

PROSPELU

Prospective Study on the potential use of LUCAS

LUCAS Studies 2006 - Lot 2

PROSPELU – Prospective Study on the potential use of LUCAS

News Nov-2006

INTRODUCTION

The main objective of the **LUCAS PROSPELU Study** is “to broaden the scope of the LUCAS Area Frame Survey from the agricultural domain to include further environmental, landscape, sustainable development and other aspects for a multiple use.

This study was launched by EUROSTAT in September 2006 and will investigate for which policy domains the LUCAS survey could play a role as a potential data provider.

The study is performed by a consortium consisting of EFTAS (DE www.eftas.com) and LUXSPACE (LU www.luxspace.lu) as well as the Spatial Applications Division Leuven (SADL) at the Catholic University of Leuven (BE).

http://www.sadl.kuleuven.ac.be/sadl/cursusprak_en.htm.

This newsletter provides an overview of the achieved results since the project start. It is the first of 4 newsletters, published in bi-monthly intervals.

LINKING LUCAS WITH REQUIREMENTS OF FURTHER SPATIAL POLICIES & DOMAINS

The basic idea behind this study is to analyse the potential for extending the usage of LUCAS for other EU policy needs, through

- the collected data itself (LC / LU, landscape photo archive)
- the LUCAS statistical framework, i.e.
 - its methodology (nomenclature),
 - sampling design (EU-wide systematic grid) and
 - data collection method (field survey).

Therefore the PROSPELU Study addresses the following core tasks:

- I. Set up and monitoring of a high level management group including all potential users
- II. Compilation of EU policies and specification of data requirements
- III. Techniques / Methodologies to monitor policies using area frame surveys
- IV. Analysis of potentialities between LUCAS, IACS/LPIS and FSS as well as GMES

To address the main PROSPELU objectives, the project structure pays special attention to the significant political and thematic domains with strong spatial components (see fig. 1).

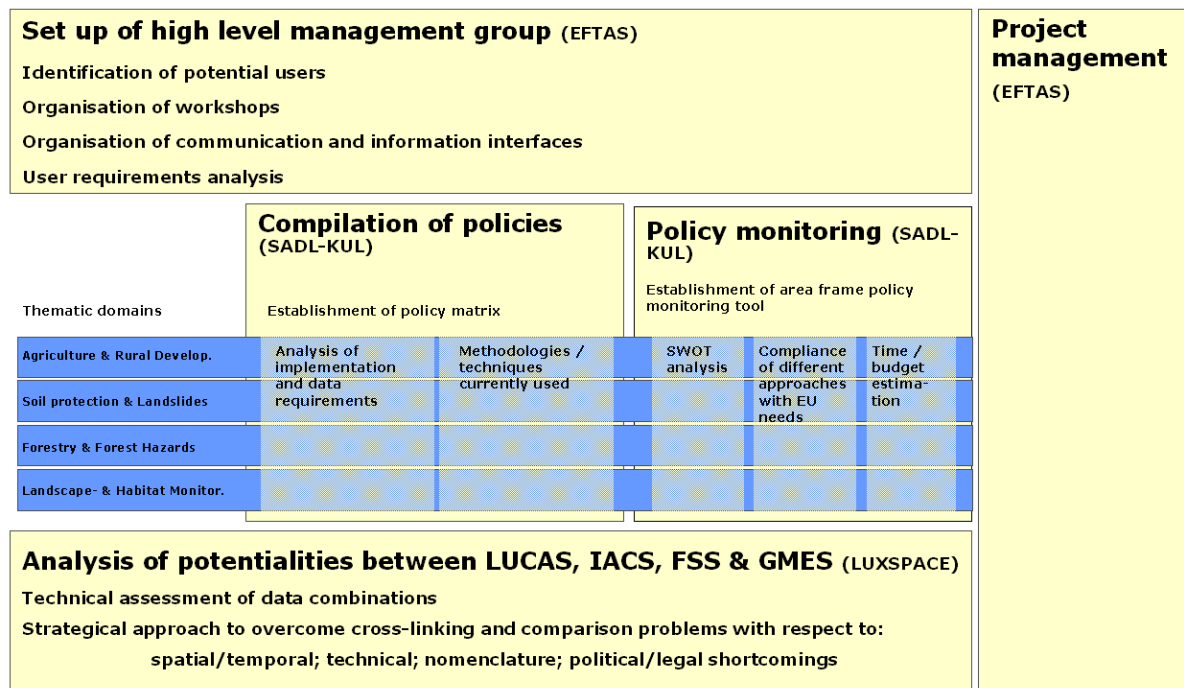


Figure 1: Project structure

HIGH LEVEL MANAGEMENT GROUP

To identify and specify as clearly as possible the data needs and requirements of the various DG's at EU level, experts are brought together to express their specific data requirements within their respective domains. The ongoing experts consultation is providing the main input to establish consolidated user requirements for the future scope and design of LUCAS.

Therefore a high level management group was established, which represents the potential user group and consists of members of the different DG's of the European Commission. Other Commission Services such as the EEA or the ESA as well as FAO, OECD and UNECE are involved, too.

During a first expert workshop held on 24th October 2006 in Brussels user requirements and survey development suggestions have been gathered, which are analysed in-depth during the ongoing project until June 2007 and finalized in a proposal on how to adapt the LUCAS methodology to deliver needed information.

The detailed workshop concept and the minutes of the meeting can be found on the PROSPELU website <http://www.eftas.com/lucas/prospelu> → News.

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COMPILATION OF EU POLICIES AND SPECIFICATION OF DATA REQUIREMENTS

The potential user requirements were discussed and gathered during the first PROSPELU high level management workshop and through a pre-distributed online questionnaire. In terms of most needed parameters, policy domains and currently used datasets, the following results were obtained:

Most needed parameters	Policy Domain	Currently used data sets
Land cover / Land use (4)	Agri-environment, CAP support, Spatial Data Policy (INSPIRE)	CLC, LUCAS, ESTATS (e.g. FSS)
Crop area (2)	CAP support	RS, models, ESTAT, CLC, LUCAS
Erosion (2)	Soil thematic strategy	PESERA, EROSSTAT, EROSRILL
Landscape elements (1)	Rural Development Programs (CMEF)	National Data
Biomass / Carbon pool (1)	Climate Change Convention Kyoto Protocol	CLC, National Data
Farm saved seeds (1)	Community plant variety rights	ESTAT

The outcome was used to create a preliminary policy matrix identifying the following major policy domains:

- Agriculture CAP
- Environnement ENV
- Regional policy REGIO

Within each of these major policy domains, the following sub-themes were identified as of importance to the LUCAS project:

- Agri-environment: cross-compliance
- Soil protection
- Forestry
- Landscape & habitat monitoring
- Urban environment

A template **policy matrix** was developed, detailing the link between policy objectives/targets, instruments, monitoring requirements, data needed & current monitoring and the link to the multi-annual LUCAS databases.

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Policy Objectives and Targets	Policy Instruments & Regulations / Directives	Spatial Information needed for monitoring	Potential Data Provision by LUCAS	Remarks	Added value from other data
Common Agricultural Policy - Promoting sustainable agriculture in a global environment					
Integration of environmental concerns into the CAP	Cross-compliance (GAEC)	Erosion, Soil organic matter, Field Maintenance	Morphological observations as proxy	Spatio-temporal uncertain observations	IACS, FSS
Ensuring Food Production in a sustainable manner	Single Payment Scheme	Yield estimation - Crop Phenology, Crop calendars, Crop practices	crop area	no yield sampling included	RS
Environmental Policy - Protecting the environment in a sustainable development context					
Clean unpolluted water	Statutory Management Requirements (in Water Framework Directive / Nitrates Directive / Habitats Directive)	Land use/cover et al.	Land use and land cover	Input into agri-environmental models (nutrient balances, erosion & agri-hydrological modelling)	IACS, CLC, FSS
Combat climate change	Climate Change Programme impact on agricultural systems	Change detection in cropping calendars	crop area	no yield sampling, no phenology	Agrophenological Database
Soil Protection	Proposed Soil Framework Directive	Soil threats (9): erosion, SOM, contamination, sealing, contamination, ...	land management & practices	Spatio-temporal uncertain observations	CLC(change), Models (PESERA)
Regional Policy for Sustainable Development -					
...					

Figure 2 Template policy matrix

For each row entry in the policy matrix, an in-depth analysis is being made in order to explain the links between the different entries. Two examples are provided below. The policy domains and sub-themes related to forestry, landscape & habitat monitoring and urban environment need more attention.

For the **agricultural policy**, the theme agri-environment has to be analysed in terms of the statutory management requirements, good farming practices (pillar II) and the GAEC regulation (pillar I) as part of the cross-compliance. The scheme below provides an overview of the different regulations and directives that are a result of different policy instruments and that result in particular field characteristics. Indicators for policy monitoring can be developed with the aid of the LUCAS database.

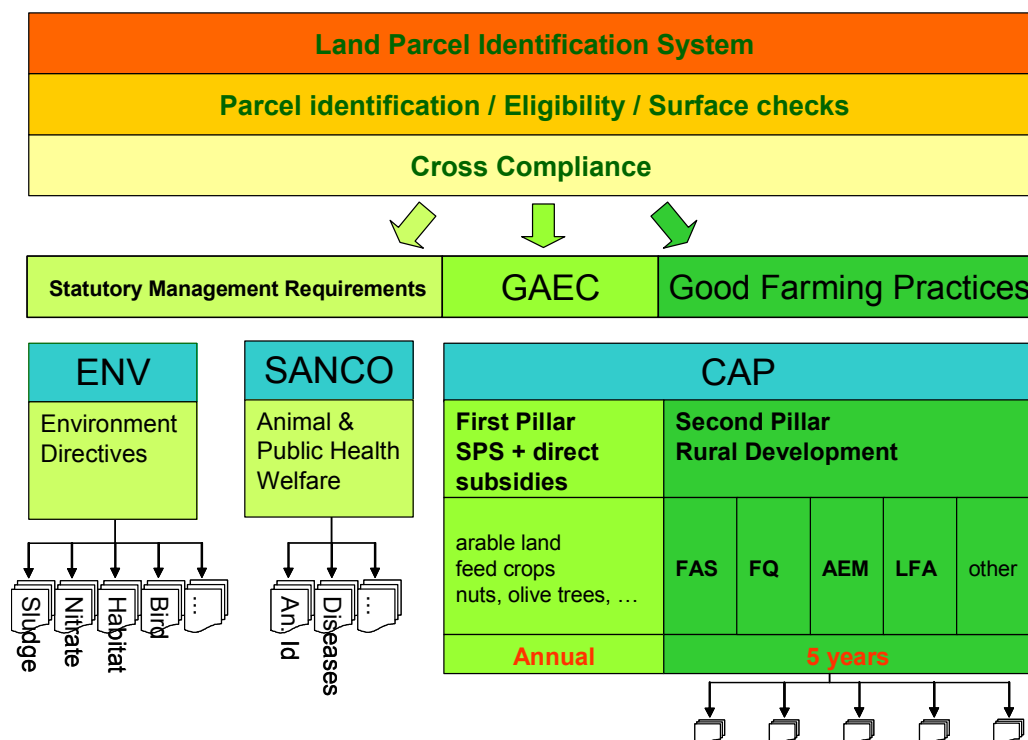


Figure 3 Cross-compliance

For the **environmental policy**, the theme soil protection was analysed in terms of the presence of soil protection issues (i.e. soil threats) in different existing policies. The newly proposed soil framework directive (dd 22/09/2006) will encompass the existing regulations and directives.

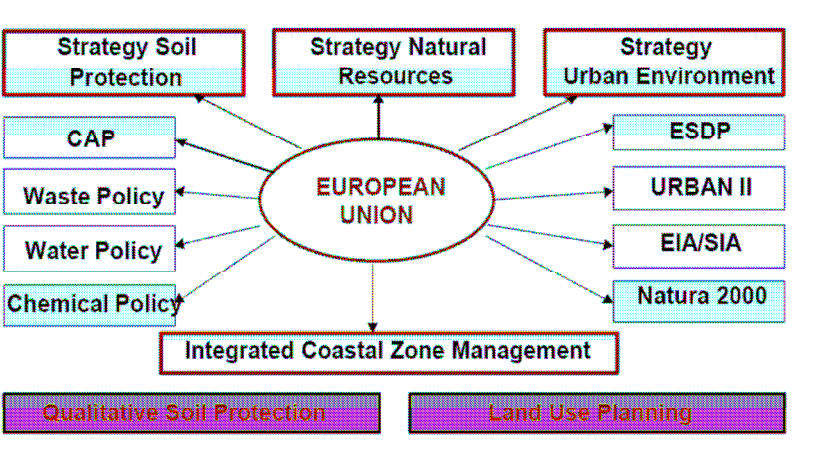


Figure 4 The presence of soil protection issues in existing policies

FUTURE PROSPECTS

The establishment and consultation of the experts user group is an ongoing process for the whole project duration. Further interviews and filled in questionnaires will contribute to compile relevant EU policies and to specify data requirements (Task II).

This work package has started and will be the main focus for the coming months. The data requirements and expected information streams to monitor policies will be assessed in terms of expected variables, precision, accuracy, spatial and temporal scale (Task III).

The specifically requested potentialities analysis between LUCAS, IACS/LPIS (Task IV) has been initiated as well within the last weeks and will cover the whole project duration. A compilation of a short questionnaire is in process with the objective to gather information about the national implementation of the LPIS systems in EU Member States. Direct contacts with IACS experts on European and national level via phone interviews are currently carried out in order to collect and harmonize the relevant information as major basis for the in-depth analysis.

The progress and the outcomes of these tasks will be documented in the next PROSPELU newsletter published in January 2007.