KPI Analysis Table

D3 - Monitoring KPI's

LIFE RESILIENCE

LIFE17 CCA/ES/000030

LIFE17 CCA/ES/000030

Deliverable Name: KPI Analysis Table

Action D3: Monitoring KPI's

Compiled by: BALAM

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Summary

During the project implementation, to the end of the project and even some years after finish, the impact of the measures adopted through the Key Project-level Indicators (KPI) will be evaluated. This document is a summary of the indicators selected for evaluate the project impact, the target set initially for each indicator, the current situation (End of project:June 2022) and an analysis of the results with some specific deviations.

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Chapter I. 1. Key Project-level Indicator (KPI) database webtool table

1. Key Project-level Indicator (KPI) database webtool table

Partners decided the performance project indicators in the action D1 to facilitate the KPI calculation. The initial information (start value) was updated in the LIFE KPI Webtool (https://webgate.ec.europa.eu/eproposalWeb/kpi/module). The data collected from the action D1 during the initial months was synthetized to upload in the webtool for Midterm Report, Progress Report. However, the estimated values of these indicators have been updated as of June 2022, end of the project. These data have not been recorded in the web tool, following the guidelines set, but we have collected it in this table that we show below.

COMPOUND CONTEXT	CONTEXT ITEMS	INDICATOR HIERARCHY	INDICATOR CODE	INDICATOR NAME	FIRST LEVEL DESCRIPTOR	START VALUE	END VALUE	BEYOND END VALUE	UNIT
Increasing crop resilience against XF through sustainable best practices and technologies	[ES/ES6/ES61/ES618, ES/ES5/ES52/ES521, ES/ES4/ES41/ES412, ES/ES4/ES43/ES431, ES/ES4/ES43/ES432, IT/ITI/ITI1/ITI17, IT/ITI/ITI1/ITI1A, IT/ITG/ITG1/ITG17, PT/PT1/PT18/PT186, PT/PT1/PT18/PT184]	Key Performance Indicators Hierarchy 2016-2017	1.5	Project area/length	Conservation or improvement of the status of an area or segment	0	2.154,8	4.348,8	ha
COMMENTS									
END VALUE: 2154,8 has Demo farms: 250 ha agricultural land under sustainable management Replica farms: 1862 ha agricultural land under sustainable management Replication Farm NDVI methodology treatments: 40 ha Xylella fastidiosa genotypes evaluation trial: 2,8 ha BEYOND 5 YEARS VALUE: 4348,8 has All activities will continue on the farms currently attached to the project and 30 after life farms (2,194 has) will be incorporated with a 5-year commitment (signed letters of adherence).									
Increasing crop resilience against XF through sustainable best practices and technologies	[ES/ES6/ES61/ES618, ES/ES5/ES52/ES521, ES/ES4/ES41/ES412, ES/ES4/ES43/ES431, ES/ES4/ES43/ES432, IT/ITI/ITI1/ITI17, IT/ITI/ITI1/ITI1A, IT/ITG/ITG1/ITG17, PT/PT1/PT18/PT186, PT/PT1/PT18/PT184]	Key Performance Indicators Hierarchy 2016-2017	1.6	Humans (to be) influenced by the project	Persons whose lives were directly, positively impacted by MAIN envir. actions of project - see Guide	0	121.008	181.512	Number of residents within or near the project area
COMMENTS									

END VALUE: 121008 Inhabitants of the towns near the demonstration farms (Carmona: 28,620 inhabitants, Pisa: 90,488 and Alhandroal: 1,900) BEYOND 5 YEARS VALUE: 181512 An increase in impacted individuals of 50% of the population was estimated after implementing the measures in more than 30 replica farms after life									
Increasing crop resilience against XF through sustainable best practices and technologies	[ES/ES6/ES61/ES618, ES/ES5/ES52/ES521, ES/ES4/ES41/ES412, ES/ES4/ES43/ES431, ES/ES4/ES43/ES432, IT/ITI/ITI1/ITI17, IT/ITI/ITI1/ITI1A, IT/ITG/ITG1/ITG17, PT/PT1/PT18/PT186, PT/PT1/PT18/PT184]	Key Performance Indicators Hierarchy 2016-2017	1.6	Humans (to be) influenced by the project	Persons who changed their behaviour or practices due to the project actions	0	21	51	Number of residents within or near the project area
COMMENTS									
END VALUE: 20 farm owners Demo farms: 3 farm owners Replica farms: 13 farm owners Replication Farm NDVI methodology treatments: 4 farm owners Xylella fastidiosa genotypes evaluation trial: 1 farm owners BEYOND 5 YEARS VALUE: 51 farm owners 21 farm owners at the end of the project + 30 farm owners incorporated with a 5-year commitment (signed letters of adherence).									
Demo farms	[IT/ITI/ITI1/ITI17, PT/PT1/PT18/PT186, ES/ES6/ES61/ES618]	Key Performance Indicators Hierarchy 2016-2017	2.3.5.3	Water consumption for production	The project's environmental or climate action outcomes linked to its main objective	6,67	5,56	5,56	m3/unit produced

COMMENTS									
END VALUE: 5,56 Volume of water required to produce 1 kg of olives in the project's super-intensive farms. The value has been calculated by dividing the volume of water applied to the olive grove with a deficit irrigation strategy divided by the average production of the farm BEYOND 5 YEARS VALUE: 5,56 The RDI will continue to be implemented with the scope of the average production of the farm.									
Demo farms	[IT/ITI/ITI1/ITI17, PT/PT1/PT18/PT186, ES/ES6/ES61/ES618]	Key Performance Indicators Hierarchy 2016-2017	2.3.5.3	Water consumption for production	The project's environmental or climate action outcomes linked to its main objective	17.000	17.000	17.000	(number of units produced or measure of services provided)/year
COMMENTS									
Average of production of olives in exploitation of super-intensive olive grove in the project, implementing RDI END VALUE: 17000 kg/year BEYOND 5 YEARS VALUE:17000 kg/year									
Increasing crop resilience against XF through sustainable best practices and technologies	[ES/ES6/ES61/ES618, ES/ES5/ES52/ES521, ES/ES4/ES41/ES412, ES/ES4/ES43/ES431, ES/ES4/ES43/ES432, IT/ITI/ITI1/ITI17, IT/ITI/ITI1/ITI1A, IT/ITG/ITG1/ITG17, PT/PT1/PT18/PT186, PT/PT1/PT18/PT184]	Key Performance Indicators Hierarchy 2016-2017	9.1	Adaptation area	Adaptation area	0	2.154,8	4.348,8	ha
COMMENTS									

END VALUE: 2154,8 has
Demo farms: 250 ha agricultural land under sustainable management
Replica farms: 1862 ha agricultural land under sustainable management
Replication Farm NDVI methodology treatments: 40 ha
Xylella fastidiosa genotypes evaluation trial: 2,8 ha
BEYOND 5 YEARS VALUE: 4348,8 has
All activities will continue on the farms currently attached to the project and 30 after life farms (2,194 has) will be incorporated with a 5-year commitment (signed letters of adherence).

Communication and dissemination	[ES, IT, PT]	Key Performance Indicators Hierarchy 2016-2017	10.2	Involvement of non-governmental organisations (NGOs) and other stakeholders in project activities	Public body/bodies	0	79	83	number of stakeholders involved due to the project

COMMENTS

END VALUE: 79
Contact with relevant skateholders to provide climate resilience agriculture strategies: at least 4 research groups; 9 national - regional and local authorities in agriculture; 12 university departments of forestry, agriculture, environmental sciences, phytopathology and entomology; 45 farmers associations and cooperatives; 5 NGOs and international organisations for agriculture, food security; 4 policy makers and members of the European Parliament.
BEYOND 5 YEARS VALUE: 83
At least 1 International organization and 3 research group will be contacted to show the results and try to find other funding program to give continuity to the project.

Communication and dissemination	[ES, IT, PT]	Key Performance Indicators Hierarchy 2016-2017	11.1	Website (mandatory)	No. of unique visits	0	11.787	12.966	Number of unique website visits
COMMENTS									
END VALUE: 11787 unique website visits The traffic has increased significantly during the implementation of this project (1/07/2018-30/06/2022), reaching 61,583 visits and 11,787 different users have visited our website. BEYOND 5 YEARS VALUE: 12966 unique website visits We expect an increase of at least 10% of the visits obtained in these 4 years.									
Communication and dissemination	[ES, IT, PT]	Key Performance Indicators Hierarchy 2016-2017	11.2	Other tools for reaching/raising awareness of the general public	Number of different displayed information created (posters, information boards)	0	41	44	Number of outcomes (e.g. nr of reports, events, etc)
COMMENTS									
END VALUE: 41 Posters: 4 Posters at international scientific conferences Notice boards; 9 in partners´s offices and 3 in demo farms Display. During the project, a total of 25 roll-ups were produced for fairs, conferences and events related to the dissemination of the project to target audiences such as farmers, administrations, etc. BEYOND 5 YEARS VALUE: 44 2 new posters and 1 roll-ups will be present in international or national conferences with the results of the project									

Communication and dissemination	[ES, IT, PT]	Key Performance Indicators Hierarchy 2016-2017	11.2	Other tools for reaching/raising awareness of the general public	Number of events/exhibitions organised	0	12	15	Number of outcomes (e.g. nr of reports, events, etc)
COMMENTS									
END VALUE: 12 Partners organised 11 technical seminars (four face-to-face in Italy, Malaga Portugal and seven online between 2020 and 2022) and 1 final conference. BEYOND 5 YEARS VALUE: 15 12 + 3 technical seminars with the final results of the project									
Communication and dissemination	[ES, IT, PT]	Key Performance Indicators Hierarchy 2016-2017	11.2	Other tools for reaching/raising awareness of the general public	Other distinct media products created (e.g. different videos/broadcast/leaflets)	0	3.083	3.200	Number of outcomes (e.g. nr of reports, events, etc)
COMMENTS									
END VALUE: 3083 Videos: the Life Resilience project published a total of 74 videos on its social network Youtube through which the project partners, their challenges and objectives, good practices and the activities carried out since its inception in 2018 were made known. Broadcast and leaftets: 3,009 information brochures have been produced for use at trade fairs and events, networking and meetings. 1,509 in Spanish, 500 in English, 500 in Italian and 500 in Portuguese BEYOND 5 YEARS VALUE: 3200 Broadcast and leaftets: in events, conference and networking activities after project.									
Communication and dissemination	[ES, IT, PT]	Key Performance Indicators Hierarchy 2016-2017	12.1	Networking (mandatory)	Members of interest groups / lobby organisations	0	27	35	No. of individuals

COMMENTS									
END VALUE: 27 The consortium has participated in 10 networking activities and has contacted with 17 other LIFE projects BEYOND 5 YEARS VALUE: 35 At least 8 networking activities are expected for the next 5 years.At least 8 networking activities are expected for the next 5 years.									
Communication and dissemination	[ES, IT, PT]	Key Performance Indicators Hierarchy 2016-2017	13	Jobs	Jobs	0	3,5	1	No. of FTE
COMMENTS									
END VALUE: 3,5 For the Project 3,5 FTE roles have been created. 9 roles have dedicated in average 47% of the total worked time to the project. BEYOND 5 YEARS VALUE: 31 1 person full time will be dedicated to continue with the new varieties evaluation in Italy and Spain									
Increasing crop resilience against XF through sustainable best practices and technologies	[ES/ES6/ES61/ES618, ES/ES5/ES52/ES521, ES/ES4/ES41/ES412, ES/ES4/ES43/ES431, ES/ES4/ES43/ES432, IT/ITI/ITI1/ITI17, IT/ITI/ITI1/ITI1A, IT/ITG/ITG1/ITG17, PT/PT1/PT18/PT186, PT/PT1/PT18/PT184]	Key Performance Indicators Hierarchy 2016-2017	14.1	Running cost/operating costs during the project and expected in case of continuation/replication/transfer after the project period	Running cost/operating costs during the project and expected in case of continuation/replication/transfer after the project period	0	2.566.421	3.968.675	€
COMMENTS									

END VALUE: 2566421 € Total Consolidated costs of the projects BEYOND 5 YEARS VALUE: 3968675 € BALAM estimate a budget of 500000€ to continue with the new varieties resistant evaluation and the rest of the partnert budget after the project was estimated in around 902254€ for continue with their After LIfe plan.									
Communication and dissemination	[ES, IT, PT]	Key Performance Indicators Hierarchy 2016-2017	14.3	Future funding	Beneficiary own contribution	-	-	500.000	€
COMMENTS									
The beneficiary plans a budget of 500,000 to continue evaluating with the UCO the new varieties resistant to XF until they are commercialized.									
Increasing crop resilience against XF through sustainable best practices and technologies	[ES/ES6/ES61/ES618, ES/ES5/ES52/ES521, ES/ES4/ES41/ES412, ES/ES4/ES43/ES431, ES/ES4/ES43/ES432, IT/ITI/ITI1/ITI17, IT/ITI/ITI1/ITI1A, IT/ITG/ITG1/ITG17, PT/PT1/PT18/PT186, PT/PT1/PT18/PT184]	Key Performance Indicators Hierarchy 2016-2017	14.4.3	Entry into new geographic areas	PORTUGAL				

Increasing crop resilience against XF through sustainable best practices and technologies	[ES/ES6/ES61/ES618, ES/ES5/ES52/ES521, ES/ES4/ES41/ES412, ES/ES4/ES43/ES431, ES/ES4/ES43/ES432, IT/ITI/ITI1/ITI17, IT/ITI/ITI1/ITI1A, IT/ITG/ITG1/ITG17, PT/PT1/PT18/PT186, PT/PT1/PT18/PT184]	Key Performance Indicators Hierarchy 2016-2017	14.4.3	Entry into new geographic areas	ESPAÑA (SPAIN)				
Increasing crop resilience against XF through sustainable best practices and technologies	[ES/ES6/ES61/ES618, ES/ES5/ES52/ES521, ES/ES4/ES41/ES412, ES/ES4/ES43/ES431, ES/ES4/ES43/ES432, IT/ITI/ITI1/ITI17, IT/ITI/ITI1/ITI1A, IT/ITG/ITG1/ITG17, PT/PT1/PT18/PT186, PT/PT1/PT18/PT184]	Key Performance Indicators Hierarchy 2016-2017	14.4.3	Entry into new geographic areas	ITALIA (ITALY)				
Increasing crop resilience against XF through sustainable best practices and technologies	[ES/ES6/ES61/ES618, ES/ES5/ES52/ES521, ES/ES4/ES41/ES412, ES/ES4/ES43/ES431, ES/ES4/ES43/ES432, IT/ITI/ITI1/ITI17, IT/ITI/ITI1/ITI1A, IT/ITG/ITG1/ITG17, PT/PT1/PT18/PT186, PT/PT1/PT18/PT184]	Key Performance Indicators Hierarchy 2016-2017	14.4.3	Entry into new geographic areas	ΕΛΛΑΔΑ (ELLADA)				

Chapter II. KPI Proposal

1. KPI Proposal

The following is a summary about the foreseen estimated impact of each KPI, presented with the proposal, the achievements and an analysis of the impact achieved, some deviations from the targets set initially and some additional comments.

Objective	Indicators		Estimated Impact (absolute values)	Estimated Impact (in %)*	Current impact regarding to estimated impact (in %) (May 2021)	End impact regarding to estimated impact (in %) (End of project)	Explanations of differences
*** Change expected (in %) compared to the initial situation. Please explain reference data used to set the initial situation.**							
This is normally directly linked to the baseline you have developed in the proposal.							
Improved Environmental and Climate Performance (including resilience to climate change)	Reduction of greenhouse gas emissions (GHG)	CO2	18665 tons/ 3.5 years	100% change	6%	19%	1. Diesel: Reduction of 5 tractor passes due to cover crops installation. As results there are not passes use for 4 weed control-neither 1 preparation of soil. [20L/ha*5passes*3.14 kgCO2/L/1000=0.314 Tn CO2/ha] 2. Energy Use for Water pumping: (Reduction due to deficit irrigation-20%). [100.000 kWh*0.2*0.357 kgCO2/kWh/1000=7,14 Tn CO2/ha] 3. Substitution of Phytosanitary use (for wee control).[3kg/ha*36%purity* 4 application/* 3,5244 kg Co2 eq/ kg /1000.= 0.0423 Tn CO2/ha] 4. Potential Carbon store due to cover crop installation [8 Tn CO2/ha] We have currently avoided, 15,50 ton of CO2 Eq per ha and year.

Better use of natural resources	Water	Reduced water consumption	389375 m3	20% change	100%	100%	In the demo farm the water reduction was 105.096,16 m3 and in the 13 replication farms was estimated as a reduction of 1.156.205,34 m3.
Sustainable land use, agriculture and forestry	Agriculture	Areas of agricultural land under sustainable management	250 ha	100% change	100%	100%	The demonstration sites include one 150 ha plot and two 50 ha plots (total 250 ha). When the project started there were 0 ha under sustainable management, but at this moment we have 250 ha under this management with which this parameter has been improved by 100%.
	Soil / Land	Soil Surface improved	Available Water Capacity	15% change	At the end of the project	48%	AWC improved 7% at the end of the Project thanks to biostimulants and cover crops application Then 48% respect to 15% expected
			Soil enzymatic activity	15% change	100%	100%	Increment of soil microbiological activity due to an increment in soil enzimes as **ß-Glucosidasa y DHA in treatments were bioestimulants were applied (T1 and T4).**
Economic Performance, Market Uptake, Replication	Replication / Transfer	N . of replication / Transfer	10	not applicable	100%	100%	13 replication farms (1862 ha were included in the Project)
	Market uptake	Increased value production	kg/ha	10%	100%	100%	Due to the application of sustainable practices such as the use of biostimulants that, for example, increase phenolic compounds in olives, we expect a quality increase in the harvest obtained and therefore an increase in the value of the yield obtained increased more than 10%

	Cost Reduction	Phytosanitary and Fertilizer costs	75,000 Euros/yr	60%	3%	33%	Sustitution of fitosanitary for weed control Coste herbicita €/year/ha [4 pases* 3 l/ha * 3,3€/l= 39,6€/ha/año] Coste diesel[5 pases* 20 l/ha * 1,6€/l= 160 €/ha/año]
Communication, dissemination, awareness rising	Awareness raising	Number of entities/individuals reached/ made aware	1.140.200	100%	43%	100%	The consortium´s network has a direct line of communication with 1,140,200 farmers through various cooperatives and expressed support letters
	Website	Number of individuals reached	8000	n/a	94,70%	100%	We exceed 8,000 individuals reached. Web visits was more than 61,538 visits and 11,787 different users.
	Behavioural change	Number of entities/individuals changing behaviour	11.402	10%	43%	100%	The consortium´s network has a direct line of communication with 1,140,200 farmers through various cooperatives and expressed support letters. We have been able to reach/affect 1% of those + some farmers or entities that are not directly connected to the consortium. Then, 100% of the estimated impact.
Other (please specify)	Product Quality	Organoleptic quality of olive oil	N/A	30%	50%	50%	Due to the application of sustainable practices such as the use of biostimulants increased phenolic compounds in olives (quality increase) around 15%. Using a qualified panel, oil taste and aroma was evaluated. Also, olive oil quality, acidity, free fatty acid (FFA) content, peroxide value (PV), UV specific extinction coefficients (K232 and K270) and sensory score was measured in each harvest in every treatment. These parameters were established by The International Olive Oil Council (IOOC, 2001) and the EEC (EC, 1991) to define the quality of olive oil.

	Biodiversity	Increased presence of insects, birds, etc	100% occupation	100%	35%	100%	All hotel insect and nest boxes installed in the 3 demo farms were occupied. Not only birds biodiversity increased in agricultural systems, but also beneficial insects
		Improved biodiversity surround the agricultural fields	Auxiliary crop coverage	100%	100%	100%	After the implementation of protocols in the new management system the consortium considered. The auxiliary crop implementation was successful. Initially, there are no auxiliary crops, therefore the addition of them to each demonstration site is a 100% improvement.
	Disease prevalence	Level of infection	0 hectares of land under management will be infected	100% success	100%	100%	No trees affected by XF. The best-practices and innovative technologies applied in the project to raise the overall health and balance of the field system resulting in a stronger capacity to defend itself resulting in no infections by the pathogen
		Tree Health	Defence Response	N/A	100%	100%	With the aim to measure the olive trees response defence against pathogens, phenolic compounds content on the fruits were measured once a year per treatment. The greater the presence of phenolic compounds, the healthier a tree is, and the healthier it is, the stronger it can fight potential attacks from pests and diseases.
			Tree Temperature	N/A	100%	100%	Tree temperature is being measured to determine infection presence. As XF attacks a tree it cuts off its ability to transport water causing "scorching" which can be visualized by increased temperatures in the tree (like a fever). We assume 0

							trees will be infected resulting in a 100% success rate. At this moment there are no infected trees on the demonstration farms

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