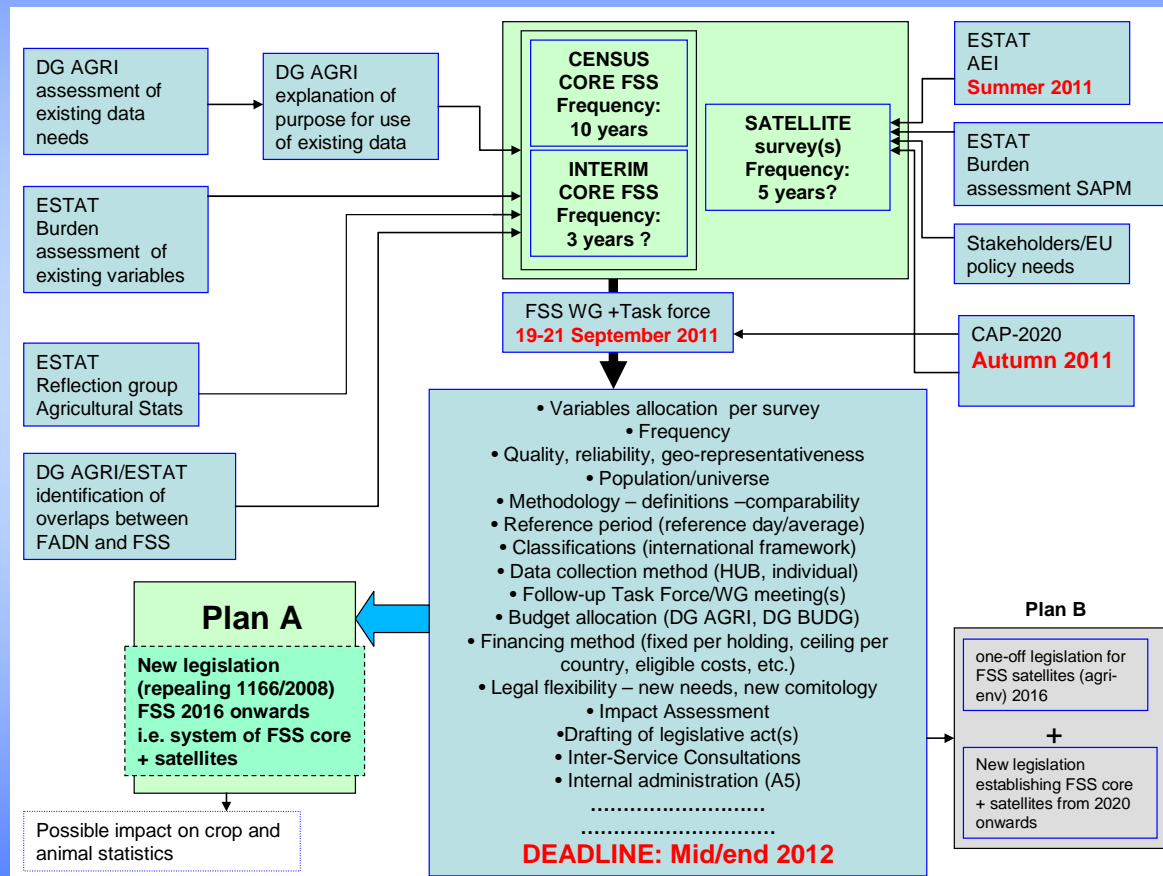- Evolve towards a flexible system of core and satellite surveys, allowing in each of these cases different designs, frequencies and sample sizes while ensuring the linking of micro-data for optimal exploitation of the information collected.

- Widen the reflection to agricultural statistics in general, including instruments used by DG AGRI such as the FADN survey.

- Develop a more explicit link between business and farm registers.

C. Agricultural structures
FUTURE ACQUIS

| DG AGRI assessment of existing data needs | → | DG AGRI explanation of purpose for use of existing data | | **CENSUS CORE FSS** Frequency: 10 years | | ESTAT AEI **Summer 2011** |

CENSUS CORE FSS Frequency: 10 years

INTERIM CORE FSS Frequency: 3 years ?

SATELLITE survey(s) Frequency: 5 years?

DG AGRI assessment of existing data needs

DG AGRI explanation of purpose for use of existing data

ESTAT Burden assessment of existing variables

ESTAT Reflection group Agricultural Stats

DG AGRI/ESTAT identification of overlaps between FADN and FSS

ESTAT AEI **Summer 2011**

ESTAT Burden assessment SAPM

Stakeholders/EU policy needs

FSS WG +Task force **19-21 September 2011**

CAP-2020 **Autumn 2011**

- Variables allocation per survey
- Frequency
- Quality, reliability, geo-representativeness
- Population/universe
- Methodology – definitions –comparability
- Reference period (reference day/average)
- Classifications (international framework)
- Data collection method (HUB, individual)
- Follow-up Task Force/WG meeting(s)
- Budget allocation (DG AGRI, DG BUDG)
- Financing method (fixed per holding, ceiling per country, eligible costs, etc.)
- Legal flexibility – new needs, new comitology
- Impact Assessment
- Drafting of legislative act(s)
- Inter-Service Consultations
- Internal administration (A5)
....
....
DEADLINE: Mid/end 2012

Plan A

New legislation (repealing 1166/2008) FSS 2016 onwards i.e. system of FSS core + satellites

Possible impact on crop and animal statistics

Plan B

one-off legislation for FSS satellites (agri-env) 2016

+

New legislation establishing FSS core + satellites from 2020 onwards

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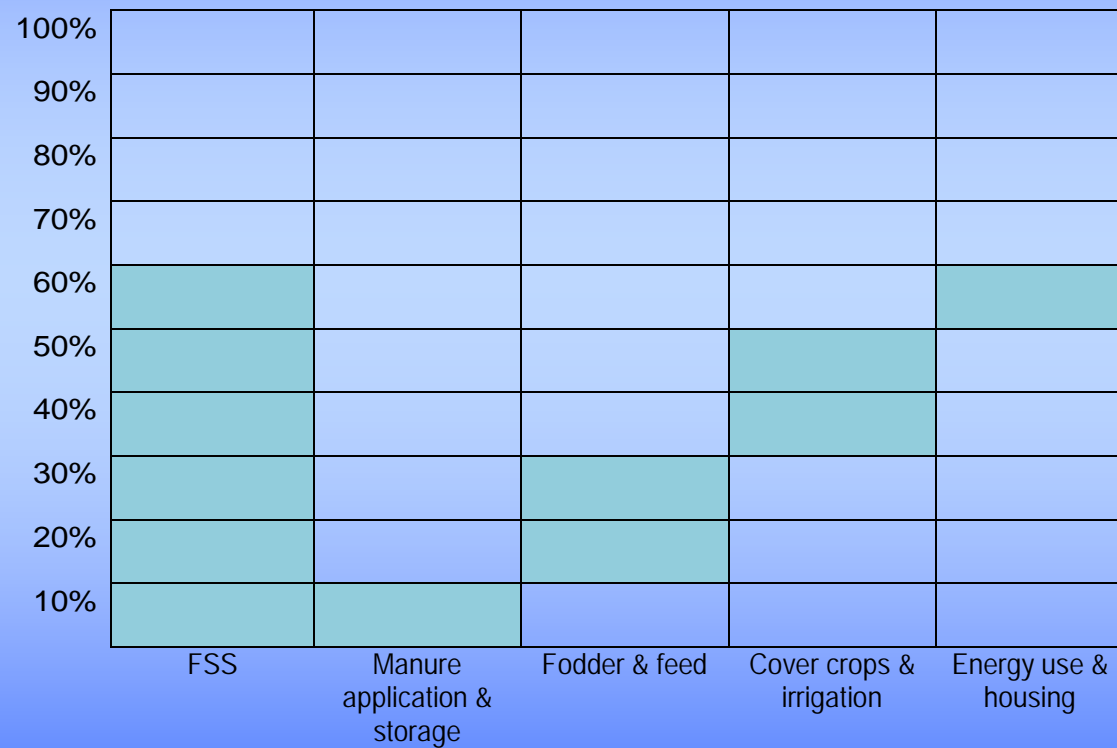# C. Agricultural structures
FUTURE ACQUIS

Sample as % of population

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C. Agricultural structures

FUTURE ACQUIS

Since the FSS is the backbone of the agricultural statistical system, it is foreseen that it would be increasingly used as a base for creating the sample frames for all other agricultural surveys.

Eurostat will therefore propose the setting up of Farm Registers based on the FSS 2010 (full census) for future surveys.

D. AGRICULTURAL MONETARY STATISTICS

The domain is divided into two modules:

Economic accounts for agriculture and forestry

Agricultural price statistics

D. Agricultural monetary statistics

The Economic accounts for agriculture and forestry comprises the:

Economic Accounts for Agriculture and Forestry (EAA/EAF)

Regional EEA

Agricultural Labour Input (ALI)

D. Agricultural monetary statistics

The Economic Accounts for Agriculture, based on Reg. 138/2004, are mainly used to monitor and evaluate the Common Agricultural Policy. They measure levels and trends in agricultural output (62 items), input (15 items), investment, labour productivity and income.

D. Agricultural monetary statistics

Agricultural Price Statistics consist of:

Agricultural Price Indices (quarterly)

Statistics of absolute agricultural prices (annual)

Land prices and land rents statistics (under development)

D. Agricultural monetary statistics

The Agricultural price indices are used, above all, in relation with the analysis of price developments and their effect on agricultural income

Absolute agricultural prices are used mainly for the comparison of price levels between Member States.

They are based on a gentlemen's agreement.

E. CROP PRODUCTION STATISTICS

The domain is divided into several modules:

Surveys on areas under vine

Fruit trees surveys

Cereals and other main crops

Early Estimate for Crop Production

Fruits and vegetables

Supply balance sheets

E. Crop production statistics

The aim of this domain is to determine areas, yield and production of the most important crops and the use of the production.

The main objective of these statistics is to support decision related to the Common Agriculture Policy, particularly for the market organizations and policy analyses.

E. Crop production statistics
Early Estimate for Crop Production

The objective is to obtain area and production data for the main crops before the harvest.

Eurostat creates crop forecasts based on earlier trends for area, yield and production for cereals and some other main crops. The countries respond to this information with their own estimations, if necessary.

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E. Crop production statistics

MOST PROBLEMATIC ISSUES

Due to very detailed legislation and other agreements, the area is quite complex. Simplification has partially been achieved through new legal act in 2009 for crop statistics (Reg. 543/2009)

The breakdown of crops to be followed should reflect the reality of European agriculture, which means that countries should follow also crops that are rarely grown in their climate.

E. Crop production statistics
FUTURE ACQUIS

The CAP is at the moment being reformed towards a support system no longer aimed at supporting the production itself. This will lead to changed needs for statistical information.

Eurostat continues to reform and simplify crop production statistics in the years to come.

F. ANIMAL PRODUCTION STATISTICS

The domain is divided into several modules:

Livestock surveys

Meat production

Eggs and poultry

Supply balance sheets

F. Animal production statistics

Livestock surveys:

- cover cattle, pigs, sheep, goats

- collect data on number of animals and producers

- bi-annual for pigs,

- bi-annual for cattle,

- annual for sheep,

- annual for goats

F. Animal production statistics

Meat production statistics:

- cover cattle, pigs, sheep, goats, and poultry

- monthly slaughtering data

-semi-annual production forecasts for cattle and pigs

- annual production forecast for sheep and goat

F. Animal production statistics
MOST PROBLEMATIC ISSUES

The CAP is at the moment being reformed towards a support system no longer aimed at supporting the production itself. This will lead to changed needs for statistical information.

Eurostat has therefore launched a reform and simplification of the animal production statistics. The approved legal act in 2008 (Reg. 1165/2008) includes all the EU legislation concerning statistics on pig, bovine, sheep and goat livestock and productions.

Statistics on poultry meat are included for the first time.

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G. Food safety statistics

White paper on food safety (2000), following the "mad cow crisis"

Food safety: top priority of the European Commission in 2002

G. Food safety statistics

MOST PROBLEMATIC ISSUES

Analysis of available data before launching new surveys

Do not ask Member States to provide twice the same information and avoid double work

Very complex area: many organisations involved with different responsibilities: knowledge is scattered

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Conclusions

- Need for modernisation of EU Agricultural Statistics; simplification and lower response burden; new needs : rural development, agro-environmental indicators, food safety statistics;

- Towards a new system for development of land use/cover data (Lucas approach) and structural agricultural surveys (core and satellite surveys);

- In addition to surveys more frequent use of administrative sources and other efficiency gains (farm register, validation of data, metadata).

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Many thanks for your attention

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