

PROPELU
PROSPECTIVE STUDY ON THE POTENTIAL USE OF LUCAS
(LUCAS Studies 2006 – Lot 2)

MINUTES of the first high level experts workshop held on October, 24th 2006 in Brussels

Date and place of the meeting:

Wednesday 24/10/2006, Room AB411, Centre Albert Borschette, Brussels

Participants:

AGRI : Leïla-Thérèse BARTHOMEUF
 Laura FROST
 Tim LEMMENS

EEA : Chris STEENMANS

ESTAT: Pascal JACQUES
 Marco FRITZ

ENV : Hugo DE GROOF
 Luca MARMO

GMES: Virginia PUZZOLO
 Wolfgang STEINBORN

JRC: Jacques DELINCÉ
 Hannes REUTER

VITO : Paul CAMPLING

PROPELU consortium:

EFTAS: Carsten HAUB
 Klaus-Ulrich KOMP
 Dirk LINDEMANN

LUXSPACE: Gerd EIDEN

SADL-KUL: Anne GOBIN

Agenda:

1. Welcome notice (ESTAT)
2. LUCAS PROPELU - Prospective Study on potential use of LUCAS. Objectives and scope (EFTAS)
3. The LUCAS project (Background, Methodology, Results) (LUXSPACE)
4. Linking LUCAS to other EU spatial policies and domains, preliminary results of experts interviews (SADL KUL)
5. Round table: Data needs and user requirements of EC DG's
6. Validation & consolidation of experts requirements

1. Welcome notice (Pascal Jacques):

Pascal Jacques gave brief overview of the current state of the LUCAS 2006 survey results and outlined the scope of the various LUCAS studies launched end of 2006:

1. *Lot 1 Multi-dimensional cross-analysis of LUCAS-data (Landscape classification):* Study on *LUCAS photos* to characterize landscape
2. **Lot 2 Prospective Study on potential the use of LUCAS**
3. *Lot 3 Multiple data source combination:* Study on *grid comparison* -how to compare data from different types and grids and what are the tools to allow that?
4. *Lot 4 Comparative study:* this lot was not assigned
5. *Lot 5 Technology watch:* Study on *new techniques* to implement into the LUCAS survey (e.g. Galileo) to enhance efficiency and to reduce costs

Moreover, he reminded that a call for tender on LUCAS 2007 has launched, focusing on soil issues (soil & erosion parameters incl. transects) on 23.771 points in 13 EU member states.

For the year 2008 plans exist to extent the survey to Turkey, Croatia and Bulgaria (under the PHARE programme).

2. “LUCAS PROSPERU - Prospective Study on potential use of LUCAS. Objectives and scope” held by Carsten Haub/EFTAS

Beside the detailed study strategy, the objectives of the workshop and the aims of setting up the experts management group were introduced.

→ see PowerPoint-Presentation (www.eftas.com/lucas/prospelu/ → internal)

3. “The LUCAS project (Background, Methodology, Results)” held by Gerd Eiden/LUXSPACE

With a specific view on the development of the survey approaches from 2001, 2003 and 2006 the outcomes and potentials of LUCAS were demonstrated as well as the advantages of the different survey set ups. It was also focussed to demonstrate, which data and further analysis could be derived with the different survey parameters.

→ see PowerPoint-Presentation (www.eftas.com/lucas/prospelu/ → internal)

4. “Linking LUCAS to other EU spatial policies and domains, preliminary results of experts interviews” held by Anne Gobin/SADL-KUL

Out of 58 invitations more than 50% extended their interest into the study, 12 experts registered and 9 replied with a filled in questionnaire.

The outcomes of this first analysis and a number of detailed examples demonstrate how LUCAS is linked with different policy domains. The examples were introduced in order to give impulses for the round table discussion.

→ see PowerPoint-Presentation (www.eftas.com/lucas/prospelu/ → internal)

5. Round table: Data needs and user requirements

On a strategic level the potentials and demands for LUCAS data have been discussed, with specific attention to the representatives' points of view. Demands for spatial data are described in a number of studies and experts reports, which will be subject for PROPELU in depth analysis. Beside the duties derived from spatial relevant EC policies additional potentials in the field of validation or ground truth data sources were discussed as input not only for remote sensing tasks, but also for spatial modelling systems.

Even if a number of relevant DG's or other EU / EC institutions were involved in the communication process with only low responses, it was stressed, that additional attention has to be focused on their integration and also on current research activities.

Request for the provision of parameters, which have been surveyed in the past (e.g. transects or phase II interviews) came up as well as the demand to densify the sample grid but also its relation to cost has to be taken into account. With respect to this, different national approaches were described and reported.

An observed lack of harmonized data on land use/cover and its changes to suit several purposes like policy monitoring, agricultural & environmental monitoring & modelling was pointed out several times. On the other hand, the existence of many complementary surveys that LUCAS could benefit from & vice versa is obvious. These comprise both national & thematic surveys (examples being forestry, telecommunication or biodiversity)

A detailed documentation on the discussed issues is given below.

Abstract and results of different discussed topics:

Geographic scope

- The geographic scope of LUCAS should be EU25 +2 to cover the whole European Community.
- *J. Delincé* points out, that at the moment no money for a EU-25 survey exists. The present budget of only a few Mio. Euro is not realistic to cover LUCAS at EU level (e.g. national survey in France costs 50 Mio. € per year)

Ground truth data

- Ground truth data are always needed, therefore LUCAS should be maintained. *Chr. Steenmans* proposed an integrated strategy: reduce the costs to collect data more effectively.

Data requirements

- *H. De Groof and Chr. Steenmans* pointed out that no comparable data are scarcely available in the EU, nor is there a legal mandate in place. The data requirements are very complex → there is an increasing demand of a new monitoring approach (such as e.g. area frame) to meet present data needs, both thematically and technically.
- *H. De Groof*: Comparable and harmonised data for modelling of risk assessment are needed (e.g. WFD: need of harmonised inputs). The outputs of landscape and urban research projects are very important for administrative experts.

- *V. Puzzolo*: Some components of LUCAS could become an in-situ data provider for GMES “fast track” services. The special needs of GMES for in-situ data will be published soon (see GMES website for existing studies).
- *L. Barthomeuf*: AGRI is interested in early estimates as well as other environmental data.
- *H. Reuter*: Phase 2 (farmers interviews) in 2001 and 2003 was important to obtain an estimation of the kind of cultivation/treatment on the field.

Soil

- Soil issues are at present dealt with through different EU policies and policy instruments, e.g. GAEC & cross-compliance within the Agriculture Policy and the SMR within the Environment Policy. Different national policies also address soil. A Soil Framework Directive is being proposed. Until now there is no specific focus on soil and therefore no reporting commitment. The situation in the member states is complex (some with grids, others without). *L. Marmo* points out that not all 7 agricultural threads, mentioned in the proposed SFD, are included in LUCAS 2007 soil survey, but some are.

LUCAS+ (future development of the survey)

- National administrations must be involved into LUCAS. The current top-down approach is not going to work. According to *Chr. Steenmans* LUCAS has many advantages: good processes, quality controls and documentation, a considerable heritage of experience which should be kept. Other benefits of LUCAS are that the survey a) works at the EU level and b) has the potential to be extended to the national/regional level.
- LUCAS could be sensibly coupled to other techniques such as national field surveys, airborne surveys, remote sensing, GIS (*De Groof*)
- LUCAS 2001/2003 attempted to satisfy the need for European-wide agri-environmental data, and was focused mainly on agricultural aspects in 2006. According to *J. Delincé* the focus must be broadened again and preferably in a new way. The sample should be increased to motivate member states to use the LUCAS grid and methodology too. As an implication, the budget has to be increased too. More attention should be paid to national grids.
- *K. Komp* advises not to “overload” the survey. It must still be accomplishable within 2-3 months. Otherwise the costs would rise too much.
- *P. Jacques* points out that for reasons of multiple data collection, two different kinds of surveys are executed in 2006/2007 on selected points of the same grid (LUCAS and LUCAS soil). Despite the fact that all member states protect their agricultural statistics, they all perceive the need of land use surveys.
- To lower surveyors’ travelling times, *J. Delincé* suggested the development or use of existing methods/techniques/software to guide the surveyor faster to the sample points (proposal: Microsoft Virtual Earth).
- According to *Chr. Steenmans* the British “UK countryside survey” is the ideal sampling ground survey. But it is much more expensive and time consumptive in comparison with LUCAS today.
(http://www2.defra.gov.uk/research/project_data/projects.asp?M=KWS&V=Countryside)

So this is not realistic for LUCAS but the concepts can be reviewed.

LUCAS and IACS

- It was stressed by several participants that IACS data are not available at the moment (although it would be quite useful). But it was mentioned by *J. Delincé* if many DG’s would support the availability of IACS data in the same way (formal, structured, organized) it could be achieved. A discussion should be started with

member states how far they would go to open the data in the future (alternative: member states should pay for LUCAS survey).

- *A. Gobin*: It should be kept in mind that IACS data are based on declarations by farmers and can therefore never replace LUCAS !!! They are in her view complementary datasets.
- *Chr. Steenmans*: Both member states and EU must have benefits from a cooperation between IACS data holders and potential data users.

LUCAS and GMES

- GMES has a member states orientated approach and national GMES projects are linked to national data collection. It is a success because DG's and other European organizations work together with member states under one umbrella (*W. Steinborn, H. De Groof, J. Delincé*).
- In this context *J. De Groof* considered that the GEOSS programme (ESA) could be of some help for LUCAS too.

Various difficulties

- **Mandate**: Lucas has never had a full legal mandate. It has still status of a pilot project and has never covered EU-25 until now.
- **Timing**: The timing of surveys is important. Different data needs demand different time frames (erosion, crop estimates, ...). But to cover multi-seasonal aspects remote sensing could be a complementary possibility. To solve this problem *H. De Groof* proposes the use of VHR (e.g. RapidEye) satellite data for multi-temporal observation of LUCAS points as a feasible and payable enhancement of LUCAS. Reference example: MARS chips in Bavaria.
- **Different grids / nomenclatures /temporal acquisition at Member State's level**: there are existing conflicts between European and national data collection. Due to the specific data needs of some member states a full harmonization of survey objectives, sample rates, nomenclature and time frame will be utopic. LUCAS should therefore focus on EU level & EU level policy monitoring (*A. Gobin*).

6. Validation & consolidation of experts requirements

Taken into account experts' feedbacks in terms of responded questionnaires and participation to the workshop, the experts' thematical backgrounds have a dominant accordance with the initially proposed thematical PROSPER domains. Nevertheless the process of user involvement will be an open process and updated during the project's lifetime.

Furthermore the discussion was a more strategic than a technical discussion, which will have to follow now. Keeping in mind the early project stage, this will be on the basis of the in depth analysis and the establishment of a LUCAS policy matrix.

Summarized the study will have to:

- link LUCAS with URQ-Studies (e.g. GMES)
- link LUCAS with other research inputs (DG Research)
- involve DG REGIO / Urban management group

The next key points will be:

- to evaluate the experts inputs via discussion and round table inputs (record cards)
- to organize ad-hoc meetings with experts
- to organize the 2. high level experts workshop in May to present and discuss the interim results of the study

It was pointed out by various experts that the "LUCAS+-strategy" should follow and include a way to integrate the member states.

Also the need of an estimation of possible costs was stressed (elaborate work on different cost schemes). The supporters of LUCAS must be able to explain clearly, why the data LUCAS can provide, are needed for the Community and also for member states.