

# JOINT RESEARCH CENTRE - Draft Work Programme 2012

## Action n° 22004 - SOIL - Soil Data and Information Systems

### *Institute for environment and sustainability (Ispra)*

#### **Thematic Area**

- TA3 - Sustainable management of natural resources

#### **High Level Objectives**

- TA3.HLO1 - To develop multidisciplinary analyses and indicators of past trends and present state of natural resources use in Europe and its global interdependencies
- TA3.HLO2 - To develop scenarios describing the efficient use of natural resources in the global transition towards a green and low carbon economy
- TA3.HLO3 - To develop information infrastructures and systems (INSPIRE, SEIS, GEOSS, GMES) necessary to share environmental observations, information and analytical models and outcomes and promote interoperability and standard setting as foreseen in the Digital Agenda for Europe and 'Integrated Industrial Policy for the Globalisation Era'.
- TA3.HLO4 - Serve the EU's internal and external policies by monitoring environmental situations and conditions, building capacity, encouraging good governance and underpinning EU goals for global environmental stewardship

#### **Policy Theme: 2**

#### **Agenda No & Title: 2.2**

**Web site address (URL):** <http://eussoils.jrc.ec.europa.eu/>

**Type:** Action

**Action Leader:** MONTANARELLA Luca JRC.DDG.H.7

#### **Customers**

##### **DG**

##### **Ranked**

- |   |     |
|---|-----|
| • ENV - Environment                               | 30% |
| • AGRI - Agriculture and Rural Development        | 10% |
| • DEVCO - Development and Cooperation - EuropeAid | 10% |
| • ELARG - Enlargement                             | 10% |
| • ESTAT - Eurostat                                | 10% |
| • AIDCO - EuropeAid Cooperation Office            | 5%  |
| • CLIMA - Climate Action                          | 5%  |
| • DIGIT - Informatics                             | 5%  |
| • EEAS - European External Action Service         | 5%  |
| • ENER - Energy                                   | 5%  |
| • SANCO - Health and Consumers                    | 5%  |

##### **External**

- Alterra - Soil and Landuse
- Catholic University of Louvain-la-Neuve
- Central Service for Plant Protection and Soil Conservation
- Centro Interdip.di Ateneo Nucleo Ricerca Desertificazione, c/o Dip. Sc. Zootecniche, Univ. Sassari
- Centro de Investigaciones Sobre Desertificacion
- FEDERAL REPUBLIC OF BRAZIL
- GMV S.A.
- INSTITUTE OF PHYSICOCHEMICAL AND BIOLOGICAL PROBLEMS IN SOIL SCIENCE OF RUSSIAN ACADEMY OF SCIENCES
- INSTITUTE OF SOIL SCIENCE CHINESE ACADEMY OF SCIENCES\*ISSCAS
- INTERNATIONAL SOIL REFERENCE AND INFORMATION CENTRE
- Institute for Soil Genesis and Ecology
- Institute for Soil Science and Land Reclamation

- Institute of Soil and Plant Cultivation
- LANDGRAEDSLA RIKISINS\*SOIL CONSERVATION SERVICE OF ICELAND ISCS
- Land Research Centre - Soil Office Palestine
- N. Poushkarov Institute of Soil Science and Agroecology
- Norwegian Centre for Soil and Environmental Research (JORDFORSK)
- RESEARCH INSTITUTE FOR SOIL SCIENCE AND AGRICULTURAL CHEMISTRY (HUNGARIAN ACADEMY OF SCIENCES)
- Research Institute for Soil Science and Agrochemistry
- Soil Fertility Research Institute
- Soil Science Department (Agronomic Veterinary Institute Hassan II)
- Soil Science and Conservation Research Institute
- Soil Survey and Land Research Centre
- UNIVERSITY OF SHEFFIELD
- Universidad de Chile
- V.V. Dokuchaev Soil Science Institute
- FAO - THE FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS (FAO)
- CAAS - The Chinese Academy of Agricultural Sciences
- ECDC - European Centre for Disease Control
- EEA - European Environment Agency
- EFSA - European Food Safety Agency
- IAEA - International Atomic Energy Agency (IAEA)
- ICL - International Consortium on Landslides (ICL)
- INTA - INTA-Argentina
- IPCC - Intergovernmental Panel on Climate Change
- ISRIC - World Data Centre for Soils
- OECD - Organisation for Economic Co-operation and Development (OECD)
- UN FCCC - UN Framework Convention on Climate Change (UN-FCCC)
- UNCCD - United Nations Convention to Combat Desertification (UNCCD)
- UNEP - United Nations Environment Programme (UNEP)
- USDA - United States Department of Agriculture USDA
- WHO - World Health Organization

### *Stakeholders*

#### ***DG***

- AGRI - Agriculture and Rural Development
- CLIMA - Climate Action
- DEVCO - Development and Cooperation - EuropeAid
- ECHO - Humanitarian Aid
- ELARG - Enlargement
- ENER - Energy
- ENV - Environment
- ESTAT - Eurostat
- SANCO - Health and Consumers

#### ***External***

- Alterra - Soil and Landuse
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- Institute of Soil and Plant Cultivation
- INSTITUTE OF SOIL SCIENCE CHINESE ACADEMY OF SCIENCES\*ISSCAS
- INTERNATIONAL SOIL REFERENCE AND INFORMATION CENTRE

- Land Research Centre - Soil Office Palestine
- LANDGRAEDSLA RIKISINS\*SOIL CONSERVATION SERVICE OF ICELAND ISCS
- N. Poushkarov Institute of Soil Science and Agroecology
- Norwegian Centre for Soil and Environmental Research (JORDFORSK)
- RESEARCH INSTITUTE FOR SOIL SCIENCE AND AGRICULTURAL CHEMISTRY (HUNGARIAN ACADEMY OF SCIENCES)
- Research Institute for Soil Science and Agrochemistry
- Soil Fertility Research Institute
- Soil Science and Conservation Research Institute
- Soil Science Department (Agronomic Veterinary Institute Hassan II)
- Soil Survey and Land Research Centre
- V.V. Dokuchaev Soil Science Institute
- FAO - THE FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS (FAO)
- EEA - European Environment Agency
- EFSA - European Food Safety Agency
- UNEP - United Nations Environment Programme (UNEP)

***Keywords:***

Soil Data Centre, Soil Thematic Strategy, Soil Framework Directive, Desertification, Land Use and Land Use Change, Global Change, Food Security

***Rationale:***

Soil data and information are relevant for a number of EU policy areas: food security, agriculture, soil protection, bio-energy, water protection, nature protection, development policy, health and sustainable development. The EU Thematic Strategy for Soil Protection addresses these different policy areas in a coherent manner and proposes the way forward towards effective soil protection in Europe. Policy relevant soil data and information will therefore play a crucial role in the policy development and implementation process. In addition, a number of global multilateral agreements also ratified by the European Community (United Nations Framework Convention on Climate Change (UNFCCC), Convention on Biological Diversity (CBD), United Nations Convention to Combat Desertification (UNCCD)) demand an increasing amount of soil data and information: climate change, biodiversity and desertification are global issues that are strongly related to soil degradation phenomena at the global scale. Recent food crises in several parts of the world have further put in evidence the simple fact that to grow food we need soil and water, which are the two main limiting factors. A full assessment of available soil resources at global scale is therefore urgently needed. Through the establishment of the European Soil Data Centre (ESDAC), the SOIL Action will provide a single focal point for soil data and information for the Commission and other users. It will therefore support the other Commission services in the implementation of the Thematic Strategy for Soil Protection as adopted by the European Commission and in the negotiations towards the adoption of the proposed Soil Framework Directive by the EU Institutions and their subsequent implementation in the Member States. The Action will also facilitate the reporting and assessment obligations of Member States as well as the full assessment of global soil resources for food security and climate change mitigation and adaptation.

This Action supports a large number of other JRC Actions by providing updated soil data and information via the ESDAC and the EU Soil Portal.

***Summary of the project:***

Global and EU policy-relevant soil information, from initial data collection right through to final reporting, will be managed by this Action. This will be achieved by using the European Soil Data

Centre (ESDAC) as the single soil information focal point for the EU. It will serve the Commission's needs in implementing the Thematic Strategy for Soil Protection (COM(2006) 231) and in the negotiation of the Soil Framework Directive (COM(2006) 232) as well as its subsequent implementation in Member States. Advanced modelling techniques and scenario analyses will be used to provide soil information to end users in relation to the major threats to soil identified in the Thematic Strategy for Soil Protection (erosion, decline of organic matter, compaction, salinisation, landslides, sealing, contamination and loss of soil biodiversity). Strong scientific and technical support to the Global Soil Partnership for Food Security and Climate Change Adaptation and Mitigation of FAO as well as to the implementation of the UNFCCC, the CBD and the UNCCD will be provided by the development of an operational Global Soil Information System (GLOSIS) for the regular assessment of global soil resources in the framework of the GEO (Group of Earth Observation) initiative and the Global Soil Partnership coordinated by the FAO.

#### International Activities

##### European Dimension:

More than 40 European countries and regional authorities collaborate in a well established network, the European Soil Bureau Network, which is managed by this Action. A full list of members is available at [http://eussoils.jrc.it/esbn/esbn\\_members.html](http://eussoils.jrc.it/esbn/esbn_members.html)

As a new development within FP7, the SOIL Action has established the European Soil Data Centre (ESDAC), as an INSPIRE compliant fully nested system on soil data and information operated by a network of national and regional data centers.

##### Outside Europe:

This Action is one of the major global players in the development and operation of soil data and information systems. Within FP7 the following global and regional initiatives have been established:

##### Global activities

\* A global network of soil science institutions and data providers has been established through a formal Consortium Agreement: GlobalSoilMap.net is a network including partners from all continents that aims to produce a new digital soil map of the world using established and emerging state-of-the-art technologies for soil mapping and for predicting soil properties at high spatial resolution. Within the Group of Earth Observations (GEO) Work Plan 2009-2011 it co-leads the task DA-09-03e "Global Soil Data" with ISRIC, ISS-CAS and USDA. The Action is one of the key partners for the implementation of the Global Soil Partnership coordinated by the FAO.

##### Regional and Bilateral activities

\* Soil Atlas of Latin America - In the framework of the EUROCLIMA project financed by DG AIDCO a Soil Atlas of Latin America will be compiled during 2011 for final publication by 2012.

\* Soil Atlas of Africa - As a contribution of the JRC to the Africa, Caribbean and Pacific (ACP) Observatory, the Soil Atlas of Africa will be the reference for soil information in Africa. The project allows for full involvement of the local stakeholders in the design, data collection and final publication of this atlas, which is scheduled for 2011. Further reading is available at [http://eussoils.jrc.it/library/maps/africa\\_atlas/index.html](http://eussoils.jrc.it/library/maps/africa_atlas/index.html).

\* EU-China cooperation agreement in soil science: Following an exploratory mission coordinated by this Action, an extensive collaboration agreement has been signed with the Chinese Academy of Sciences and the Institute of Soil Science. This agreement includes exchange of staff and joint activities geared towards the development of joint soil information systems and soil degradation assessments.

\* Collaboration agreements established with the University of Milan, University of Turin, the International Soil Reference and Information Centre (ISRIC), the Swiss Federal Council and the Soil

Conservation Service of Iceland. Further collaboration will follow, including new agreements with other institutions worldwide, thereby expanding the Actions' international collaboration with the ultimate goal of completing the new Global Soil Information System by the end of the FP7.

This Action will provide a coherent approach to soil data collection and distribution for different policy areas and initiatives relevant to the EU, while assuring high scientific quality, policy relevance and technical support as needed. The Action will focus on the following overarching objectives:

1. The establishment of the European Soil Data Centre (ESDAC) as a single focal point for all soil data and information in Europe, and the operation of the European Soil Archive Facility for long-term storage of soil samples.
2. The development of procedures and methods for data collection, quality assessment and control, data management and storage, and data distribution to Commission and external users, which fully comply with INSPIRE principles for spatial data infrastructures.
3. Research and development of advanced modelling techniques, indicators and scenario analyses in relation to the major threats to soil (erosion, decline of organic matter, compaction, salinisation, landslides, sealing, contamination, and loss of soil biodiversity), as identified in the Thematic Strategy for Soil Protection.
4. Supporting the other Commission's services with soil information and scientific as well as technical assistance in negotiating the Thematic Strategy for Soil Protection and the proposal for a Soil Framework Directive within the EU Institutions, and their subsequent implementation at Community and Member State level.
5. Extension of the coverage of the European Soil Information System (EUSIS) towards a fully operational Global Soil Information System (GLOSIS), which will provide relevant soil information for the implementation of multilateral environmental agreements such as the UNFCCC, the CBD and the UNCCD, and contribute to the Global Soil Partnership of FAO.

### *Specific Objectives for 2012:*

#### **Objective 1**

To further develop, maintain and operate the European Soil Data Centre (ESDAC) as a focal point for soil data and information in Europe (Contributing to TA-3 High Level Objective 3). Support to EEA.

#### **Sub Objective 1.1**

Implement the soil contamination data flow within ESDAC

#### **Deliverable 1.1.1**

30/06/2012

Deliverable 1.1: Report on the EEA indicator CSI15 "Progress in the Management of Contaminated Sites"

[JRC Scientific Support - Scientific and policy reports]

**Policy** 1.2.2 Sustainable management of natural resources

#### **Policy Documents**

COM 2011 571 Roadmap to a Resource Efficient Europe

REG 1990 1210 Regulation 1210/90, Council Regulation of 7 May 1990 on the establishment of the European Environment Agency and the European environment information and observation network, OJ. L12011 (1990)

#### **Reference to CWP**

#### **Section**

1: Forthcoming initiatives 2012

#### **Topic**

47:7th Environmental Action Programme

**Funding** Institutional

#### **Customers DG**

ENV - Environment

#### **Customers External**

## Sub Objective 1.2

To review and develop methods for landslide mapping at various scales using available thematic data and remote sensing derived data (partially funded within the “SafeLand” FP7 competitive project).

### Deliverable 1.2.1

20/12/2012

Report on landslide mapping concepts and methods for landslide risk management in Europe.  
[JRC Scientific Support - Scientific and policy reports]

**Policy** 2.2 Disasters and response

#### Policy Documents

COM 2006 231 EU Thematic Strategy for Soil Protection

#### Reference to CWP

##### Section

1: Forthcoming initiatives 2012

##### Topic

47:7th Environmental Action Programme

**Funding** Indirect Action  
Institutional

#### Customers DG

ENV - Environment

#### Customers External

ICL - International Consortium on Landslides (ICL)

### Deliverable 1.2.2

20/12/2012

European landslide susceptibility map integrated in ESDAC.  
[JRC Scientific Support - Scientific information systems and databases]

**Policy** 2.2 Disasters and response

#### Policy Documents

COM 2006 231 EU Thematic Strategy for Soil Protection

#### Reference to CWP

##### Section

1: Forthcoming initiatives 2012

##### Topic

47:7th Environmental Action Programme

**Funding** Indirect Action  
Institutional

#### Customers DG

ENV - Environment

#### Customers External

ICL - International Consortium on Landslides (ICL)

## Sub Objective 1.3

Maintain an updated and operational EU Soil Portal for data distribution and soil information delivery to users and stakeholders

### Deliverable 1.3.1

20/12/2012

ESDAC Web-based tools to access European soil databases  
[JRC Scientific Support - Scientific information systems and databases]

**Policy** 1.1.2 Digital Agenda for Europe

#### Policy Documents

COM 2006 231 EU Thematic Strategy for Soil Protection

#### Reference to CWP

##### Section

1: Forthcoming initiatives 2012

##### Topic

47:7th Environmental Action Programme

**Funding** Institutional

#### Customers DG

AGRI - Agriculture and Rural Development  
 CLIMA - Climate Action  
 DEV - Development  
 ELARG - Enlargement  
 ENER - Energy  
 ENV - Environment  
 ESTAT - Eurostat  
**Customers External**  
 Alterra - Soil and Landuse  
 Central Service for Plant Protection and Soil Conservation  
 Centro de Investigaciones Sobre Desertificacion  
 Centro Interdip.di Ateneo Nucleo Ricerca Desertificazione, c/o Dip. Sc. Zootecniche, Univ. Sassari  
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 Institute for Soil Science and Land Reclamation  
 INSTITUTE OF PHYSICOCHEMICAL AND BIOLOGICAL PROBLEMS IN SOIL SCIENCE OF RUSSIAN ACADEMY OF SCIENCES  
 Institute of Soil and Plant Cultivation  
 INSTITUTE OF SOIL SCIENCE CHINESE ACADEMY OF SCIENCES\*ISSCAS  
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 Soil Science and Conservation Research Institute  
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 EFSA - European Food Safety Agency  
 IAEA - International Atomic Energy Agency (IAEA)  
 IPCC - Intergovernmental Panel on Climate Change  
 ISRIC - World Data Centre for Soils  
 OECD - Organisation for Economic Co-operation and Development (OECD)  
 UN FCCC - UN Framework Convention on Climate Change (UN-FCCC)  
 UNCCD - United Nations Convention to Combat Desertification (UNCCD)  
 UNEP - United Nations Environment Programme (UNEP)  
 USDA - United States Department of Agriculture USDA

### **Deliverable 1.3.2**

31/12/2012

Develop the soil information layer ("Soil Watch") for the Eye on Earth social data website of EEA in collaboration with action SHAPE

[JRC Scientific Support - Technical systems]

**Policy** 1.1.2 Digital Agenda for Europe

#### **Policy Documents**

DIR 2007 2 Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE)

**Funding** Institutional  
**Customers DG**  
DIGIT - Informatics  
ENV - Environment  
**Customers External**  
EEA - European Environment Agency

## Objective 2

To develop the integrated assessment of soil resources in Europe (contributing to TA-3 High Level Objective 1).

### Sub Objective 2.1

To develop an integrated model of soil processes that quantifies key soil functions (FP7 Competitive: SoilTrEC Project)

#### Deliverable 2.1.1

20/12/2012

Multi-Scale European Soil Information System (MEUSIS) which will aggregate data coming from the CZ-Integrated Model and other sources to regional and EU scale datasets  
[JRC Scientific Support - Scientific information systems and databases]

**Policy** 1.1.1 Innovation Union

#### Policy Documents

COM 2006 231 EU Thematic Strategy for Soil Protection

#### Reference to CWP

##### Section

1: Forthcoming initiatives 2012

##### Topic

47:7th Environmental Action Programme

**Funding** Indirect Action

#### Customers DG

RTD - Research

#### Customers External

UNIVERSITY OF SHEFFIELD

### Sub Objective 2.2

To study the ecological- and socio-economical effects of ecosystem restoration of degraded land and soil

#### Deliverable 2.2.1

21/12/2012

Scientific article in peer-reviewed international journal on the ecological- and socio-economical effects of ecosystem restoration of degraded land and soil  
[Scientific Publications]

**Policy** 1.2.2 Sustainable management of natural resources

#### Policy Documents

COM 2006 231 EU Thematic Strategy for Soil Protection

SEC 2010 153 Commission Opinion on Iceland's application for membership of the European Union

**Funding** Institutional

#### Customers DG

AGRI - Agriculture and Rural Development

ENV - Environment

#### Customers External

LANDGRAEDSLA RIKISINS\*SOIL CONSERVATION SERVICE OF ICELAND ISCS

### Sub Objective 2.3

To prepare a new continental scale coverage for Europe of soil water information, which is based on new class pedotransfer rules, developed and tested on watershed level. (FP7 Competitive: MyWater Project)

#### Deliverable 2.3.1

21/12/2012

Multi-scale thematic soil water database. [20/12/2012] (CAT = 2.2d)

[JRC Scientific Support - Scientific information systems and databases]



**Policy** 1.1.1 Innovation Union

**Policy Documents**

COM 2006 231 EU Thematic Strategy for Soil Protection

DIR 2000 60 Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy

**Reference to CWP**

**Section**

1: Forthcoming initiatives 2012

**Topic**

47:7th Environmental Action Programme

**Funding** Indirect Action

**Customers DG**

RTD - Research

**Customers External**

GMV S.A.

**Sub Objective 2.4**

Evaluation and mapping of soil biodiversity threats across Europe. (FP7 Competitive: EcoFinder Project)

**Deliverable 2.4.1**

21/12/2012

Map of threats to soil biodiversity across Europe

[JRC Scientific Support - Scientific information systems and databases]

**Policy** 1.2.2 Sustainable management of natural resources

**Policy Documents**

COM 2006 231 EU Thematic Strategy for Soil Protection

**Reference to CWP**

**Section**

1: Forthcoming initiatives 2012

3: Forthcoming initiatives 2014

**Topic**

47:7th Environmental Action Programme

5: Biodiversity Strategy

**Funding** Indirect Action

**Customers DG**

RTD - Research

**Deliverable 2.4.2**

31/08/2012

Report on a comprehensive assessment of Soil Born Diseases in Europe

[JRC Reference Reports]

**Policy** 2.1 Internal safety and security

**Policy Documents**

DIR 1998 2119 Decision No 2119/98/EC of the European Parliament and of the Council of 24 September 1998 setting up a network for the epidemiological surveillance and control of communicable diseases in the Community

**Reference to CWP**

**Section**

1: Forthcoming initiatives 2012

1: Forthcoming initiatives 2012

**Topic**

30:Health and safety

47:7th Environmental Action Programme

**Funding** Indirect Action

Institutional

**Customers DG**

SANCO - Health and Consumers

**Customers External**

ECDC - European Centre for Disease Control

WHO - World Health Organization

**Sub Objective 2.5**

Pan-European assessment of water erosion to include the "human dimension", i.e. the impact of land use and soil management practices on erosion levels, and of wind erosion by improving existing soil erosion modelling capacities.

#### **Deliverable 2.5.1**

31/12/2012

Scientific report on the status and trends of soil erosion in Europe

[JRC Scientific Support - Scientific and policy reports]

**Policy** 1.2.2 Sustainable management of natural resources

#### **Policy Documents**

COM 2006 231 EU Thematic Strategy for Soil Protection

#### **Reference to CWP**

##### **Section**

1: Forthcoming initiatives 2012

##### **Topic**

47:7th Environmental Action Programme

**Funding** Institutional

#### **Customers DG**

ENV - Environment

#### **Customers External**

EEA - European Environment Agency

### **Sub Objective 2.6**

Assessment of soil sealing in Europe

#### **Deliverable 2.6.1**

11/05/2012

Guidelines on best practice to limit, mitigate or compensate soil sealing in support of the Roadmap for Resource Efficiency.

[JRC contributions to policy documents]

**Policy** 1.2.2 Sustainable management of natural resources

#### **Policy Documents**

COM 2011 000 Roadmap to a Resource Efficient Europe

#### **Reference to CWP**

##### **Section**

1: Forthcoming initiatives 2012

##### **Topic**

47:7th Environmental Action Programme

**Funding** Institutional

#### **Customers DG**

ENV - Environment

### **Objective 3**

To implement the soil component of the LUCAS survey of ESTAT in the framework of specific Administrative Arrangements with DG ENV and ESTAT. (Contributing to TA-3 High Level Objective 3)

### **Sub Objective 3.1**

To complete the full evaluation of the LUCAS-Soil 2009 survey results in combination with land use data.

#### **Deliverable 3.1.1**

20/12/2012

Full report on the LUCAS-Soil 2009 survey results

[JRC Scientific Support - Scientific and policy reports]

**Policy** 1.2.2 Sustainable management of natural resources

#### **Policy Documents**

COM 2006 231 EU Thematic Strategy for Soil Protection

#### **Reference to CWP**

##### **Section**

1: Forthcoming initiatives 2012

##### **Topic**

47:7th Environmental Action Programme

**Funding** Administrative Arrangements

#### **Customers DG**

ENV - Environment

ESTAT - Eurostat

### Sub Objective 3.2

To support ESTAT and DG ENV in the implementation of the LUCAS-Soil survey 2012.

#### Deliverable 3.2.1

29/02/2012

Training at the LUCAS project management training in Portugal, and of the LUCAS-Soil 2012 surveyors in Bulgaria and Romania.

[JRC Scientific Support - Training]

**Policy** 1.2.2 Sustainable management of natural resources

#### Policy Documents

COM 2006 231 EU Thematic Strategy for Soil Protection

#### Reference to CWP

##### Section

1: Forthcoming initiatives 2012

##### Topic

47:7th Environmental Action Programme

**Funding** Institutional

#### Customers DG

ENV - Environment

ESTAT - Eurostat

### Sub Objective 3.3

To compile the results from the LUCAS-Soil 2009 heavy metals analysis provided by the JRC action MAPLE

#### Deliverable 3.3.1

20/12/2012

First report on the LUCAS-Soil 2009 heavy metals survey results

[JRC Scientific Support - Scientific and policy reports]

**Policy** 1.2.2 Sustainable management of natural resources

#### Policy Documents

COM 2006 231 EU Thematic Strategy for Soil Protection

#### Reference to CWP

##### Section

1: Forthcoming initiatives 2012

##### Topic

47:7th Environmental Action Programme

**Funding** Administrative Arrangements

#### Customers DG

ENV - Environment

### Sub Objective 3.4

To extend to Iceland the LUCAS-Soil survey, including the collection of baseline information on soil organic carbon and trace elements. (Enlargement & Integration)

#### Deliverable 3.4.1

20/12/2012

Data from the LUCAS-Soil survey for Iceland

[JRC Scientific Support - Scientific information systems and databases]

**Policy** 1.2.2 Sustainable management of natural resources

#### Policy Documents

COM 2006 231 EU Thematic Strategy for Soil Protection

SEC 2010 153 Commission Opinion on Iceland's application for membership of the European Union

#### Reference to CWP

##### Section

1: Forthcoming initiatives 2012

1: Forthcoming initiatives 2012

##### Topic

40:Annual Enlargement Package 2012

47:7th Environmental Action Programme

**Funding** Enlargement & Integration

**Customers DG**

ELARG - Enlargement

ENV - Environment

ESTAT - Eurostat

**Customers External**

LANDGRAEDSLA RIKISINS\*SOIL CONSERVATION SERVICE OF ICELAND ISCS

### Sub Objective 3.5

To develop the next generation LUCAS-Soil survey based on in-situ and remote sensing soil spectroscopy techniques.

#### Deliverable 3.5.1

21/12/2012

A classification system and a reference atlas of spectral variation at continental scale  
[JRC Scientific Support - Validated methods, Reference methods and measurements]

**Policy** 1.2.2 Sustainable management of natural resources

**Policy Documents**

COM 2006 231 EU Thematic Strategy for Soil Protection

**Reference to CWP**

**Section**

**Topic**

1: Forthcoming initiatives 2012 47:7th Environmental Action Programme

1: Forthcoming initiatives 2012 118:State of the Innovation Union 2012 – accelerating change

**Funding** Institutional

**Customers DG**

AGRI - Agriculture and Rural Development

CLIMA - Climate Action

ENV - Environment

ESTAT - Eurostat

**Customers External**

Catholic University of Louvain-la-Neuve

### Objective 4

To develop within the Land Use Modelling Platform (LUMP) methods to review, project and verify soil organic carbon in support to DG AGRI, DG ENV, DG CLIMA and DG DEVCO. (Contributing to High Level Objective 2)

#### Sub Objective 4.1

To assess the current situation of soil organic carbon stocks in the agricultural soils of the EU

#### Deliverable 4.1.1

21/12/2012

Review on the consolidated assessment of the soil organic carbon stocks in agricultural soils of the EU

[JRC Scientific Support - Scientific and policy reports]

**Policy** 1.2.1 Low carbon society

**Policy Documents**

COM 2006 231 EU Thematic Strategy for Soil Protection

COM 2011 571 Roadmap to a Resource Efficient Europe

**Reference to CWP**

**Section**

**Topic**

1: Forthcoming initiatives 2012

47:7th Environmental Action Programme

2: Forthcoming initiatives 2013

1: Organic farming

2: Forthcoming initiatives 2013

3:EU Adaptation Strategy

3: Forthcoming initiatives 2014

5: Biodiversity Strategy

**Funding** Administrative Arrangements

Institutional

**Customers DG**

AGRI - Agriculture and Rural Development

CLIMA - Climate Action

ENV - Environment

**Customers External**

EEA - European Environment Agency

IPCC - Intergovernmental Panel on Climate Change

UN FCCC - UN Framework Convention on Climate Change (UN-FCCC)

**Sub Objective 4.2**

To assess the different mitigation options and their impacts on soil organic carbon stocks in the agricultural soils of the EU

**Deliverable 4.2.1**

21/12/2012

Review of the different mitigation options and their impacts on soil organic carbon stocks in the agricultural soils of the EU and Candidate Countries

[JRC Scientific Support - Scientific and policy reports]

**Policy** 1.2.1 Low carbon society**Policy Documents**

COM 2006 231 EU Thematic Strategy for Soil Protection

COM 2011 571 Roadmap to a Resource Efficient Europe

**Reference to CWP****Section****Topic**

1: Forthcoming initiatives 2012

47:7th Environmental Action Programme

2: Forthcoming initiatives 2013

1: Organic farming

2: Forthcoming initiatives 2013

3:EU Adaptation Strategy

**Funding** Administrative Arrangements  
Enlargement & Integration  
Institutional

**Customers DG**

AGRI - Agriculture and Rural Development

CLIMA - Climate Action

ENV - Environment

**Customers External**

EEA - European Environment Agency

IPCC - Intergovernmental Panel on Climate Change

UN FCCC - UN Framework Convention on Climate Change (UN-FCCC)

**Objective 5**

To develop the Global Soil Information System in support of the Global Soil Partnership for Food Security and Climate Change with FAO and in the framework of the GEO Task "Global Soil Data". (Contributing to TA-3 High Level Objectives 1 and 4)

**Sub Objective 5.1**

To complete the Soil Atlas of Latin America in the framework of the EUROCLIMA AA with DG DEVCO

**Deliverable 5.1.1**

21/12/2012

Final draft of the Soil Atlas of Latin America

[JRC Scientific Support - Scientific and policy reports]

**Policy** 3.2 Development cooperation**Reference to CWP****Section****Topic**

1: Forthcoming initiatives 2012

15:Revision of guidelines on national regional aid

1: Forthcoming initiatives 2012

47:7th Environmental Action Programme

**Funding** Administrative Arrangements

**Customers DG**

AIDCO - EuropeAid Cooperation Office

**Customers External**

FEDERAL REPUBLIC OF BRAZIL

Universidad de Chile

INTA - INTA-Argentina

**Sub Objective 5.2**

Support FAO in the establishment and operation of the Global Soil Partnership for Food Security and Global Change (GSP)

**Deliverable 5.2.1**

21/12/2012

European component of the next generation digital soil map of the world

[JRC Scientific Support - Scientific information systems and databases]

**Policy** 3.2 Development cooperation**Policy Documents**

COM 2006 231 EU Thematic Strategy for Soil Protection

**Reference to CWP****Section**

1: Forthcoming initiatives 2012

1: Forthcoming initiatives 2012

**Topic**

25:Digital Agenda for Europe – Next step

47:7th Environmental Action Programme

**Funding** Institutional**Customers DG**

DEV - Development

EEAS - European External Action Service

**Customers External**

FAO - THE FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS (FAO)

**Deliverable 5.2.2**

30/11/2012

Training of soil surveyors in Digital Soil Mapping techniques

[JRC Scientific Support - Training]

**Policy** 3.2 Development cooperation**Policy Documents**

COM 2003 526 The European Union and the United Nations: The choice of multilateralism

**Reference to CWP****Section**

1: Forthcoming initiatives 2012

**Topic**

25:Digital Agenda for Europe – Next step

**Funding** Institutional**Customers DG**

DEV - Development

EEAS - European External Action Service

**Customers External**

FAO - THE FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS (FAO)

**Deliverable 5.2.3**

30/11/2012

Scientific and Technical Report on the activities of the Sino-European Panel on Land and Soil (SEPLS) and the Regional Soil Partnership for Asia

[JRC Scientific Support - Scientific and policy reports]

**Policy** 3.2 Development cooperation**Policy Documents**

COM 2006 231 EU Thematic Strategy for Soil Protection

## Reference to CWP

Section	Topic
1: Forthcoming initiatives 2012	42:European Neighbourhood Policy Package and the Eastern Partnership

**Funding** Institutional

### Customers DG

DEVCO - Development and Cooperation - EuropeAid

EEAS - European External Action Service

### Customers External

FAO - THE FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS (FAO)

CAAS - The Chinese Academy of Agricultural Sciences

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