



LIFE

Climate Change Mitigation

LIFE CLIMATREE: A novel approach for accounting & monitoring carbon sequestration of tree crops and their potential as carbon sink areas

LIFE14 CCM/GR/000635



Quality Assurance – Quality Control
Reporting Manual

September 2015

The **LIFE CLIMATREE** project “Integrated information and awareness campaign for the reduction of plastic bags in the marine environment” (LIFE14 GIE GR/001127) is co-funded by the EU Environmental Funding Programme **LIFE Climate Change Mitigation**.

<u>Implementation period:</u>	1.9.2015 until 31.3.2018	
<u>Project budget:</u>	Total budget:	1,257,545 €
	EU financial contribution:	754,527 €

LIFE CLIMATREE’s Participating Beneficiaries:

- **Institute of Urban Environment and Human Resources, Panteion University**
- **TERRA NOVA Environmental Engineering Consultancy Ltd.**
- **Agricultural University of Athens**
- **University of Western Macedonia**
- **Agencia Estatal Consejo Superior de Investigaciones Científicas**
- **University degli Studi Basilicata**

The LIFE CLIMATREE's **QA/QC Committee** consists of the following representatives of the project beneficiaries:

1. Aggelos Mimis	Institute of Urban Environment and Human Resources, Panteion University	UEHR
2. Serkos Haroutounian	Agricultural University of Athens	AUA
3. Andreas Sotiropoulos	TERRA NOVA Environmental Engineering Consultancy Ltd.	TERRA NOVA
4. Christos Xiloyannis	University degli Studi Basilicata	UNIBAS
5. Emilio Nicolas	Agencia Estatal Consejo Superior de Investigaciones Científicas	CSIC
6. Efstathios Konstantinidis	University of Western Macedonia	UOWM

The present **QA/QC Reporting Manual** was developed by:



TERRA NOVA Environmental Engineering Consultancy Ltd.

39 Kaisareias str., 115 27 Athens, Greece

Tel.: +30 210 7775597

Website: www.terranoa.gr

TERRA NOVA's scientific team that developed the QA/QC Reporting Manual consists of:

- Ioannis Spanos, Chemical Engineer MSc.
- Andreas Sotiropoulos, Environmental Scientist, MSc. Oceanography

Manual's Preface

The successful implementation of a project requires significant effort to monitor and control its various activities in order to ensure the optimum performance and homogeneity of the methods and actions applied.

Towards this direction, the development and application of a Quality Assurance / Quality Control (QA/QC) system is required. The operation of a QA/QC system will provide early warning in cases of deviations of the designed project's performance so as the necessary corrective measures to be promptly applied.

The present Manual provides the guidelines for the conduction of the QA/QC Reports that will cover the whole duration of LIFE CLIMATREES' implementation, monitoring its progress.

Each QA/QC Report consists of the following 3 parts:

- ✓ The Management Part, which will examine the following parameters:
 - milestones achievement
 - deliverables completion
 - consistency with the reporting schedule
 - consistency with the project timetable
- ✓ The Financial Part, which will examine the performed expenditures and their consistency with the proposed cost breakdown
- ✓ The Technical Part, which will examine the performance of the project's implementation according to its targets.

Once a year during the entire LIFE CLIMATREES' implementation period, the QA/QC Committee will conduct a QA/QC Report based on the present Reporting Manual and will deliver it to the Management Committees of the project to be informed and to decide, if required, correction or improvement actions.

A. Management Part

Milestones

Instruction: The consistency of the Milestones accomplished during LIFE CLIMATREE's implementation until the date of the QA/QC Report, with the Milestones set by LIFE CLIMATREE's approved Proposal for the same period, will be checked by filling in the green cells of the following table.

No.	Description of Approved Milestones	Associated Action	Approved Deadline	Accomplished? (Yes/No)	Accomplishment Date	Comments
1	Kick Off Meeting	F1	20/7/2015			
2	Development of 3 alternatives logo	E1	31/8/2015			
3	Compilation of QA/QC Manual	F2	30/9/2015			
4	Biological- Agronomical and Ecological grouping of tree-crops	A1	30/9/2015			
5	ClimaTree's website launched	E2	15/10/2015			
6	Treecrops' significance on ecosystem function	A1	30/10/2015			
7	Establishment of communication with farmers and associations	E3	1/11/2015			
8	A range of Carbon sink and CO2 emission for each agro-ecosystem studied	A2	30/11/2015			
9	Detection of other relevant EU projects	F3	31/12/2015			
10	Production of climatic, environmental and socioeconomic parameters of tree crops	A3	31/3/2016			
11	Establishment of communication	F3	31/3/2016			
12	Design of Boards informative content	E4	29/4/2016			
13	Completion of Global Climate Model simulations for current years	C2	30/6/2016			
14	Production of informative Posters	E3	15/7/2016			
15	Production of informative Leaflets	E3	15/7/2016			

16	A complete list of the variables affecting carbon sequestration	C1	29/7/2016			
17	Compilation of Inception Report	F1	29/7/2016			
18	Completion of literature-review	C1	30/9/2016			
19	Compilation of 1st QA/QC Report	F2	23/12/2016			
20	Assessment of Millennium Ecosystems Services	C1	30/12/2016			
21	Completion of Meteorological Model simulations for current years in S. Europe	C2	31/1/2017			
22	Compilation of Mid-term Report	F1	31/3/2017			
23	Completion of Indicator Tables for the Mid-term Report	F6	31/3/2017			
24	Reproduction and installation of Boards	E4	28/4/2017			
25	Completion of field work	C1	29/7/2017			
26	Completion of Meteorological Model simulations for future years in S. Europe	C2	30/9/2017			
27	Testing on the use of CO2 balance algorithms based on the produced parameters	C4	30/11/2017			
28	Adjustment of CESAR model	C3	29/12/2017			
29	Software Development of the Economic Module	C5	31/3/2018			
30	Upload of interface in ClimaTree's web site	C3	28/6/2018			
31	Quality Assessment of primary data	D1	29/6/2018			
32	Linking of the proposed Climate Change Mitigation Policies with CAP	C5	28/9/2018			
33	Compilation of Progress Report	F1	3/12/2018			

34	Effectiveness Indicators of proposed policies	D1	1/4/2019			
35	Organization of a final conference in Greece	E3	31/5/2019			
36	Upload of ClimaTree Layman's report 1st version on ClimaTree's website	E5	31/5/2019			
37	Completion of ClimaTree Layman's report compilation	E5	31/5/2019			
38	Compilation of Final Report	F1	28/6/2019			
39	Maintenance of networking	F3	28/6/2019			
40	Design of the After-LIFE Communication Plan	F4	28/6/2019			
41	Compilation of Audit Report	F5	28/6/2019			
42	Completion of Indicator Tables for the Final Report	F6	28/6/2019			
43	Publication of the Report of the socioeconomic impact	D2	30/6/2019			
44	Report on the impact assesment of tree crop ecosystem function restoration	D3	30/6/2019			
45	Finalization of ClimaTree's Layman's report and upload on the website	E5	30/6/2019			

Deliverables

Instruction: The consistency of the Deliverables produced during LIFE CLIMATREE's implementation until the date of the QA/QC Report, with the Deliverables set by LIFE CLIMATREE's approved Proposal for the same period, will be checked by filling in the green cells of the following table.

No.	Description of Approved Deliverables	Associated Action	Approved Deadline	Implemented? (Yes/No)	Completion Date	Comments
1	ClimaTree logo	E1	30/9/2015			
2	QA/QC Manual	F2	30/9/2015			
3	ClimaTree's website designed, developed and launched	E2	15/10/2015			
4	A report categorizing tree-crops with a documented representative crop for each category	A1	30/11/2015			
5	List and data of other relevant EU projects	F3	31/12/2015			
6	Adjustment of the LULUCF methodology for a better accounting of mitigation cultural practices of agro-ecosystem	A2	31/3/2016			
7	Report on the climatic, environmental and socioeconomic parameters of tree crops	A3	31/3/2016			
8	Contact data list of person involved in relevant efforts	F3	31/3/2016			
9	Production of project's notice boards	E4	30/6/2016			
10	Notice boards installed at the designated areas	E4	30/6/2016			
11	Informative Posters	E3	15/7/2016			
12	Informative Leaflets	E3	15/7/2016			

13	QA/QC 1st Report	F2	23/12/2016			
14	Indicator Tables for Mid-term Report	F6	31/3/2017			
15	Best Available Practices Guide for Tree-Crops Carbon Sequestration	C1	29/9/2017			
16	QA/QC 2nd Report	F2	22/12/2017			
17	Future climatic and meteorological conditions affecting tree crops in S. Europe	C2	31/1/2018			
18	Economic Module	C5	31/3/2018			
19	Report of CO2 balance calculations in tree-ecosystems for current and future climatic conditions in Greece, Italy and Spain	C4	1/6/2018			
20	Development of a web based interface	C3	28/6/2018			
21	Report on policy suggestions for climate change mitigation policies	C5	30/9/2018			
22	QA/QC 3rd Report	F2	21/12/2018			
23	Report on the evaluation of policy suggestions for climate change mitigation policies	D1	15/4/2019			
24	1st version of ClimaTree's Layman's report	E5	30/4/2019			
25	Final conference in Greece	E3	31/5/2019			
26	QA/QC 4th Report	F2	31/5/2019			
27	Final version of ClimaTree's Layman's report	E5	28/6/2019			

28	Report on networking with other relevant EU projects and its results	F3	28/6/2019			
29	After-LIFE Communication Plan	F4	28/6/2019			
30	Independent Auditor's Report	F5	28/6/2019			
31	Indicator Tables for Final Report	F6	28/6/2019			
32	Report of the socioeconomic impact	D2	30/6/2019			
33	Report on the impact assesment of tree crop ecosystem function restoration	D3	30/6/2019			
34	Published articles, press releases, interviews	E3	30/6/2019			
35	Presentations in workshops and conferences	E3	30/6/2019			

Reporting Schedule

Instruction: The consistency of the LIFE CLIMATREE's implementation progress reporting until the date of the QA/QC Report, with the reporting schedule set by LIFE CLIMATREE's approved Proposal for the same period, will be checked by filling in the green cells of the following table.

No.	Type of Report	Submission Deadline	Submitted? (Yes/No)	Submission Date	Comments
1	Progress Report	29/7/2016			
2	Mid-term Report <i>(with payment request)</i>	31/3/2017			
3	Progress Report	28/9/2018			
4	Final Report <i>(with payment request)</i>	28/6/2019			

Project's implementation consistency with the approved Timetable

Instruction: LIFE CLIMATREE's implementation consistency with the approved Timetable until the date of the QA/QC Report, is illustrated by drawing the Actual progress of LIFE CLIMATREE's until this date into the approved Timetable.

Action No	2015			2016			2017				2018				2019	
	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II
A.1																
A.2																
A.3																
C.1																
C.2																
C.3																
C.4																
C.5																
D.1																
D.2																
D.3																
E.1																
E.2																
E.3																
E.4																
E.5																
F.1																
F.2																
F.3																
F.4																
F.5																
F.6																

Legend 1

Approved progress:



Actual progress:



Reporting Date:



Legend 2

Action No	Name of Action
A.1	Selection and analysis of tree-crop categories in S. Europe
A.2	Adjustment of the "Land use, land-use change and forestry (LULUCF) Methodology" to the environmental problem targeted
A.3	Analysis of climatic, environmental and socioeconomic parameters of tree-crop categories in S. Europe
C.1	Life Cycle Assessment of carbon cycle in tree-crop categories
C.2	Projections of future climatic conditions for tree crop categories in S. Europe
C.3	Interface development of a software application for accounting tree-crop carbon sequestration
C.4	Carbon input / output calculation for current and future years
C.5	Suggestions of Climate Change Mitigation policies and measures
D.1	Evaluation of the effectiveness of the proposed policies and measures
D.2	Assessment of the socioeconomic impact of the project's outputs
D.3	Assessment of the impact of the proposed methodology in supporting the ecosystem function restoration
E.1	Creation of project's logo
E.2	Development, launching and maintenance of project's website
E.3	Dissemination of project's progress and results
E.4	Development of project's notice boards
E.5	Development of Layman's Report
F.1	Project management by UEHR
F.2	Monitoring of project progress
F.3	Networking activities with other relevant EU projects
F.4	Development of project's After-LIFE Plan
F.5	Audit of project's financials
F.6	Indicator Tables of Project's Progress

B. Financial Part

Consistency of project's expenditures with the approved Cost Breakdown

Instructions:

The evaluation of the consistency of the expenditures performed during the implementation of the LIFE CLIMATREE project until the date of the QA/QC Report will be performed based on the approved Proposal's Cost Breakdown (Financial Form R2 - Costs per Action).

In the following "Summarised LIFE CLIMATREE's implementation expenditures cost" Table the light blue cells present the approved budget per expenditure category, while the green ones present the so far status.

LIFE CLIMATREE's Coordinator 10 days before the end of each 6-month reporting period will send to all Beneficiaries the "QA-QC - Expenditures per Beneficiary" excel file in order to be filled-in.

Important notes for all Beneficiaries for the use of the above excel file:

- (a) The costs which are filled-in are the Total Costs and not the Eligible Costs.*
- (b) The budget figures do not include Overheads, which are calculated on a flat rate basis (7%) of the eligible costs. The result is presented in a separate cell for the total of the expenditures of all Actions.*
- (c) Fill-in the costs of the expenditures performed by your organisation since the beginning of the project's implementation until the QA/QC reporting date.*

The Coordinator after receiving the filled-in excel files from all Beneficiaries, transfers the data in the "QA-QC - Expenditures Summary" excel file. The data resulting from summing-up the Beneficiaries' data are then imported into the following "Summarised LIFE CLIMATREE's implementation expenditures cost" Table.

Summarised LIFE CLIMATREE's implementation expenditures cost

Action No	Budget line										Total Cost per Action		
	Personnel		Travel		External Assistance		Consumables		Other Costs		Approved	So far	
	Approved	So far	Approved	So far	Approved	So far	Approved	So far	Approved	So far	Approved	So far	
A.1	45,281.00										45,281.00	0.00	
A.2	26,359.00										26,359.00	0.00	
A.3	148,594.00										148,594.00	0.00	
C.1	75,757.00		24,110.00		10,000.00		51,500.00		4,500.00		165,867.00	0.00	
C.2	75,280.00						2,000.00				77,280.00	0.00	
C.3	95,040.00				30,500.00						125,540.00	0.00	
C.4	91,436.00		8,950.00				20,000.00		5,000.00		125,386.00	0.00	
C.5	151,545.00										151,545.00	0.00	
D.1	38,948.00										38,948.00	0.00	
D.2	111,000.00		8,700.00								119,700.00	0.00	
D.3	81,277.00										81,277.00	0.00	
E.1	1,800.00				1,500.00						3,300.00	0.00	
E.2	66,000.00				3,500.00						69,500.00	0.00	
E.3	105,429.00		54,256.00		11,000.00		13,250.00		13,700.00		197,635.00	0.00	
E.4	2,600.00										2,600.00	0.00	
E.5	20,569.00										20,569.00	0.00	
F.1	241,210.00		32,630.00		9,500.00		16,500.00				299,840.00	0.00	
F.2	46,639.00										46,639.00	0.00	
F.3	28,937.00		11,080.00								40,017.00	0.00	
F.4	1,000.00										1,000.00	0.00	
F.5	5,000.00								6,500.00		11,500.00	0.00	
F.6	7,600.00										7,600.00	0.00	
	1,467,301.00	0.00	139,726.00	0.00	66,000.00	0.00	103,250.00	0.00	29,700.00	0.00	1,805,977.00	0.00	
											Overheads	125,470.00	0.00
											Total	1,931,447.00	0.00

C. Technical Part

Instructions: *The evaluation of the implementation of the Technical part of the LIFE CLIMATREE project until the date of the current QA/QC Report, will be performed according to the methodologies and specifications which are set at the "Description and methods employed" section presented under each individual Action in the approved Proposal of the project.*

Comments, suggestions, proposed actions and corrective measures must be presented, where it is required, towards the improvement and optimisation of the performance of each individual Action and consequently of the whole project in total.