

## European Topic Centre on Urban, Land and Soil Systems

QPR 4

Specific Agreement 3334/B2017/EEA.56767

Quarterly Progress Report

Key deliverable under Task 1.8.6.1

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## 1 Introduction

#### Introduction

The present report, ETC/ULS fourth Quarterly Progress Report in 2017 (QPR4/2017), is meant to fulfil the key deliverable 1.8.6.1\_KD 18 under Task 1.8.6.1 (Management) of the ETC/ULS AP 2017 and was prepared by the ETC/ULS manager with contributions by the consortium task managers.

This document provides (section 3) a synthetic overview on the progress of activities carried out for each task in the fourth quarter period (Q4: 01.October - 31.December 2017). It includes the main achievements and delivered products and, when applicable, any problems encountered, solutions proposed and agreed. It also includes (sections 4 - 6) tables summarizing the spent staff days, budget use per Partner and per Task by the end of Q4-2017.

#### Main highlights

Most of the work developed during Q4 focussed on the finalization of tasks, final draft reports for public consultation and data analysis. The NRC meeting on Land cover took place as well as the preparation of the NRC meeting on soil. Additionally a second IUME meeting took place. Work was organised in close contact with the EEA project managers. An amendment was prepared and the draft version of AP 2018 was prepared. Various telephone conferences and skype meetings took place.

#### **Problems encountered**

No other problems were encountered

#### Summary of signed change requests/amendments

One amendment has been signed.

#### **Proposed solutions/actions**

#### Task 1.8.2.8

Budget was changed in CR 1.



#### Task 1.8.2.2

The deliverable was postponed in CR 2.



The revision of task description was done and budget was shifted. Additionally some deadlines for deliverables were postponed because of data accessibility and data quality. All details were considered in the amendment.

## **2** STATUS OF KEY DELIVERABLES DUE

Due date	Task number	Title	delivered	Link
	number		January- Ju	l Ine
30.04.2017	1.8.6.1	Quarterly Progress Report 1	24.04.2017	https://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.6.1-etc-uls-management/deliverables/kd14_qpr1_2017_v-0_3_20170424_al_f1
30.06.2017	1.8.1.4	Fragmentation Indicator implementation fact sheet	30.06.2017	https://forum.eionet.europa.eu/etc-urban-land-and-soil- systems/library/8action-plan-2017/1.8.1.4-landscape-fragmentation- indicator-fact-sheet/deliveries/kd2indicator-assessment-fact-sheet
			July-Decem	ber
30.07.2017	1.8.6.1	Quarterly Progress Report 2	27.07.2017	https://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.6.1-etc-uls-management/deliverables/kd15 qpr2 2017 v-1 1 201700927 f1
30.10.2017	1.8.2.2	EEA draft report on methodological approaches for land degradation supported by ArcGIS story maps		xcvb
31.10.2017	1.8.4.2	Scoping document on updated HNV farmland methodology		cxvb
31.10.2017	1.8.6.1	Quarterly Progress Report 3	30.10.2017	
15.11.2017	1.8.2.6	Report on how to support the analysis of BD Strategy Target 3a by CAP information - what, how and when		xcvb
15.11.2017	1.8.4.1	Short report on integrated pressures and Map of the coastal and marine ecosystems (2012)		cvb
15.11.2017	1.8.4.4	KIP INCA Module of the Integrated Data Platform		cxvb

15.11.2017	1.8.4.5	Documentation of all accounting methods, data and tool components developed and completed in 2017	xvb
15.11.2017	1.8.5.1	Contribution to the joint report on GI with a compilation of methods and tools to measure GI	xvb
15.11.2017	1.8.6.1	Draft AP2018	
24.11.2017	1.8.2.5	Final report highlighting the forest core indicators of EEA and their support to corresponding strategies	xcvbcvb
30.11.2017	1.8.1.2	Draft Indicator specification and assessment; templates for phenology	jkhkjh 
30.11.2017	1.8.3.1	Technical report and conceptual paper on the 'Evolution of urban systems'	dfgdfg
30.11.2017	1.8.3.3	Indicator fact sheets and Scoping paper on thematic/regional assessment on tourism	dfgdfg
01.12.2017	1.8.2.3	Report with guidance and action lines for 2018-2020 to deliver the knowledge base for 'land systems'	fgdfg
01.03.2018	1.8.6.1	Quarterly Progress Report 2	

## **3 TASK PROGRESS**

1.8: Urban, land use and soil

1.8.1: Integrated data platform

1.8.1.1 Integrated Data Platform

**Responsible managers** 

ETC task manager:

ETC deputy task manager:

EEA project manager:

## **Expected main output**

• Data infrastructure and contextual inventory integrating all ETC/ULS data

Status of implementation: 85 % of task completion

M/D	Milestone/ Deliverable	Due date	Date delivered	Detailed progress description [by sub-task, if applicable]
M1	Helpdesk, review on QA/QC protocol, identification and preparation of supportive documentation	30/03/2017	30/03/2017	During this period the Help desk services has been active in support of the harmonization process to relevant dataset (QA/QC, metadata creation, web services creation). In addition, a supportive material in PREZI format has been created: http://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.1.1-integrated-data-platform/milestones/m1
M2	IDP, development of functionality for a modular entity relationship		30/03/2017	The efforts have been focused on the identification and harmonization of the NSS reference dataset, in order to feed

		diagram, with a specific module on land degradation		different modules serving an integrated data platform. Status of the data on: http://forum.eionet.europa.eu/etc-urban-land-and-soil- systems/library/8action-plan-2017/1.8.1.1-integrated-data- platform/milestones/m2
N	M3	IDP, first implementation of a modular entity relationship diagram with a specific module on land degradation	30/06/2017	The first implementation of the land degradation model has been produced based on the work on the "NSS reference table" and most directly on the "KUMU" version. First KUMU example available:  https://kumu.io/ivitseva/integrated-data-platform-land-degradation#all/fragmentation The working folder is on CWS: https://cws.eea.europa.eu/Shared%20Documents/Forms/AllIt ems.aspx?RootFolder=%2FShared%20Documents%2FIntegrate d%20Data%20Platform%2FTables&FolderCTID=0x0120002583 FC8AE3628F4CBDAC545BB91EDF16&View=%7B67DAB817%2D 252C%2D40B0%2D9BE6%2D8EEF7EF86BFD%7D The tables are also available on FORUM: https://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.1.1-integrated-data-platform/milestones/m2/ New version of the land degradation (urban sprawl) layers added to Map services. Metadata records changed (75% of the GISAT part works of this stage finished
N	<b>/</b> 14	Helpdesk, final review on QA/QC protocol and finalization of supportive documentation	 30/09/2017	Updated materials related to the QA/QC protocol and are available on line. Hyperlink is also available on Forum: https://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.1.1-integrated-data-platform/milestones/m4-helpdesk-final-review-on-qa-qc-protocol-and-finalization-of-supportive

<b>D18</b>	Land degradation module of the	30/09/2017	30/09/2017,	Land degradation module is operative. Description and link are
	Integrated Data Platform			available in the FORUM: https://forum.eionet.europa.eu/etc-
				urban-land-and-soil-systems/library/8action-plan-
				2017/1.8.1.1-integrated-data-platform/d18-land-degradation-
				module-idp/d18-land-degradation-module-idp

## 1.8.1.2 Development of a new EEA indicator on phenology

## **Responsible managers**

ETC task manager:

EEA project manager:

## **Expected main output**

• Comparison of methods for deriving phenological indices from remote sensing time series

• Draft indicator specification and assessments templates completed

Status of implementation: 60 % of task completion

M/D	Milestone/ Deliverable	Due date	Date delivered	Detailed progress description [by sub-task, if applicable]
M/D M1	-	Due date 24/01/2017	24/01/2017	Capacity building meeting was held 24 <sup>th</sup> January in Copenhagen (EEA). Key representatives of the all involved partners were present.  The main issues of the meeting:  • General task description and recapitulation of the particular sub-tasks (focus, responsible persons etc.)  • Time schedule of the task  • Introduction to remote sensing of vegetation temporal dynamics and the related vegetation parameters  • Introduction to TIMESAT PPI phenological products  • Discussion on TIMESAT PPI calibration  • First proposal of the validation protocol and further discussion on validation sub-tasks
				Conclusions agreed during the meeting were summarized to the minutes document which was sent to all members of the task

				team and placed to web data storage (accessible for team members)
M2	Development of a validation protocol	28/02/2017	28/02/2017	Draft version of the validation protocol was prepared (WER) and then discussed with the other project team members and EEA project manager. In addition, some validation related issues were also mentioned in the TIMESAT calibration workflow proposed by the members of University of Lund team.  Pre-processing of the data required for calibration/validation was realized including:  • selection of homogeneous pixels of the MODIS MDC43A4_NBAR grid • downloading the Fluxnet data • extracting and smoothing of GPP time series • calculating and smoothing of NDVI and PPI time series for the Fluxnet reference sites • pre-processing of the data originating from ground phenological observations database PEP-725
				preparation of land cover/eco-climatic zonation layer (further used for TIMESAT calibration as well as for validation purposes)
				The validation protocol was further discussed. The final and agreed version of the validation process consider four particular parts:
				<ul> <li>validation of the HANTS-NDVI and TIMESAT-PPI phenological products (SOS, EOS) against the ground phenological database PEP-725</li> </ul>

			<ul> <li>validation of the HANTS-NDVI and TIMESAT-PPI phenological products (SOS, EOS) against the Fluxnet GPP data</li> <li>gradient analysis of the SOS and EOS phenological metrices (extracted from HANTS-NDVI and TIMESAT-PPI datasets) and selected climatological variables</li> <li>temporal trends analysis of the SOS and EOS matrices (extracted from HANTS-NDVI and TIMESAT-PPI datasets)</li> </ul>
M3	Validation of HANTS NDVI derived phenological metrics	Sub-task finalization date has to be postponed due to leaving of the person responsible for this sub-task	Validation of the HANTS-NDVI dataset was performed including the following parts:  • validation of the HANTS - NDVI phenological products against the Fluxnet GPP measuements • validation of the HANTS - NDVI phenological products against the ground phenological database PEP-725  Finalization of this sub-task was complicated by leaving the responsible person from BFKH (former FÖMI) before finishing all the parts of the validation. The task team is currently negotiating about possible solutions of this situation.  The other two parts of the validation workflow (gradient and temporal trends analyses will be performed separately).
M4	Calibration of TIMESAT PPI derived phenological metrics	28/04/2017	TIMESAT calibration workflow was proposed by University of Lund. Detailed documentation was provided to the project team. Potential unclear issues were discussed with the authors of the workflow proposal The TIMESAT calibration process followed data pre-processing (see above) and included:

				<ul> <li>extraction of the PPI data (corresponding to the reference Fluxnet sites)</li> <li>preparing the PPI data and initial check of the proper TIMESAT settings</li> <li>extracting dates of phenological events and comparing them with the corresponding GPP values</li> <li>checking consistency of the GPP values corresponding to the phenological events across the used landcover/eco-climatic zonation - detection of possible inconsistencies and finding more appropriate TIMESAT setting. Preparation of TIMESAT settings files</li> <li>The main purpose of this activity of this activity was to assess whether the values of TIMESAT input parameters differ for different eco-climatic zones which would require specific</li> <li>TIMESAT inputs setting for each particular zone. However, the obtained results did not prove that there are significant differences in TIMESAT calibration across the eco-climatic zones. Therefore, the original TIMESAT calibration was considered for processing the TIMESAT-PPI phenological products for the further validation.</li> </ul>
M5	Validation of TIMESAT PPI derived phenological metrics	31/10/2017	xcvb	TIMESAT-PPI phenological products were processed by the University of Lund for the time period of 2000 – 2016. However, additional corrections need to be applied on the data to be prepared for validation.
M6	Indicator Specification Template (first draft)	30/11/2017	xvcbxc	vbcvb
KD 1	Draft Indicator specification and	30/11/2017	xcvb	xcvbcvb

accoccment: templates		
assessment; templates		
for phenology		
ioi pileliology		

## 1.8.1.3 Conceptual integration of Copernicus land monitoring products

## **Responsible managers**

ETC task manager:

EEA project manager:

EEA deputy project manager:

## **Expected main output**

• Explore and report options for integrating (all) Copernicus land local and pan-European products in EEA's work

## Status of implementation: 75 % of task completion

M/D	Milestone/ Deliverable	Due date	Date delivered	Detailed progress description [by sub-task, if applicable]
M1	Detailed proposal and documentation on how to derive a connectivity layer based on the RZ products	31/03/2017	08/03/2017	The first proposal was uploaded on 08/03/2017: http://forum.eionet.europa.eu/etc-urban-land-and-soil- systems/library/8action-plan-2017/1.8.1.3-conceptual- integration-copernicus-land-monitoring- products/milestones/m1-proposal-lateral-connectivity
M2	Testing the suggested RZ connectivity approach on a subset of the 2012 reference year RZ data	30/11/2017		Due to a larger revision of the nomenclature and the production method of the RZ layer, it was decided to not implement the proposed approaches for the terrestric component of lateral connectivity, the riparian forest connectivity using GUIDOS and the land use/land cover statistics. Instead we assessed the options and provided a new revised methodological proposal that was sent to the EEA colleagues at the end of August. Further bilateral and common discussions (a.o. during a Skype on 25/09) led to the final decision to elaborate the proposed

			portfolio only for a very small test site using a "simulated" revised RZ layer (i.e. EAA converted the old layer into the new nomenclature), provide these results to EEA and have an indepth consultation and further analytical steps in the Action Plan for 2018. The outcomes of this analysis will become available together with the task's deliverable on 30/11.
M3	Draft report on exploring the integration of the grassland, wetness and water and small woody features into on-going EEA work at conceptual level	7/2017	Annotated outline for concept paper "Exploring the integration of new or heavily modified Copernicus products into on-going EEA work at conceptual level" delivered on 24/07/2017. Authors The document is saved under G:\NSS\NSS3\Staff TLA\Task 1813 sub task 2 but currently not uploaded on the forum. The outline fits the expectations very nicely, written comments were provided by end of July, and a webex meeting was held on the 18/09/2017 to agree on the necessary final steps for finalisation of the report. It was agreed that possible uptake of Copernicus land products, and other issues and feedback will be explored in more detail with the Biodiversity group / ETC BD, and included in the report.
D 19	Report on exploring the integration of the new or heavily modified Copernicus products	cbnvcvbn	<mark>cvbncvbn</mark>

## 1.8.1.4 Landscape fragmentation indicator fact sheet

## **Responsible managers**

ETC task manager:

EEA project manager:

## **Expected main output**

• Final draft of the indicator fact sheet on Fragmentation of ecosystems and habitats

Status of implementation: 80 % of task completion

M/D	Milestone/ Deliverable	Due date	Date delivered	Detailed progress description [by sub-task, if applicable]
M1	Indicator specification fact sheet	31/03/2017	31/03/2017	Support to DGREGIO is discussed as well as related testing of HRL IMD and/or reference unit options. All variants computed and results delivered to EEA. Further computation discussed based on the results. <a href="http://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/action-plan-2016/1.8.2.6-first-draft-indicator-fragmentation-ecosystems-and-habitats/deliverables/indicator-factsheet-part">http://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/action-plan-2016/1.8.2.6-first-draft-indicator-fragmentation-ecosystems-and-habitats/deliverables/indicator-factsheet-part</a>
M2	Indicator assessment fact sheet	31/05/2017		A draft version of the indicator assessment fact sheet has been uploaded to forum (sent also by email) for sharing the assessment addressed under this subtask (the maps, figures and texts). Additionally, two documents as annexes where sent containing the hotspot analysis and classification of the indicator. These documents are the base for discussing what and how it will include within the factsheet.  http://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.1.4-landscape-fragmentation-indicator-fact-sheet/milestones/m1/draft version

KD 2	<b>Fragmentation Indicator</b>	30/06/2017	30/06/2017	The draft factsheet + data package (tabular data + maps) for
	implementation fact			COM were delivered – on-going review and changes underway
	sheet			with EEA- Updated final version to be delivered in July
				https://forum.eionet.europa.eu/etc-urban-land-and-soil-
				systems/library/8action-plan-2017/1.8.1.4-landscape-
				fragmentation-indicator-fact-sheet/deliveries/kd2indicator-
				assessment-fact-sheet
				Activities on the main part of the indicator factsheet were still
				ongoing until the end of July.
				Support of EEA/DGREGIO discussion including addition datasets
				preparation were done.
				Agreed additional activity focussed to the OSM stability analysis
				is still ongoing as agreed with EEA

### 1.8.2 Land and soil related resource efficiency

#### 1.8.2.1 Impact of Nitrogen, phosphorus and metals on food, soil and water quality and related ecosystems

#### **Responsible managers**

ETC task manager:

EEA project manager:

#### **Expected main outputs**

Studies at EU-27 level, including high resolution calculations and results in terms of

- A database with results and report on 'Modelling the dynamics in Cd soil accumulation, Cd crop uptake and Cd leaching in response to Cd fertilizer scenarios'
- A database with results and report on 'Assessing current versus critical metal (Cd, Pb, Cu and Zn) concentrations and loads in view of soil biodiversity impacts'
- A database and maps with results on current (year 2010) soil P status based on background data in 1960 and dynamics in soil P accumulation in response to P loads between 1960 and 2010
- A database and maps with results in calculated biodiversity indicators in response to changes in N deposition and climate based on a dynamic modelling approach

All databases to be delivered according to the spatial data protocol

Status of implementation: 9570 % of task completion (delayed Cd paper, because of policy sensitive results)

M/D	Milestone/ Deliverable	Due date	Date delivered	Detailed progress description [by sub-task, if applicable]
M1	Paper and spatial database on 'Modelling the dynamics in soil accumulation, crop uptake and leaching of	01/11/2017	Draft ready. Final article expected ion 15/11/March 20187.	This work has been delayed in the first period, since we discovered that interpolated soil data were inconsistent and due to improvements of the fertilizer and manure distribution, as discussed in the previous progress report. In the second period, we have applied the Cd model with improved input data,

	Cd in response to Cd fertilizer scenarios'			including current Cd levels in fertilisers and levels of 20, 40, and 60 mg Cd kg <sup>-1</sup> P <sub>2</sub> O <sub>5</sub> as proposed in EU legislation. In the third period we have compared results with general model simulations by Prof from Belgium since this topic is highly policy relevant. We have come to an agreement regarding the correct description of Cd leaching. Our rResults indicate EU average Cd accumulation even at the lowest proposed level of 20 mg Cd kg <sup>-1</sup> P <sub>2</sub> O <sub>5</sub> , while those of suggest EU avarge Cd accumulation at a much higher level (73 mg Cd kg <sup>-1</sup> P <sub>2</sub> O <sub>5</sub> ). We have done intensive intercomparison since the results are highly policy relevant in view of fertilizer legislation. The intercomparison is latest results are now described in the final a draft paper—with the conclusion that our Cd results are most plausible. A final discussion with Prof Smolders is planned at 9 Feb to come to a final agreement regarding the most plausible results. The submission of the final paper to a journal is therefore delayed and foreseen in March on 15/11/20187. We are also now working on bringing the already delivered—briefing in line with that paper.
M2	Report and spatial database on 'Assessing current versus critical metal (Cd, Pb, Cu and Zn) concentrations and loads in view of soil biodiversity impacts'	01/11/2017	Draft report ready at 01/09/2017 Final report expected submitted on 1530/11/2017	In the second period, we have derive updated spatially explicit current soil concentrations for the metals Cd, Pb, Cu and Zn as described above and we have implemented methods to assess critical soil concentrations in view of eco-toxicological impact on soil organisms, accounting for the impacts of soil properties (organic matter content, clay content, pH and DOC). In the third period we have applied those methods and calculated critical concentrations and loads of Cd, Pb, Cu and Zn and a draft report of this study is written, focusing on methods and inclusion of results. In the last period, tThe final report, including a full description of all results, a discussion and conclusions has been submitted is expected on 1530/11/2017.

D 20A	Database and maps on spatial variation in current soil P status in EU-27	01/12/2017	Short report with results in tables and maps Expected submitted on 0123/12/2017	A method has been described to assess phosphorus dynamics in soil and soil solution at EU 27 scale. The principle of the suggested P model is a simple mass balance approach in which P that is added is divided over P uptake and P accumulation into a labile and a stable inorganic P pool and an organic P pool. In the thirdprevious period, the data that are needed to run the model have been derived. In the lastcoming period we performed aim for a European wide application, produced a database and maps on the spatial variation in current soil P status in EU-27. Furthermore (although not promised), we wrote a document entitled "Dynamic simulation of soil P status in EU27" presenting the calculation approach, input data and results. This includes tables with calculated P budgets (input, uptake, accumulation and leaching + runoff) and maps of those fluxes over EU 27 for the year 2010 and maps of the spatial variation of the dynamics in P saturation between 1975 and 2110
D 20B	Database and maps on spatial variation in habitat suitability index in EU-27	01/12/2017	Acces database with tables and maps Expected on 2301/12/2017	In the first period we developed a plan to use the combined VSD+-EU grow-PROPS model at EU-27 scale to assess impacts of changes in N deposition and climate in the period 1960-2050 on plant species diversity for a commonly available scenario. In the second, we have derived a method, based on literature information, to include impacts of ozone on N recycling, and thereby on plant species diversity. In the third period we have implemented this method and we derived necessary data for a European wide application. In the <a href="Last coming">Last coming</a> period we performed <a href="Laint for the European wide">Last coming</a> period we performed <a href="Laint for the European wide">Laint for the European wide</a> application and <a acidity="" and="" dynamic="" habitat="" href="Produced maps of drivers affecting plant species diversity (tempertsure, N deposition, soil C/N ratio and soil pH) and of the habitat suitability index for the years 1980, 2000 and 2050.  We will still write (before feb 2018) a short document entitled " index<="" of="" simulation="" soil="" suitability="" th=""></a>

Ī			in Europe" presenting the calculation approach, input data and
			submission of results

## 1.8.2.2 Support to EEA assessment on land degradation

## **Responsible managers**

ETC task managers:

EEA project manager:

## **Expected main outputs**

• Draft report on Land degradation supported by ArcGIS story maps

• Participatory mapping workshop with QUICKScan

## Status of implementation: 90 % of task completion

M/D	Milestone/ Deliverable	Due date	Date delivered	Detailed progress description [by sub-task, if applicable]
M1	Final list of mapping variables	28/02	31/03/2017	The final list of mapping variables was agreed and partly prepared for the Land Degradation mapping workshop using QUICKScan on 15 – 16 May at EEA in Copenhagen.  Discussions caused a delay in delivery.
M2	Analytical framework for the mapping workshop	30/03	07/04/2017	The analytical framework for the Land Degradation mapping workshop has been intensively debated and the final version was delivered on 07/04.  A so called One-Pager has been supported, explaining the background and objectives of the Land Degradation mapping workshop.
M3 (subtask 1)	Holding a QUICKScan mapping workshop on 2 Ecosystem Services	29.05.2017	15+16/05/2017	The Land Degradation mapping workshop using QUICKScan has been conducted on 15 and 16 May at EEA in Copenhagen.  The developed Analytical Framework served as Background Paper for the workshop.

				A report on the workshop has been prepared.
M4	List of spatial datasets to be included in the ArcGIS Story Maps.	28.07.2017	06.07.2017	List of spatial datasets to be included in the ArcGIS Story Maps prepared.
M5 (subtask 2)	Preparing an EEA draft report on methodological approaches for land degradation supported by an ArcGIS Story Map	15.10.2017		Draft report prepared and scheduled to be discussed with on 12.10.2017.
KD 3	EEA draft report on methodological approaches for land degradation supported by ArcGIS story maps	31/10/2017		xycvyxcvc

## 1.8.2.3 Consolidation of an analytical framework for land systems assessment

## **Responsible managers**

ETC task manager:

EEA project manager:

## **Expected main output**

• Analytical framework for land systems assessment by linking drivers and pressures for land-use dependent economic sectors (agriculture, forest management, tourism) with urban, land use and soil analysis

Status of implementation: 80 % of task completion

M/D	Milestone/ Deliverable	Due date	Date delivered	Detailed progress description [by sub-task, if applicable]
M1	Detailed scope of the report	31/03/2017	31/03/2017	Scoping report prepared and uploaded to Forum: http://forum.eionet.europa.eu/etc-urban-land-and-soil- systems/library/8action-plan-2017/1.8.2.3-consolidation- analytical-framework-land-systems-assessment/1823-scoping- report-milestone-1
M2	Draft proposal for an analytical framework – basis for discussion with stakeholders		30/06/2017	Revision and refinement of the draft concept presented in the scoping report, i.e. development of an assessment matrix including transition pathways between sub-systems Milestone 2 report: https://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.2.3-consolidation-analytical-framework-land-systems-assessment/m2-draft-analytical-framework

M3	EEA/ETC expert meeting, with possible invited guest (EEA funded)	15/09/2017	05+06.09.2017	The EEA/ETC expert meeting took place on 6 September 2017. It was agreed to provide a revised version of the scoping document based on the comments received during and after the meeting. Additional feedback was collected during the ETC consortium meeting.  EEA requested an updated version, respectively a summary before the 16 <sup>th</sup> of October as input to an internal discussion.
M4	Consolidated vision	31/10/2017		cyxv
KD 4	Report with guidance and action lines for 2018- 2020 to deliver the knowledge base for 'land systems'			ухсуухс

## 1.8.2.4 Support to Eionet NRC meetings: LUSP, Soil and Land cover

## Responsible managers:

ETC task manager:

EEA project manager:

## **Expected main output**

• ETC support to NRC meetings

o Support agenda preparation

o Development of background paper

o Participation in and preparation of a presentation and of the minutes

## Status of implementation: 100 % of task completion

M/D	Milestone/ Deliverable	Due date	Date delivered	Detailed progress description [by sub-task, if applicable]
M1	Definition of the content, dates of the meeting	01/03/2017	16/03/2017	Date of NRC LUSP meeting fixed for 26-27/10/2017. First draft agenda shared with EEA. Date of NRC LC most probably 09+10/10/2017.
M2	Invitation and agenda	First announceme nt, including draft agenda, 10 weeks before the meeting Final agenda, 2 weeks		Agenda prepared by EEA with support by ETC ULS regarding the EAGLE / CLC+ related session. Agenda sent by EEA.

		before the meeting		
M3	Meeting NRC Land Cover	NRC LC Q4	09.+10.10.2017	Agenda preparation was supported, Preparation of the afternoon session of Day 1 on CLC+ (4 presentations, splinter group discussion).
M4	Meetings NRC LUSP and NRC Soil	NRC LUSP: NRC soil	Q1/2018 Q1/2018	NRC soil and LUSP agenda proposal were prepared. Both events were scheduled for Q 1 in 2018

## 1.8.2.5 Analysis of information needs to support the EU BD Strategy Target 3b, EU Forest strategy and the SDGs

## **Responsible managers**

ETC task manager:

EEA project manager:

## **Expected main output**

- Working document/report under Subtask 5

Status of implementation: 60 % of task completion

M/D	Milestone/ Deliverable	Due date	Date delivered	Detailed progress description [by sub-task, if applicable]
M1	Screening of the objectives and goals of the EU Biodiversity Strategy target 2 and 3b regarding forests as well as the objectives of the Forest Strategy	21/04/2017	12/05/2017	Screening of the definitions of forest area indicators using agreed definitions at national, regional, and global scales (NFI, FAO, EUNIS; CLC, Natura2000, UNECE  https://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.2.5-analysis-information-needs-support-eu-bd-strategy-target-3b-eu-forest/milestones/milestone-1/master-table-selecting-indicators
M2	Identify and list correspondingly available data sets and their corresponding characteristics to support the indicators. Evaluate the need for indicators in order to minimise the needed information	15/06/2017	15/06/2017	Development of the structure of the Master Forest table and the standards of the data to be used in this task. Identification and filling it out with the information. The content and structure of the table were designed following the guideline for metadata in the QA/QC protocol aiming the interoperability between other EEA databases

		20/07/2017	20/07/2017	https://forum.eionet.europa.eu/etc-urban-land- and-soil-systems/library/8action-plan- 2017/1.8.2.5-analysis-information-needs-support- eu-bd-strategy-target-3b-eu- forest/milestones/milestone-2
M3	Assess the indicators state and trends for the period 1990-2015. Evaluate whether the selected indicators are sufficient to assess whether the objectives of the respective Strategies have been met (gap analysis)	28/07/2017	28/07/2017	Analysis of International and national definition of forest.  Development of a forest area indicator from forest HRL 2012. Comparison, based on the definitions of CLC and HR Forest layer (using the forest mask), the forest areas that are not included in both:  Map of forest area difference (between CLC and HR forest layer)

## 1.8.2.6 Analysis of information needs for the sustainable management of farmland, incl. EU BD Strategy Target 3a

## **Responsible managers**

EEA project manager:

#### **Expected main outputs**

- Overview of best data and information available in support of target 3a and CAP expenditure/ allocations/targets to increase EEA's ability to carry out respective assessments
- Development of a methodological approach for the analysis of CAP budget distribution and targeting from a biodiversity/natural capital perspective

Status of implementation: 40 % of task completion

M/D	Milestone/ Deliverable	Due date	Date delivered	Detailed progress description [by sub-task, if applicable]
M1	Scope of the task (subtask 1 & 2) – Inception report	31/03/2017	31/03/2017	Inception report provided to EEA.  Task 1 shall concentrate on information which are missing in other on-going reviews: the potential contribution of Copernicus data (as well as other earth observation data sets) and policy response data sets (CAP related expenditure data sets). The task should explore indicators reflecting on the contribution of the agricultural sector and the CAP to the biodiversity strategy target 3a, EAP and SDGs.  Task 2 shall concentrate less on greening measures and be extended to the CAP evaluation logic, i.e. the RDP.

M2	Subtask 2: Draft concept for assessing CAP allocations	30/06/2017	03/07/2017	Brainstorming workshop with EEA colleagues in Copenhagen (16.06.2017) to discuss the approach to both sub-tasks Meeting summary and draft concept: https://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.2.6-analysis-information-needs-sustainable-management-farmland-incleu-bd/workshop-summary-and-draft-concept It was decided that Sub-task 1 should gain more weight than Sub-task 2, as in 2018 n comprehensive study on the distribution of CAP spending will be conducted, as the main focus will be on the SOER. Moreover, data on ANCs might become available only later in 2018.
M3	Subtask 2: Development of a methodological approach for the analysis of CAP budget distribution and targeting from a biodiversity/natural capital perspective	30/09/2017		Description of the Dutch study on using information on CAP payments, environmentally sensitive areas and environmental pressure data for the assessment of CAP payments in relation to biodiversity values  The report has been uploaded here:

CAP information - what, how and	contribution to the objectives of the 7 <sup>th</sup> EAP and
<mark>when</mark>	SDGs are to be assessed. See protocol of the
	workshop from 16.06.17

## 1.8.2.7 Fact sheet of the EEA land recycling indicator

## **Responsible managers**

ETC task manager:

EEA project manager:

## **Expected main output**

- EEA indicator on land recycling and densification

Status of implementation: 75 % of task completion

M/D	Milestone/ Deliverable	Due date	Date delivered	Detailed progress description [by sub-task, if applicable]
M1	Inception report, detailing the aim of the indicator and sub-indicators	31/03/2017	31/03/2017	The first milestone has been uploaded to Forum. It consists of the first draft of the indicator fact sheet, as agreed with the EEA project manager. Link to the document:  http://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.2.7-fact-sheet-eea-land-recycling-indicator/milestones/m1_1827_land-recycling-indicator-specification_march17
M2	Calculation of land recycling indicators for all FUAs	31/07/2017	31/07/2017	All the land recycling indicators were calculated for the 319 FUAs and a summary table was uploaded in Forum:  https://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.2.7-fact-sheet-eea-land-recycling-indicator/milestones/m2_1827_land_recycling_indic_master_table_20170731

M3	Draft indicator on land recycling	30/09/2017		The draft indicator was already delivered in March, we are currently working on the deliverable.: <a href="http://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.2.7-fact-sheet-eea-land-recycling-indicator/milestones/m1_1827_land-recycling-indicator-specification_march17">http://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.2.7-fact-sheet-eea-land-recycling-indicator/milestones/m1_1827_land-recycling-indicator-specification_march17</a>
D 21	Draft fact sheet of EEA indicator on land recycling	<b>15/11/2017</b>	ghj	gfhjfghjgfhj

## 1.8.2.8 Supporting the finalisation of the work on resource efficiency

## **Responsible managers**

ETC task manager:

EEA project manager:

## **Expected main output**

- Provide further contribution and input to the EEA land resource efficiency report

## Status of implementation: 90 % of task completion

M/D	Milestone/ Deliverable	Due date	Date delivered	Detailed progress description [by sub-task, if applicable]
M1	Responses to and proposed changes (tracked) following Eionet consultation outcome  This milestone has slightly different focus now and would need to be renamed: "Report draft for Eionet consultation"	30/04/2017	18/4/2017 Draft report 08/06/2017 (Eionet comments)	The final draft of the report was uploaded to the Forum on 18/04:  https://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.2.8-supporting-finalisation-work-resource-efficiency/milestones/lre-report-eionet-consultation/download/en/2/LRE_report2017_D1.0_forEionetConsultation.docx  Comments from the Eionet consultation were received on 08/06.  The analysis of the comments revealed that some comments are relatively straightforward to deal with, whereas others require some more
				The analysis of the comments revealed that some comments are relatively straightforward to deal

				account the upcoming holiday period, the ETC-ULS team estimated that it would be possible to provide a final draft for editing between 15/07 and 28/07.
D 22	EEA Report on land resource efficiency, post-editing draft	30/11/2017	Forthcoming	The pre-editing final draft has been sent to EEA on 03/08 and was accepted/signed off and sends to editing by on 11/08. Editors returned the report on 05/09 upon which we worked on the edits. After having resolved almost all of the editor's comments, the new soil expert started to review the report as well and provided a number of comments and suggestions for improvement that he intends to implement himself (at least partly) before the end of October.  At the same time we have started with the preparation of the maps and graphs in layout quality and the related metadata information.

## 1.8.3 Urban systems and territorial analysis

#### 1.8.3.1 Analysis of sustainable urban areas, related indicators and dissemination

#### **Responsible managers**

ETC task manager:

EEA project manager: (supported by

#### **Expected main outputs**

- Final drafts of the EEA report "Similarities and diversity of European cities" (working title) and the ETC report "Urban typologies: urban green infrastructure, urban sprawl, air quality and noise" (working title).
- Concept paper on how to approach an assessment of the evolution of the urban system, using the urban typologies as baseline and aiming at a systemic assessment of the urban system for SOER 2020.
- Support to the update of the urban vulnerability web map services.

# Status of implementation: 70 % of task completion

M/D	Milestone/ Deliverable	Due date	Date delivered	Detailed progress description [by sub-task, if applicable]
Sub-task 1 (M1.1)	draft for review of EEA Report (v1.0)	30/04	02/05/2017 and 01/06/2017	A first version of the report draft for Eionet consultation was uploaded on 02/05, a final version on 01/06: https://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.3.1-analysis-sustainable-urban-areas-related-indicators-and-dissemination/milestones/updated-eea-report-urban-eionet-

				consultation/download/en/2/Urban report2017 D 1.0 forEionetConsultation EEA cover.docx  The Eionet consultation started on 16/06 and will run until 28/07.
Sub-task 1 (M1.2)	final draft of EEA Report (v2.0)	30/06	forthcoming	After the end of the Eionet consultation, we started revising the report according to the comments, most of which were relatively straightforward. A major remark came from the UK who expressed severe doubts concerning the definition of British cities and the standing of London. Moreover, the air quality analysis of London was seen as being too positive.
				In September, the report was also sent to DG ENV for review that came back with some substantial comments, also mainly addressing the air quality results. EEA ( ) consulted with the EEA air quality group ( ) who is currently assessing his options for supporting us.
Sub-task 1 (M1.3)	draft for review of ETC Report (v1.0)	30/04	02/05/2017	The preparation of the ETC-ULS Report is somewhat behind the EEA Report. A structure and content exists, but it has to be sharpened and edited to bring to an acceptable length. A current version of the ETC Report has been uploaded for information together with the first version of the EEA report on 02/05.

Sub-task 1 (M1.4)	final draft of ETC Report (v2.0)	30/06	forthcoming	Editing of the report is still on-going and substantially delayed due to the efforts that were dedicated to the revision of the EEA Report.
Sub-task 2 (M2.1)	First draft/annotated outline of the concept paper	30/04	forthcoming	A first annotated outline has been shared with the team on 21/06, but has not been uploaded to the Eionet Forum yet.
Sub-task 2 (M2.2)	Intermediate version of the concept paper	31/07		Some further discussions have taken place, but progress is slow due to the time and resources that are dedicated to the EEA Report revision.
Sub-task 2 (M2.3)	Stakeholder consultation/workshop	back/within the first IUME meeting)	16/05/2017	The EEA Report and the city typology were presented during the IUME workshop on 16/05. Valuable comments and suggestions were received which were fed into the final draft version of the report that was submitted on 01/06.
Sub-task 3 (M3.1)	Update of the indicators	30/06	sdfg	Skype discussion with the new PjM on urban vulnerability and ETC-CCA took place on 10/07. We agreed on the timeline until the end of the year which foresees a finalisation of the production until mid of October. Stocktaking of the progress will take place in early October.
Sub-task 3 (M3.2)	Web maps services	31/07	dfgs	Will be produced when the maps are finalised.

KD 7	Technical report and conceptual	<mark>30/11/2017</mark>	sdfgdfg	Annotated outline prepared, responsibilities are
	paper on the 'Evolution of urban			defined.
	<mark>systems'</mark>			

## 1.8.3.2 Networking with urban stakeholders

## **Responsible managers**

ETC task manager:

EEA project manager:

## **Expected main outputs**

• Successful organisation of two IUME workshops;

• Enlargement of the IUME network to new experts or working groups

Status of implementation: 75 % of task completion

M/D	Milestone/ Deliverable	Due date	Date delivered	Detailed progress description [by sub-task, if applicable]
M1.1	Preparation of agenda (including identification of speakers)	October	15/03/2017 (agenda of the first workshop)	The topic of the first IUME meeting has been set: "City Typologies: a tool for urban sustainability". The agenda has been designed and sent to speakers (previously identified).  The IUME Terms of Reference has been drafted and circulated among partners.
M1.2	Conduct 2 Workshops	April, November 2017	16/05 /2017	The first IUME meeting took place on the 16th of May and focused on "City Typologies: a tool for urban sustainability". The speakers included (EEA), (EU Commission), and (EU Commission). Parallel working groups were set up to reflect and collect ideas on how

				typologies or grouping of cities with similar characteristics can be useful in advancing environmental sustainability in Europe.
M1.3	Follow-up and minutes of workshops	2 weeks after the workshops	June 2017	The minutes of the first workshop have been developed and distributed to the IUME group as well as the link to the powerpoint presentations.
M2	Mapping of organisations hosting urban experts	15.09.2017	15.09.2017	The mapping of organisations hosting urban experts has been delivered as a result of reaching out to NRC-LUSP representatives over a period of six weeks. The outcomes are the basis for developing D23.
D 23		20/10/2017	On-going close to being submitted	The outline of the Roadmap "Creating the Urban Dimension of the Eionet" has been created and discussed internally.

## 1.8.3.3 Supporting the consolidation of TOUERM – Tourism and environment reporting mechanism

## **Responsible managers**

ETC task manager:

EEA project manager:

## **Expected main output**

Indicator fact sheets

- Scoping paper on regional/thematic assessment

Status of implementation: 75 % of task completion

M/D	Milestone/ Deliverable	Due date	Date delivered	Detailed progress description [by sub-task, if applicable]
M1	M1: Proposal for the design of the new indicators (sources, methodology, etc.)	01/03/2017	28/02/2017	Two new indicator fact-sheets have been developed: Second homes, and Tourism related waste. They will be the basis of part of the tasks currently under development.  https://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.3.3-supporting-consolidation-touerm-tourism-and-environment-reporting/m1
M2	M2: Draft indicator fact sheets for consolidated indicators	01/03/2017	30/06/2017	Two new indicator fact-sheets have been developed, both as a continuation of the indicators developed last year (Identifying urban development around golf courses and ski resorts).  https://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.3.3-supporting-consolidation-touerm-tourism-and-environment-reporting/m2

M3	M3: Inception report for the scoping paper	01/03/2017		Milestone pending to be delivered, due to the fact that, in accordance with EEA, the efforts have been put in reviewing the report that has to be published during 2017. This will be done during the 3 <sup>rd</sup> quarter.
M4	M4: Eionet expert group meeting	04- 05/09/2017		Workshop was carried out in Copenhagen. UNWTO, INRouTe, and Eurostat also participated. Presentations can be found here: <a href="https://projects.eionet.europa.eu/tourism-and-environment-touerm/library/meetings/touerm-workshop-4-5-september-2017/presentations/index_html">https://projects.eionet.europa.eu/tourism-and-environment-touerm/library/meetings/touerm-workshop-4-5-september-2017/presentations/index_html</a>
KD 8	Indicator fact sheets and Scoping paper on thematic/regional assessment on tourism	30/11/2017	ухсуух	yxcvyxcv

#### 1.8.3.4 Technical cooperation with partner regional Conventions

#### **Responsible managers**

ETC task manager:

EEA project manager:

#### **Expected main outputs**

- Continue targeted technical cooperation with partner regional conventions (Alpine, Carpathians) on selected indicators or topics, e.g. GI, and producing an overview of conventions and macro regions.
- Complete and update the baseline on regional forest indicators of the Carpathian Convention including the identification of HNV forest areas, including information on forest extent, biodiversity, condition, naturalness and presence of ancient forest sites.
- Support to the report on the state of the Alps 6 and production of maps to support the Alpine Convention Secretariat.
- Providing harmonised relevant data sets and indicators to support regional conventions with specific focus on marine conventions, international river conventions, mountain conventions and EU macro regions.

#### Status of implementation: 70 % of task completion

M/D	Milestone/ Deliverable	Due date	Date delivered	Detailed progress description [by sub-task, if applicable]
M1	List and testing of the relevant data to support the available indicators for the Carpathian Convention (CC)		31/03/2017	List and testing of the relevant data to support the available indicators for the Carpathian Convention (CC).  https://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.3.4-technical-cooperation-partner-regional-conventions/carpathian-convention/milestones/m1list-and-testing-relevant-data-support-available-indicators-carpathians

				Attendance at 6th Meeting of the Carpathian Convention Working Group on Sustainable Forest Management 16 – 18 May 2017, Sopron (Hungary) to present the work under development on the old growth forest inventory for the Carpathian.
M2	Assessment of complementarity of mountain regions	March 2017 changed to July 2017	July /2017	A proposal for factsheet for regional conventions has been developed and reviewed. A test has been done for the Alps to automatize the selection of the data for the selected area, and the thematic organisation of the data for easy querying. A short report has been prepared with lessons <a href="https://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.3.4-technical-cooperation-partner-regional-conventions/st3harmonised-data/milestones">https://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.3.4-technical-cooperation-partner-regional-conventions/st3harmonised-data/milestones</a>
M3	Testing of additional indicators on forest management for the Carpathian Convention (CC)	June 2017	30 / 06 /2017	Document with the list of additional data sources to include in the development of HNV forest areas indicator. Additionally, it is presented the data collected from member States on their virgin forest that was added to the planned activities of 2017 of ETC-ULS.  https://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-
				2017/1.8.3.4-technical-cooperation-partner-regional-conventions/carpathian-convention/milestones/m3-testing-additional-indicators-forest-management-carpathian-convention-cc
M4	Joint meeting among mountain regions	September 2017	26.09.2017	Invitation with agenda was sent and meeting took place in Vienna on 25.+26.09.2017 Summary minutes were disseminated.

M5	Progress report to be shared with EEA and the Carpathian Convention Secretariat and the MS	<mark>2017</mark>	<mark>yxcvxycv</mark>	Assessing forest resources supporting sustainable management efforts; Analysis of new data -> ongoing Support in the virgin forest inventory, compilation and harmonisation -> on-going Develop an Integrated Data platform to host data -> on-going
D 24	Final report including the assessment of existing data and indicators and template of fact sheets	30/10/2017	yxcvxycv	yxcvxycv

## 1.8.3.5 Support to environmental chapter (3) of EU cohesion report 2018

## **Responsible managers**

ETC task manager:

EEA project manager:

#### **Expected main outputs**

Based on the structure of chapter 3 of the EU Cohesion report 2018 on Sustainable Growth/ Environment, ETC/ULs will:

- Contribute to maps, graphs and tables for chapter 3 'Sustainable Growth' of the EU Cohesion report 2018 according to agreement with DG REGIO
- Draft sections to support chapter 3 based on the suggested structure that will be shared and refined by EEA and DG REGIO.

#### Status of implementation: 100 % of task completion

M/D	Milestone/ Deliverable	Due date	Date delivered	Detailed progress description [by sub-task, if applicable]
M1	M1: List of content to be delivered to DG REGIO	31/01/2017	07/02/2017	<ul> <li>The list of content to be updated for the 7<sup>th</sup> Cohesion report was based on a review of the 6<sup>th</sup> Cohesion Report. The new date of delivery (07/02/2017) was agreed during the Consortium Meeting. The milestone document included:</li> <li>Summary table with a general overview of chapters to be updated;</li> <li>Detailed overview of update options for each single indicator (type A update);</li> <li>List of land-related indicators (type B update);</li> <li>List of EEA experts to be contacted for data requests.</li> </ul>

				After a first feedback, DG Regio selected 8 indicators to be further developed. Draft fiches for the selected indicators were developed and shared with DG Regio as Milestone 1a. In addition, an indicator fiche on fragmentation was proposed, that is currently under discussion. https://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.3.5-support-environmental-chapter-3-eu-cohesion-report-2018/01 milestones/m1  https://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.3.5-support-environmental-chapter-3-eu-cohesion-report-2018/01 milestones/m1a draftfiches
M2	M2: First draft of information material with update of existing indicators/maps	30/03/2017		DG Regio provided an updated selection of indicators to be included in the Cohesion Report, reducing to 4 the envisaged indicators to be assessed. Due to the inclusion of milestone 1a, the deadline for M2 was postponed to provide an advanced draft of the indicator fiches, including final maps/graphs and a draft assessment. Due to delay in data access and processing, M2 was finally not delivered as such, but directly integrated in M3.
M3	M3: Final set of report contribution	15/06/2017	15/06/2017	M3 includes the following indicator fiches, selected by DG Regio as contribution to the 7 <sup>th</sup> Cohesion Report:  - Compliance rate of UWWTP implementation - Waste per person

				<ul> <li>Mapping of the potential European GI networks</li> <li>Landscape fragmentation by urban and infrastructure expansion</li> </ul>
				Maps and graphs where elaborated for these fiches, based on relevant data sources, and accompanied by a descriptive text.
				https://forum.eionet.europa.eu/etc-urban-land- and-soil-systems/library/8action-plan- 2017/1.8.3.5-support-environmental-chapter-3-eu- cohesion-report-2018/01 milestones/m3
D 25	Draft chapter provided for cohesion report	30/10/2017	27/10/2017	D25 was delivered on time, including the four indicator fiches, which had been sent to DG Regio as contribution to the 7th EU Cohesion Report, and the material of M1 and M1a. Integration of how the material was used, is still pending to be included in the deliverable.

# 1.8.4. Geospatial data and analysis for ecosystem assessments and accounts

## 1.8.4.1 Support to MAES activities

## **Responsible managers**

ETC task manager:

EEA project manager:

# **Expected main outputs**

• Update on the physical and chemical characterisation and the biodiversity component for ecosystem assessment;

• Testing on the multi-pressures affecting different ecosystems types in Europe;

• Support the coastal and marine ecosystem mapping.

Status of implementation: 90 % of task completion

M/D	Milestone/ Deliverable	Due date	Date delivered	Detailed progress description [by sub-task, if applicable]
M1	Inception report on the pressure selection and the approach of integrated pressure assessment building on research and previous projects developments	April 2017	April 2017	Short concept on the multiple pressures mapping including the detection of the main pressures to focus on:  https://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.4.1-support-maes-activities/milestones/milestone 1 1.8.4.1 multiplepressur es_assessment_v.1
M2	Inception report on the main data sets and approach used for the update of the coastal and marine ecosystem map	May 2017	31 / 05 / 2017	As the updated definitions of new EUNIS classes won't be available before the last quarter of 2017. Based on this delay in getting this categorisation of coastal and marine habitats, ETC-ULS / EEA have agreed to focus instead on developing the concept of multiple pressure mapping

KD 9	Short report on integrated pressures	15/11/2017	xcvbxcvb	In addition the different inputs of the MAES condition report have been added to this milestone, as they were originally not considered in the task description and then prioritised by EEA and DG ENV:  https://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.4.1-support-maes-activities/support_maes_process  On going
M3	Short progress report showing the first results of the assessment for discussion with EEA	July 2017	1 <sup>st</sup> Aug 2017	https://forum.eionet.europa.eu/etc-urban-land- and-soil-systems/library/8action-plan- 2017/1.8.4.1-support-maes- activities/milestones/milestone-3_multiple- pressure-assessment
				https://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.4.1-support-maes-activities/milestones/milestone2 1841 ir ecosystem mapping  In addition from February till end of June, ETC-ULS was requested to provide support to the preparation of the MAES condition workshop contributing to most of the pilots work.  A report is being finalised including these contributions and will be published as a MAES report during the last quarter of 2017.

## 1.8.4.2 HNV farmland update – methodology and time series

## **Responsible managers**

ETC task manager:

EEA project manager:

## **Expected main outputs**

• Re-calculation of HNV time series 2000-2012

• Updated methodology for describing distribution and trends of HNV farmland in Europe

Status of implementation: 70 % of task completion

M/D	Milestone/ Deliverable	Due date	Date delivered	Detailed progress description [by sub-task, if applicable]
M1	HNV Change Layer 2000-2012: HNV based on CLC 2000 and HNV based on CLC 2012 maps (based on the approach used for the 2006-12)	31/03/2017	31/03/2017	A report- HNV Change Layer 2000-2012 was delivered on 31 March 2017 and put on circa: <a href="http://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.4.2-hnv-farmland-update-methodology-and-time-series">hnv-farmland-update-methodology-and-time-series</a> The data are at Common Workspace: S:\Common workspace\ETCULS\DATA_DELIVERABLES\Natural_areas\HVN_ch ange00_12
M2	Preparation of a technical document on the improvement of the HNV methodology (Describing options and summary of the workshop results)			On-going work on the comparison of national and European HNV farmland data in case study areas e.g. Austria, Estonia, Romania, Czech Republic, Netherlands, Italy. Gisat supported the activity. No data received from Germany and Croatia yet.
KD 10	Scoping document on updated HNV farmland methodology	31/10/2017	fgfdg	sdfgsdfgdfg

## 1.8.4.3 HNV forest area mapping based on Copernicus land data

## **Responsible managers**

ETC task manager:

EEA project manager:

## **Expected main outputs**

- Updated HNV forest area map for 2012 and 2015

- Documentation on methods, analysis and results

Status of implementation: 60 % of task completion

M/D	Milestone/ Deliverable	Due date	Date delivered	Detailed progress description [by sub-task, if applicable]
M1	Access and preparation of data to be used for the HNV forest area mapping, including updates of old growth forest maps, fragmentation maps	14/06/2017	15 / 06 /2017	Development of a table for compiling the data related to forests in Europe. The content and structure table were designed following the guidelines for metadata in the QA/QC protocol aiming the interoperability between other EEA databases (such as MAES master table). The table is ready to populate and is shared at Google drive to be accessible and editable for all the people involved. This table is common for 1.8.2.5 and 1.8.4.3  https://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.4.3-hnv-forest-area-mapping-based-copernicus-land-data/milestones/milesto-1

M2	Testing of data relevance to support the HNV forest area development	15/07/2017	17/07/2017	As part of the forest tasks of ETC-ULS for 2017 (1.8.2.5 and 1.8.4.3) the Forest project workshop ETC-ULS / EEA was held in Malaga, 11-12 July 2017. The workshop was hands-on development and selection of information to assess HNV forest area in Europe and validate the product and accounted with the presence on an external expert on HNV forest.  The document here uploaded as M2 is the working-document for this meeting.  https://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.4.3-hnv-forest-area-mapping-based-copernicus-land-data/milestones/milestone-2
M3	Consolidation of the methodology used based on Copernicus inputs and results of the VOLANTE EU FP7 project results	31/07/2017	31/07/2017	https://forum.eionet.europa.eu/etc-urban-land- and-soil-systems/library/8action-plan- 2017/1.8.4.3-hnv-forest-area-mapping-based- copernicus-land-data/milestones/milestone-3/m3 consolidation-methodology-used-based-copernicus- inputs
M4	First draft HNV forest area map to be used for internal validation using data from member countries (Spain, Italy, Switzerland, Denmark, Austria, France, Sweden)	31/10/2017	sdfgsdfg	On-going On-
M5	Documentation and evaluation of approach, recommendations for final product	15/11/2017	sdfgsdf	dsfgsdfg
M6	Updated HNV forest area map for 2012 and 2015	30/11/2017	sdfgs	sdfgsdf

D 26 Technical report on including the	30/11/2017	<mark>sdfgsd</mark>	sfdgsdf
specific documentation on methods, analysis and results on HNV forest	30/11/2017		

## 1.8.4.4 Support to developing the KIP INCA data architecture and data foundation

## **Responsible managers**

ETC task manager:

EEA project manager:

## **Expected main output**

• Development of data foundation for KIP INCA module of EEA Integrated Data Platform

## Status of implementation: 75 % of task completion

M/D	Milestone/ Deliverable	Due date	Date delivered	Detailed progress description [by sub-task, if applicable]
M1	Documentation of the design of the KIP INCA data infrastructure	31/03/2017	05/04/2017	The first milestone has been uploaded to Forum, consisting of an assessment and comparison of the metadata models of the EEA and JRC, in the framework of the development of the KIP INCA data infrastructure. Link to the document: <a href="http://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.4.4-support-developing-kip-inca-data-architecture-and-data-foundation/milestones/m1-working-report-comparison-metadata-eea-jrc">http://forum.eionet.europa.eu/etc-urban-land-and-and-soil-systems/library/8action-plan-2017/1.8.4.4-support-developing-kip-inca-data-architecture-and-data-foundation/milestones/m1-working-report-comparison-metadata-eea-jrc</a>
M2	First version of KIP INCA data foundation	30/09/2017	29/09/2017	The second milestone was delivered to Forum on time:

				https://forum.eionet.europa.eu/etc-urban-land- and-soil-systems/library/8action-plan- 2017/1.8.4.4-support-developing-kip-inca-data- architecture-and-data-foundation/milestones/m2- first-version-kip-inca-data-foundation
M3	KIP INCA module of the Integrated Data Platform	30/09/2017	29/09/2017	The third milestone was delivered to Forum on time: https://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.4.4-support-developing-kip-inca-data-architecture-and-data-foundation/milestones/m3-kip-inca-module-of-the-integrated-data-platform-draft
M4	Documentation of the KIP INCA module of the Integrated Data Platform	15/11/2017	sdfg	dfgsdfg
KD 11	KIP INCA Module of the Integrated Data Platform	15/11/2017	dfg	dfgsdfg

## 1.8.4.5 Support to development of EU ecosystem accounts in the frame of KIP INCA

## **Responsible managers**

ETC task manager:

EEA project manager:

EEA deputy project manager:

#### **Expected main outputs**

- Developing and implementing components of EU ecosystem accounts in the frame of the KIP INCA project as input to accounts for ecosystem extent and condition with a focus on:
  - o Water quality test accounts based on reporting under the Water Framework Directive
  - o Nutrient trends as pilot accounts or as spatially explicit nutrient balances (link to task 1.8.2.1)
- Full documentation of data (raster, data base and calculated accounts) and accounting methods and tools for all components developed in 2017

#### Status of implementation: 55 % of task completion

M/D	Milestone/ Deliverable	Due date	Date delivered	Detailed progress description [by sub-task, if applicable]
M1	Accounts and report on water quality test accounts	30.10.2017	On-going	Review and update of the last year report on WQA; A meeting took place at EEA, to discuss the methodology and the data availability. Indexes defined las year are now being applied on the pilot sites France and Spain;
M2	Description of final methodology for nutrient pilot accounts or budgets	<u>15.11.2017</u>	On-going	Identification and selection of most suitable input for the final methodology has been produced in tabular format. Table available into the FORUM: https://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.4.5-support-development-eu-ecosystem-

KD 12	Documentation of all accounting methods, data and tool components developed and completed in 2017	15/11/2017	sdfgsdf	sdfgsdfg
M3	Data sets for extent and condition accounts and nutrient pilot accounts	01.12.2017	sdfgdsf	sfdgsdf
				accounts-frame-kip-inca/milestones/m2- nutrients/nutrient inputs uma v2 A first draft version of the methodology was uploaded on 22.06.2017 and on-going work still ongoing for the final methodology

## 1.8.5 Territorial development and green infrastructure

## 1.8.5.1 Support to the monitoring of the EU-wide Green Infrastructure strategy implementation

## **Responsible managers**

ETC task manager:

EEA project manager:

## **Expected main outputs**

- Compilation of methods to measure GI

- Support to the preparation and design of TEN-G

Status of implementation: 80 % of task completion

M/D	Milestone/ Deliverable	Due date	Date delivered	Detailed progress description [by sub-task, if applicable]
M1	Draft compilation of methods and tools	30/06/2017	30/06/2017	An inception report has been submitted. Various versions of the GI report have been exchanged with JRC and DG ENV. ETC contributions on track. Discussion on EC level about table of contents and structure.  Continued contributions to the GI report (review of text, structure of the report, case studies).  Participation to different skype conferences with EEA, JRC, DG ENV.
M2	TEN-G matrix (policy areas, targets and ecosystem services)	30/09/2017		Submission of a discussion note how to address sub-task 2. Feedback pending. Development of a matrix comparing policy areas and ecosystem services. Upload to Forum:

				https://forum.eionet.europa.eu/etc-urban-land- and-soil-systems/library/8action-plan- 2017/1.8.5.1-support-monitoring-eu-wide-green- infrastructure-strategy-implementation/ten-g- matrix/edit_html?lang=en
M3	Draft analysis of co-benefits	31/12/2017	cvbncvbn	cbvncvbn
KD 13	Contribution to the joint report on GI with a compilation of methods and tools to measure GI	15/11/2017	cbvncb	cvbncvbn

## 1.8.6 ETC management

## 1.8.6.1 ETC/ULS management

## Main managers

ETC task manager:

EEA project manager:

## **Expected main output**

• Ensure the implementation of the action plan 2017 in high quality, timely and resource efficient

## Status of implementation: 85 % of task completion

M/D	Milestone/ Deliverable	Due date	Date delivered	Detailed progress description [by sub-task, if applicable]
M 1	Consortium meeting	End of January 2017	2527. January 2017	Consortium management committee meeting with involvement of EEA representatives, splinter sessions with EEA project managers, technical and administrative information exchange
M 2	Consortium meeting	Sept. 2017	20 22/09/2017	Planned Consortium Management Committee Meeting, agenda was distributed
KD 14	Quarterly Progress Report 1	30/04/2017	24/04/2017	https://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.6.1-etc-uls-management/deliverables/kd14 qpr1 2017 v-0 3 20170424 al f1
KD 15	Quarterly Progress Report 2	30/07/2017	27/07/2017	https://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/8action-plan-2017/1.8.6.1-etc-uls-management/deliverables/
KD 16	Quarterly Progress Report 3	31/10/2017	30/10/2017	

KD 17	Quarterly Progress Report 4	01/03/2018	
KD 18	Draft AP2018	<b>15/11/2017</b>	A list of tasks was agreed and first discussions started between PMs and TMs

The table of staff member was updated.

- New staff member at
  - o PhD in Information Management, a spatial statistician and environmental scientist
  - New staff member at



• New staff member at



• New staff member at



• New staff member at EAA



# List of meetings attended in Q1 2017

Date	Meeting title	ETC participant	Short description
January		· ·	·
23	Coordination meeting (Copenhagen)		Discussion on challenges in 2017 with EEA project managers
24	Phenology WS, (Copenhagen)		Preparation of task 1812, expert Workshop with Uni Lund and Uni Copenhagen
25-27	Consortium meeting; (Copenhagen)		Meeting of the Consortium management committee; Update of AP 2017
31 Jan 2 Feb	ISPRA MAES –KIP-INCA workshop		Meeting to prepare the MAES condition workshop (to be held in June 2017) and support to the KIP-INCA discussions with DG ENV., EEA, JRC, Eurostat
February			
14-15	ETC-BD KoM of the ecosystem mapping task		Support to the development of the costal and marine ecosystem map of Europe
27-28	Coordination meeting EEA /ETC, (Copenhagen)		
March			
01-02	NFP meeting, EEA (Copenhagen)		
06-07	EnRoute meeting (Rome)		Represent EEA and support the urban and soil discussions with JRC
27	Stakeholder consultation on city indicators		Stakeholder consultation organised by Eurostat and DG Regio to discuss about the future of the data collection for city indicators (Urban Audit).
April			
6-7	1844 KIP INCA spatial data related issues, JRC, Ispra		Understanding on potential spatial data interaction EEA/JRC within KIPINCA; Review on methodologies and nutrients components with the JRC-MARS group toward a joint Nutrient account
24-25	Soil Expert meeting, Brussels		4TH MEETING OF THE EU EXPERT GROUP ON SOIL PROTECTION
May			
10-12	ESP Soil meeting in FAO, Rome		
16	1. IUME Meeting (Brussels)		Meeting with different DGs; discussion on urban typology and future collaboration
15-16	Land Degradation Workshop		o was an end of the control of the c
15-17	MAES expert meeting on soil condition, Ispra		Requested by EEA to represent the soil expert in the MAES soil pilot preperation

15-17	Carpathian Convention, Sopron	Meeting to present the one WG of the Carpathian Conv	going work on old forest growth inventory for the Forest vention
29-01	NFP Meeting (Copenhagen)		
June			
6-7	Meeting in EEA 1811/1844/1845 tasks	progress on MAES/INCA da	ta
7	EPA-Copernicus meeting (Brussels)	Copernicus program preser	nted results of program to EPA representatives
12	HNV farmland WS (Vienna)	Discussion on methodology	improvements
16	1826 brainstorming WS (CPH)	Discussion of task content EEA project manager.	and way ahead with EEA colleagues. Meeting with new
23	NBS policy WS (Brussels)	Presentations of H2020 pro	ojects on NBS solutions, ALI representing EEA
26-28	MAES Workshop Assessing and Mapping Ecosystem Condition, Brussels	Supporting the preparation (Nature, forest, agri, soil, un	n and presentation of the work for the pilots of MAES rban)
29	Green Infrastructure and Restoration (GIR) Working Group 7th meeting, Brussels	Linkages between the MA targets of EU BS to 2020	ES ecosystem condition mapping and the restoration
July			
11-12	Forest meeting EEA/ETCULS (Malaga)	Workshop for discussing an	nd setting the priorities and strategies on forest tasks.
19	Meeting in EEA	ETCULS 1811 Integrated Da	ta Platform meeting, data integration and FME solution
August			
September			
05	Meeting with PjM in EEA (CPH)	Discussion on amendment	2017 and AP 2018
4-6	4th TOUERM Expert workshop	Presentation of work in pro	ogress and of report draft.
06	Land system expert WS (CPH)	Presentation of draft conce	pt for land systems assessment framework to EEA.
12 – 13	MAES regular meeting (Brussels)		
13	GIIR WS (BXL)	Green Infrastructure Imple	mentation and Restoration Working Group meeting
13-14	Conference on Old growth forest in Europe (Brussels)		<u> </u>
20-22	CMCM (Barcelona)	Consortium Meeting discus	sion on state of work and amendment
25-26	Mountain Convention WS (Vienna)	Mountain convention WS of	on data management

October			
02-03	NFP Meeting (Lisbon)		NFP meeting
09-10	NRC LC Meeting (CPH)		NRC LC meeting, discussing Copernicus activities
09-12	Carpathian Convention COP		COP5 meeting of the Carpathian Convention
09-11	ENI LC meeting		ENI LC meeting discussing ENI CLC pilot project
24-25	NBS-Presidency Meeting (Tallinn)		Task force on NBS
November			
December			
01	IUME Meeting Brussels		2. IUME Meeting
05	COWI Meeting Copenhagen		Evaluation Meeting on EEA
		•	

# 4 PERCENTAGE OF STAFF DAYS SPENT BY END OF Q4/2017 (CUMULATIVE)

Task	WER	BFKH	GISAT	ICLEI	S4E	UAB	UMA	EAA
1.8.1.1								
1.8.1.2								
1.8.1.3								
1.8.1.4								
1.8.2.1								
1.8.2.2								
1.8.2.3								
1.8.2.4								
1.8.2.5								
1.8.2.6								
1.8.2.7								
1.8.2.8								
1.8.3.1								
1.8.3.2								
1.8.3.3								
1.8.3.4								
1.8.3.5								
1.8.4.1								
1.8.4.2								
1.8.4.3								
1.8.4.4								
1.8.4.5								
1.8.5.1								
1.8.6.1								

# 5 SPENDING OF BUDGET PER PARTNER IN Q4/2017 (CUMULATIVE)

Partner	Percentage of consumed budget	Consumed budget (€)	Total Budget (€)
EAA			
BFKH			
GISAT			
ICLEI			
S4E			
UAB			
UMA			
WER			
Total			

# 6 Spending of budget per task in Q4/2017 (cumulative, experts costs)

Task		Percentage of consumed budget	Consumed budget (€)	Total budget (€)	Total Budget (€) per EEA project
181	1.8.1.1				
	1.8.1.2				
	1.8.1.3				
	1.8.1.4				
182	1.8.2.1				
	1.8.2.2				
	1.8.2.3				
	1.8.2.4				
	1.8.2.5				
	1.8.2.6				
	1.8.2.7				
	1.8.2.8				
183	1.8.3.1				
	1.8.3.2				
	1.8.3.3				
	1.8.3.4				
	1.8.3.5				
184	1.8.4.1				
	1.8.4.2				
	1.8.4.3				
	1.8.4.4				
	1.8.4.5				
	1.8.5.1				
	1.8.6.1				
#					
total					