



Title	Progress with the Sixth Baltic Sea Pollution Load Compilation (PLC-6) project
Code	2-1
Category	INF
Agenda Item	2 – Information from the Project Manager, Secretariat and Contracting Parties
Submission date	18.5.2015
Submitted by	Secretariat and Project Manager
Reference	

Background information

The attached document summarized the progress of the Sixth Baltic Sea Pollution Load Compilation (PLC-6) project and presents a road map for future work to implement the project (Annex 1).

The PLC-6 project is linked to various on-going activities related to improving the quality of PLC data and assessment projects (i.e. through updating of the PLC guidelines and reporting templates as well as developing statistical aspects for assessment purposes). The main final product of the project is the PLC-6 assessment which will be finalized in time to provide input to the HOLAS II assessment. The assessment will aim to avoid overlap with other PLC related data and assessment products and will be implemented using a new, more user-friendly format.

Action required

The Meeting is invited to take note of the progress of the Sixth Baltic Sea Pollution Load Compilation (PLC-6) project, especially the roadmap as contained in Annex 1.

Progress with the Sixth Baltic Sea Pollution Load Compilation (PLC-6) project (2013-2017)

The PLC-6 project is an implementation of HELCOM Recommendation [26/2](#) to, every sixth year carry out a pollution load assessment (PLC) including a quantification of waterborne point, diffuse and natural sources. HELCOM GEAR 2/2012 and HELCOM HOD 39/2012 requested the PLC-6 project to deliver the main project results by the end of 2016 to allow for making use of the data for HELCOM thematic and holistic assessments as well as the second round of initial assessments under the EU MSFD in 2018. HELCOM LOAD 5/2013 acknowledged that the availability of the initial results is pending the timely implementation of the HELCOM PLUS project on modernization of the PLC water database, timely delivery of quality assured waterborne data by the Contracting Parties and timely delivery of atmospheric deposition data by EMEP.

Furthermore, the results of the PLC-6 project will provide valuable information for assessing progress in reaching the HELCOM Baltic Sea Action Plan nutrient reduction targets, including expected nutrient reductions as a result of implementation of the EU Water Framework Directive (WFD) river basin management plans by the HELCOM EU countries and to overall evaluate effectiveness of nutrient reduction measures taken within the Baltic Sea catchment area.

The overall task of the project is to prepare a comprehensive assessment of the water- and airborne inputs and their sources to the Baltic Sea during the period 1994-2014 with more detailed assessment for 2014.

So far the project has:

- Developed standardized methodology to calculate uncertainties on national datasets including methodology for filling in data gaps and missing data and developed standardized methodology for evaluating trends in inputs and for evaluation countries progress in fulfilling BSAP nutrient reduction targets and on fulfilling maximum allowable inputs. The methods have been documented in a published [report](#).
- Carried out a laboratory intercalibration/ intercomparison activity with the participation of all nine HELCOM countries and published the results in a [report](#).

At the moment, the project is working on finalizing the updated and extended PLC-water guidelines, which have been endorsed in principle by HOD 46-2014, pending on finalization of an annex describing the revised periodical reporting templates developed by HELCOM PLUS project.

Reporting of PLC-6 data (2014¹ inputs) will take place in the end of 2015 using the web user interface of the new modernized PLC-Water database (HELCOM PLUS project).

Data assessment, data products as well as preparation and publication of the PLC-6 assessment report will take place in 2016-2017 (the main data products should be ready in the end of 2016 for use by those Contracting Parties that are also EU members for MSFD reporting). The assessment will aim to avoid overlap with other PLC related data and assessment products and will be implemented using a new, more user-friendly format.

The full project description can be accessed via the [PLC-6 project webpage](#).

A road map of tasks and activities of the project is contained in the attached Annex 1.

¹ Poland and one federal state in Germany have carried out periodic monitoring in 2012

Annex 1 Roadmap for implementation of HELCOM PLC-6 project (last updated 9.4.2015)

Task	2012	2013	2014	2015	2016	2017
1. Development of standardized methodology to calculate uncertainties in national datasets, including methodology for filling in data gaps and missing data	<u>3rd-4th quarter:</u> Statistician to elaborate proposals for common methodology to calculate uncertainties and methods for testing fulfilment of reduction targets including discussing principles on 1. workshop	<u>1th Quarter:</u> Draft report on statistical methodologies discussed at PLC-6 2/2013 <u>LOAD 5:</u> Consider and discuss a further developed report on statistical methodology <u>PLC-6 3/2013:</u> discuss the final draft of the report and agree on how to include it in the PLC-6 guidelines <u>LOAD 6:</u> endorse statistical methodology report for publication on the HELCOM website as a technical (project) document. Also a summary chapter on statistical methods for inclusion in the PLC-6 guidelines will be presented to the meeting for approval. <u>PLC-6 4/2013:</u> approved the publication of the final statistical report on the HELCOM website. <u>MONAS:</u> take note and make use of the statistical methodology report Final report published and available online.	<u>HOD (September):</u> adopted the methodology to calculate uncertainties in national datasets, including methodology for filling in data gaps and missing data when approving the PLC-guidelines			
2. Quality assurance (QA) issues, including Intercalibration/intercomparison activity and	<u>May-June:</u> Contracting Parties to reply (by 12.6.) to questionnaire on QA issues that was submitted on 10.5.12.	<u>February/April 2013:</u> Intercalibration/intercomparison activity (led by Denmark) carried out <u>LOAD 5:</u> informed of progress	Revised final report published, including an addendum with the results of one lab which were not included in the			

Task	2012	2013	2014	2015	2016	2017
		<p>of the activity</p> <p>MONAS 18: Draft report with results of intercalibration activity submitted as information</p> <p><u>PLC-6 3/2013:</u> evaluate the draft results of the intercalibration /intercomparison activity and discuss other quality assurance issues. Results and methodologies to be included in the revised PLC guidelines</p> <p><u>LOAD 6:</u> endorsed the publication of the final report of the intercalibration /intercomparison activity.</p> <p><u>PLC-6 4/2013:</u> finalize the chapter on QA issues in the PLC-6 guidelines. The final report was published and available online.</p>	<p>main report due to late data submission</p>			
3. Revision of PLC guidelines	<p><u>LOAD3 and MONAS 16:</u> Identify topics to revise/ include in guidelines. Accept roadmap, including clarifying need of a project.</p> <p><u>HOD37:</u> Accept roadmap and if decided a revision project</p> <p><u>August:</u> Start revision of guidelines, reporting status to LOAD4, MONAS17, GEAR2 and HOD.</p> <p><u>October, PLC-6 1:</u></p>	<p><u>1. Quarter:</u> Revision continued.</p> <p><u>PLC-6 2/2013:</u> revise guidelines (taking into account also input from PLC-5.5 and PLUS)</p> <p><u>LOAD5:</u> informed of progress with revising the guidelines.</p> <p><u>PLC-6 3/2013:</u> Further revision of guidelines, statistical methods report, QA issues and reporting formats</p> <p><u>2. and 3. Quarter:</u> Final draft</p>	<p><u>PLC-6 5/2014:</u> further elaborated the guidelines.</p> <p><u>PLC-6 6-2014:</u> to finalize the draft guidelines</p> <p><u>HOD (September):</u> Endorsed revised PLC guidelines, with the understanding that the reporting formats contained in the Annex may still be modified</p> <p><u>PLC-6 7-2014:</u> to provide</p>	<p><u>First and second quarter:</u></p> <p><u>PLUS 8-2015:</u> finalized the annual reporting templates and provided final feedback for the periodic reporting template</p> <p><u>RedCore DG 4-2015:</u> finalize the guidelines</p>		

Task	2012	2013	2014	2015	2016	2017
	Start revision of guidelines, including starting development of methodology for estimation of uncertainty of national dataset, filling in gaps and missing data	with revised guidelines Workshop on how methodology in and how to use guidelines and coordinate monitoring and modelling efforts <u>LOAD 6/2013</u> : provided final comments on chapters 1-3 and chapters on QA and statistical methods. <u>PLC-6 4/2013</u> : finalize chapters 1-2, Chapter 3 of the guidelines on source-oriented apportionment, new chapter 4 on periodic PLC data reporting requirements; annexes with reporting formats, questions raised by PLUS project <u>MONAS19</u> : Informed of status of updating the PLC guidelines	finalize comments and approve to the annual reporting template and further elaborate the periodic reporting templates and solve the questions/proposals raised during the hearing of the draft PLC6 guidelines			
4. National data collection and quality assurance	Poland and Germany monitor data in rivers, point sources	<u>1. and 2. Quarter</u> : Poland and Germany make data collection of 2012 data and data compilation, quality assurance. Follow up on data quality, missing data	<u>01.01-31.12</u> : Countries* monitor data in rivers, point sources etc. according to the revised Guidelines. Collection of other necessary data for fulfilling PLC requirements.	<u>1. Quarter</u> : uploading of 2013 data via the new PLUS uploading interface as a test case. <u>1. and 2. Quarter</u> : National data collection of 2014 data and data compilation, quality assurance. Follow up on data quality, missing data		
5. National data reporting				<u>2. and 3. Quarter</u> : National modelling, aggregation data, making source apportionment in all	<u>01/1-31/3</u> : All countries following up on questions and missing information raised by data	

Task	2012	2013	2014	2015	2016	2017
				<p>Contracting Parties. <u>01.107</u>: Reporting on applied methodologies, background information on population, point sources, land use etc. and preparing data submission <u>31.10</u>: Reporting of monitored 2014 data <u>31.12</u>: Reporting of calculated 2014 loads (e.g. source apportionment)</p>	manager/PLC6 project	
6. PLC data manager tasks	<p><u>LOAD3 and MONAS 16</u>: Recommended a modernization project for the PLC database (PLUS) HOD 37: Adopted WPO of PLC database modernization project (PLUS) <u>1.7-31.12</u>: Requirements for a new PLC database and web application/start of modernization project.</p>	<p>HELCOM 34: adopted HELCOM PLUS project. Work with database expert to develop a new PLC data model and functional specifications</p>	<p>Quality check migrated PLC 1994-2012 data Develop reporting formats in collaboration with PLUS database expert Support web application developer with development of an interface for a new data entry system under PLUS Implementation of the database web application. Updating and quality check on PLC 1994-2012 data</p>	<p><u>01/03-30/06</u>: Updating and quality check on PLC 1994-2013 data Testing and fine tuning data entry system and reporting formats <u>01/10-31/12</u>: Quality check of reported annual data, make request to countries for missing data, make quality assurance on received data and overviews to REDCORE DG and PLC-6 project on status of received data Inform of data reporting status to PRESSURE/[RedCore]</p>	<p><u>01/01-29/02</u>: Quality check and verify reported periodic data. Draft data and selected products for the PLC-6 report <u>1/3-30/06</u>: Figures, tables maps and other final data products data assessments to the PLC-6 project <u>01/07-31/12</u>: Correcting and/or providing additional tables or figures for the PLC-6 report as necessary.</p>	

Task	2012	2013	2014	2015	2016	2017
					Assist PLC-6 project and REDCORE DG as requested	
7. EMEP tasks					<u>Latest in Sept:</u> emissions and depositions of nitrogen for 1995 - 2014 including country pr. basins inputs and normalized deposition data	<u>4 quarter 2016:</u> "Blame" matrix for 2014 defining emissions and deposition sources and countries and sectors and with updated depositions for 1995-2014
8. PLC-6 report: elaboration and publication			<u>4. PLC-6 7-2014:</u> 1. Initial discussion of the main contents of the PLC-6 report including specification user needs and possible format (i.e. ebook)	<u>1. to 3. Quarter:</u> PLC project to follow up on intercalibration results, new data entry system/reporting formats (PLUS project), prepare an extended outline of PLC report, define data products to be developed by data manager. Start collecting background data/metadata <u>PLC-6 8-2015:</u> draft of the main outline of the PLC-6 report including specification of expected key graphs and tables and necessary background information/metadata <u>4. Quarter:</u> Checking old PLC data (1994-	1 quarter; <u>Finalize</u> chapters on methodology, quality assurance, background information on catchments, fertilizer consumption, livestock, land use, population density, climate, point sources (number, size, degree of purification, connectivity) etc. <u>1.-2. Quarter:</u> Quality assurance, filling data gaps, trend analysis, first draft of data products including airborne inputs <u>2-3. Quarters:</u> 1 st Normalization and statistical analysis	<u>Early 2017:</u> Draft chapters regarding source apportionment finalized <u>1-2. Quarter:</u> Completion of the report including corrections to figures and table and text in all chapters including source apportionment, evaluations on effectiveness of measures and evaluation off fulfilment of reduction targets. Completed report submitted for final commenting and approval of REDCORE DG, PRESSURE and submission for

Commented [LMS1]: Question to EMEP: Can we get this in 3rd or 4th quarter 2016 – would be rather important

Task	2012	2013	2014	2015	2016	2017
				2013) follow up status reporting 2014 PLC data. Drafting on chapters on methodology, quality assurance, background information on catchments, fertilizer consumption, livestock, land use, population density, climate, point sources (number, size, degree of purification, connectivity) etc.	including trend analysis draft of the report including draft of all figures, maps and graphs expect of source apportionment. Status to REDCORE DG, PRESSURE and GEAR <u>4. Quarter:</u> Finalized statistical analysis in relation to follow-up nutrient reduction scheme based on data 1995-2014 (as part of the MAI-CART follow-up assessment). Further, elaboration of the report with updated and corrected figures, tables and graphs as well as draft text on total inputs and overall trends.	acceptance by HOD. <u>3. Quarter:</u> Language check, editing, layout, printing and publishing <u>3.-4. Quarter:</u> Development of executive summary of PLC 6 report for adoption for publication by HOD. Published 1. quarter 2018

Commented [LMS2]: For discussion. We need to speed up this part – considering if the executive summary might be produced (draft) late 2016 for use of HOD and CP's - and then have the main report published in the second half of 2017

* Poland and Germany are monitoring data already in 2012

** no indication of numbering for respective HELCOM meetings is done for implementation of the project after 2013