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## AFTER-LIFE CONSERVATION AND COMMUNICATION PLAN 2023-2027

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LIFE 16/NAT/ES/000771



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# AFTER-LIFE CONSERVATION AND COMMUNICATION PLAN

## 2023-2027

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### **UNIOVI-INDUROT**

Jesús Valderrábano Luque

María Fernández García

Mauro Sanna

Pilar García Manteca

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## CONTENTS

1. INTRODUCTION	1
2. OBJECTIVES AND ACTION MEASURES	2
3. DESCRIPTION OF THE MEASURES	3
4. TOTAL BUDGET	9
5. MONITORING THE EVOLUTION OF HABITATS	10
6. GUIDELINES FOR FUTURE RESTORATION PROPOSALS	11



## 1. INTRODUCTION

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The AFTER-LIFE *FLUVIAL* plan consists of a set of measures to give continuity to the work carried out during the project devoted to improving the state of conservation of the river corridors from the Iberian Atlantic region.

It is based on the experience acquired throughout the project, on the results obtained with the project's actions and the evaluation of these results, as well as on the commitment of the partners and other agents involved to continue developing the fundamental objectives of the LIFE Fluvial. In this regard, the following points must be highlighted:

- the techniques used during the fieldwork.
- the transmission of learning, carried out through the Manual of Good Practices, which favours the continuity and maintenance of restoration actions.
- the first results of habitat impact monitoring, which, while positive, require further continuity to obtain better substantiated conclusions and to assess the actual efficiency of the measures implemented in the LIFE Fluvial.
- the effects of the outreach of the project and its results, especially at the local level, which have been fundamental for placing in value these enclaves.

The actions included in the After-LIFE Plan will be executed by the project partners, although, both in these actions and in others related to the objectives of the LIFE Fluvial, it will be sought the involvement of organisms and entities with competences in fluvial or fluvial-coastal matters.

## 2. OBJECTIVES AND ACTION MEASURES

The Plan aims to achieve several objectives by implementing a set of measures over five years. Thus, they are established some **General Objectives** referred to long term goals (beyond the After-LIFE period), in terms of conservation of the habitats object of the project; some **Operational Objectives**, constituting short and medium-term goals (After LIFE period) that favour the achievement of the general objectives; and a package of specific **measures** that allow achieving the operational objectives. This scheme is shown in Table 3:

Table 3. Summary of the objectives and measures for their achievement during the period After-LIFE 2023-2027.

FINAL OBJECTIVE	OPERATIONAL OBJECTIVES	MEASURES
<b>Goal 1.</b> TO MAINTAIN THE IMPROVEMENT OF THE CONSERVATION STATUS IN THE INTERVENED AREAS AND EXPAND THE AREAS OF ACTION	<b>Ob. 1.1.</b> Maintenance of habitat improvement actions in the intervened areas and in new enclaves	<b>M1</b> Maintenance work: Cleaning and clearing, removal of alien and invasive species, removal of dead trees and planting
	<b>Ob. 1.2.</b> Maintenance and expansion of alder passive regeneration zones	<b>M2</b> Maintenance and management of livestock exclusion fences
<b>Goal 2.</b> TO HAVE UPDATED INFORMATION ON THE STATE OF CONSERVATION OF THE RIVER CORRIDOR IN THE ENCLAVES INVOLVED AND ON THE EVOLUTION OF THE ENTIRE PROJECT	<b>Ob. 2.1.</b> Monitoring of the evolution of the target habitats in the intervened enclaves	<b>M3</b> Analysis of monitoring indicators of the target habitats in the intervened enclaves
	<b>Ob. 2.2.</b> Monitoring the evolution of the impact of the project	<b>M4</b> Updating of project impact indicators
<b>Goal 3.</b> PROMOTING AWARENESS AND PARTICIPATION IN THE CONSERVATION OF FLUVIAL CORRIDORS	<b>Ob. 3.1.</b> Maintenance of signage, dissemination and outreach elements installed in the action sites	<b>M5.</b> Maintenance of the installed signage and bird observatories
	<b>Ob. 3.2.</b> Development of awareness-raising and participation actions	<b>M6.</b> Dissemination, outreach, and awareness-raising activities <b>M7.</b> Running school workshops <b>M8.</b> Development of volunteering activities
<b>Goal 4.</b> ENSURE ACCESS TO THE INFORMATION GENERATED IN THE PROJECT	<b>Ob. 4.1</b> Maintenance of the communication, dissemination and networking tools established in the project	<b>M9.</b> Maintenance and periodic updating of the LIFE Fluvial website <b>M10.</b> Maintenance and periodic updating of the presence of the project in other channels/media (social networks) <b>M11.</b> Maintenance of the Work Network with other projects (RIVER NETWORK)



### 3. DESCRIPTION OF THE MEASURES

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This section briefly describes the content and scope of each measure to be developed in the after-LIFE period, the partners involved in its implementation, other entities participating in it and the estimated budget of each action to be implemented within each measure are briefly described as a sheet.

Although year 2022 is included in the extension period of the project, actions implemented during that year are considered as tasks corresponding to the After-LIFE Plan since they are part of projects that are specifically contemplated as continuity actions of the LIFE Fluvial project.

To finance the different tasks that make up each measure, each partner's resources will be used, at first, mainly in the form of staff costs and travel contributions. In addition, funding will be available from regional, national or European programmes, such as:

- Next Generation EU Funds (Recovery, Transformation and Resilience Plan. Ministry for Ecological Transition and the Demographic Challenge)
- Horizon Europe Programme 2021-2027
- EAFRD Funds (Aid from the Xunta de Galicia linked to the Natura 2000 Network)
- LEADER Programme
- *Educando na Biosfera* Programme (funded by the Mariñas Coruñesas e Terras do Mandeo Biosphere Reserve)

Throughout the after-LIFE period, application for financial aid will continue in all calls for regional, state or European programmes in which projects related to the proposed measures fit.

Finally, there will be private financing from companies linked to the territory for the execution of specific actions in specific enclaves of the project.

For each measure, those actions already committed by the partners or by other entities, many of them budgeted, have been included, without prejudice that, throughout the five years of the After-LIFE Plan, new activities are incorporated, provided that the opportunity to develop them arises and there is the adequate available budget.

M1. MAINTENANCE WORK: CLEANING AND CLEARING, REMOVAL OF ALIEN AND INVASIVE SPECIES, REMOVAL OF DEAD TREES AND PLANTING	
Description	Estimated budget (5 years)
<b>TRAGSA:</b> <i>Project for the recovery of the Eo River, continuity of the LIFE Fluvial on the Galician bank (2022-2023), endowed with €499,587 of budget, of which €291,943 are those included in this measure since they represent the cost of the actions of this project that give continuity to the actions of the LIFE Fluvial. The remainder of the budget corresponds to actions complementary to those of LIFE Fluvial, considered as synergistic activities.</i>	€291,943
<b>TRAGSA:</b> <i>Eo River Recovery Project. Post-LIFE Fluvial, in the Asturian bank (2022-2023), is endowed with €555,000 of budget, of which €356,349 are those included in this measure since they represent the cost of the actions of this project that give continuity to the actions of the LIFE Fluvial. The remainder of the budget corresponds to actions complementary to those of LIFE Fluvial, considered synergistic activities.</i>	€356,349
<b>RIBADEO:</b> <i>Environmental recovery of the ZEC Eo River (ES1120002) and ZEPA Ribadeo (ES0000085). Bi-annual budget: €18,149.99.</i>	€54,450
<b>Ponte de Lima Municipal Chamber:</b> <i>River restoration project on the Estoraos River, within the framework of the MERLIN project (ecological restoration of ecosystems related to fresh water), financed by the Horizon Europe program of the European Commission.</i>	To be determined
<b>Provisional total budget</b>	<b>€702,742</b>

M2. MAINTENANCE AND MANAGEMENT OF LIVESTOCK EXCLUSION FENCES	
Description	Estimated budget (5 years)
<b>Municipal Chamber of Ponte de Lima:</b> <i>The actions aimed at maintaining and expanding the zones of passive regeneration of alder and, therefore, of recovery of habitat 91E0*, will be developed by the Municipal Chamber of Ponte de Lima, as the managing entity of the Lagoas de Bertandos and São Pedro de Arcos space, within the Lic Río Lima (PTCON0020), in collaboration with ISAULisboa, through a project of continuity of the actions of conservation of the LIFE Fluvial, developed within the framework of the European MERLIN Project, financed with Funds of the Horizon Europe Program 2021-2027.</i>	To be determined
<b>Provisional total budget</b>	<b>To be determined</b>

M3. ANALYSIS OF MONITORING INDICATORS OF THE TARGET HABITATS IN THE INTERVENED ENCLAVES	
Description	Estimated budget (5 years)
<b>UNIOVI-INDUROT:</b> Annual monitoring of indicators of conservation actions on target habitats in action enclaves of the Eo River basin (Zec Río Eo (Galicia) ES1120002, Zec Río Eo (Asturias) ES1200023, Zec Ría del Eo ES1200016, ZEPA Ribadeo ES0000085, ZEPA Ría del Eo ES1200016). Annual budget: €5,700	€28,500
<b>USC-IBADER:</b> Annual monitoring of indicators of conservation actions on target habitats in action enclaves of the upper Miño River basin (Zec Parga-Ladra-Támoga ES1120003) and of the Betanzos fluvio-estuarine corridor (Zec Betanzos-Mandeo ES1110007). Annual budget: €2,168	€10,840
<b>ISAULISBOA/CM Ponte de Lima:</b> Annual monitoring of indicators of conservation actions on target habitats in enclaves of action of the Estoraos River (LIC Río Lima PTCON0020). Annual budget: To be determined	To be determined
<b>EMALCSA/Grupo Naturalista Habitat:</b> Environmental monitoring program in the Cecebre Reservoir (Zec Encoro de Abegondo-Cecebre ES1110004). Annual budget: €2,000	€10,000
<b>ADRM:</b> Monitoring flora, fauna and environmental problems in the areas of action restored by the LIFE Fluvial project (2023). Annual: €31,917	€31,917
<b>Provisional total budget</b>	<b>€81,257</b>

M4. UPDATING OF PROJECT IMPACT INDICATORS	
Description	Estimated budget (5 years)
<b>USC-IBADER:</b> Annual record of information for indicators of achievement, annual collection of data from all partners and preparation of the final assessment of the progress of the project at the end of the after-LIFE period. Annual budget: €932	€4,660
<b>UNIOVI-INDUROT:</b> Annual register of information for indicators of achievement. Annual budget: €140	€700
<b>ISAULISBOA:</b> Annual record of information for indicators of achievement. Annual budget: €100	€500
<b>ADRM:</b> Annual record of information for indicators of achievement. Annual budget: €100	€500
<b>ISAULISBOA:</b> Annual record of information for indicators of achievement. Annual budget: €100	€500
<b>ADRM:</b> Annual record of information for indicators of achievement. Annual budget: €500	€1,500
<b>ISAULISBOA:</b> Annual record of information for indicators of achievement. Annual budget: €100	€500
<b>ADRM:</b> Annual record of information for indicators of achievement. Annual budget: €100	€500
<b>Provisional total budget</b>	<b>€9,360</b>

M5. MAINTENANCE OF SIGNAGE AND INSTALLED BIRD OBSERVATORIES	
Description	Estimated budget (5 years)
<b>Xunta de Galicia:</b> Maintenance works in the Lagoa do Rei bird observatory.	To be determined
<b>TRAGSA:</b> Maintenance of the bird observatory of Villadún and conditioning of its accesses and surroundings, included in the <i>Eo River Recovery Project. Post-LIFE Fluvial</i> , on the Asturian margin (2022-2023). Budget: 4.218€	€4,218
<b>ADRM:</b> Maintenance work of the bird observatories of Crenes and Orto through a grant from the Xunta de Galicia with Next Generation EU funds.	€ 9,000
<b>Provisional total budget</b>	<b>€13,218</b>

M6. DISSEMINATION, AND AWARENESS-RAISING ACTIVITIES	
Description	Estimated budget (5 years)
<b>UNIOVI-INDUROT:</b> Organization of an annual event celebrating Natura 2000 Network Day. Annual budget:	€4,250
<b>EMALCSA:</b> Annual organization, in collaboration with the <b>Naturalist Habitat Group</b> , of the Drawing Contest "Wildlife in the Cecebre Reservoir". Annual budget: €5,000	€25,000
<b>ADRM:</b> - Annual participation in the Open Science Cambre. Annual budget: €5,563.	€27,815
- Annual celebration of Natura 2000 Network Day. Annual budget: €600	€ 3,000
- Conditioning of the bird observatory of Crenes in the Abegondo-Cecebre ZEC, for didactics, outreach and awareness-raising. Annual: €12,990.	€12,990
<b>INTEREO:</b> Annual installation of an Itinerant Exhibition at the Vegadeo Fair. Annual budget: €100	€500
<b>Provisional total budget</b>	<b>€73,555</b>

M7. RUNNING SCHOOL WORKSHOPS	
Description	Estimated budget (5 years)
<b>UNIOVI-INDUROT:</b> Two school workshops each year, charged to own funds. Annual budget: €1,400	€7,000
<b>INTEREO:</b> A school workshop per year in its territorial area, charged to own funds. Annual budget: €100	€500
<b>ADRM:</b> Environmental education activities in schools (10 workshops per year), with funds from the <i>Educando na Biosfera</i> Programme. Annual budget: €4,700.	€23,500
<b>EMALCSA:</b> Environmental education activities with schoolchildren, using the didactic materials developed in the project (Xogo da Gota), in collaboration with the ADRM. Annual budget: €5,000	€25,000
<b>Provisional total budget</b>	<b>€56,000</b>

M8. DEVELOPMENT OF VOLUNTEERING ACTIVITIES	
Description	Estimated budget (5 years)
<b>UNIOVI-INDUROT:</b> An annual volunteer day, charged to own funds. Annual budget: €1,100	€5,500
<b>INTEREO:</b> An annual volunteer day in its territorial area, charged to own funds. Annual budget: €100	€500
<b>ADRM:</b> - Volunteer day for the elimination of invasive alien species in the Zec Encoro Abegondo-Cecebre (2023). Annual budget: €2,769.	€2,769
- Volunteer day for the elimination of invasive alien species in the ZEC Betanzos-Mandeo (2023). Annual budget: €2,773.	€2,773
<b>Corporación Hijos de Rivera S.L.:</b> Volunteer days for the elimination of invasive species in the Cecebre Reservoir, in collaboration with <b>EMALCSA and ADRMB</b> .	To be determined
<b>Provisional total budget</b>	<b>€11,542</b>

M9. MAINTENANCE AND PERIODIC UPDATING OF THE FLUVIAL LIFE WEBSITE	
Description	Estimated budget (5 years)
<b>UNIOVI-INDUROT:</b> LIFE Fluvial web hosting service for the 5 years following the completion of the project, continuing maintenance of the web, permanent collection of information from all partners and integration of the same in the web. Annual budget: €1,000.	€5,000
<b>USC-IBADER:</b> Contribution of information/documentation to the coordinating partner for its incorporation into the project website and the RRSS. Annual budget: €466	€2,330
<b>USC-IBADER:</b> Contribution of information/documentation to the coordinating partner for its incorporation into the project website and the RRSS. Annual budget: €100	€500
<b>USC-IBADER:</b> Contribution of information/documentation to the coordinating partner for its incorporation into the project website and the RRSS. Annual budget: €100	€500
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<b>USC-IBADER:</b> Contribution of information/documentation to the coordinating partner for its incorporation into the project website and the social media networks. Annual budget: €100	€500
<b>USC-IBADER:</b> Contribution of information/documentation to the coordinating partner for its incorporation into the project website and social media networks. Annual budget: €100	€500
<b>Provisional total budget</b>	<b>€10,330</b>

<b>M10. MAINTENANCE AND UPDATING OF THE PRESENCE OF THE PROJECT IN OTHER CHANNELS/MEDIA (SOCIAL NETWORKS)</b>	
<b>Description</b>	<b>Estimated budget (5 years)</b>
<b>UNIOVI-INDUROT:</b> Collection of information from all partners and publication in social networks. Annual budget: €200	<b>€1,000</b>
<b>USC-IBADER:</b> Providing information/documentation to the coordinating partner for publication in the project's social media. Annual budget: €1.165	<b>€5,825</b>
<b>ISAULISBOA:</b> Providing information/documentation to the coordinating partner for publication in the project's social media. Annual budget: €100	<b>€500</b>
<b>USC-IBADER:</b> Providing information/documentation to the coordinating partner for publication in the project's social media. Annual budget: €100	<b>€500</b>
<b>ISAULISBOA:</b> Providing information/documentation to the coordinating partner for publication in the project's social media. Annual budget: €100	<b>€500</b>
<b>USC-IBADER:</b> Providing information/documentation to the coordinating partner for publication in the project's social media. Annual budget: €100	<b>€500</b>
<b>ISAULISBOA:</b> Providing information/documentation to the coordinating partner for publication in the project's social media. Annual budget: €100	<b>€500</b>
<b>USC-IBADER:</b> Providing information/documentation to the coordinating partner for publication in the project's social media. Annual budget: €100	<b>€500</b>
<b>Provisional total budget</b>	<b>€9,825</b>

<b>M11 Maintenance of the network with other projects (RED FLUVIAL)</b>	
<b>Description</b>	<b>Estimated budget (5 years)</b>
<b>USC-IBADER:</b> Organization/participation in networking events and annual data collection of all partners. Annual budget: €696	<b>€3,480</b>
<b>UNIOVI-INDUROT:</b> Organization/participation in networking events. Annual budget: €500	<b>€2,500</b>
<b>ISAULISBOA:</b> Organization/participation in networking events. Annual budget: To be determined	<b>To be determined</b>
<b>ADRM B:</b> Organization/participation in networking events. Annual budget: To be determined	<b>To be determined</b>
<b>Provisional total budget</b>	<b>€5,980</b>

## 4. TOTAL BUDGET

The following table summarizes the expected contributions of each partner and other entities to develop the measures proposed in the After-LIFE Fluvial Conservation and Communication Plan 2023-2027 and the budget established provisionally for each of these measures.

GLOBAL BUDGET AFTER-LIFE FLUVIAL PLAN (2023-2027)										
MEASURE	UNIOVI-INDUROT	USC-IBADER	ISAU-LISBOA	INTEREO	ADRM	RIBADEO	EMALCSA	TRAGSA.	OTHER ENTITIES	Budget per measure
M1						€54,450		€648,292	To be determined	<b>€702,742</b>
M2									To be determined	<b>To be determined</b>
M3	€28,500	€10,840			€31,917		€10,000		To be determined	<b>€81,257</b>
M4	€700	€4,660	€500	€500	€500	€500	€1,500	€500		<b>€9,360</b>
M5					€9,000			€4,218	To be determined	<b>€4,218</b>
M6	€4,250			€500	€43,805		€25,000			<b>€73,555</b>
M7	€7,000			€500	€23,500		€25,000			<b>€56,000</b>
M8	€5,500			€500	€5,542				To be determined	<b>€11,542</b>
M9	€5,000	€2,330	€500	€500	€500	€500	€500	€500		<b>€10,330</b>
M10	€1,000	€5,825	€500	€500	€500	€500	€500	€500		<b>€9,825</b>
M11	€2,500	€3.4800	To be determined		To be determined					<b>€5,980</b>
<b>TOTAL</b>	<b>€54,450</b>	<b>€27,135</b>	<b>€1,500</b>	<b>€3,000</b>	<b>€115,264</b>	<b>€55,950</b>	<b>62,500</b>	<b>654,010</b>	<b>To be determined</b>	<b>€973,809</b>

**INITIAL OVERALL BUDGET: €973,809**

## 5. MONITORING THE EVOLUTION OF HABITATS

An annual monitoring scheme for the evolution of the restored habitats (91E0\* and 9230) is established to give continuity to the tasks of monitoring the project's actions on the habitats of the fluvial corridors.

System of indicators to be used as a reference in the after-LIFE phase of the LIFE Fluvial project.

Parameter	INDICATOR	Unit of measurement
<b>A. AREA OF OCCUPATION OF TARGET HABITATS</b>	A.1. Area of habitat type 91E0*	ha
	A.2. Area of habitat type 9230	ha
<b>B. PRESENCE OF CHARACTERISTIC SPECIES</b>	B.1. Typical plant species of the habitat	No. of species
	B.2. Coverage of plant species characteristic of the habitat	Index (1-5)
	B.3. Degree of floristic diversity of native species	No. of species
<b>C. HABITAT STRUCTURE AND FUNCTIONS</b>	C.1. Degree of stratification	No. of strata
	C.2. Coverage of species in the arboreal and shrubby stratum	Index (1-5)
	C.3. Coverage of species in the bush stratum	Index (1-5)
	C.4. Coverage of species in the herbaceous stratum	Index (1-5)
	C.5. Coverage of lianas (in habitat 91E0*)	Index (1-5)
	C.6. Fragmentation of the native tree stratum	No. of tree tesserae/ Total number of tesserae
<b>D. PRESSURES AND THREATS</b>	D.1. Area occupied by forest crops of alien and/or invasive species	ha
	D.2. Area occupied by invasive species (excluding forest crops)	ha
	D.3. Invasive or allochthonous species	No. of species
	D.4. Number of dead alders	No. of individuals
<b>E. RESTORATION ACTIONS</b>	E.1. Survival of seedlings	%
	E.2. Growth of seedlings	cm/year
	E.3. Post-cutting regrowth rate	Rate (high, medium, low)
	E.4. Number of natural regeneration seedlings	Number of individuals of each species

This indicators system will be adapted to the characteristics of each enclave in each of the project territories (Eo Basin, Minho Basin, Cecebre Reservoir, Estoraos River), will maintain consistency with the monitoring carried out in the years of active project and will be dimensioned to the after-life phase, so that, in each case, those of the 19 indicators will be used that allow a sufficient assessment of the evolution of the habitats over the next five years.



## **6. GUIDELINES FOR FUTURE RESTORATION PROPOSALS**

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Restoration actions in fluvial corridors must respond to multidisciplinary planning that establishes the methods and techniques to be carried out based on an adequate knowledge of the river environment and the specific problems to be solved to provide the action with an integrated approach.

Thus, firstly, the problem must be diagnosed to establish and define the stresses that affect the river corridor. This first identification and classification, with a general assessment of the situation, will determine the start of the process and is essential to find the most appropriate solutions.

On the other hand, the dimension of the actuation must be considered since, although the problems of the rivers are manifested in specific sections, their origin and causes can affect much greater channel reaches. Therefore, it is important to locate the origin of the problem and, based on that, define the area or areas subject to intervention and then establish the objectives and scope of the project.

Once the action bases have been set, and a multidisciplinary work team specialized in the river environment has been established, the restoration project will be developed, and the necessary financial and administrative support will be sought. At this point, the provisions of the Manual of Good River Corridor Restoration Practices, prepared within the framework of the LIFE Fluvial, are applicable.

Before its execution, all the necessary permits will be processed to carry out the restoration works. In addition, administrative tasks may be required at local level with municipalities and at regional and state level with the different administrations (provincial services, coastal demarcations, hydrographic confederations, road services, etc.) depending on the different competences.

Once the restoration project has been approved, its execution must rigorously follow what was established in the planning phase.

Simultaneously with all these stages, an active participatory process of the stakeholders (associations, coastal owners, administrations, entrepreneurs, etc.) must be carried out since, for the project to be effective, the commitment of the social body that is going to be affected for the benefit of the fluvial ecosystem is required. On the other hand, the participatory process in the initial phases of the project allows land managers to know both the perception of the population's perception of the problems of the fluvial corridors and their expectations concerning these spaces.



# lifefluvial

MEJORA Y GESTIÓN SOSTENIBLE DE CORREDORES FLUVIALES DE LA REGIÓN ATLÁNTICA IBÉRICA



## PARTNERS

