

PROSPELU

Prospective Study on the potential use of LUCAS

LUCAS Studies 2006 - Lot 2

PROSPELU – Prospective Study on the potential use of LUCAS

News March/April-2007

INTRODUCTION

During the first half of the PROSPELU project LUCAS relevant policy domains and their specific data requirements at EU level were identified. As a result of an in-depth policy analysis a compilation of indicators, which could be part of the LUCAS survey, was set up. For further work with these complex indicator compilation a monitoring tool was established.

At the same time the possibilities to combine information from LUCAS, LPIS and IACS were analysed in a study in order to investigate whether and how IACS/LPIS data can be integrated into LUCAS as a data provider.

This newsletter provides an overview of the results achieved since the first newsletter was published. For further information visit the PROSPELU homepage at <http://www.eftas.com/lucas/prospelu/>.

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One of the main objectives of the **LUCAS PROSPELU Study** is "to broaden the scope of the survey from the agricultural domain to also include other aspects related to the environment, multi-use, landscape and sustainable development".

To follow this main goal, the PROSPELU project, launched by EUROSTAT in 2006, will investigate for which policy domains the LUCAS survey could play a role as a potential data provider.

The study's objective is to analyse the potential for adapting the Land Use/Cover Area frame statistical Survey to other EU policy requirements. This includes the collected data (Land Cover / Land Use, landscape photo archive) as well as the potential of the LUCAS statistical framework, i.e. it's methodology (nomenclature), sampling design (EU-wide systematic grid) and data collection method (field survey).

The study is performed by a consortium comprised of EFTAS (DE), as project lead, LUXSPACE (LU) and SADL -Catholic University of Leuven (BE).

POLICY ANALYSIS – THE USE OF THE LUCAS DATABASE FOR EUROPEAN POLICY MONITORING

The following themes were identified on the first PROSPELU high level user consultation and through a pre-distributed online questionnaire as of importance to the LUCAS project:

- Agriculture
- Environmental Conservation
 - Landscape & habitat monitoring
 - Soil protection
 - Water resource management
 - Environmental policy
- Forestry
- Regional Policy

Regarding to these themes a compilation of policy instruments, regulations, directives and other relevant legislations was set up, which contain LUCAS relevant information requirements. A detailed listing is highly important to formulate strong legally mandated recommendations (Table 1, ANNEX).

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As a result of an extensive analysis of the listed regulations a number of high potential indicators for LUCAS extension has been identified (Table 2, ANNEX) and systematically structured in an interactive matrix. The indicator matrix was established as a monitoring tool to handle the great amount of data, which were collected and identified as potentially relevant for the LUCAS project.

Out of this complex indicator compilation thematic variables will be formulated, still linked with the mandating legislations, which are the subject for an in-depth SWOT, time and budget analysis. Part of the in-depth analysis will be an interview / questionnaire campaign for selected policy / desk officers at relevant DGs to capture information about the actual data availability of identified indicators. This work package has just started and will be the main focus for the forthcoming months.

The result will be a specification of variables which have the highest potential to be implemented into the LUCAS survey.

LUCAS AND THE POTENTIAL LINKAGE WITH IACS/LPIS

The specifically requested potentialities analysis between LUCAS, IACS/LPIS was initiated within the last months. Information about the national implementation of the LPIS systems in EU Member States was gathered in order to collect and harmonize the relevant information as major basis for the in-depth analysis. The main aim was to investigate whether and how IACS/LPIS data can be integrated into LUCAS as a data provider.

A first conclusion is that the content of the IACS declaration fits quite well with the LUCAS data requirements. Only in a few countries the declaration does not provide the necessary crop details. Due to this fact there could be a potential to save a part of the LUCAS field survey budget by using IACS data.

On the other hand there are several obstacles and bottlenecks to be considered, making the integration not that straight forward:

1. In order to benefit from the IACS data as a data source for LUCAS, a number of national and regional entities need to be involved, which would make the operation very complex and would require substantial efforts in management and organisation.
2. The integration of IACS data is only possible due to the fact that the crop declaration is based on the georeferencing via LPIS. Due to different systems in place the unambiguous link between the LUCAS point and one single crop is not always given. The parcel based LPIS systems provide the best link, while in block, cadastre or iLot systems, the 1 to 1 relationship between point and single crop is given only in a limited number of cases. Thus the number of usable points is limited.
3. A more serious limitation of the IACS data is the timeliness of availability, which does not match the strict deadlines of LUCAS. The first (uncontrolled) IACS data can be provided earliest mid/end of June, so at the end or after the LUCAS field survey. To cope with this handicap the timeliness would have to be handled more flexible, allowing the successive delivery of IACS data and the successive estimation of the crop acreage until the last data become available (end of October).
4. Another essential fact (if not a “killing assumption”) is the legal aspect of the IACS data provision. IACS data are confidential data and therefore subject to privacy regulations. Prior to any forwarding of crop information of specific geographical locations the legitimacy has to be clarified by the legal services in each country/administration. Moreover, IACS is linked to



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the subvention policy within the Common Agricultural Policy and the farmers obligation with respect to crop-declaration might change (e.g. the single payment scheme could require the declaration of the utilised agricultural area only). Thus the IACS data integration lacks a long term perspective.

Considering the pros and cons and even if certain pragmatism is assumed, it can be concluded that the integration of IACS data does not create a real added value to LUCAS.

FUTURE PROSPECTS

The consolidation of the LUCAS relevant indicators and formulation of the variables which can be observed in field is an ongoing process.

For the relevant field variables a SWOT and time/budget analysis is in preparation.

Currently an interview / questionnaire campaign for selected policy / desk officers at relevant DGs is running in order to verify specific data availability. The output will be incorporated into the forthcoming in-depth SWOT, time and budget analysis.

The final results of the project will be presented on a workshop which is planned for the 22nd of May 2007 in Brussels.

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

ANNEX

Table 1: List of identified relevant policies

L-ID	Policy Instruments & Regulations / Directives	Number
L-01	Water Framework Directive	2000/60/EC
L-02	Protection of Water Against Pollution Caused by Nitrates from Agricultural Sources	91/676/EEC
L-03	Conservation of Natural Habitats and Wild Flora and Fauna	92/43/EEC
L-04	Landfill of Waste	1999/31/EC
L-05	EU Waste Directive	91/156/EEC
L-06	Council Directive sewage sludge	86/278/EEC
L-07	establishing a framework for the protection of soil and amending directive 2004/35/EC	2006/0086 (COD)
L-08	Thematic Strategy for soil protection	COM(2006)23final
L-09	Conservation of Wild Birds	79/409/EEC
L-10	Convention on Biodiversity (CBD)	
L-11	European Landscape Convention	
L-12	Forest Focus Regulation	(EC) No 2152/2003
L-13	EU Forestry Strategy	COM (2005) 84
L-14	EU Forest Action Plan	COM (2006) 302
L-15	International Co-operative Programme on Assessment and Monitoring of Air Pollution Effects on Forests operating under UNECE (ICP Forests)	
L-16	(Single Payment Scheme) Council regulation	(EC) No 1782/2003
	(CC (SMR, GAEC)) dito	(EC) No 1782/2003
L-17	EU Sustainable Development Strategy (Agri Environment)	COM (2001) 264



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L-ID	Policy Instruments & Regulations / Directives	Number
L-18	6th Environment Action Programme	Decision No 1600/2002/EC
L-19	Crop area estimates Council Regulation (for cereals)	(EC) No 837/90
L-20	Council Regulation (for other crops)	(EC) No 959/93
L-21	Recommendation of the European Parliament and of the Council concerning the implementation of Integrated Coastal Zone Management in Europe	2002/413/EC
L-22	Council Decision for rural development / strategic guidelines for rural development (programming period 2007-2013)	2006/114/EC
L-23	Rural Development Regulation for the period 2007–2013 (Council Regulation)	(EC) No 1698/2005
L-24	Thematic Strategy on Urban Environment	COM(2004)60final
L-25	Thematic strategy on Urban Environment	COM (2005) 718
L-26	ESA Statement of Work	EUI-AHS/5287/MF/ap
L-27	Kyoto Protocol to the United Nations framework convention on climate change	
L-28	United Nations framework convention on climate change (UNFCCC)	FCCC/INFORMAL/84
L-29	EC European Climate Change Programme (ECCP)	COM(2001) 580 final
L-30	1979 Geneva Convention on Long-range Transboundary Air Pollution (CLRTAP)	
L-31	Group on Earth Observations (GEO)	
L-32	Global Earth Observation System of Systems (GEOSS).	
L-33	Global Ocean Observing System (GOOS)	
L-34	United Nations Convention on the Law of the Seas (UNCLOS), HELCOM (Baltic Sea), OSPAR (North Sea and North-east Atlantic), and BARCON (Mediterranean Sea).	
L-35	Directive of the European Parliament and of the Council establishing an Infrastructure for Spatial Information in the European Community (INSPIRE)	2004/0175 (COD)



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Table 2: List of high potential indicators for LUCAS extension

PI-No.	PROSPELU-indicator	Policy Objectives	Policy Instruments	L-ID
PI010	land use	climate	EC European Climate Change Programme Kyoto Protocol	L-29 L-27
		coast	Integrated Coastal Zone Management (ICZM)	L-21
		forest (air)	Long-range Transboundary Air Pollution (CLRTAP)	L-30
		GMES	GMES: monitoring & mapping, support for emergency management, forecasting for air quality & crop yields	L-26
		landscape	Fauna Flora Habitat Directive, Birds Directive; NATURA 2000 Network; Convention on Biodiversity (CBD) Within several legislations: forest fires in Forest Focus; Air pollution within CLRTAP	L-03, L-09, L-10 L-12, L-30
		rd	Rural Development Programmes	L-22, L-23
		water	Statutory Management Requirements (in Water Framework Directive / Nitrates Directive / Habitats Directive) Water Framework Directive; newly proposed flood management directive	L-01, L-02, L-03
PI011	land use (traffic possibilities)	urban	Thematic Strategy on Urban Environment	L-24, L25
PI012	land use (flood management)	water	Water Framework Directive; newly proposed flood management directive	L-01
PI013	land use (landscape diversity)	rd	Rural Development Programmes	L-22, L-23
PI020	land cover	climate	EC European Climate Change Programme Kyoto Protocol	L-29 L-27
		coast	Long-range Transboundary Air Pollution (CLRTAP)	L-30
		forest (air)	Forest Focus Regulation	L-12
		IRENA	EU Sustainable Development Strategy	L-17
		GMES	GMES: monitoring & mapping, support for emergency management, forecasting for air quality & crop yields	L-26
		landscape	Fauna Flora Habitat Directive, Birds Directive; NATURA 2000 Network; Convention on Biodiversity (CBD) Within several legislations: forest fires in Forest Focus; Air pollution within CLRTAP	L-03, L-09, L-10 L12, L-30



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PI-No.	PROSPELU-indicator	Policy Objectives	Policy Instruments	L-ID
		rd	Rural Development Programmes	L-22, L-23
		traffic	Urban Environment	L-24, L-25
		urban	Thematic Strategy on Urban Environment	L-24, L25
			Statutory Management Requirements (in Water Framework Directive / Nitrates Directive / Habitats Directive)	L-01, L-02, L-03
		water	Water Framework Directive; newly proposed flood management directive	
PI021	land cover (forest ground vegetation)	forest	Forest Focus Regulation	L-12
PI022	land cover (forest phenological observations)	forest	Forest Focus Regulation	L-12
PI023	land cover (landscape type)	rd	Rural Development Programmes	L-22, L-23
PI024	land cover (landscape diversity)	climate	EC European Climate Change Programme	L-29
		IRENA	EU Sustainable Development Strategy	L-17
		rd	Rural Development Programmes	L-22, L-23
PI025	land cover (vegetation changes)	waste	Waste Directive	L-04
PI026	land cover (flood management)	water	Water Framework Directive; newly proposed flood management directive	L-01
PI027	land cover (traffic possibilities)	urban	Thematic Strategy on Urban Environment	L-24, L-25
PI030	landscape	climate	EC European Climate Change Programme	L-29
PI031	terraces	cc	CC (SMR, GAEC)	L-16
		soil	Proposed Soil Framework Directive	L-07
PI032	landscape features	cc	CC (SMR, GAEC)	L-16
		IRENA	EU Sustainable Development Strategy	L-17
		urban	Thematic Strategy on Urban Environment	L-24, L-25



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PI-No.	PROSPELU-indicator	Policy Objectives	Policy Instruments	L-ID
PI040	soil type	cc	CC (SMR, GAEC)	L-16
		climate	EC European Climate Change Programme	L-29
		IRENA	EU Sustainable Development Strategy	L-17
		soil	Proposed Soil Framework Directive	L-07
PI041	soil type (water, forest)	forest	Forest Focus Regulation	L-12
		water	Statutory Management Requirements (in Water Framework Directive / Nitrates Directive / Habitats Directive)	L-01, L-02, L-03
PI042	soil cover	cc	CC (SMR, GAEC)	L-16
		soil	Proposed Soil Framework Directive	L-07
PI043	compaction	cc	CC (SMR, GAEC)	L-16
		forest	Forest Focus Regulation	L-12
		soil	Proposed Soil Framework Directive	L-07
PI044	soil organic matter status	cc	CC (SMR, GAEC)	L-16
		forest	Forest Focus Regulation	L-12
		soil	Proposed Soil Framework Directive	L-07
PI045	erosion status	cc	CC (SMR, GAEC)	L-16
		climate	EC European Climate Change Programme	L-29
		IRENA	EU Sustainable Development Strategy	L-17
		rd	Rural Development Programmes	L-22, L-23
		soil	Proposed Soil Framework Directive	L-07
PI046	sealing	soil	Proposed Soil Framework Directive	L-07



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PI-No.	PROSPELU-indicator	Policy Objectives	Policy Instruments	L-ID
		urban	Thematic Strategy on Urban Environment	L-24, L-25
PI047	landslides (mass wasting)	soil	Proposed Soil Framework Directive	L-07
PI048	salinisation	soil	Proposed Soil Framework Directive	L-07
PI049	contamination	soil	Proposed Soil Framework Directive	L-07
PI050	Forest management (crown condition)	forest	Forest Focus Regulation	L-12
PI051	Forest management (damage/regeneration)	forest	Forest Focus Regulation	L-12
		rd	Rural Development Programmes	L-22, L-23
PI052	Forest management (growing stock)	forest	Forest Focus Regulation	L-12
PI053	Forest management pll	rd	Rural Development Programmes	L-22, L-23
PI060	Land management	cc	CC (SMR, GAEC)	L-16
		crop area estimates	Single Payment Scheme	L-19, L-20
		IRENA	EU Sustainable Development Strategy	L-17
		rd	Rural Development Programmes	L-22, L-23
		soil	Proposed Soil Framework Directive	L-07
		water	Statutory Management Requirements (in Water Framework Directive / Nitrates Directive / Habitats Directive)	L-01, L-02, L-03
PI061	Land management (yield estimation)	crop area estimates	Single Payment Scheme	L-19, L-20
PI062	Land management (crop rotation)	cc	CC (SMR, GAEC)	L-16
		crop area estimates	Single Payment Scheme	L-19, L-20



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PI-No.	PROSPELU-indicator	Policy Objectives	Policy Instruments	L-ID
		IRENA	EU Sustainable Development Strategy	L-17
		Soil	Proposed Soil Framework Directive	L-07
PI063	Land management (crop calendars)	crop area estimates	Single Payment Scheme	L-19, L-20
		climate	EC European Climate Change Programme	L-29
PI064	Land management (erosion)	cc	CC (SMR, GAEC)	L-16
		soil	Proposed Soil Framework Directive	L-07
PI065	Land management (arable stubble)	cc	CC (SMR, GAEC)	L-16
		soil	Proposed Soil Framework Directive	L-07
PI066	farm management (pII)	rd	Rural Development Programmes	L-22, L-23
PI067	land management pl + pII	rd	Rural Development Programmes	L-22, L-23
PI070	species richness	climate	EC European Climate Change Programme	L-29
		IRENA	EU Sustainable Development Strategy	L-17
PI071	faunistical parameters	climate	EC European Climate Change Programme	L-29
PI072	faunistical parameters (tree species)	forest	Forest Focus Regulation	L-12
		rd	Rural Development Programmes	L-22, L-23