LIFE17 CCA/ES/000063

Deliverable 17

Intermediate Project Performance Assessment

Action F1. Project Management

01/09/2020

LIFE RESILIENT FORESTS "Coupling water, fire and climate resilience with biomass production in Forestry to adapt watersheds to climate change"

Executive Summary

The objective of this assessment is to collect and evaluate the actions carried out from the beginning of the project until 31/08/2020. It offers a quick view on the performance of the project.

Name of the Deliverable	Number of associated action	Deadline
Intermediate Project Performance Assessment	F1	08/2020

Deliverable number: 17

Beneficiary responsible: UPV

Action: F1. *Project Management* (From month 1 – month 48)

Contenido

1. Introduction

The objective of this assessment is to collect and evaluate the actions carried out from the beginning of the project until 31/08/2020. It offers a quick view on the performance of the project.

2. Status of project actions

Action A1: Updating and modelling of Serra's forest and biomass management approach

This action is in progress.

In relation to the work carried out, the forest and biomass management strategy of Serra has been has been updated and compiled in the Current biomass management plan of Serra technical document. Stakeholder´s opinions and detailed planning of the improvement possibilities have been also compiled. A technical document with the proposed improvement possibilities and expected benefits from the management has been elaborated.

Serra´s forest inventory have been updated.

The forest management approach has been completed: Serra´s forest has been classified into forest basic structures, matrixes to describe forest-water-soil-climate-fire relationships of each basic forest structures have been elaborated and a new multi-objective forest management plan has been developed.

Stakeholders for each of the project´s regions have been identified. The new forest management plan has been disseminated among key stakeholders of Serra.

Certification of Serra's pellets from forest biomass is still pending. First quality analysis has shown that the standard quality required for certification is not reached yet.

This action is considered practically finished in default of pellets certification.

The deliverables of this action, completed on date, contain the results of the work carried out in action A1.

Action A2: Refining forest-water-soil-climate-fire relationships under different management intensities

This action has been completed.

The climatic and fire disturbances, eco-hydrology, erosion and biomass according to different management intensities have been developed for the whole catchment of Carraixet (obtention of relationship matrixes).

Topographic and edaphic variability have been analysed by using remote sensing analysis and the distributed hydrological model TETIS-VEG into the whole Carraixet's catchment.

The result has been the obtention of final matrixes which describe forest-water-soil-climate-fire relationships that combine the previous ones with the topographic and edaphic variability using remote sensing analysis.

A distributed model TETIS-VEG (new version of ECO-TETIS) has been used to carried out the work foressen in this action. Technical contents, structure and results of action A2 have not suffer any modification in relation to targets established in the action.

Action C1. Development of a Decision Support System

This action is in progress.

The development of in-situ matrixes makes this coupling step not necessary. Thus, two more study cases: Espadilla catchment (East of Spain) and Ceira river basin (East of Portugal), and one more eco-hydrological model to be coupled with the DSS tool (RHESSys, see Action A2) have been added to this action. Both study cases are very different in terms of extension and available information. Espadilla catchment is smaller and a more detailed information to calibrate and validate the case is available from other research project. Therefore, Espadilla has been analysed by means of RHESSys while ECO-TETIS has been used in Ceira, since being able to choose among different models according to the user needs and available information is one of the characteristics of the tool that is being developed by the project.

The characterization of the basic socio-economic activities in rural areas and its downstream territories in the DSS has been implemented.

UPV has compiled and analysed local information about unemployment, water consumption versus water inputs and economic activity. As a result the social and economic situation of Carraixet's catchment has been characterised (unemployment: 15 %, water scarcity, where the main use is for agriculture, upper catchment villages highly dependent on local tourism and building industry).

From these results, it has been considered to analyse the social acceptance of forest management for both, the upstream villages and the Natural Park La Calderona visitors. In this sense, the social perception between the tourism and the local people resulted antagonistic as local people is positive about forest management, fire risk decreasing and biomass production but visitors had quite a negative image about managing the forest, thus, major importance on explaining the approach and benefits of forest management within the context of the visitors will be given.

The social-economic context and biomass production have been included into the DSS tool, as well as other relevant variables such as landscape heterogeneity, fire risk, and C sequestration (€).

Regarding the participatory design of the DSS tool, individual meetings (IM) with stakeholders and preliminary workshops (WS) to gather their needs and information concerning the applicability of the DSS have been developed in Spain, Germany and

Portugal (Spain: 3 WS, 3 IM; Portugal: 1 WS, 1 IM; Germany: 2 WS). Also, a webinar to introduce LIFE Resilient Forests DSS Tool and its use in forest management was held online (27th May 2020) and attended by 81 participants.

First version of the DSS tool have been already developed (beta version), coupled to TETIS eco-hydrological model and Rhessys model. Contact with stakeholders has improved the initial version of the DSS tool, where elements such as planting or biodiversity are being included, contributing to achieve a more flexible tool. The DSS tool development is still in progress and susceptible of adding and/or modifying metrics that help to improve the social, ecological and economic situation of the study site, nevertheless a beta version of the tool has been already developed and it is being applied to a real study case.

A preliminary work to foster transfer and replication of results has been carried out during meetings developed in Spain by UPV. Divalterra and Diputación del País Vasco have shown a positive interest in using the tool and applying the results (forest management). Besides, other Spanish administrations such as Centre de la Propietat Forestal in Cataluña and the Aragon Regional Government have expressed their interest in using the tool as well.

New individual meetings and workshops will be developed along of this action to continue to constantly improve the design of the DSS tool.

Action C2. Demostration of the DSS and forest management model at subcatchment scale

This action will start in month 27.

Action C3. Development of a replication strategy and application in municipalities and watersheds in Spain, Portugal and Germany

This action will start in month 33.

Action D1. Project results monitoring

This action is in progress and runs until the end of the project.

Project impacts are being monitored by UPV. Values reported correspond to the case study of Serra's village (SE of Spain) and are the result of direct measures and/or calculations using different methodologies. Project impacts indicators monitored so far have been:

1) environmental related indicators: Climate regulation and carbon sequestration, fire hazard reduction, soil stabilization and erosion control, climate resilience, flood risk reduction and biodiversity indexes.

2) socio-economic impacts: jobs created in forest management, biomass management and pellet production, economic profit from tradeable goods, improvement of ecosystem services provided to the local population and grazing activities.

3) watershed services: water supply reliability, population served, irrigated area and irrigated crops and production value.

4) recreation values: wilderness recreation, hunting and fishing, non-timber commercial products.

Monitoring of a state of the art survey on methodology techniques for replication activities has been already developed and potential stakeholders for each study area have been identified (Spain: 11 stakeholders, Germany: 5 stakeholders, Portugal: 22 stakeholders)demonstration and replication activities will start in month 27 and 33 respectively.

The procedure to carry out the Life Cycle assessment (LCA) of the forest management approach has been stablished. LCA is foreseen to be started within the next months, once the new multi-objective forest management plan developed by the project is performed in Serra´s Municipality.

Monitoring of project impacts is being developed according to schedule. As a result, several indicators and its measurement methodology have been obtained, and will be used (and improved) along the project. The methodologies will be also shared with each replication site so the monitoring will continue even after the project end.

Action D2. Monitoring of LIFE KPI

This action is in progress and runs until the end of the project.

An initial update of KPI indicators and their target values was developed in October 2019 through the LIFE KPI webtool. A posterior revision of the target values entered in the webtool application was carried out in July 2020 to assess compliance with the planned objectives.

A new update of KPI is foreseen for the Progress Report (01/2022) as well as an evaluation and final update of indicators.

Action E1. Dissemination planning and execution

This action is in progress. Communication materials and activities are being successfully developed.

The Dissemination and Communication Plan of the project was launched in February 2019 and reviewed in July 2019. A database of stakeholders has been elaborated to distribute project's newsletters and it is regularly updated with new contacts from dissemination and communication activities developed.

The development of the Dissemination Pack started also in December 2018. The webpage of the project has been created and is available in all partner´s languages, as well as the notice board layout and the initial project brochure. Four e-newsletter have been launched so far and send to 1.100 contacts each. Social media profiles of the project (twitter

account, Youtube channel and LinkedIn account) have been launched. The project has developed also a web-serie videos (13 videos currently performed) which have been have been promoted via online channels.

Additional materials for citizen's participation to be used in public participation sessions and workshop have been produced.

Regarding networking with other projects and initiatives, a database of project and initiatives relate to LIFE RESILIENT FORESTS has been developed in order to carry out networking sessions, foster cooperation and ensure transfer of know-how and experience at EU level. Contact has been stablished with eight different European projects to present objectives, activities, the novel DSS tool and results obtained so far. All of them have showed their interest in the forest management approach developed by the project. And a fruitful cooperation is expected from these networking activities.

On the other hand, 2 Info-days has been organized in order to present the project to the general public and media (Spain: 29th November 2018, 150 attendants, 140 stakeholders and Portugal: 21th October 2019, 20 attendants, 18 stakeholders from 16 different institutions).

Regarding technical dissemination the project has been presented in the following events:

- European Biomass Conference and Exhibition on 27 May 2019 (Lisbon).
- Meeting with the coordinator of ERIAF network - European Regions for Innovation in Agriculture, Food and Forestry held in September 2019. Objective: stablish cooperation with the network.
- 32nd meeting of the FAO work group for the Management of Mountain Watersheds on 25 September 2019 (Innsbruck, Austria). Objective: Presentation of the project to possible stakeholders
- Webinar: Innovative Solutions for Forest Management and the C.A.F.E. DSS tool. Organized by EUBIA on 27 May 2020. Objective: introduction of the DSS tool to prospective early adopters in the forest management field.
- Work-days of the Natural Park Serra Calderona in Spain on 31th October 2018. Objective: presentation of the project.
- VI Technical Conference of IIAMA Institute of Water and Environmental Engineering of the Polytechnic University of Valencia, Spain on 21th October2018. Objective: technical seminar of the project offered by UPV to present LIFE RESILIENT FORESTS forest management.
- Cycle of regional conferences 'Sustainable forest management as a driver of the rural economy' session, developed by the Environment Department of the Valencian regional government. Objective: presentation of the project.
- Exchange on forest research Workshop in Jülich, Germany, on 23th January 2020. Objective: presentation of the project to key stakeholders.

Appearance of LIFE RESILIENT FORESTS in media is regular (TV, radio, newspapers). Communication and dissemination activities are being effective in raising awareness on the project particularly at local level in the countries of the partners, as well as at international level through participation at conferences, face to face meetings and events organized on-line. The communication strategy has gradually shifted from the general aims and scopes of the project to the features of the DSS tool. Communication activities were effective also in establishing initial contacts with local and international stakeholders.

Action F1. Project management

This action is in progress.

UPV is in charge of the overall management and coordination, setting the project schedule, representing the project in events, applying recommendation of external experts, supporting to ABs, ensure timely and quantitative achievement of project objectives, coordination of reporting, organization of steering committees.

Five steering committees and two NEEMO external monitoring visits have been developed since the beginning of the project. Besides face meetings, technical and financial monitoring of the project is been carried out through e-management meetings and emailing. So far, UPV has performed 23 individual on-line technical monitoring meetings to follow up project implementation by Associated Beneficiaries.

During the KOM, a training session about financial and administrative issues was done for project's beneficiaries, dealing with this specific content: first steps for the project implementation, financial instructions, eligibility of costs, description of type of costs, calculation of personnel costs, how to complete timesheets, 2% rule, award of contracts, supporting documentation for each type of cost, minor and major changes, payment scheme, financial update, reporting schedule, how to fill the financial report, communication requirements for eligibility of costs, monitoring visits to the project.

In addition, a detailed project calendar, setting deadlines for each activity to be developed within the project, allocating resources and responsibilities was elaborated when project started. In the same way, templates and models for project's documents were prepared and shared among project partners.

Periodic update of project expenses and provision of supporting administrative and financial documentation to the Coordination Beneficiary is carried out on a timely basis and for each monitoring visit or report to EASME.

3. Chronogram of the project

Action		2018	2019				2020		
Action number	**Action title**	**IV**	**I**	**II**	**III**	**IV**	**I**	**II**	**III**
A. Preparatory actions (if needed)									
A.1	Updating and modelling of Serra's forest and biomass management approach	X	X						
A.2	Refining forest-water-soil-climate-fire relationships under different management intensities	X	X	X					
C. Implementation actions (obligatory)									
C.1	Development of a Decision Support System			X	X	X	X	X	X
C.2	Demonstration of the DSS and forest management model at sub-catchment scale								
C.3	Development of a replication strategy and application in municipalities and watersheds in Spain, Portugal and Germany								
D. Monitoring of the impact of the project actions (obligatory)									
D.1	Project results monitoring			X	X	X	X	X	X
D.2	Monitoring of LIFE KPI			X	X	X	X	X	X
E. Communication and dissemination of results (obligatory)									
E.1	Dissemination planning and execution	X	X	X	X	X	X	X	X
F. Project management (obligatory)									
F.1	Project management	X	X	X	X	X	X	X	X

4. Status of milestones and deliverables

Type	Code	Name	Action	Deadline	State
Milestone	M1	Project starts	F1	01/10/2018	✓
Deliverable	D1	Current biomass management plan	A 1	01/11/2018	✓
Milestone	M2	Improvement possibilities of the biomass management plan	A 1	01/12/2018	✓
Deliverable	D2	Document with the improvement possibilities of the biomass management plan	A 1	01/12/2018	✓
Deliverable	D3	Basic forest structures	A 1	01/12/2018	✓
Milestone	M3	First SC in Valencia	F 1	30/12/2018	✓
Milestone	M4	Technical seminars in Spain and Portugal	E1	31/12/2018	✓
Deliverable	D4	Detailed forest inventory	A 1	01/01/2019	✓
Milestone	M5	Matrixes of forest-water-soil-climate-fire relationships under different management intensities for each basic forest structure	A 1	01/01/2019	✓
Deliverable	D5	Matrixes of forest-water-soil-climate-fire relationships under different management intensities for each basic forest structure	A 1	01/01/2019	✓
Deliverable	D6	Web page	E 1	31/01/2019	✓
Deliverable	D7	Dissemination and Communication Plan	E 1	28/02/2019	✓
Milestone	M6	Social media profiles launched	E 1	28/02/2019	✓
Deliverable	D8	Forest management plan	A 1	01/03/2019	✓
Milestone	M7	Certification of Serra´s pellets	A 1	01/03/2019	×
Deliverable	D9	Key stakeholders in resilient forest management	A 1	01/03/2019	✓
Milestone	M8	New forest management plan	A 1	01/03/2019	✓

Milestone	M9	Info days in Spain and Portugal	E 1	30/03/2019	✓
Milestone	M10	Launching of the first newsletter	E 1	31/03/2019	✓
Deliverable	D10	E-newsletter	E 1	31/03/2019	✓
Deliverable	D11	Initial Project brochure	E 1	31/03/2019	✓
Deliverable	D12	Matrix of describe forest-water-soil-climate-fire relationships of each basic forest structures under different management intensities with the topographic and edaphic variability	A2	01/05/2019	✓
Milestone	M11	Characterization and quantification of the forest-water-soil-climate-fire relationships of each basic forest structures under different management intensities	A2	01/05/2019	✓
Deliverable	D14	Notice boards	E1	01/07/2019	✓
Deliverable	D15	Materials for citizen's participation	E1	30/09/2019	✓
Milestone	M13	First individual meetings with stakeholders	C1	31/10/2019	✓
Milestone	M14	Initial update of KPI	D2	31/10/2019	✓
Milestone	M15	Preliminary workshop	C1	15/12/2019	✓
Deliverable	D16	Video	E1	31/12/2019	✓
Deliverable	D17	Intermediate Project performance assessment	F1	31/08/2020	✓

5. Results and conclusion

As indicated in this report, the actions are being implemented correctly, in accordance with the schedule and the objectives set in the project.

Preliminary actions to demonstrate the benefits of the Serra forest management approach and its application in climate change mitigation and adaptation have been successfully implemented. Only one milestone, certification of Serra´s pellets (M7), is still pending in order to consider preliminary actions concluded. The extension of this action in time will not cause a delay in the implementation actions, which are been currently executed without problems since all the

necessary results of the preliminary actions for the development of the Decision Support System have been obtained.

Monitoring actions, communication and dissemination and Project management are been implemented effectively.