



## LIFE PROJECT – FoResMit LIFE14 CCM/IT/000905

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### DELIVERABLE ACTION F.2 MONITORING REPORT AT MID-TERM PERIOD



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## **1. INTRODUCTION**

The aim of this “Monitoring report at mid-term period” related to Action F.2 is to provide a periodic check on specific monitoring indicators of project activities and define the specific procedures followed during the project in carrying on the project technical activities.

In the first part a table with a final overview Action by Action of the real progress activities implemented and results achieved during the project compared to the activities and the results foreseen in the proposal are defined.

In the second part the project specific indicators table filled in and send also as attachment to the Mid-Term Report is reported.

## 2. Project Progress Indicators

In order to carry out an effective monitoring of all the activities inside each project action and to guarantee the reaching of the project objectives and the respect of the project timing, CREA, as Coordinating beneficiary, during the project life received at the end of each project month a summary of the activities carried out by each beneficiary. CREA at the end of each month, on the basis of the information collected by each beneficiary, was able to compare the real progress of the project activities compared to the activities foreseen in the project. At each project progress meeting CREA shows the table with the progress update to all the beneficiary in order to discuss about the real progress of the project.

The following table compares the project activities implemented at mid-term period of the project 30/09/2017 compared to the activities foreseen in the project.

Action number name and timing	Results foreseen in the revised proposal	Results achieved at project mid-term	Action monitoring
A.1. Climatic characterization and vegetation survey	1. Climatic trends and frequencies analysis of the main climatic variables  2. Complete quantification of the vegetation initial consistence	1. Mean temperature and total precipitation in the period 1901–2009. Palmer drought severity index (PDSI) in the period 1901–2002. Standardized Precipitation Evapotranspiration Index (SPEI) at 1-month time-scale in the period 1901–2009.  2. Parameters measured: species, DBH, total height, crown depth, crown projections, number of living whorls, crown vigour	In line
A.2. Pedological survey	Geological classification Soil type classification Pool of organic C actually stored in the soil.	– geological and pedological classification of the areas from existing thematic maps; – soil and humus profiles description; – soil physico-	More than expected

		chemical characterization and analyses of soil organic C and N pools at 0-10 and 10-30 cm	
C.1. Realization of thinning intervention in Italy	Thinning implementation in monte Morello forest	traditional thinning carried out on 5.35 ha selective thinning carried out on 4.73 ha	In line
C.2. Realization of thinning intervention in Greece	Thinning implementation in Xanthi forest	traditional thinning carried out on 3.2 ha selective thinning carried out on 3.2 ha	In line
D.1. Monitoring and quantification of C pools in vegetation and soil	<ul style="list-style-type: none"> <li>- C stock for above- and below-ground biomass.</li> <li>- Amount of litter and forest floor</li> <li>- Carbon stock in deadwood;</li> <li>- Soil organic C content</li> <li>- Harvested biomass.</li> </ul>	<ul style="list-style-type: none"> <li>- Reduction of C stock in biomass, stronger with selective thinning</li> <li>- litter input and forest floor increased with thinning</li> <li>- soil organic carbon increased</li> <li>- deadwood was reduced with selective thinning.</li> <li>- harvested biomass chipped and transformed in energy</li> </ul>	In line
D.2. Monitoring and quantification of GHG emissions and Global Warming Potential	<ul style="list-style-type: none"> <li>-Daily, seasonal and annual rates of CO<sub>2</sub>, N<sub>2</sub>O and CH<sub>4</sub> fluxes</li> <li>- Global warming potential</li> </ul>	<ul style="list-style-type: none"> <li>- daily and cumulative fluxes have been calculated during thinning and the 6 months after thinning</li> <li>- global warming potential have been calculated and N<sub>2</sub>O and CH<sub>4</sub> fluxes expressed as CO<sub>2</sub> equivalents.</li> </ul>	In line
D.3. Governance of the project results in the carbon voluntary market	<ul style="list-style-type: none"> <li>- Processes of awareness and training of the stakeholders involved in the project;</li> <li>- Quantification and governance of the carbon credit number in the voluntary market.</li> </ul>	<ul style="list-style-type: none"> <li>- Recognized and listed all the stakeholders belonging to organized groups who affect and/or are affected by the decisions and actions of the project</li> <li>- 32 stakeholders have been identified and shared in five groups of interest (public administrations, environmental Non-Governmental</li> </ul>	More than expected

		Organizations-NGOs, forest-wood chain actors, actors of tourism sector, Universities and research institutes)	
D.4. Monitoring of technical-socio-economic assessment of the LIFE FoResMit project	- Proof of technical-social and economic viability of FORESMIT treatment. - Elaboration and analysis of data in terms of socio-economic impact on the local economy and population	Not yet started	-
E.1. Project website	Project web site and Facebook page	Project web site (217,907 visits) and Facebook page (202 friends) continuously updating	In line
E.2. LIFE+ information boards	18 FoResMit notice boards	8 notice boards displayed in beneficiary public places and 4 in demonstration sites	In line
E.3. Layman's report	FoResMit Layman's report	Not yet started	-
E.4 Diffusion material preparation	<ul style="list-style-type: none"> <li>➤ Logo definition</li> <li>➤ 24 posters</li> <li>➤ 12,000 brochures/leaflets</li> <li>➤ 2,400 various items</li> <li>➤ 6 roll-up</li> </ul>	<ul style="list-style-type: none"> <li>➤ Logo defined</li> <li>➤ 6,000 leaflets/brochures/factsheets</li> <li>➤ 50 posters</li> <li>➤ 3 rolls-up</li> <li>➤ 600 usb flashes, 200 keyrings, 200 block-notes, 400 pens, 400 pencils, 20 t-shirts and 20 huts as FoResMit gadget</li> </ul>	In line
E.5. Press and media releases	30 publications on different media	6 articles	More effort needed
E.6. Networking	Clusters with 7 projects	Clusters with 6 projects	More than expected
E.7. LIFE FoResMit manual	FoResMit manual	Not yet started	-
E.8. Demostartion workshops, seminars, conferences and other events	4 FoResMit workshops	<ul style="list-style-type: none"> <li>➤ DAMT and DUTH organized 1 Greek workshop on 6th of April 2016</li> <li>➤ DUTH organized a day conference on 11th of April 2017</li> </ul>	In line

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		<ul style="list-style-type: none"> <li>➤ DAMT organized a day conference with schools on 11th of April 2017</li> <li>➤ DAMT during the annual International Day of Forests organized a one day event on 21st of March 2016 and two days event on 21st-22nd of March 2017</li> <li>➤ PROVIFI and CREA organized 1 Italian workshop on 15th of May 2017</li> <li>➤ CREA organized two public events on 22th of June 2016 and on 20th of January 2017</li> </ul>	
E.9. Dissemination to Institutions and policy makers	Successful communications to EU and national Institutions and policy makes	Preliminary contacts with 10 policy makes	In line
E.10. International fairs and other events	participation at minimum 6 events between international conferences and fairs	Participation at 19 events and fairs	More than expected
E.11. Digital supports for international diffusion	1 Project video	Production of preliminary video	In line
E.12. After-LIFE Communication Plan	FoResMit After-LIFE Communication Plan	Not yet started	-
F.1. Project management	Management of project activities	Continuous contact between all project partners and project meetings	Great beneficiaries collaboration
F.2 Project monitoring	Monitoring of project activities	monthly indication of operative activities and monthly summary of the project activities	Great help from monitoring team
F.3 Audit	Audit Report	Not yet started	-

It is clearly evident from the above table that the work carried out during the mid-term period of the FoResMit project is perfectly in line with was expected in the FoResMit proposal.





### **3. Project SPECIFIC INDICATORS**

#### *3.1 Project specific indicators table*

In the next page we report the project specific indicators table filled in updated at Mid-Term project period.

LIFE 2014 Call - CCA - CCM - GIC :  
Key Indicators for LIFE projects - v001

Numbers	Key indicators and parameters	Descriptors	Impact units	State-of-play at the beginning of the project period at project level	EXPECTED State-of-play at the end of the project period at project level	State-of-play at September 2017 at project level	comments	Impact at project level	State-of-play 3 years after the project end at project continuation, replication and/or transfer level (Indicator 15.5)	impact3 years after the project end at project continuation, replication and/or transfer level (Indicator 15.5)	Comments	Actions involved
				Values	Values				Values			
<b>3.2</b>	<b>Implementation of the European Forest strategy</b>											
3.2.1	Reforested area/area newly under sustainable forest management	Forest newly under sustainable forest management	ha	0,00	12,00	16,68		12,00	12,00	12,00		D4
3.2.2	Provision of forest data sets for the European Data Centre		No. of data sets provided	0,00	4,00	4,00		4,00		0,00	1 forest dataset and 1 soil dataset for each site	D1
<b>8</b>	<b>Mitigation</b>											
<b>8.1</b>	<b>Greenhouse gas emissions</b>											
8.1.1	CO2 (mandatory for CCM projects)	CO2 emissions from soil	metric tons/ha/year	20 ± 5	16.7 ± 4	Control: 22 Traditional: 24 Selective: 21	cumulated values after thinning, mean of monte Morello and xanthi	-3,30	14.95 ± 4	-5,05	Results will depend on climatic conditions of each year. Reduction has been calculated on the heterotrophic component only	D2
8.1.2	Other greenhouse gases	N2O emissions	metric tons/ha/year	0.0014 ± 0.0012	0.0014 ± 0.0012	Control: 0.001 Traditional: 0.004 Selective: 0.002	cumulated values after thinning, mean of monte Morello and xanthi	0,00	0.0014 ± 0.0012	0,00	Values reported are only rough estimates since few data are available. Results can be highly variable and will also depend on climatic conditions of each year.	D2
		CH4 emissions	metric tons/ha/year	-0.04 ± 0.1	-0.07 ± 0.1	Control: -0.001 Traditional: -0.001 Selective: -0.002	cumulated values after thinning, mean of monte Morello and xanthi	-0,03	-0.1 ± 0.1	-0.06	Values reported are only rough estimates since few data are available. Results can be highly variable and will also depend on climatic conditions of each year.	D2
<b>8.2</b>	<b>Carbon sequestration</b>											
		C accumulation in biomass (NPP)	tons C/ha/year	0,90	1,40	to be assessed at the end of the project		0,50	1,40	0,50	Values are rough estimate taken from literature. The accuracy of the estimates can vary from 20% to 30% Source: Martín-Benito, Darío, et al. "Response of climate-growth relationships and water use efficiency to thinning in a Pinus nigra afforestation." Forest Ecology and Management 259.5 (2010): 967-975.	D1
		C accumulation in soil	Mg C/ha/year	0.1 ± 0.1	0.5 ± 0.1	Control: 5.6 Traditional: 3.6 Selective: 3.9	January 2017 vs. November 2015)	0.4 ± 0.1	0.3 ± 0.1	0.2 ± 0.1		D1
<b>8.3</b>	<b>Renewable energy</b>											
8.3.1	Production	wood biomass	m3/ha	0,00	115,00	Traditional: 151 Selective: 219		115,00	0,00	0,00		D1
		potential energy	kWh/m3	0,00	2.400,00			2400,00	0,00	0,00	this is the potential energy of wood biomass. The real energy produced depend on the efficiency of the co-generator	D1
8.3.2	Consumption		kWh/m3	0,00	0,00			0,00	0,00	0,00		D1
<b>10.</b>	<b>Coverage / Range of the environmental / climate change impact (mandatory)</b>											
10.1	Total human population to be affected by the project (mandatory for floods/droughts, air, noise, climate adaptation)		No. of individuals to be affected by the project	0,00	128.000,00			128000,00		0,00	This estimate is based on the population census for the municipalities of: Calenzano (Italy), Sesto Fiorentino (Italy) and Xanty (Czechia)	D4
10.2	Total area to be affected by the project		km2	0,00	279,00			279,00	20,00	20,00	This estimate considers the area covered by the municipalities of:	D4

LIFE 2014 Call - CCA - CCM - GIC :  
Key Indicators for LIFE projects - v001

11.2	Implication of NGO (mandatory) including interventions supporting EU environmental and/or climate change policies and of other stakeholders (at least one mandatory)	environmental associations, forest associations, local authorities, regional authorities,	No.	0,00	10,00			10,00	15,00	15,00		D4, E9
12	Information and awareness											
12.1	General public reached and/ or made aware											
12.1.1	Website (mandatory)	general public	200 per month	0,00	9.600,00	Project web site: 217,907 visits and Facebook page: 202 friends		9600,00	30.000,00	30000,00		E1
12.1.2	Other tools for reaching/raising awareness of the general public	18 bilingual notice boards produced and displayed; Layman's report to be distributed and delivered to the Commission at the end of the project; 24 Posters, 12,000 leaflets/brochures/factsheets etc ready for use in dissemination events, 2,400 various branded items, 6 roll-up panels, Electronic materials for	No. Individuals	0,00	50.000,00	8 notice boards displayed in beneficiary public places and 4 in demonstration sites; 6,000 leaflets/brochures/factsheets; 50 posters; 3 roll-up; 600 usb flashes, 200 keyrings, 200 block-notes, 400 pens, 400 pencils, 20 t-shirts and 20 huts as FoResMit gadget		50000,00	60.000,00	60000,00		E2, E3, E5, E7, E8, E10, E11
13	Capacity building											
13.1	Networking (mandatory) and other professional training or education	networking with at least 7 projects or initiatives potentially	70 of individuals of other projects contacted	0,00	70,00	Clusters with 6 projects		70,00	80,00	80,00		E6