

Work Package Sheet

WP 2016 (ACTIVE) WPK 899 SOIL-NACA

Work Package identification

Project	702 - NC-Soil		
WPK Id	899		
Acronym	SOIL-NACA		
Title	Securing SOIL as NATural CAPital		
Description	<p>Healthy soils are fundamental to life on Earth, and are the keystone of food security, the bioeconomy, water and nutrient regulation, climate change mitigation and biodiversity. A soil-centric framework is needed to support policies that address terrestrial ecosystem services and sustainable development. This work package collects, analyses and manages diverse data from the EU and beyond to assess soil functions (e.g. fertility, organic carbon cycles, water management, pollution control, preservation of heritage, pharmaceuticals) and pressures (e.g. erosion, contamination, intensive agriculture, soil sealing, climate change, etc.), and to develop indicators for scenario and trend analysis regarding soil security. The project supports the Commission's commitment to the implementation of the EU Soil Thematic Strategy, the development of terrestrial Sustainable Development Goals, the European and Global Soil Partnerships, and EU commitments to land and soil in the EU <i>acquis communautaire</i></p>		
Unit	JRC.H.5		
Wp contact	JONES Arwyn		
Duration	Start date	01/01/2016	End date 31/12/2017

Policy and Work Package recipients

Policy Area	1.3 Environment
Key orientation	1.3.1.b Biodiversity, forests and soils. Support the implementation of the EU Biodiversity Strategy, notably on the assessment of ecosystem services and natural capital accounting, the green infrastructure, the invasive alien species information system, and global biodiversity monitoring. Analyse and model forest resources and develop information systems on forests and forest fires in support of the EU Forest Strategy. Provide support to the EU Soil Thematic Strategy by modelling soil functions and developing the European Soil Data Centre (ESDAC). Monitor and model land and soil degradation and desertification, including for the Global Soil Partnership,
Main policy DG	ENV Environment
Funding DG	
DGs' contact	
Additional Policy DG	<ul style="list-style-type: none"> • GROW Internal Market, Industry, Entrepreneurship and SMEs • AGRI Agriculture and Rural Development • RTD Research and Innovation • REGIO Regional and Urban Policy • SANTE Health and Food Safety • ECHO Humanitarian Aid and Civil Protection (ECHO) • OP Publications Office • ESTAT Eurostat • DEVCO International Cooperation and Development • CLIMA Climate Action

External Beneficiaries			
Organisation Name	Country	Type	Contact
United Nations Convention to Combat Desertification (UNCCD)	DE	International Organisation	Sergio Zelaya
CRANFIELD UNIVERSITY	GB	University	Thomas Mayer
Eurogeosurveys	BE	International Organisation	Rainer Baritz
European Environment Agency	DK	International Organisation	Geertrui Louwagie
European Food Safety Authority	IT	International Organisation	Mark Egsmose
International Atomic Energy Agency (IAEA)	AT	International Organisation	Geraldine ARIAS
International Consortium on Landslides (ICL)	JP	International Organisation	Kyoji Sassa
Organisation for Economic Co-operation and Development (OECD)	FR	International Organisation	Yasuro Funaki, Kevin Parris
Soil Science Department (Agronomic Veterinary Institute Hassan II)	MA	University	Mohamed Badraoui
Soil Science and Conservation Research Institute	SK	Research Institute	Beata Houskova
Soil Survey and Land Research Centre	GB	Research Institute	Thomas Mayer
THE FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS (FAO)	IT	International Organisation	Ronald Vargas
UN Convention on Biological Diversity	CA	International Organisation	Braulio Diaz
V.V. Dokuchaev Soil Science Institute	RU	Research Institute	A. Ivanov
WAGENINGEN UNIVERSITY	NL	Research Institute	Coen J. Ritsema
World Data Centre for Soils	NL	Government	Peter de Ruiter

Horizon 2020 Specific Objective Non-nuclear direct actions of the JRC - Specific objective 14 : To provide customer-driven scientific and technical support to Union policies, while flexibly responding to new policy demands

Activity type

- 2 - Information systems & services (40%)
- 7 - Scientific, technical & policy consultancy (50%)
- 9 - Education & training (10%)

Resource, Funding and Collaborations

Fundings

Type	Contract n.	Amount
Institutional - Regular Support		€0.00

Human resources					
Position	Unit	Effort in PM	Work Package Year	Budget	Role
AD	JRC.H.5	72	2014	Institutional	owner
AST	JRC.H.5	20	2014	Institutional	owner
GH	JRC.H.5	65	2014	Institutional	owner
CA	JRC.H.5	17	2014	Institutional: enlargement and integration	owner
DNE	JRC.H.5	4	2014	Institutional	owner
AD	JRC.H.5	84	2015	Institutional	owner
AST	JRC.H.5	18	2015	Institutional	owner
GH	JRC.H.5	21	2015	Institutional	owner
CA	JRC.H.5	9	2015	Institutional	owner
AD	JRC.H.5	58	2016	Institutional	owner
AST	JRC.H.5	11	2016	Institutional	owner
GH	JRC.H.5	3	2016	Institutional	owner
CA	JRC.H.5	28	2016	Institutional	owner
AD	JRC.H.5	54	2017	Institutional	owner
AST	JRC.H.5	16	2017	Institutional	owner
GH	JRC.H.5	1	2017	Institutional	owner
CA	JRC.H.5	21	2017	Institutional	owner

Deliverables

Deliverable 1

Title	Soil indicator development
Description	Indicators on soil quality and soil erosion by water and wind will be provided to monitor the integration of environmental concerns into the CAP and as scoreboard indicators of the roadmap to a resource efficient Europe. Existing methods will integrate information derived from the LUCAS Topsoil Survey to improve indicator performance and to enable regular monitoring applications. Updated assessments will be provided to related DGs and the OECD on an annual basis.
Collaborating Unit	JRC.H.4
Del. Category	2.2.f - Scientific information systems and databases
Impact Category	2 - Implementation, monitoring, evaluation of EU policy
Expected release date	18/12/2015
Policy Document	
Sensible Deliverable	No

Deliverable 3

Title	Soil indicator development
Description	Indicators on soil quality and soil erosion by water and wind will be provided to monitor the integration of environmental concerns into the CAP(COM(206)508 and as scoreboard indicators of the roadmap to a resource efficient Europe. Existing methods will integrate information derived from the LUCAS Topsoil Survey to improve indicator performance and to enable regular monitoring applications. Updated assessments will be provided to related DGs and the OECD on an annual basis.
Collaborating Unit	JRC.H.4
Del. Category	2.2.f - Scientific information systems and databases
Impact Category	2 - Implementation, monitoring, evaluation of EU policy
Expected release date	19/12/2014
Policy Document	
Sensible Deliverable	No

Deliverable 4

Title	European Soil Data Centre
Description	Maintenance of permanent repository of EU soil data and information through the EU Soil Data centre & EU Soil Portal: data collection, specification, data harmonization, quality control and distribution to Commission services & other parties. Coordination of formal data requests to Member States will be carried out through the EIONet-Soil. Metadata and access to data will be ensured through the Common OpenData Catalogue and RDSI facility.
Collaborating Unit	JRC.H.6
Del. Category	2.2.f - Scientific information systems and databases
Impact Category	2 - Implementation, monitoring, evaluation of EU policy
Expected release date	18/12/2015
Policy Document	
Sensible Deliverable	No

Deliverable 5

Title	Sino-EU Panel on Land and Soil
Description	The Sino-EU Panel on Land and Soil, as part of the EU-China sectorial dialogues, will re-address efficient and degradation-free land use in 2015. Policy recommendations, based on comparative assessment, will be delivered for China and the EU focusing on resource use efficiency in agriculture with special focus on land quality. Optimization of land resource use, amelioration/restoration measures and degradation threats will be among policy recommendations delivered.
Collaborating Unit	JRC.A.2
Del. Category	2.2.a - Scientific and policy reports
Impact Category	2 - Implementation, monitoring, evaluation of EU policy
Expected release date	29/06/2015
Policy Document	
Sensible Deliverable	No

Deliverable 6

Title	Communication on Land as a Resource
Description	The Commission plans a Communication "Land as a Resource" for 2015. This will address the consequences of pressures on land quality and availability covering EU and global scales. This work will deliver texts, technical annexes and maps to the Communication and its Impact Assessment based on related research at JRC and contributions from expert working groups.
Collaborating Unit	JRC.H.8
Del. Category	2.2.a - Scientific and policy reports
Impact Category	1 - Anticipation, conception, adoption of EU policy
Expected release date	19/12/2015
Policy Document	
Sensible Deliverable	No

Deliverable 7

Title	Sino-EU Panel on Land and Soil
Description	The Sino-EU Panel on Land and Soil, as part of the EU-China sectorial dialogues, will address degradation-free land use in 2014. Policy recommendations, based on comparative assessment, will be delivered in parallel for China and the EU focussing on the influence of human impact on land availability and the ecological conditions of soil. Land use change, amelioration/restoration measures and degradation effects will be among policy recommendations delivered.
Collaborating Unit	JRC.A.2
Del. Category	2.2.a - Scientific and policy reports
Impact Category	2 - Implementation, monitoring, evaluation of EU policy
Expected release date	30/06/2014
Policy Document	
Sensible Deliverable	No

Deliverable 8

Title	Implementing the Global Soil Partnership (GSP)
Description	The FAO Council, backed by the EC, has endorsed the establishment of the GSP to highlight the critical role of soils for food security and ecosystem services. In 2015 the JRC will coordinate the Regional Soil Partnership for Europe as established in 2014. This will develop targeted reports that outline recommendations, priorities and implementation mechanisms for EU and national soil-related policies to the Intergovernmental Technical Panel on Soils.
Collaborating Unit	JRC.H.4
Del. Category	2.2.a - Scientific and policy reports
Impact Category	5 - Support to specific countries/regions and international bodies (other than standardisation or crisis support)
Expected release date	18/12/2015
Policy Document	
Sensible Deliverable	No

Deliverable 9

Title	Soil resources of Africa
Description	Competition for soil across Africa is intensifying due to population growth, food security, agriculture and climatic variability. Our understanding of these issues and associated soil degradation is limited by a lack of sub-continental scale information. A french language edition of the soil atlas and a new dataset describing soils of Northern Africa will be released.
Collaborating Unit	JRC.H.4
Del. Category	2.2.f - Scientific information systems and databases
Impact Category	5 - Support to specific countries/regions and international bodies (other than standardisation or crisis support)
Expected release date	04/12/2015
Policy Document	
Sensible Deliverable	No

Deliverable 10

Title	Improving soil awareness and outreach
Description	The Commission wishes to improve the communication of science to society. This is a fundamental pillar of the EU Soil Thematic Strategy. The JRC has taken the lead in organizing the EU's contribution to EXPO 2015. In this framework, and the UN International Year of Soils 2015 a series of public information documents and Soil Atlases will be released and dedicated soil survey summer school in the Danube region will take place.
Collaborating Unit	JRC.A.2
Del. Category	4.0 - Public information documents
Impact Category	2 - Implementation, monitoring, evaluation of EU policy
Expected release date	05/12/2015
Policy Document	
Sensible Deliverable	No

Deliverable 11

Title	Landslide inventories
Description	Landslide inventories of Spain, Cyprus and Andorra and their integration in a new model to update the European Landslide Susceptibility Map (ELSUS1000) Version 1 in collaboration with the JRC-coordinated European Landslide Expert Group and the European Centre on Geomorphological Hazards (CERG).
Collaborating Unit	
Del. Category	4.0 - Public information documents
Impact Category	2 - Implementation, monitoring, evaluation of EU policy
Expected release date	30/12/2015
Policy Document	
Sensible Deliverable	No

Deliverable 12

Title	Soil Contamination
Description	To develop and manage the European and Global data flows related to contaminated sites and their remediation in the framework of the European Soil Data Centre and the Global Soil Partnership, and to compile the EU inventory of diffuse contamination by heavy metals, particularly cadmium in support of the conception and development of the EU fertilizer Regulation.
Collaborating Unit	
Del. Category	2.2.a - Scientific and policy reports
Impact Category	2 - Implementation, monitoring, evaluation of EU policy
Expected release date	18/12/2015
Policy Document	
Sensible Deliverable	No

Deliverable 13

Title	Landslide inventories
Description	Landslide inventories of Spain, Cyprus and Andorra and their integration in a new model to update the European Landslide Susceptibility Map (ELSUS1000) Version 1 in collaboration with the JRC-coordinated European Landslide Expert Group and the European Centre on Geomorphological Hazards (CERG).
Collaborating Unit	
Del. Category	4.0 - Public information documents
Impact Category	2 - Implementation, monitoring, evaluation of EU policy
Expected release date	31/12/2014
Policy Document	
Sensible Deliverable	No

Deliverable 201601

Title	Soil loss assessments
Description	Erosion, landslides and sealing are global environmental issues as they decrease key soil ecosystem services. Poor land management, together with extreme weather events and climate change and urban expansion, has increased the rate at which loss is occurring. Through the development of process-based models, this activity will assess soil erosion by wind and water, landslide vulnerability and land take with respect to land use and climate change scenarios (AGRI, EUROSTAT, ENV, OECD)
Collaborating Unit	
Del. Category	3.7 - Datasets
Impact Category	2 - Implementation, monitoring, evaluation of EU policy
Expected release date	23/12/2016
Policy Document	COM(2012) 46
Sensible Deliverable	No

Deliverable 201602

Title	European Soil Data Centre
Description	Maintenance of permanent repository of EU soil data and information through the EU Soil Data Centre (ESDAC) through policy relevant data collection (e.g. soil monitoring systems), specification, harmonization, quality control and distribution to Commission services & other parties. Coordination of formal data requests to Member States will be carried out through the EIONet-Soil network and thematic networks. Metadata and access to data will be provided to the ESDAC/JRC OpenData Portal.
Collaborating Unit	
Del. Category	3.6 - Scientific information systems and databases
Impact Category	2 - Implementation, monitoring, evaluation of EU policy
Expected release date	21/12/2016
Policy Document	COM(2012) 46
Sensible Deliverable	No

Deliverable 201603

Title	Sino-EU Panel on Land and Soil
Description	The Sino-EU Panel on Land and Soil, as part of the EU-China sectorial dialogues will address efficient and degradation-free land use. Policy recommendations, based on comparative assessment, will be delivered for China and the EU focusing on resource use efficiency in agriculture with special focus on optimization of land resource use, amelioration/restoration measures and degradation threats. Activity will coordinate the development of the Soil Atlas of Asia.
Collaborating Unit	
Del. Category	2.2.1 - Books and monographs with JRC editorship
Impact Category	5 - Support to specific countries/regions and international bodies (other than standardisation or crisis support)
Expected release date	23/12/2016
Policy Document	SECGEN E02687
Sensible Deliverable	No

Deliverable 201604

Title	Soil Contamination
Description	To develop and manage the European and Global data flows related to contaminated sites and their remediation in the framework of the ESDAC and the EIONET-SOIL network, Specifically, this deliverable will continue the revision of the indicator for management of contaminated sites in Europe (LSI003) and compile the EU inventory of diffuse contamination by heavy metals, particularly cadmium in support of the conception and development of the EU fertilizer Regulation.
Collaborating Unit	
Del. Category	1.2 - JRC contributions to policy documents
Impact Category	2 - Implementation, monitoring, evaluation of EU policy
Expected release date	23/12/2016
Policy Document	LSI003
Sensible Deliverable	No

Deliverable 201605

Title	Soil organic carbon
Description	An understanding of soil organic carbon stocks and fluxes are critical to support EU and global policies relating to ecosystem services, SDGs, agriculture and climate change. This deliverable evaluates the suitability of land use and the impact of land use changes and management on soil carbon stocks and sequestration rates. Specifically, this deliverable will contribute to LULUCF reporting within the UNFCCC and policy options for resource efficiency and potential revisions of the CAP.
Collaborating Unit	
Del. Category	1.2 - JRC contributions to policy documents
Impact Category	2 - Implementation, monitoring, evaluation of EU policy
Expected release date	23/12/2016
Policy Document	COM(2012) 46
Sensible Deliverable	No

Deliverable 201606

Title	LUCAS Soil data - interim progress report
Description	Coordination of external laboratory analysis of samples collected in 2015 for EU-28 and Western Balkan States (the external lab analysis will be funded through cross sub-delegation agreement with DGs ENV, AGRI and CLIMA). Value-added assessments of results including comparative analysis with data from 2009 and 2012 surveys. An interim progress report will be produced in December 2016.
Collaborating Unit	
Del. Category	7.2 - Project management related documents/reports identified as outputs of the JRC Work Programme
Impact Category	2 - Implementation, monitoring, evaluation of EU policy
Expected release date	31/12/2016
Policy Document	
Sensible Deliverable	No

Deliverable 201701

Title	Improving soil awareness, education and outreach
Description	A key focus of the EU Soil Thematic Strategy is to improve the appreciation of the value and relevance of soil by all levels of civil society. The JRC will continue to expand these elements within both the Global and European Soil Partnership by developing strategies for communicating soil-related issues to the broadest community through mechanisms such as policy briefings, the JRC Soil Atlas series and public engagement events (e.g. ESOF 2016, EUROSIL 2016).
Collaborating Unit	
Del. Category	4.4 - Conferences and workshops organized by the JRC
Impact Category	2 - Implementation, monitoring, evaluation of EU policy
Expected release date	22/12/2017
Policy Document	COM(2012) 46
Sensible Deliverable	No

Deliverable 201702

Title	Soil biodiversity
Description	As a partner in the Global Soil Biodiversity Initiative (GSBI), this deliverable will work on the creation of a global soil biodiversity database which will support policy debate surrounding ecosystem function to global biodiversity response in relation to global change and land use dynamics. A key element is the harmonization of disparate input data and the generation of policy relevant indicators.
Collaborating Unit	
Del. Category	3.7 - Datasets
Impact Category	2 - Implementation, monitoring, evaluation of EU policy
Expected release date	22/12/2017
Policy Document	COM(2012) 46
Sensible Deliverable	No

Deliverable 201703

Title	Soil function indicators
Description	Indicators on soil functions are critical to monitor the impact of EU land-based policies and progress towards targets established under the Sustainable Development Goals. Quantitative methodologies will be developed to integrate information derived from the LUCAS Topsoil Survey and other data within the European Soil Data Centre to improve indicator performance and to enable regular monitoring. Updated assessments will be provided to customer DGs.
Collaborating Unit	
Del. Category	1.2 - JRC contributions to policy documents
Impact Category	2 - Implementation, monitoring, evaluation of EU policy
Expected release date	22/12/2017
Policy Document	COM(2012) 46)
Sensible Deliverable	No

Deliverable 201704

Title	LUCAS Soil data
Description	Coordination of external laboratory analysis of samples collected in 2015 for EU-28 and Western Balkan States (external lab analysis funded through cross sub-delegation agreement with ENV, AGRI and CLIMA). Value-added assessments of results including comparative analysis with data from 2009 and 2012 surveys. The final deliverable will be a fully updated LUCAS soil survey for 2015 and supporting reports. This deliverable also includes support to the development of future LUCAS surveys.
Collaborating Unit	
Del. Category	3.7 - Datasets
Impact Category	2 - Implementation, monitoring, evaluation of EU policy
Expected release date	22/12/2017
Policy Document	1445/2000/EC
Sensible Deliverable	No