



Why wetlands matter, a global perspective

Dr Flore Lafaye de Micheaux
Senior advisor for Europe
Secretariat, Convention on Wetlands

www.ramsar.org



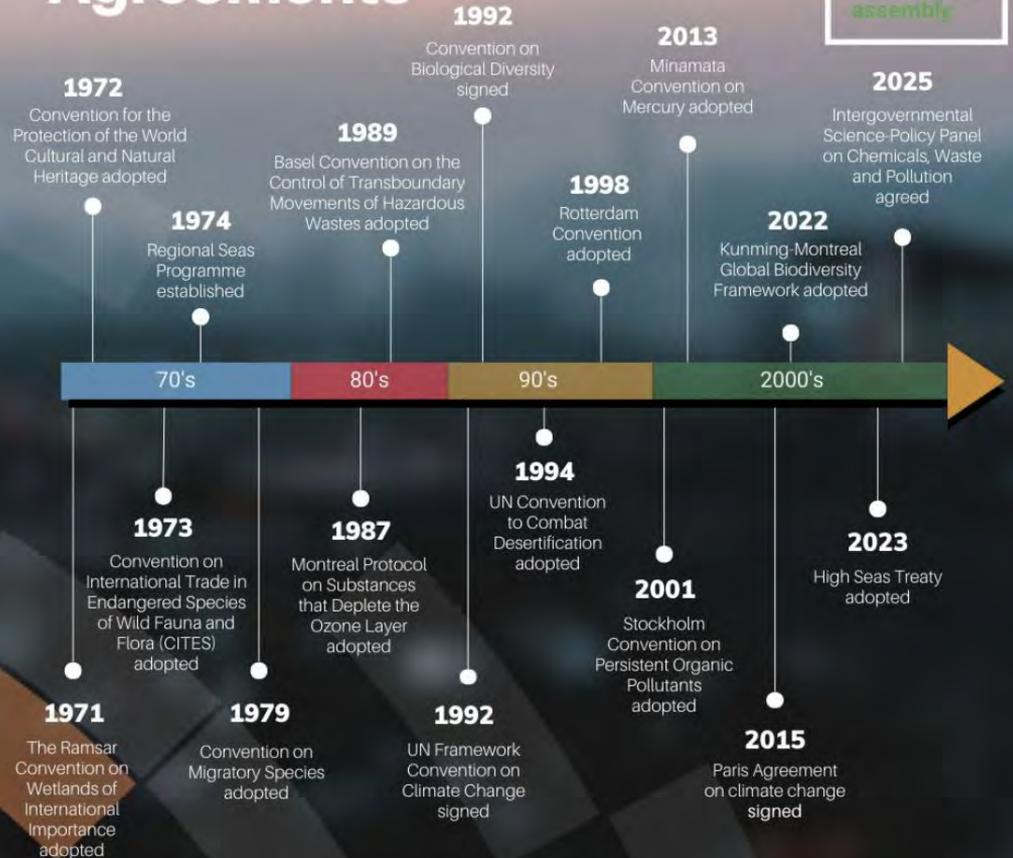




**MEA Timeline
to date – The
Convention
on Wetlands
is the oldest.**



Global Environmental Agreements



Note: This timeline highlights key milestones but does not represent an exhaustive list of global environmental agreements.

Wetlands are essential to climate, water and biodiversity resilience

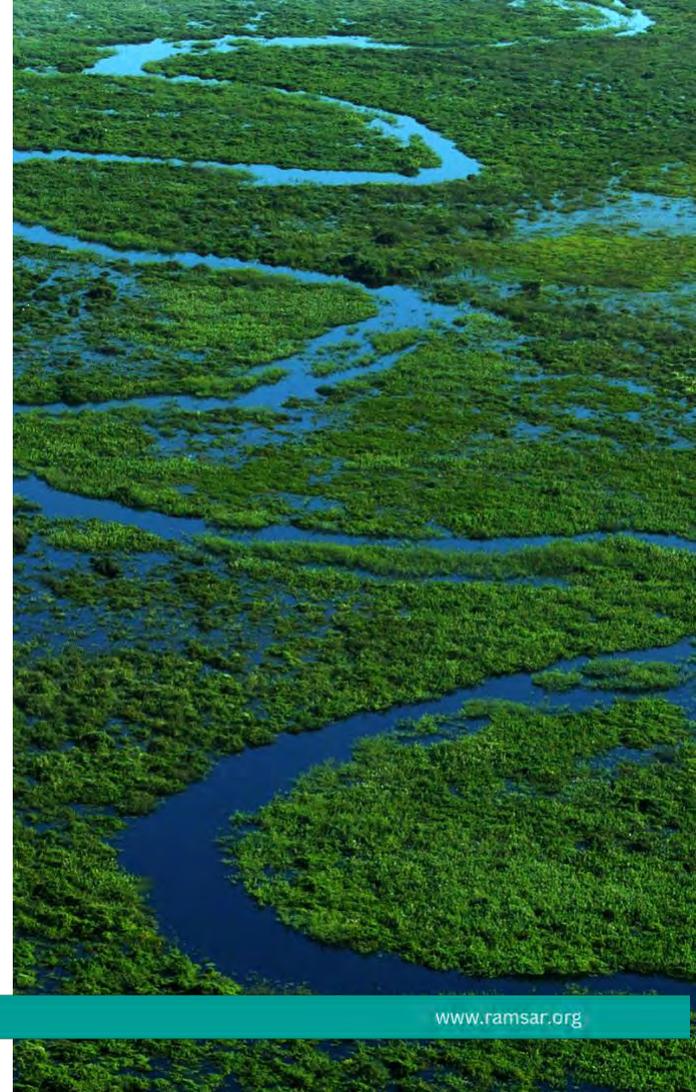
Supply nearly all our freshwater, storing and ensuring its quality

Protect against flooding and storms, resilience against drought

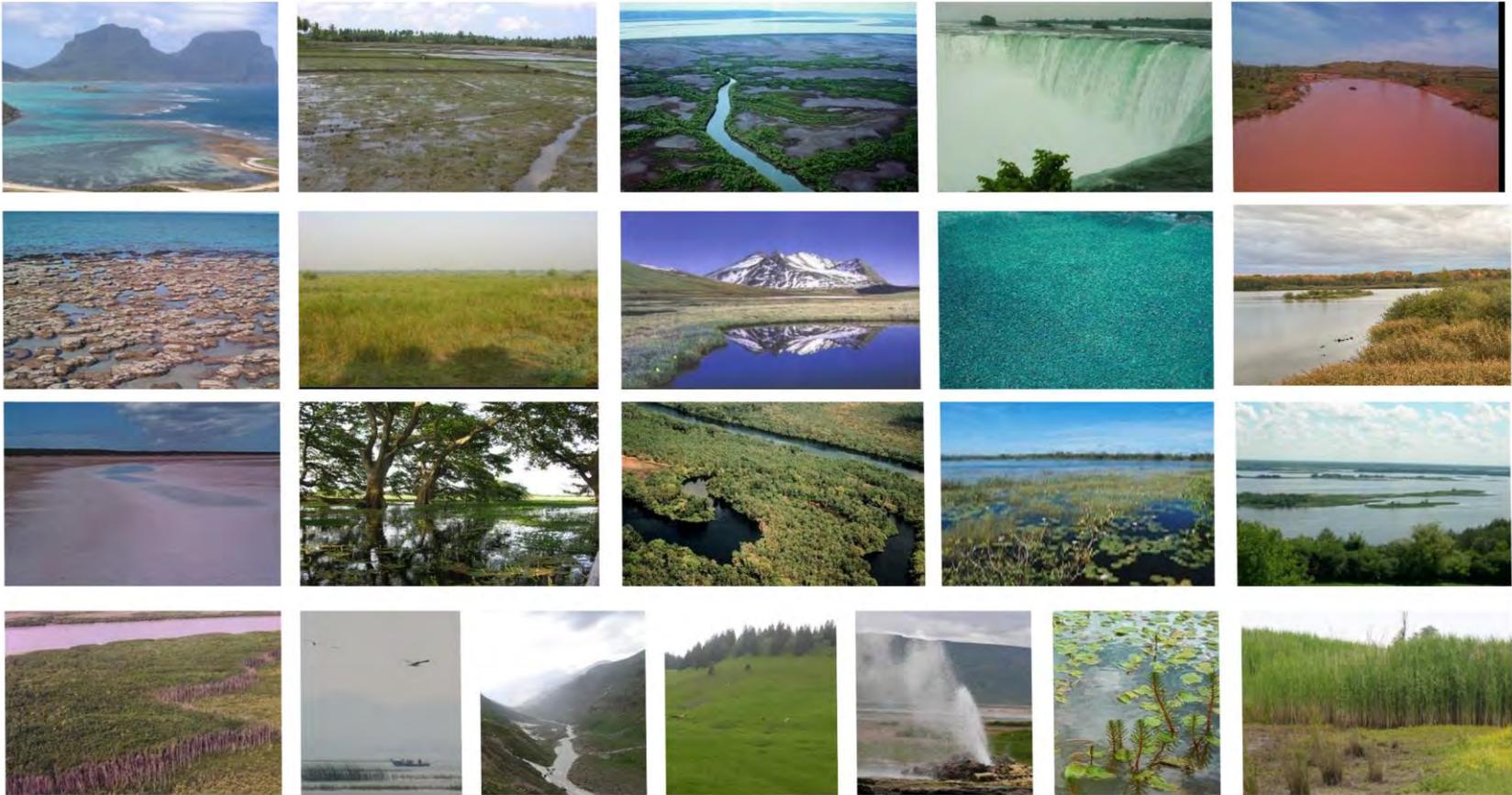
World's number one ecosystem for storing carbon

Support diverse habitats that reinforce ecosystem connectivity and functions

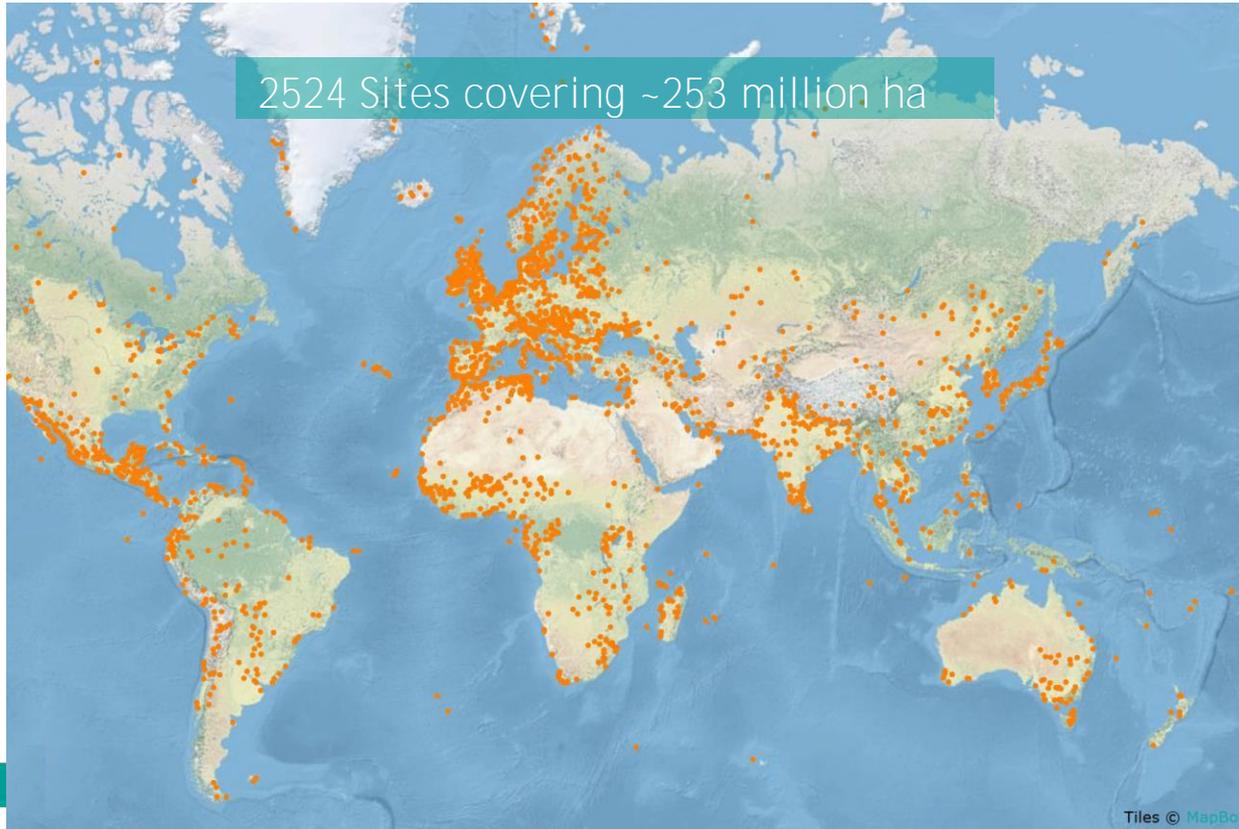
Provide food and livelihoods, and various tangible and non-tangible ecosystem services (sacred spaces)



Wetlands are foundational infrastructure for the hydrological cycle

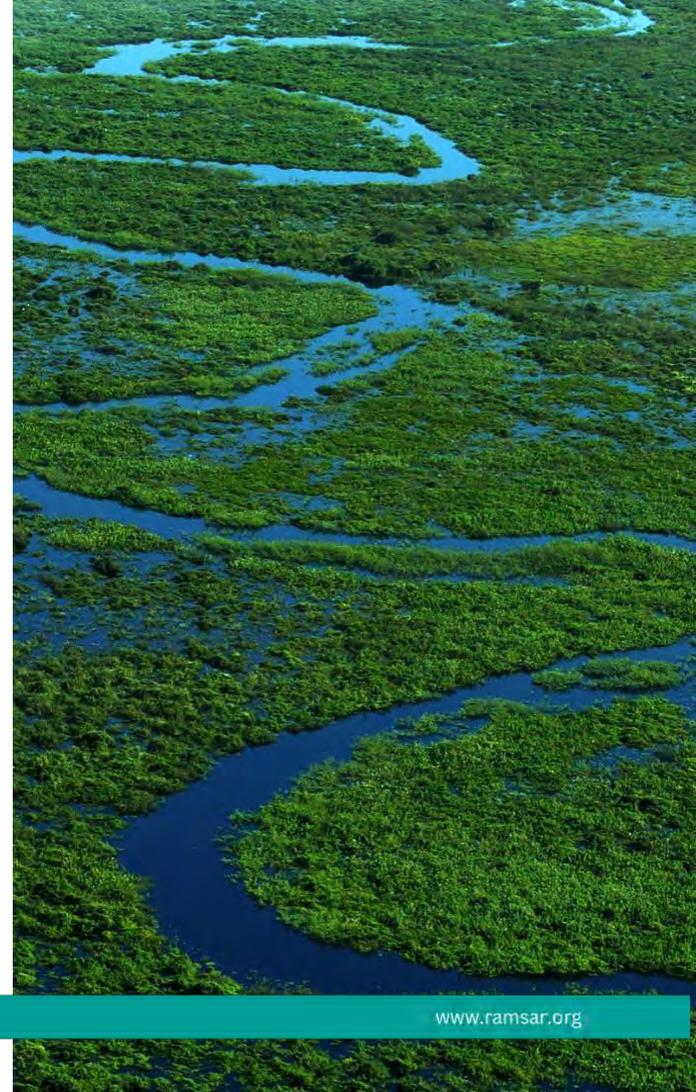


Wetlands of International Importance - “Ramsar Sites”



Bodies of the Convention

The Convention provides policy guidance and tools to enable national governments to effectively manage their wetlands.



Implementation of the Convention

The Convention is implemented by its governance bodies, Ramsar Regional Initiatives, International Organisation Partners (IOPs), and Partnerships with other MEAs, but most importantly by Contracting Parties.

Implementation through series of non-binding texts, including:

- ➔ **Convention text:** legal text outlining aims, objectives, processes of Convention
- ➔ **List of Resolutions and Recommendations:** adopted during COPs
- ➔ **Strategic Plan:** framework with goals and implementation targets
- ➔ **Rules of procedure:** managing organisation of meetings

Insights from the Global Wetlands Outlook 2025

Wetlands have declined by 0.52% per year since 1970, with 411 million ha lost

At least 22% of wetlands have disappeared since 1970 and ~25% of those remaining are degraded

Wetlands (1,425 million ha) generate USD 7.98–39.01 trillion in ecosystem services each year

Effectively managed remaining wetlands could provide USD 205 trillion in services by 2050

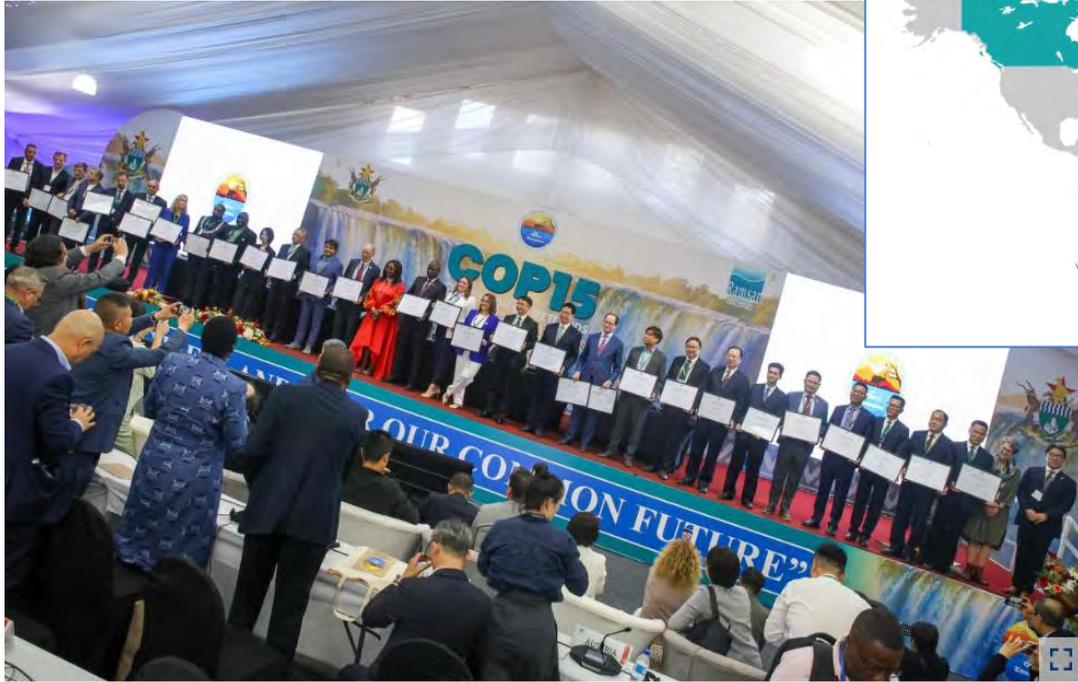


GLOBAL WETLAND OUTLOOK 2025

Valuing, conserving,
restoring and
financing wetlands



Involve cities and urban citizens - Wetland city accreditation



A family photo of all the representatives of the Accredited Wetland Cities



74 cities are now internationally recognized as Wetland Cities

Engage with citizens, private sector and broad audience

UN World Wetlands
Day on 2nd February

**WETLANDS: SACRED.
LIFE-SUSTAINING.
A TIMELESS LEGACY.
OURS TO PROTECT.**

#CelebratingWetlands



**World
Wetlands Day**
2 February 2026



**Wetlands and traditional knowledge:
Celebrating cultural heritage**

Wetlands as Nature-Based Solutions

Wetlands capture, store and release water

Peatland rewetting stabilizes water systems and stores carbon

Mangroves reduce storm impacts and saline intrusion

Constructed wetlands provide water treatment, filter pollutants and improve water quality

Provide these services at a fraction of the cost of man-made solutions



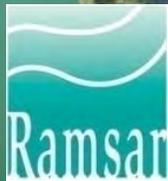
Thank
You



www.ramsar.org



Mediterranean Wetlands Outlook 3: Main findings and key messages



Anis Guelmami guelmami@tourduvalat.org

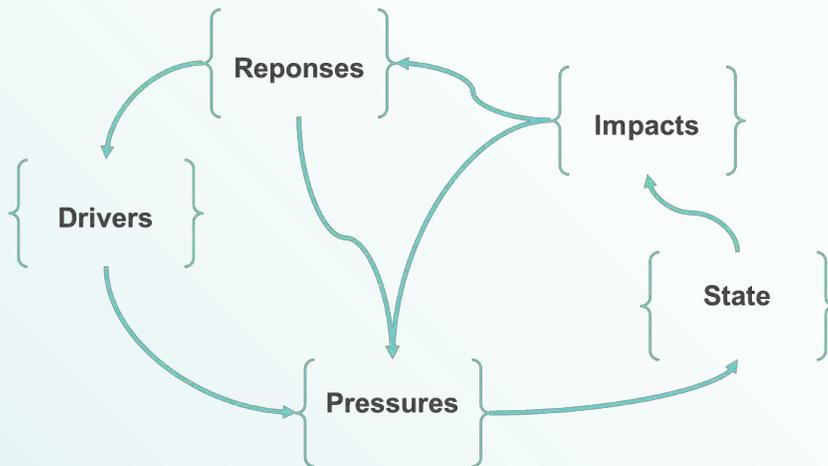
Consolidates the knowledge on wetlands at pan-Mediterranean level

- Analyze **status** and **trends** of Mediterranean Wetlands
- Encourage political decisions favorable for their **protection, restoration** and **wise use**
- Transfer **recommendations** and **key messages** for decision-makers, wetland managers, CSOs and the public at large

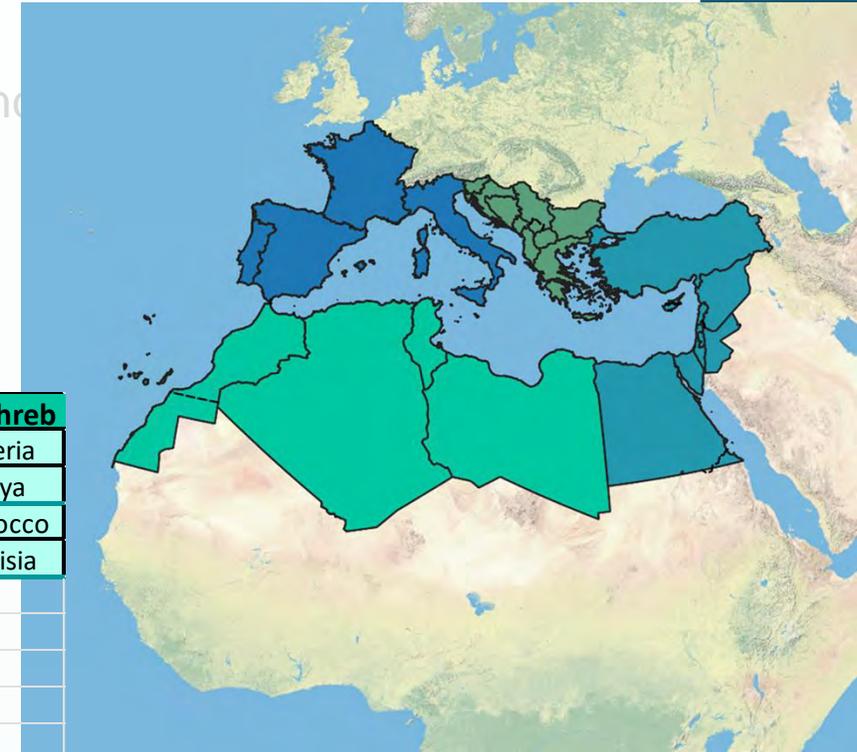
Consolidates the knowledge on wetlands at pan-Mediterranean level

- **28 MedWet countries**
- **Set of indicators feeding a DPSIR framework**

- Analyze **status** and **trends** of Mediterranean Wetlands
- Encourage political decisions favorable for their **protection**, **restoration** and **wise use**
- Transfer **recommendations** and **key messages** for decision-makers, wetland managers, NGOs, CSOs and the public at large



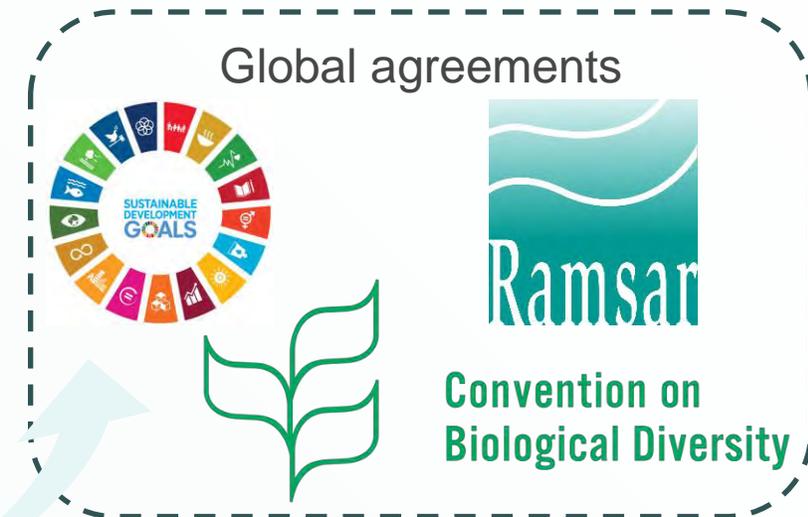
Middle East	South-West Europe	Balkans	Maghreb
Cyprus	Andorra	Albania	Algeria
Egypt	France	Bosnia &	Libya
Israel	Italy	Bulgaria	Morocco
Jordan	Malta	Croatia	Tunisia
Lebanon	Monaco	Greece	
Palestine	Spain	Montenegro	
Syria	Portugal	North Macedonia	
Türkiye		Serbia	
		Slovenia	



Consolidates the knowledge on wetlands at pan-Mediterranean level

- 28 MedWet countries
- Set of indicators feeding a DPSIR framework

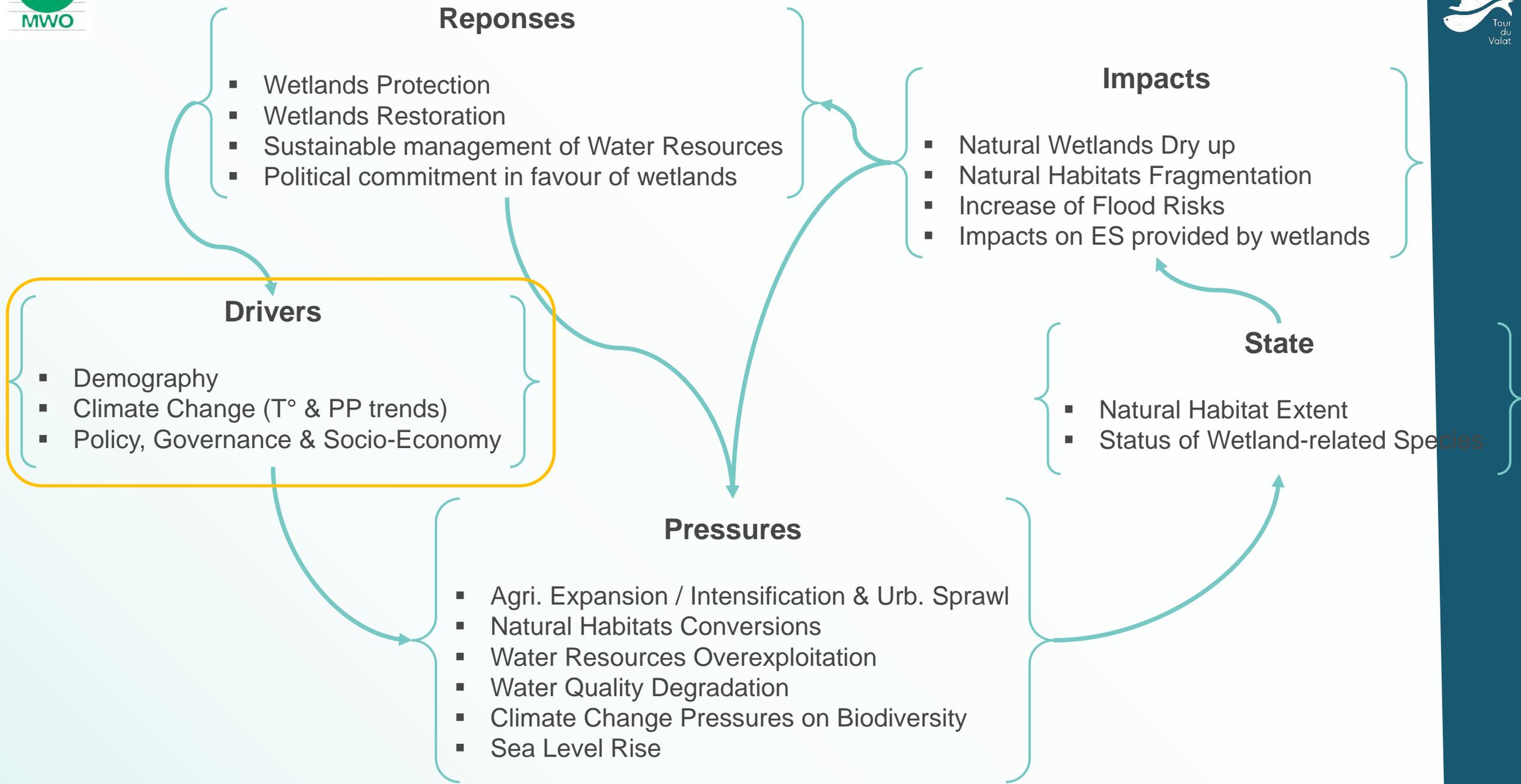
Connected to





Wetlands Monitoring

Regional Scale

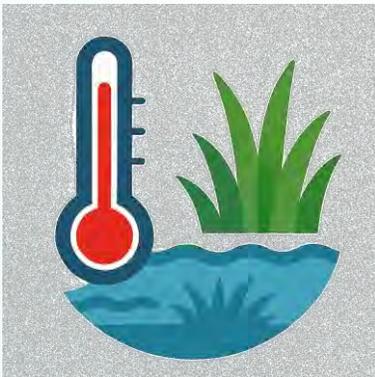


A Region under tension



400 M People live near a wetland

Population density is **258 inhabit./km²**
(4 times the regional average)

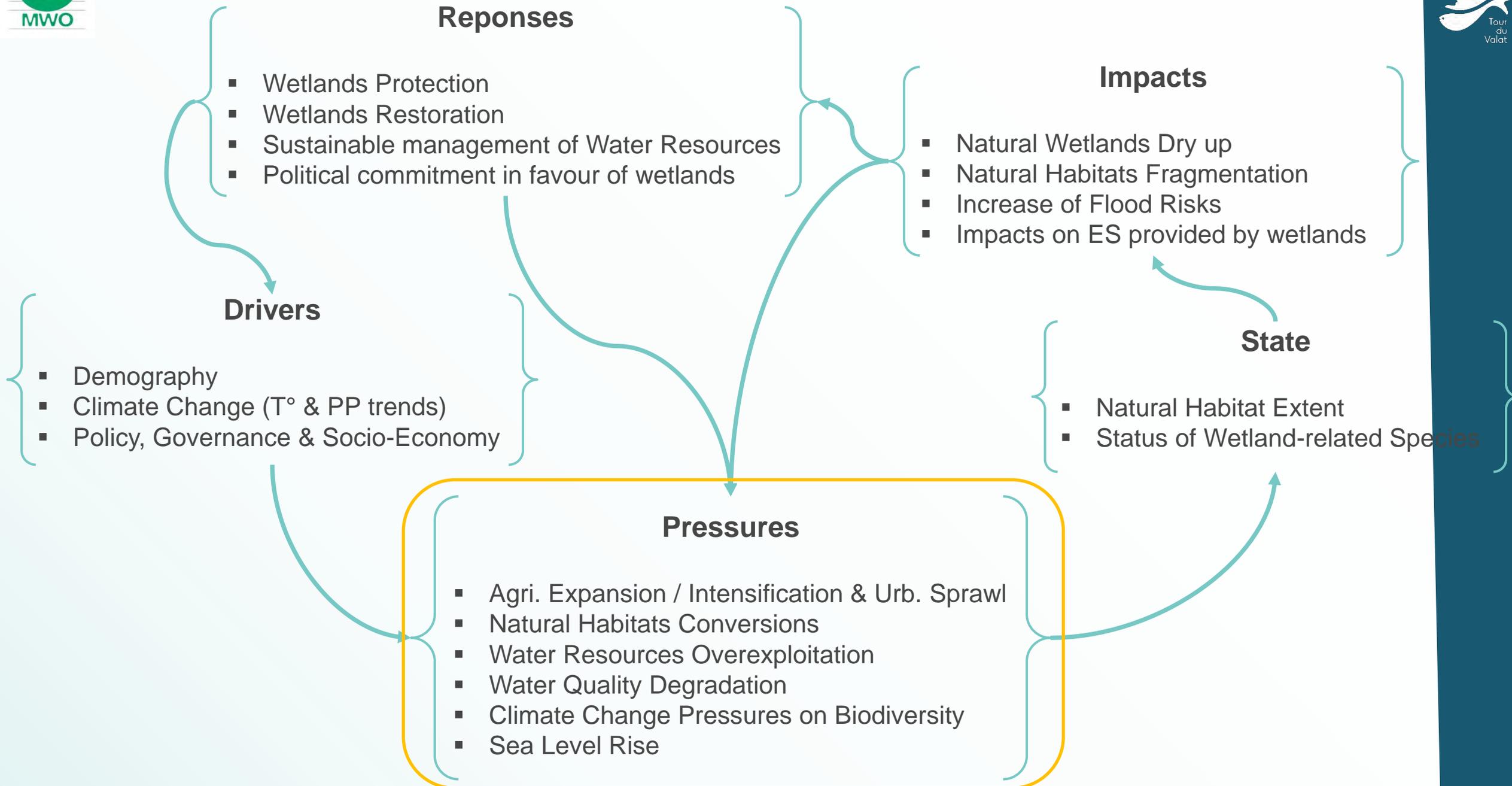


+1.7°C to +5.2°C

By 2100



-1% to -5%



Trends around wetland ecosystems



+ 44%

Built-up areas around
wetlands since 2000



30 %

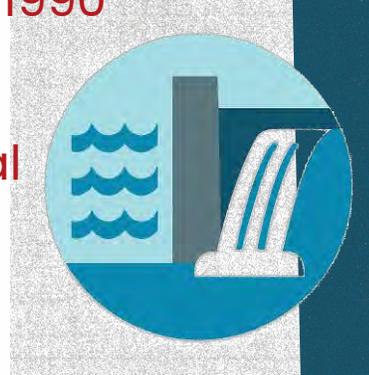
Of wetlands functional area
is used for agriculture

Growing pressure on water resources

Since 1990

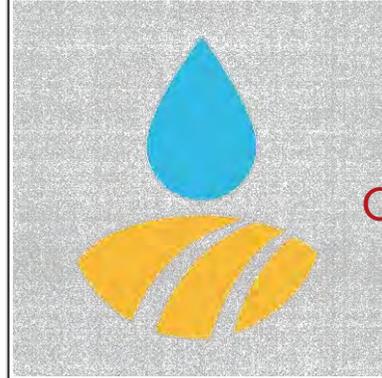
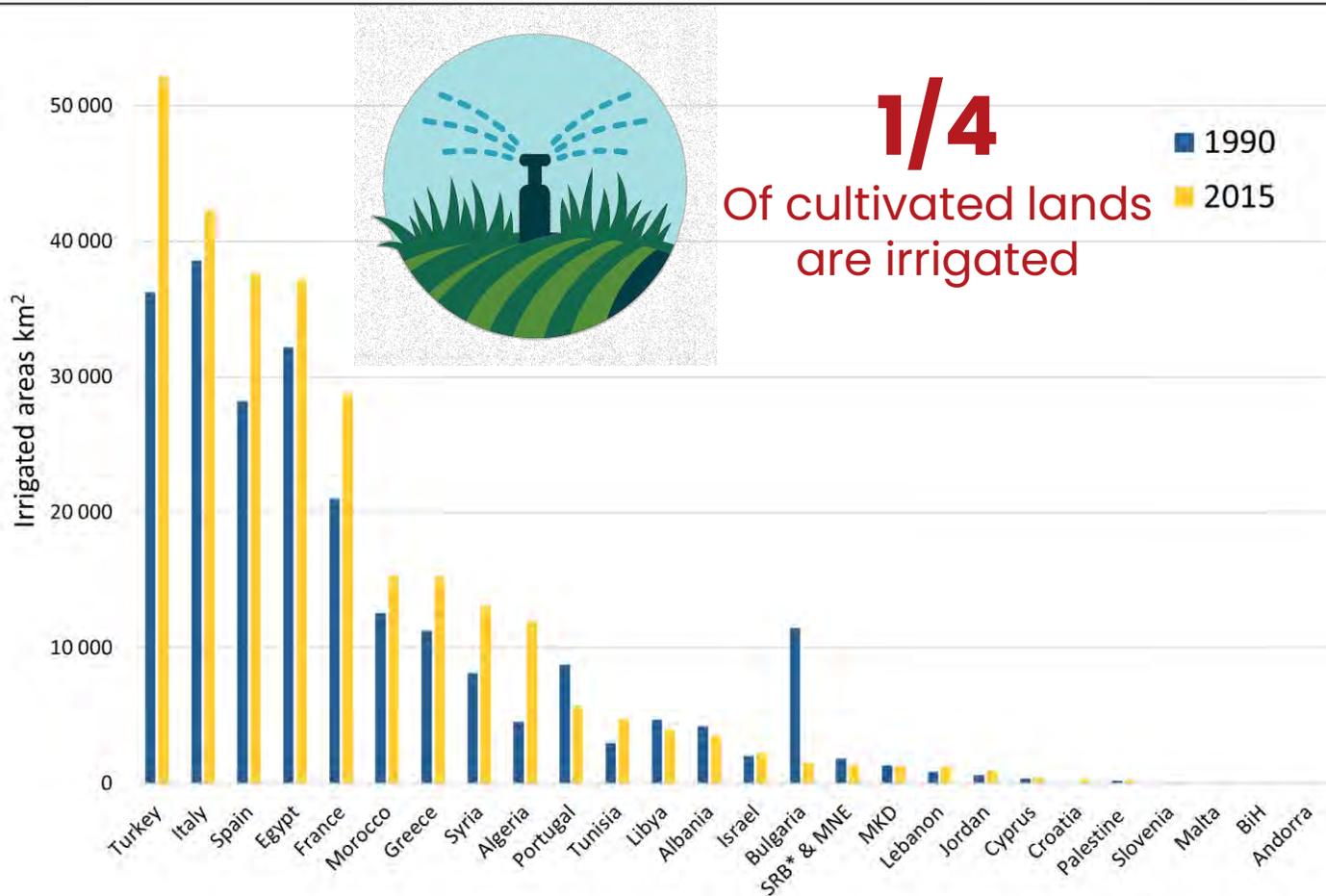
+ 25%

Surface area of artificial reservoirs



1/4

Of cultivated lands are irrigated



2/3

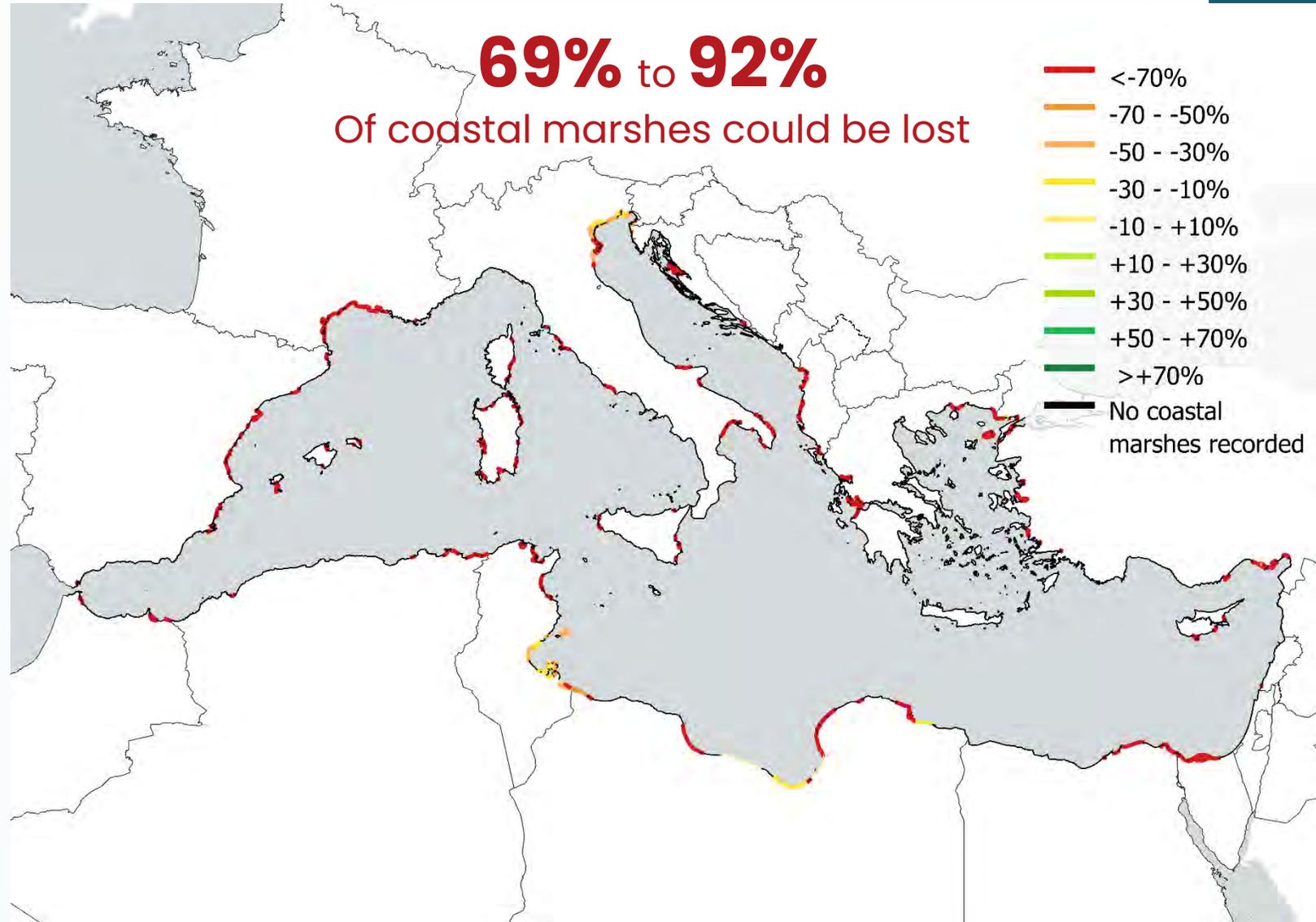
Of water abstractions are for irrigation

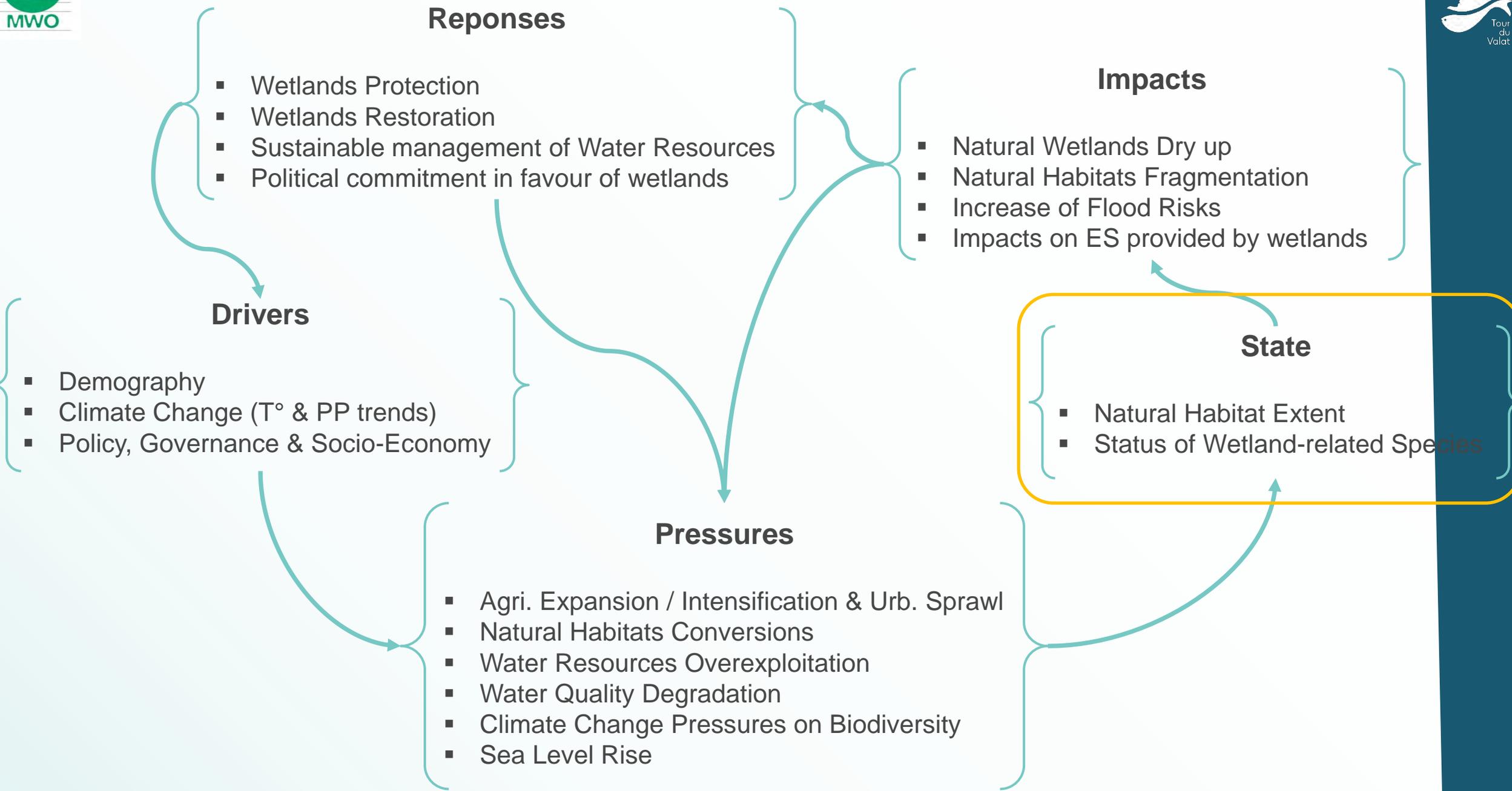
By 2100



+0.34 m to +1.06 m

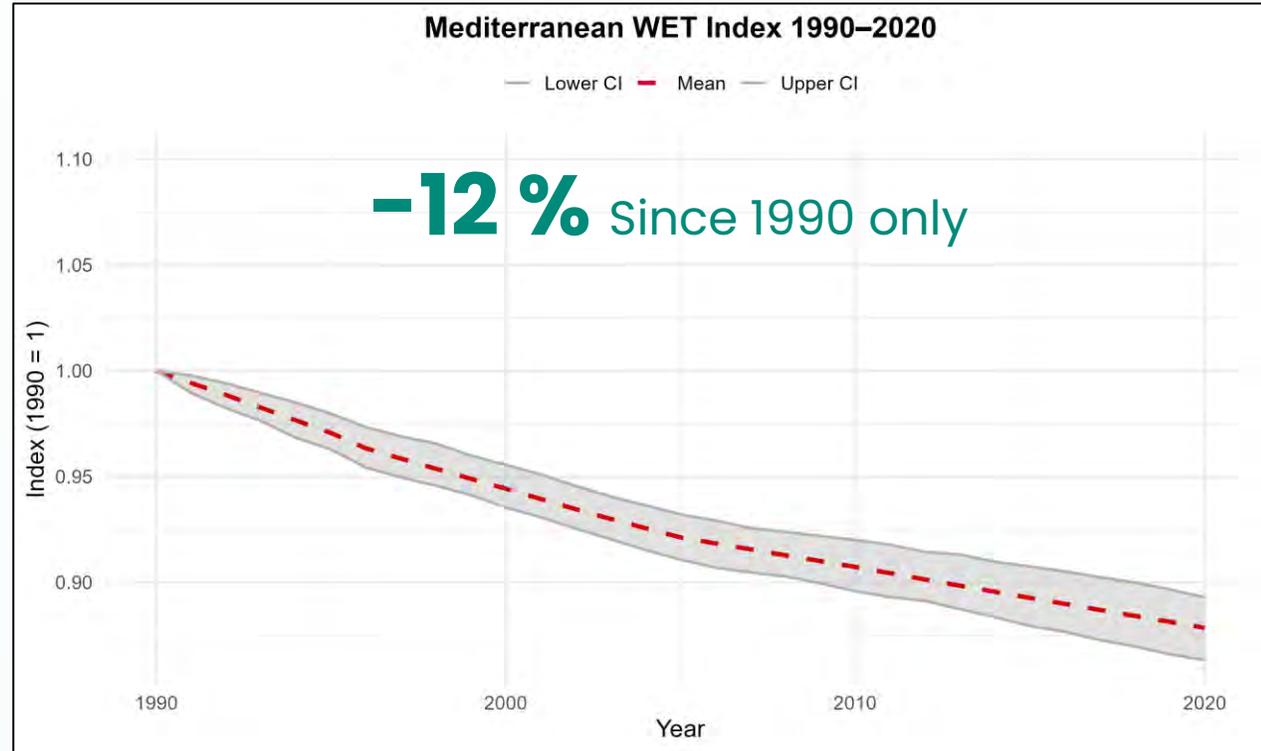
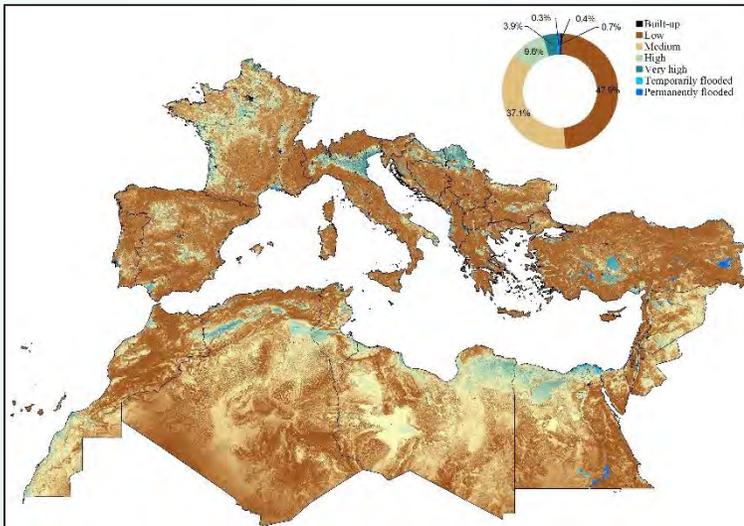
Sea Level Rise







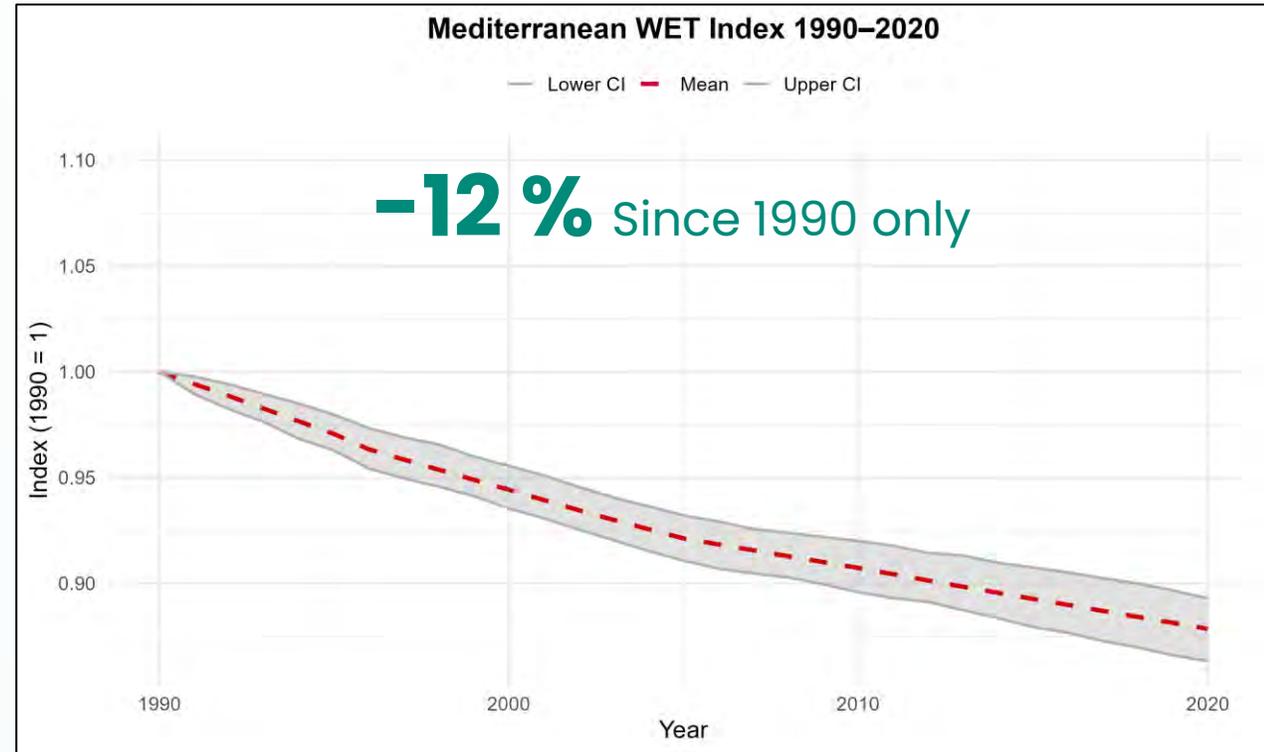
56 % Of historical wetlands have potentially **disappeared**

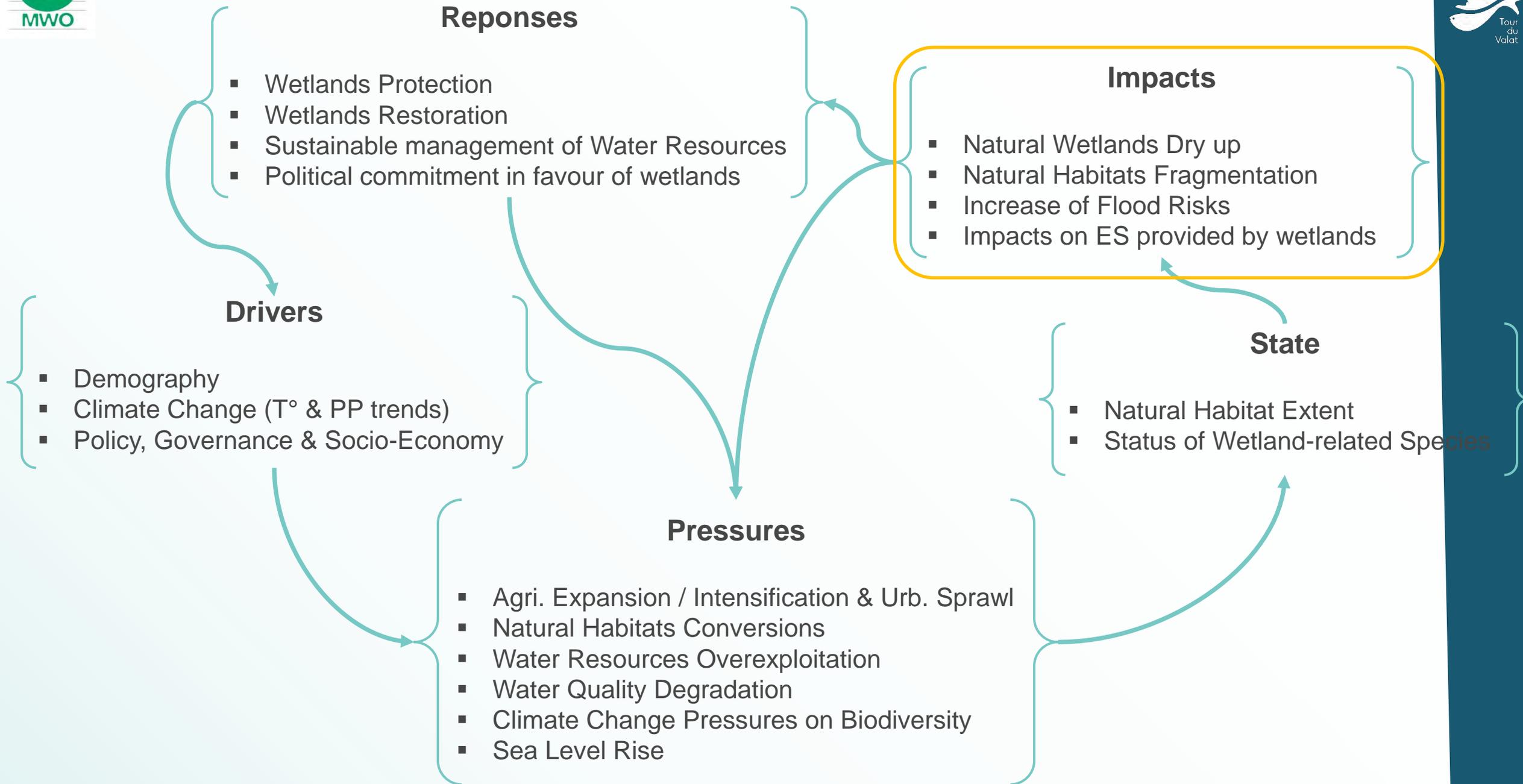


Continued loss in wetland area and ecological quality



40% Of wetland-related species in a **worrying conservation status**





Drying of surface water areas



*Dayet Aoua Lake
(Morocco)*

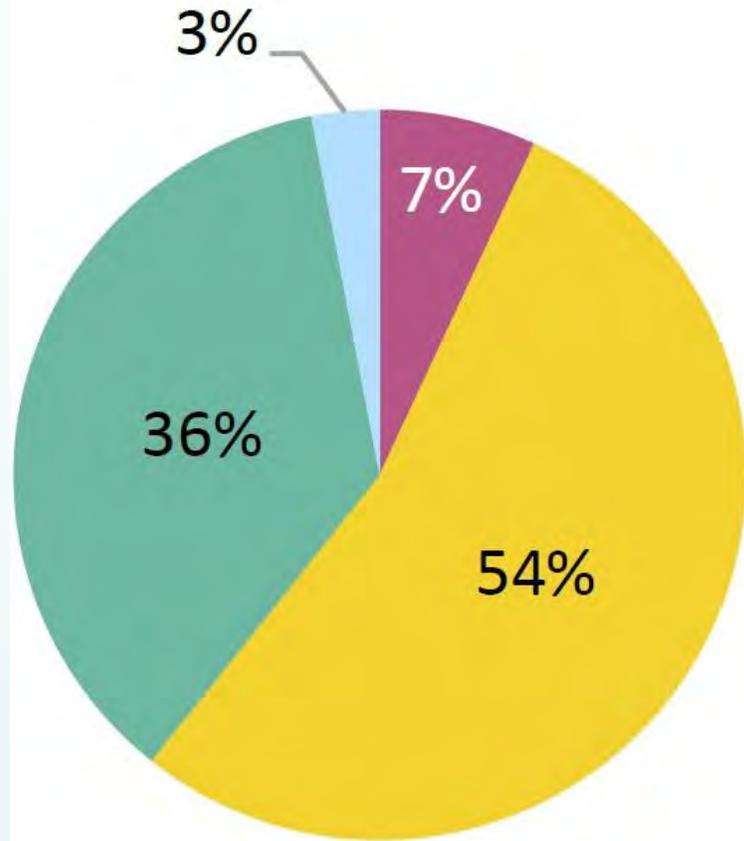
Since 1984



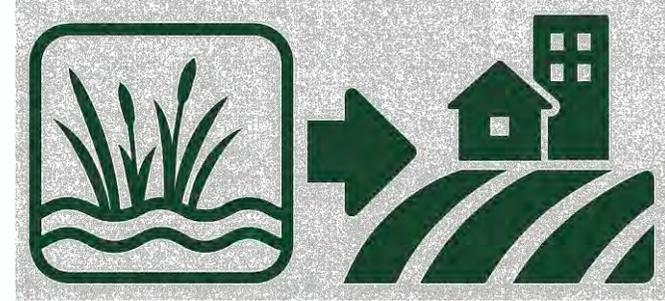
- 12 %** In permanently flooded inland marshes
- 10 %** In temporarily flooded coastal lagoons

Land Conversion

Since 1990



- Nat. Wet. to Urb.
- Nat. Wet. to Agri.
- Nat. Wet. to Art. Wet.
- Nat. Wet. to Sea



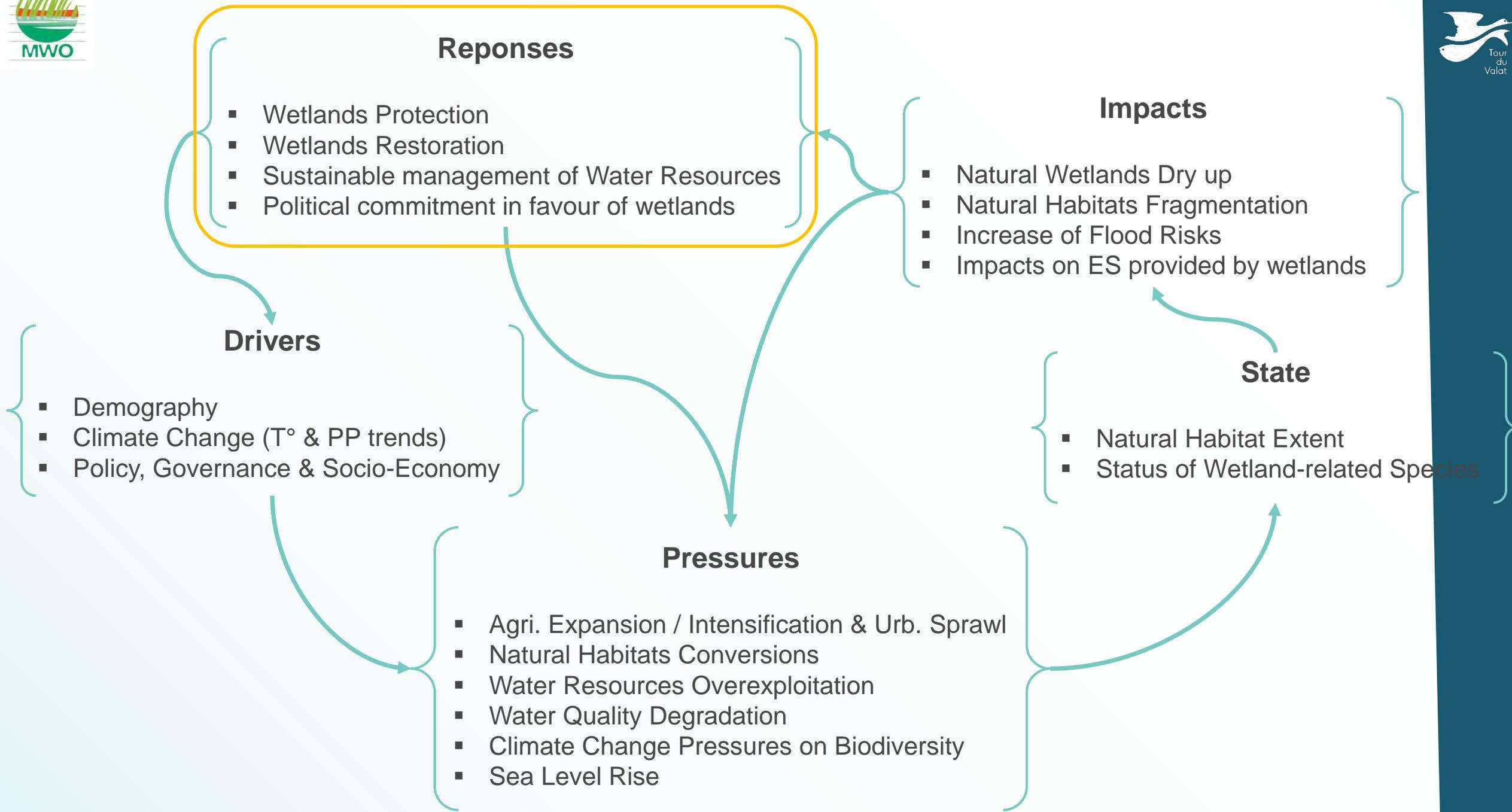
Rivers' fragmentation



Rivers ecological connectivity

95% Of the total length of major rivers is impacted



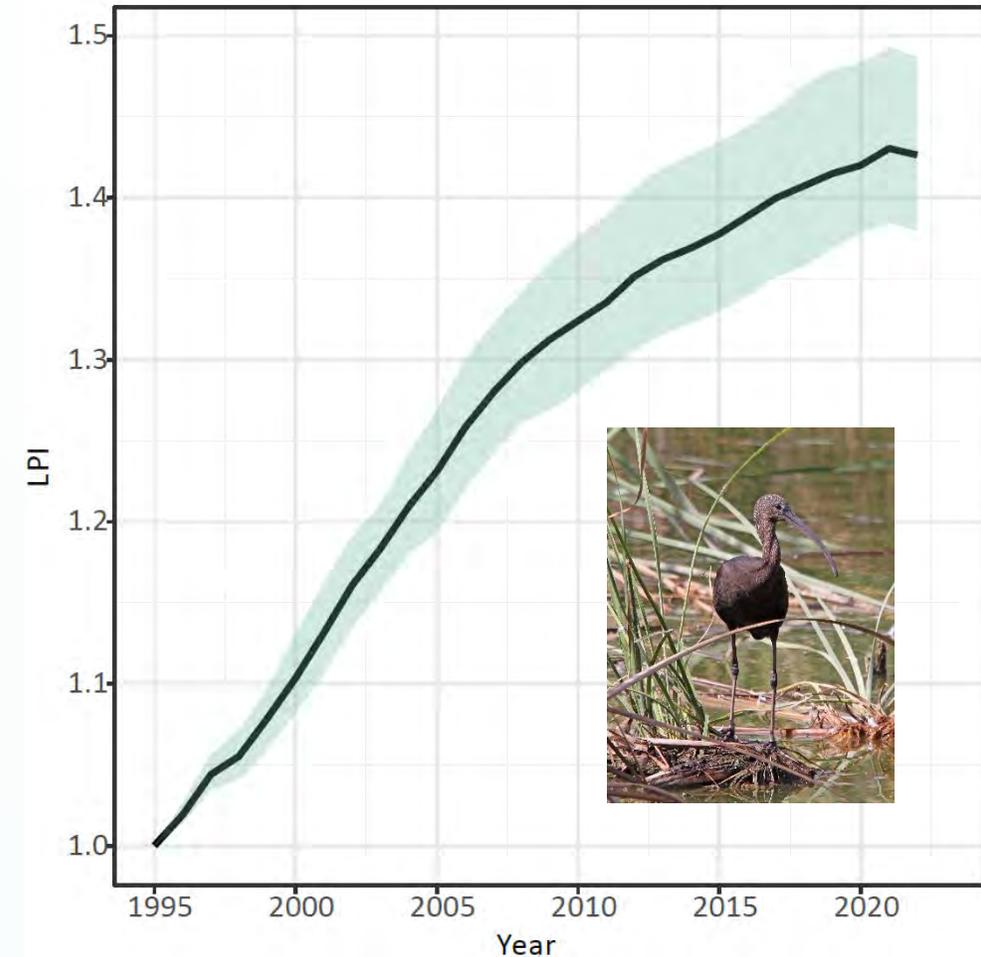


Responses and Positive Developments

Protection



36% Of Mediterranean wetland habitats are protected



+ 43% Increase in wintering waterbird abundance 1995–2022

Responses and Positive Developments

Protection



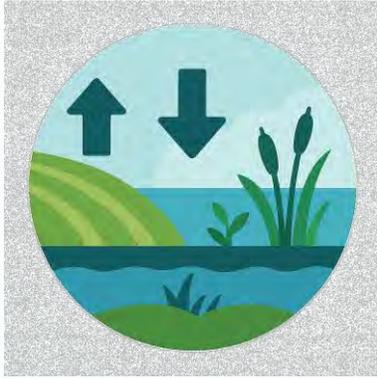
36% Of Mediterranean wetland habitats are protected



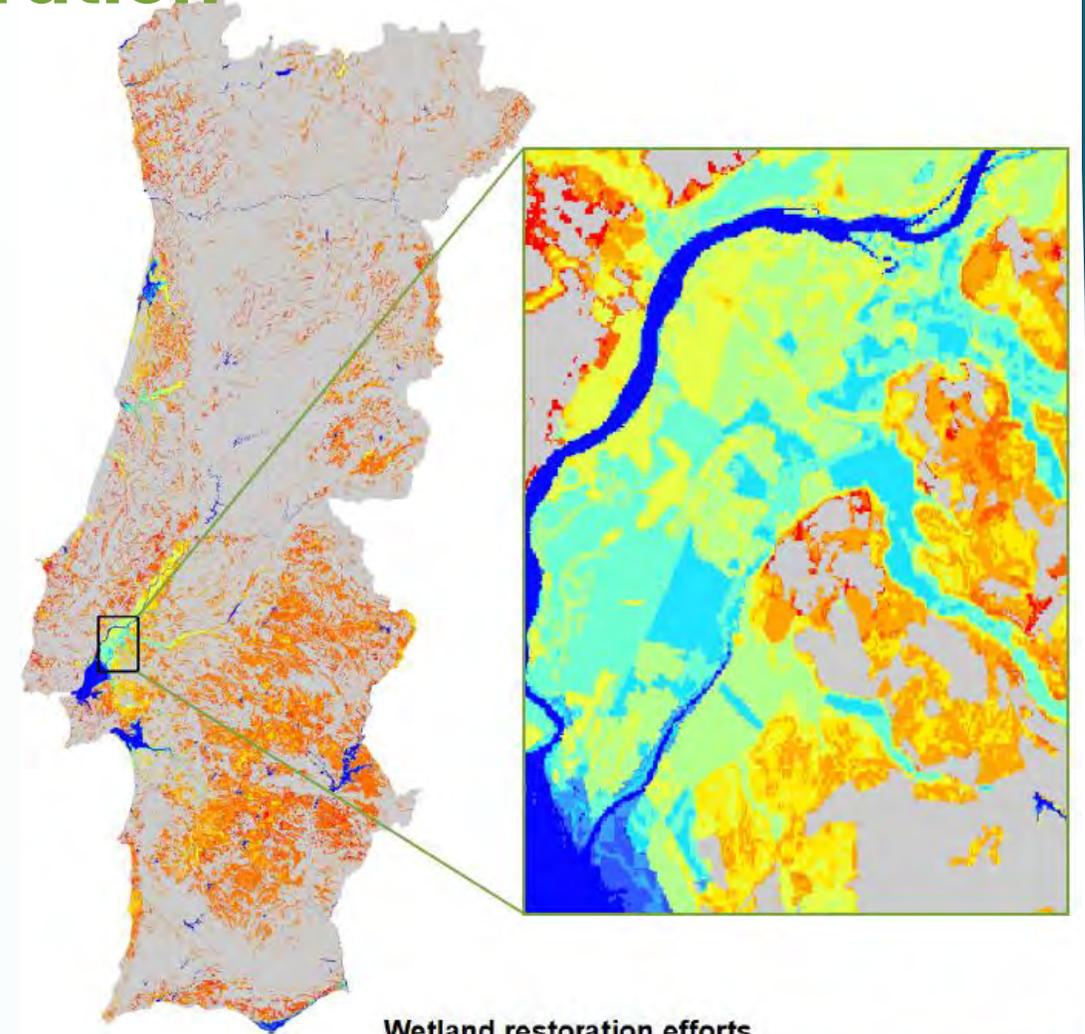
161 Key wetlands for waterbirds have yet to be designated as Ramsar Sites

Responses and Positive Developments

Restoration



88 000 km² Of lost wetland habitats
in northern Mediterranean countries could
be restored with low efforts

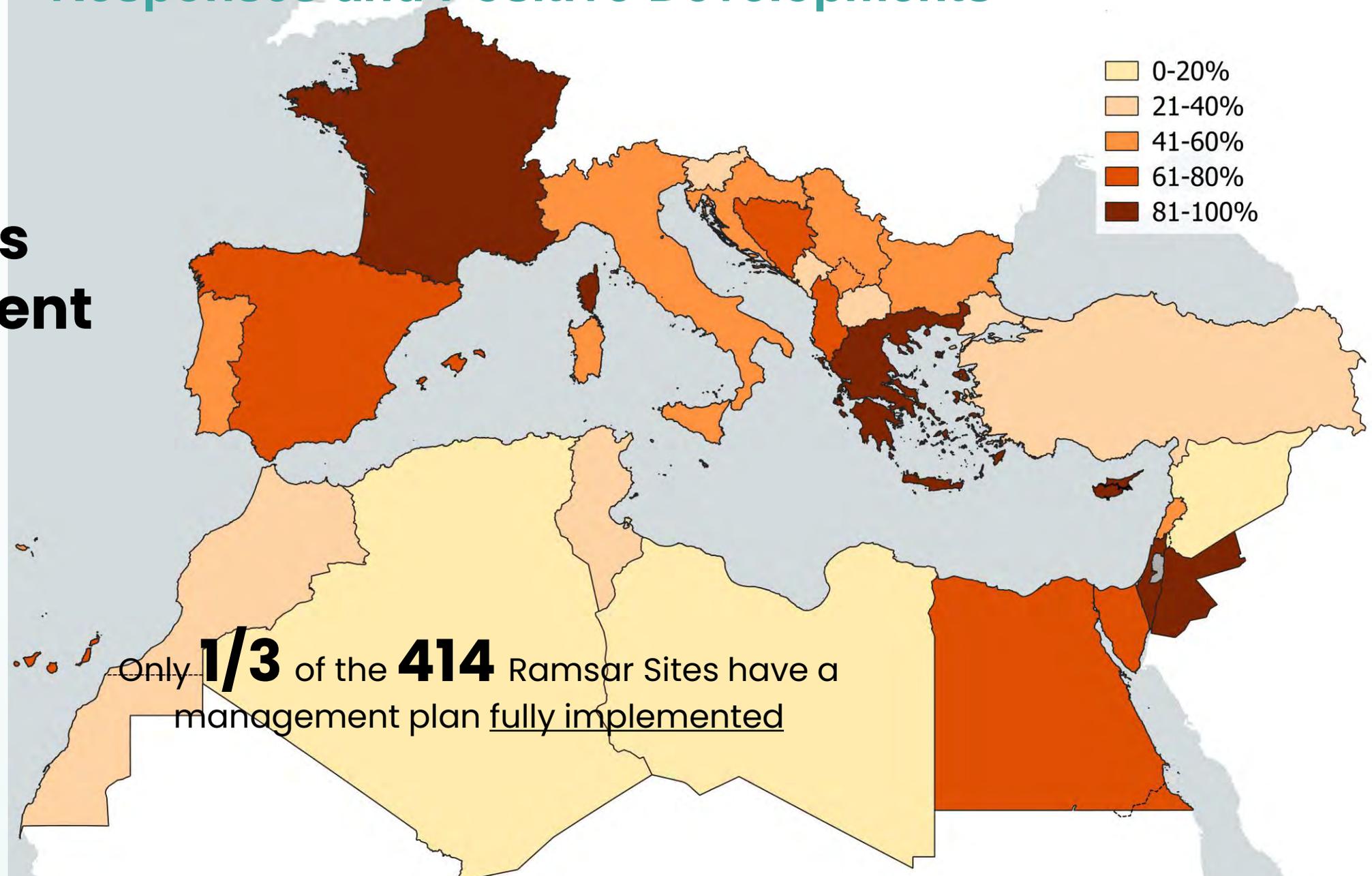


Not wetland
Very high
High
Moderate
Low
Very low
Uncovered wetland



Responses and Positive Developments

Wetlands management

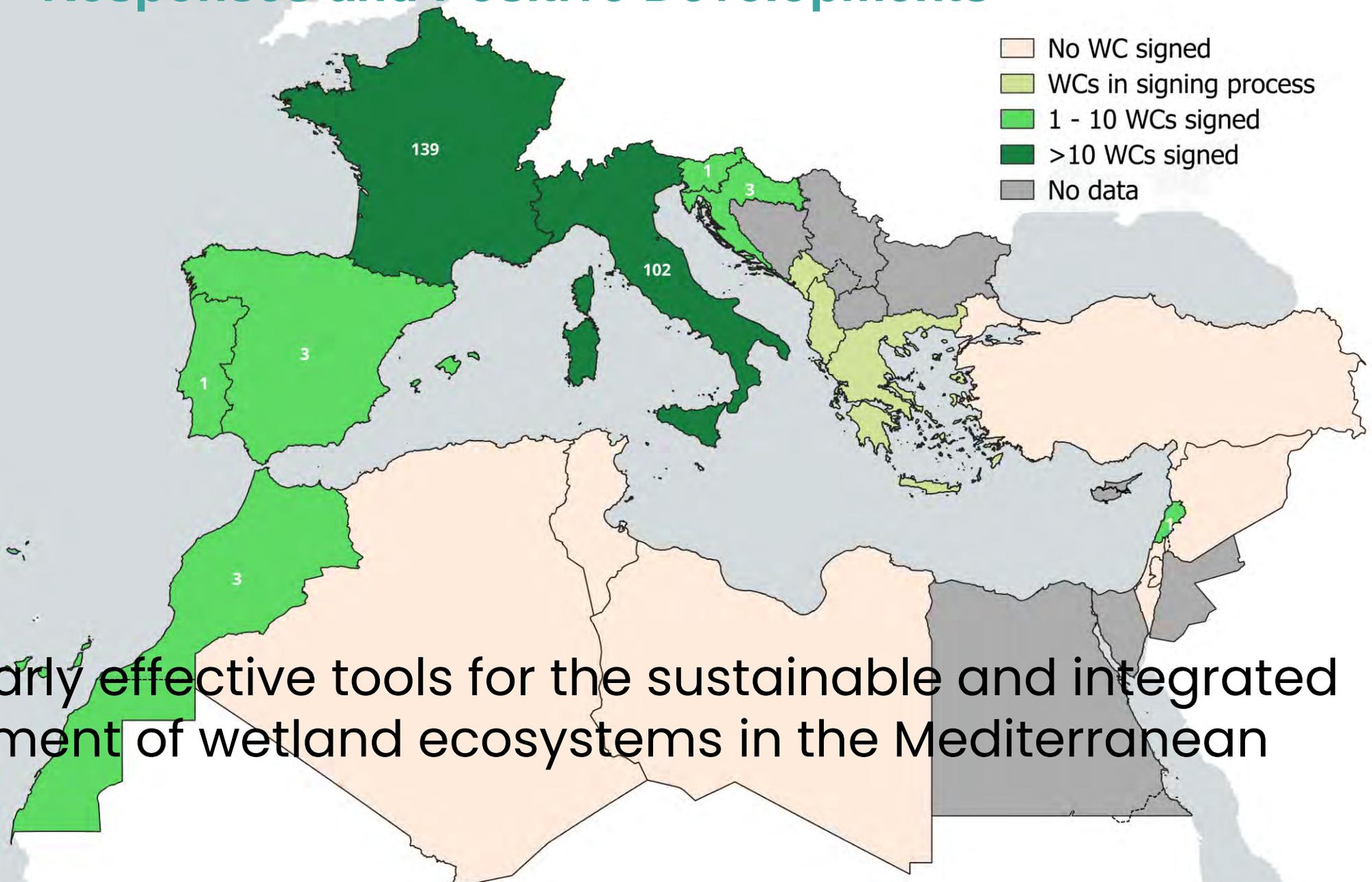


Only **1/3** of the **414** Ramsar Sites have a management plan fully implemented



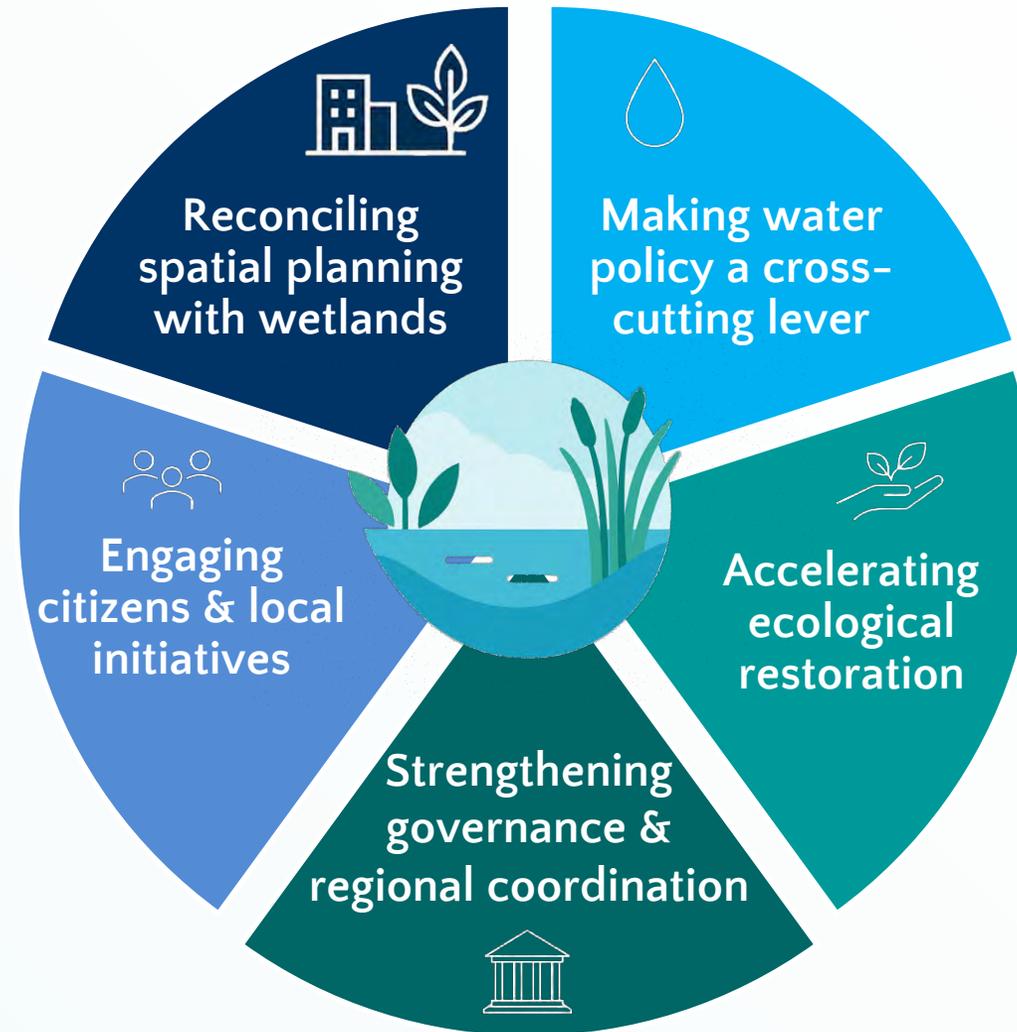
Responses and Positive Developments

253
Wetland
Contracts

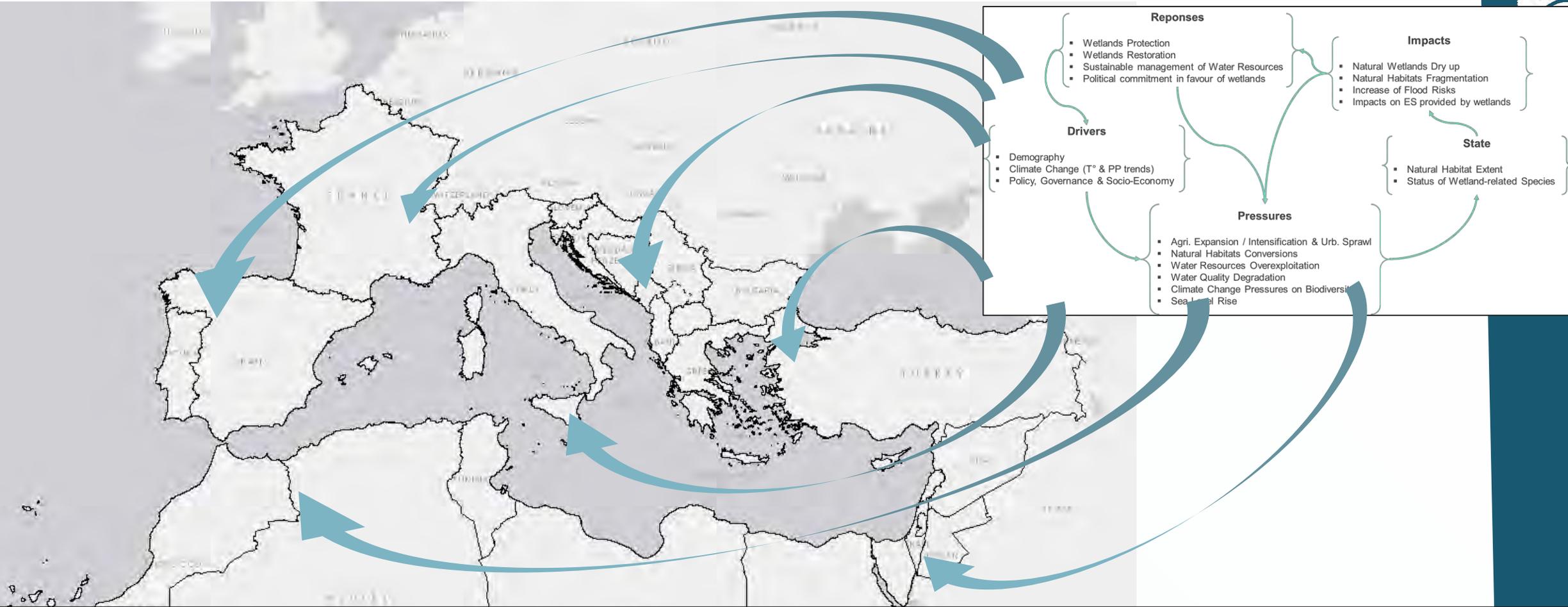


Are particularly effective tools for the sustainable and integrated management of wetland ecosystems in the Mediterranean

5 Levers for Action



Downscale to National Scales

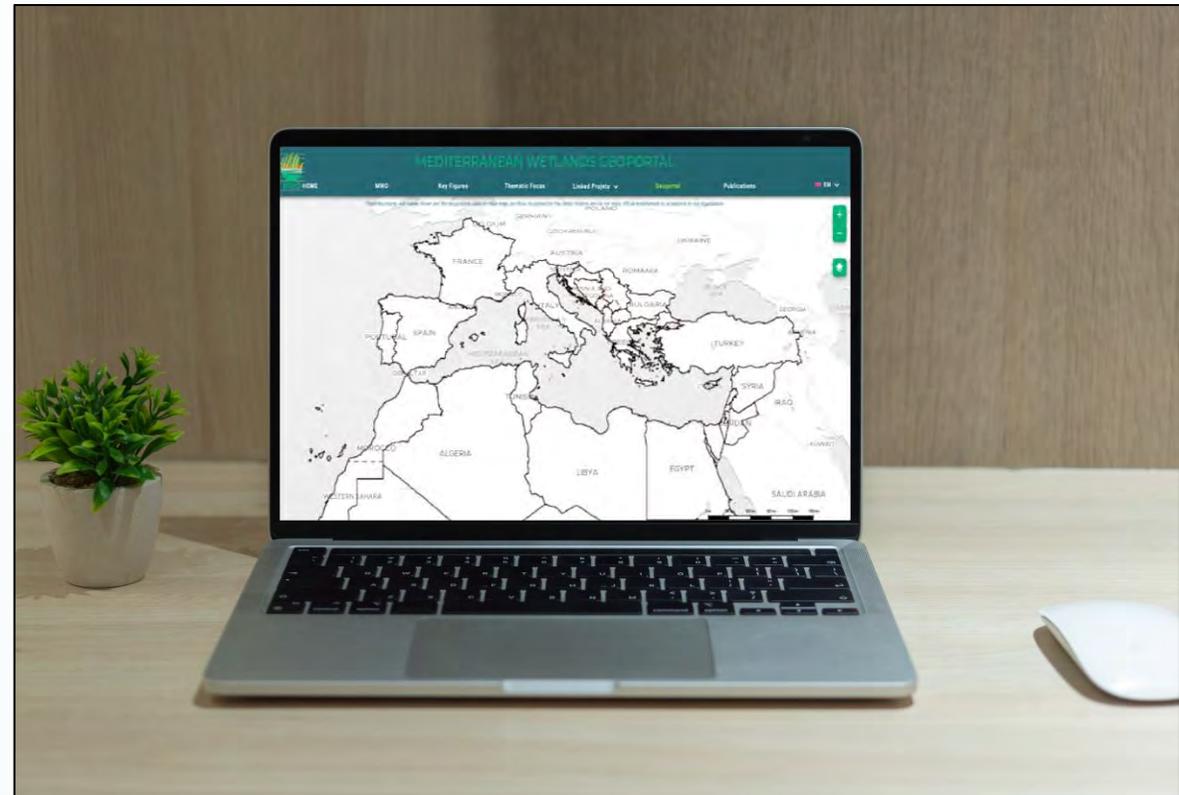


Production of DPSIR analyses for every MedWet country and drafting of key messages and recommendations tailored to each national context

Mediterranean Wetlands Geoportal

A tool for disseminating and sharing knowledge

<https://MedWetlands.org/Geoportal>



MWO-3 Report *English*



MWO-3 Report *French*



Thank you

شكرًا

Merci

Gracias

Grazie



Tour du Valat | Le Sambuc, 13200 Arles - France

www.tourduvalat.org / www.medwetlands.org

Anis Guelmami | Tel. +33 4 90 97 06 32 / Email guelmami@tourduvalat.org



FUNDACIÓN GLOBAL NATURE



Biodiversity



Wetlands



Farmlands

We cultivate the value of Nature

The Nature Restoration Law: challenges



Spanish private foundation; 32 years.

Our goal is to restore landscapes and protect biodiversity.



Applied research to define
measures & MRV

Funding
New tools & ESG Strategies
(indicators)

Governance
Private – Public partnerships

Tierra de Campos



Inland freshwater wetlands

- 1 Laguna de La Nava
- 2 Charcas del Cruce y Praderas de Autillo, Abarca y Castromocho
- 3 Laguna de Boada
- 4 Laguna de Pedraza

Cuenca del Tajo



Inland freshwater wetlands

- 5 Soto Gutiérrez
- 6 Humedal de Las Veguillas



Inland saline wetlands

- 8 Saladares de Aranjuez

Mancha Húmeda



Inland freshwater wetlands

- 7 Charco del Tamujo



Inland saline wetlands

- 9 Laguna de El Hito
- 10 Laguna de El Longar
- 11 Laguna Larga
- 12 Laguna de Tirez
- 13 Lagunas de Villafranca
- 14 Laguna de Manjavacas
- 15 Laguna de Alcahozo



Gypsum lagoons

- 16 Complejo Lagunar de Arcas-Ballesteros

Litoral Valenciano



Coastal wetlands

- 17 Marjal de Peñíscola
- 18 Prat de Cabanes-Torreblanca
- 19 Desembocadura del Millars
- 20 Marjal de Nules-Burriana
- 21 Marjal dels Moros
- 22 Tancat de la Ratja
- 23 Ullal Gros y Ullal de Mula
- 24 Marjal de Pego-Oliva



Constructed wetlands

- 25 Residencial Los Monasterios
- 26 Depuradora de Carrícola

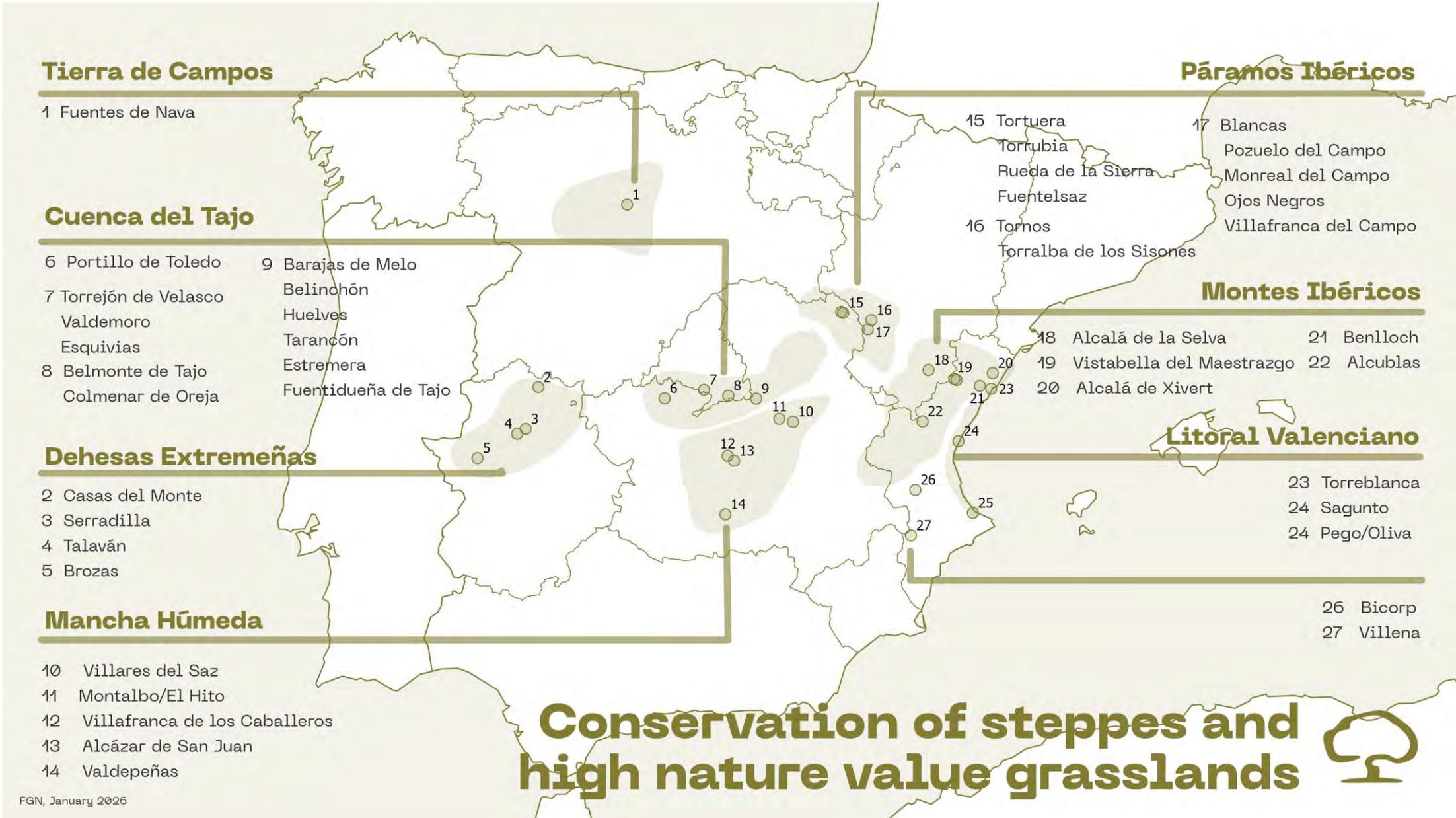
FGN-owned wetlands



Wetlands managed through projects



FGN Wetlands



FGN, January 2026

Blended finance

Need of a basic public line at national, regional & local level: grants, legislation and accepted methodologies



10 of the 26 LIFE projects FGN has carried out aim at the conservation of wetlands + the new LIFE Humedales

Nombre	Inicio	Fin	Ubicación
LIFE AWOM	01/01/2025	31/12/2029	27 Humedales ruta migratoria de carricerín cejudo
LIFE El Hito	01/10/2021	31/12/2024	Laguna de El Hito
LIFE Wetlands4Climate	01/10/2020	31/10/2024	Diversos humedales Mediterráneos
LIFE Paludicola	01/10/2017	31/12/2021	La Nava, Mancha, Albufera y otros
LIFE Albufera	01/10/2013	30/09/2016	Parque Natural de l'Albufera
LIFE Humedales de La Mancha	01/10/2011	30/11/2016	27 humedales de La Mancha
LIFE Canal de Castilla	01/10/2006	30/09/2010	Lagunas del Canal de Castilla
LIFE Carricerín Nava-Campos	01/06/2002	31/05/2006	ZEPA La Nava-Campos
LIFE Living Lakes	01/07/2001	31/10/2004	Boada, Laguna La Nava
LIFE Humedales de Villacañas	01/10/1999	31/12/2002	Castilla-La Mancha

Natura 2000 sites

ES0000161 – Laguna de El Hito
 ES4140136 – Laguna de La Nava
 ES0000216 – La Nava-Campos Sur
 ES4250010 – Humedales de La Mancha
 ES0000147 – Marjal de Pegó-Oliva
 ES0000148 – Marjal dels Moros
 ES0000060 – Prat de Cabanes i Torreblanca
 ES0000470 – Marjal dels Moros (ZEPA)
 ES0000471 – l'Albufera (ZEPA)
 ES0000487 – Marjal de Pegó-Oliva (ZEPA)
 ES0000023 – L'Albufera
 ES0000205 – Lagunas del Canal de Castilla

HIC

1310 – Salicornia y otras especies anuales colonizadoras de fangos y arenas
 1320 – Praderas de Spartina (*Spartinion maritimae*)
 1410 – Prados salinos mediterráneos (*Juncetalia maritimi*)
 1420 – Matorrales halófilos mediterráneos y termoatlánticos (*Sarcocornetea fruticosi*)
 1430 – Matorrales halonitrófilos (*Pegano-Salsoletea*)
 1510 – Estepas salinas mediterráneas (*Limonietalia*)
 1520 – Vegetación gipsófila ibérica (*Gypsophiletalia*)
 3140 – Aguas oligomesotróficas con vegetación bentónica de *Chara* spp.
 3150 – Lagos eutróficos naturales con vegetación *Magnopotamion* o *Hydrocharition*
 3170 – Charcas temporales mediterráneas
 3260 – Cursos de agua con vegetación de *Ranunculion fluitantis*
 4090 – Brezales oro-mediterráneos endémicos
 6220 – Pseudoestepas con gramíneas y anuales de *Thero-Brachypodietea*
 6420 – Pastizales húmedos altos mediterráneos del *Molinion-Holoschoenion*
 6430 – Comunidades altas higrófilas herbáceas
 7210 – Turberas calcáreas con *Cladium mariscus*
 92A0 – Galerías de *Salix alba* y *Populus alba*
 92D0 – Bosques de ribera del sur (*Nerio-Tamaricetea*)
 9340 – Bosques de *Quercus ilex* y *Quercus rotundifolia*
 1150 – Lagunas costeras

Example: an umbrella species, the Aquatic Warbler



LIFE23-NAT-NL-LIFE AWOM – Aquatic Warblers on the Move. 2025 –2029.

Multinational, aimed at restoring 819 ha in the EU, 300 ha in Senegal and 27 key wetlands for the species.

LIFE16/NAT/ES/000168 – LIFE Paludicola. 2017 – 2020

Habitats restoration in the migratory stops in Spain



LIFE02/NAT/E/008616 – Carricerín Nava-Campos. 2002 –2006

Restoration of La Nava-Campos Natura 2000 site

Example: reflooding of Fuentes de Nava, Boada and Pedraza wetlands (Palencia, Castilla y León)



Example: hypersaline temporary wetlands in central Spain. El Hito (Cuenca, Castilla-La Mancha)



El Hito, main hits

- 387 ha purchased. Conversion of more than 40 ha of agricultural land and pastures into priority habitats
- Elimination of livestock sheds
- 497 ha agreed for overseeding in crane areas (27 farmers, 100% of those in the Nature Reserve)
- 250,000 albardines (*Lygeum spartium*) planted
- 46 villages visited with the itinerant exhibition, reaching almost 20,000 people



- 10,000 m³ of debris removed (more than 100 trucks)
- 13.7 km of fence removed
- >10 km of roads restored, >10 km of marked power lines
- a grasshopper and two beetles described new to science
- streaming camera



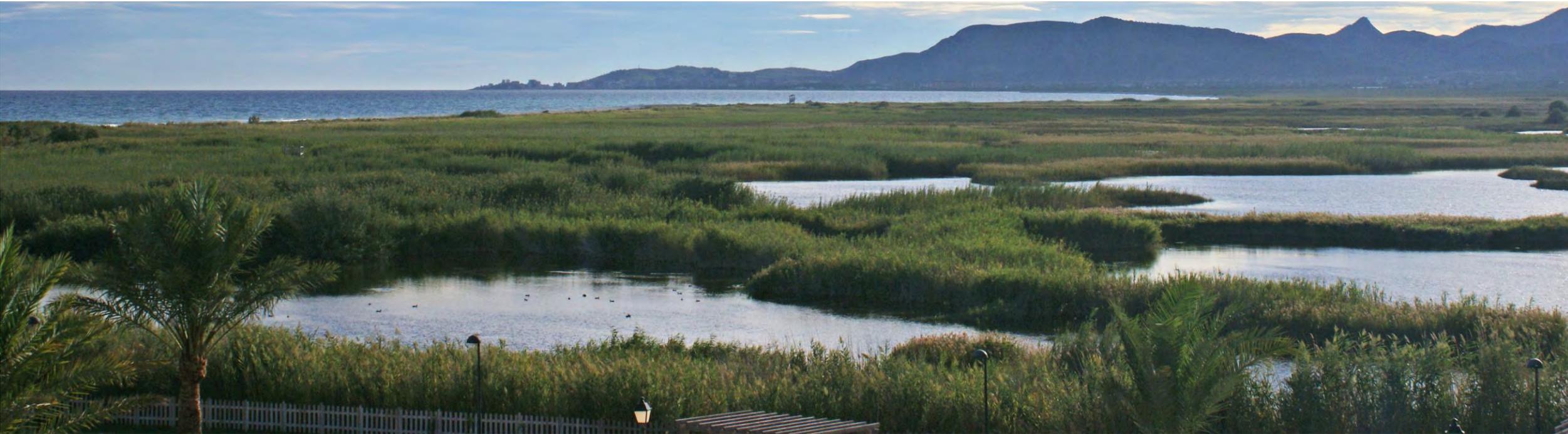
Example: reflooding of Ballesteros lagoons (Cuenca, Castilla-La Mancha) Started in January 2026

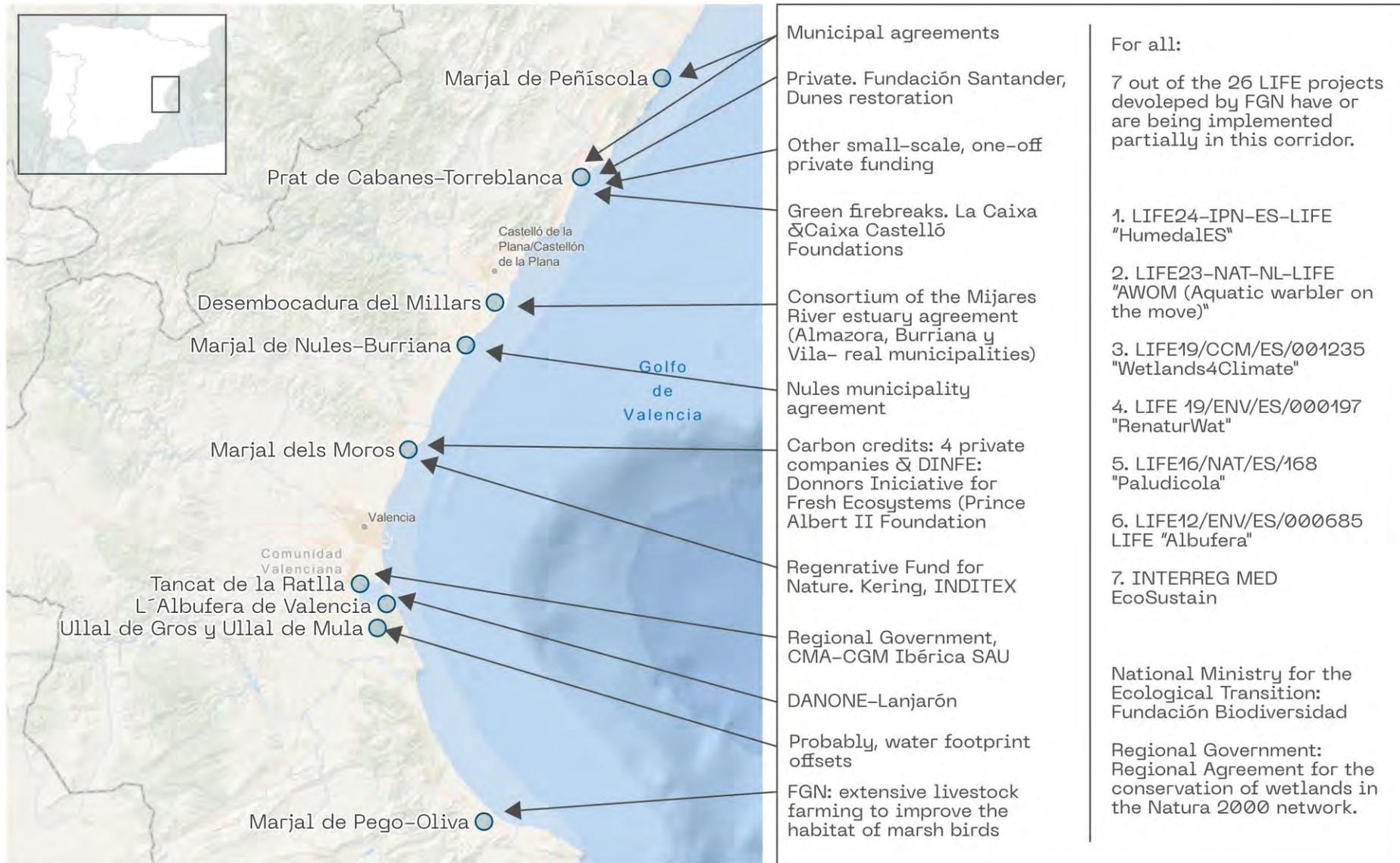
Purchase of 274 ha, the whole Natura 2000 site, plantation of 250.000 masiegas (*Cladium mariscus*), and other restoration actions



Mediterranean corridor

Coastal wetlands





Financial mechanisms for wetland conservation in the Mediterranean Corridor

Actions

Restoration of infrastructures and hydrological management



Soil stripping and soil mudding (decapado y fangueos)



Mowing of Helophytes & composting

- Reed mowing and harvesting with an amphibious machine
- Planting of other macrophytes
- Extensive livestock grazing to keep reeds at bay
- Chopping of helophytes with a tractor
- Secondary use of compost, given to farmers





Controlled grazing with local farmers after reeds opening

- Extensive livestock grazing to keep reeds at bay



Green firebreaks in wetlands

Recovery of traditional rice plots among reeds



Adaptation to climate change

Restoration and protection of the dunes and the coast

The National Parador of El Saler was saved from the effects of Storm "Gloria" thanks to the creation of "malladas", buffer, depressed areas among the dunes.



Agreements with municipalities

Coastal municipalities see other ecosystem services far beyond the landscape, tourist uses and biodiversity outcomes. They value these restoration works because of many other services, such as the control of fires, wild boar refuges (less accidents), illegal dumps, floods, mosquitoes, etc...

Peñíscola, Torreblanca and some others to come.



New financing tools aimed at the business sector

Business sector (ESG- CSRD)

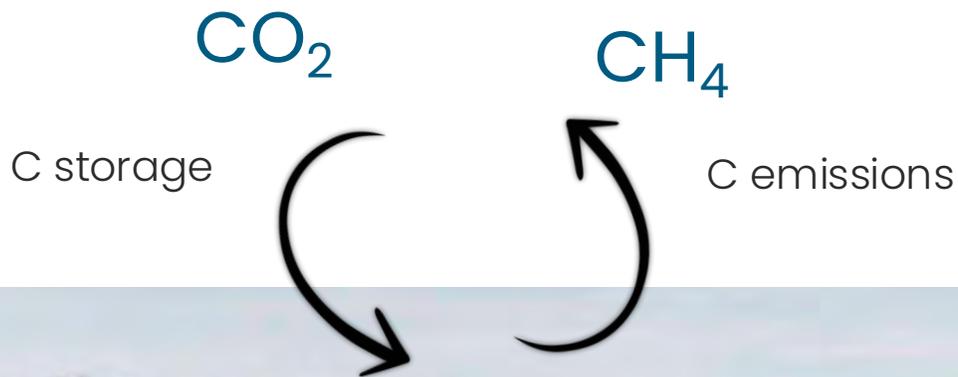
Water footprint, biodiversity metrics, carbon credits, sustainable sourcing, offset measures...



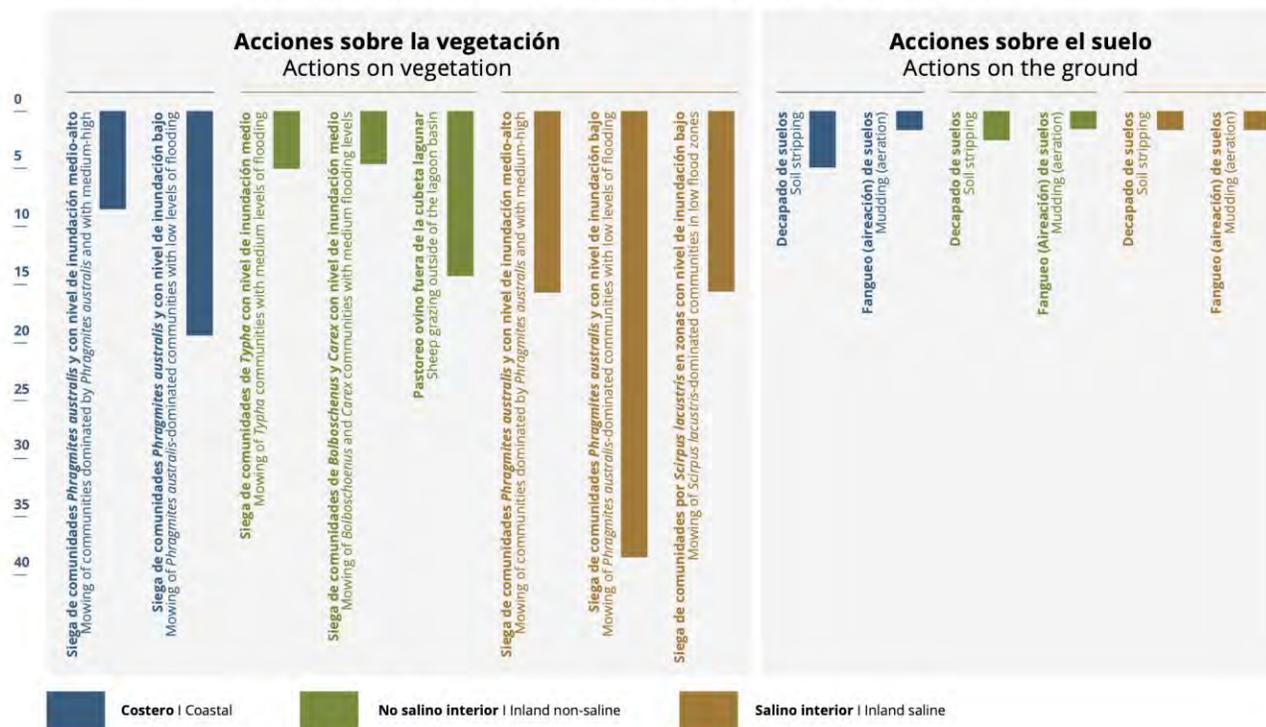
Voluntary carbon markets

The most efficient action: mowing reeds in low flood conditions:

- up to 24.29 tCO₂eq/ha·year in coastal wetlands
- up to 38 tCO₂eq/ha·year in saline wetlands.



EMISIONES EVITADAS POR TIPO DE ACCIÓN Y POR TIPOLOGIA DE HUMEDAL AVOIDED EMISSIONS BY ACTION TYPE AND WETLAND TYPE



Promedio de emisiones evitadas (tCO₂eq/ha·año) por tipología de humedal y tipo de acción de gestión.

FUENTE: Metodología LIFE Wetlands4Climate para la reducción y compensación de emisiones de gases de efecto invernadero mediante la gestión y restauración de humedales mediterráneos.

Average avoided emissions (tCO₂eq/ha/year) according to wetland typology and the type of management action taken.

SOURCE: LIFE Wetlands4Climate Methodology for Reducing and Offsetting Greenhouse Gas Emissions through the Management and Restoration of Mediterranean Wetlands.

LIFE Wetlands4Climate: Key Results achieved

Methodology for the reduction and compensation of GHG emissions with the management/restoration of Mediterranean wetlands



www.wetlands4climate.eu



Methodology for reducing and offsetting greenhouse gas emissions through the management/restoration of mediterranean wetlands (ESP /ENG)



Handbook for adding a climate-mitigation perspective to wetland management and restoration (ENG)



Backed by the Academy and Science



Inclusion of Mediterranean wetlands in the CRCF Carbon Removal Certification Framework



LIFE Wetlands for Climate / Sale of carbon credits.

Marjal del Moro, Sagunto (Valencia)

The active management and restoration of wetlands fixes more than 3,690 tonnes of CO₂ equivalent mitigated.

Vegetation mowing the most effective action (up to 38 t CO₂eq/ha·year in saline wetlands).

Sale of the first carbon credits (1,500 t) generated in a Mediterranean wetland restoration project, in the Marjal del Moro, in Sagunto.

Companies that have already bought these credits:
Naturgy, Zumavesa, Saggas and Ecoalf

Water footprint, example: purchase and restoration of Soto Gutiérrez wetland (META and Microsoft)

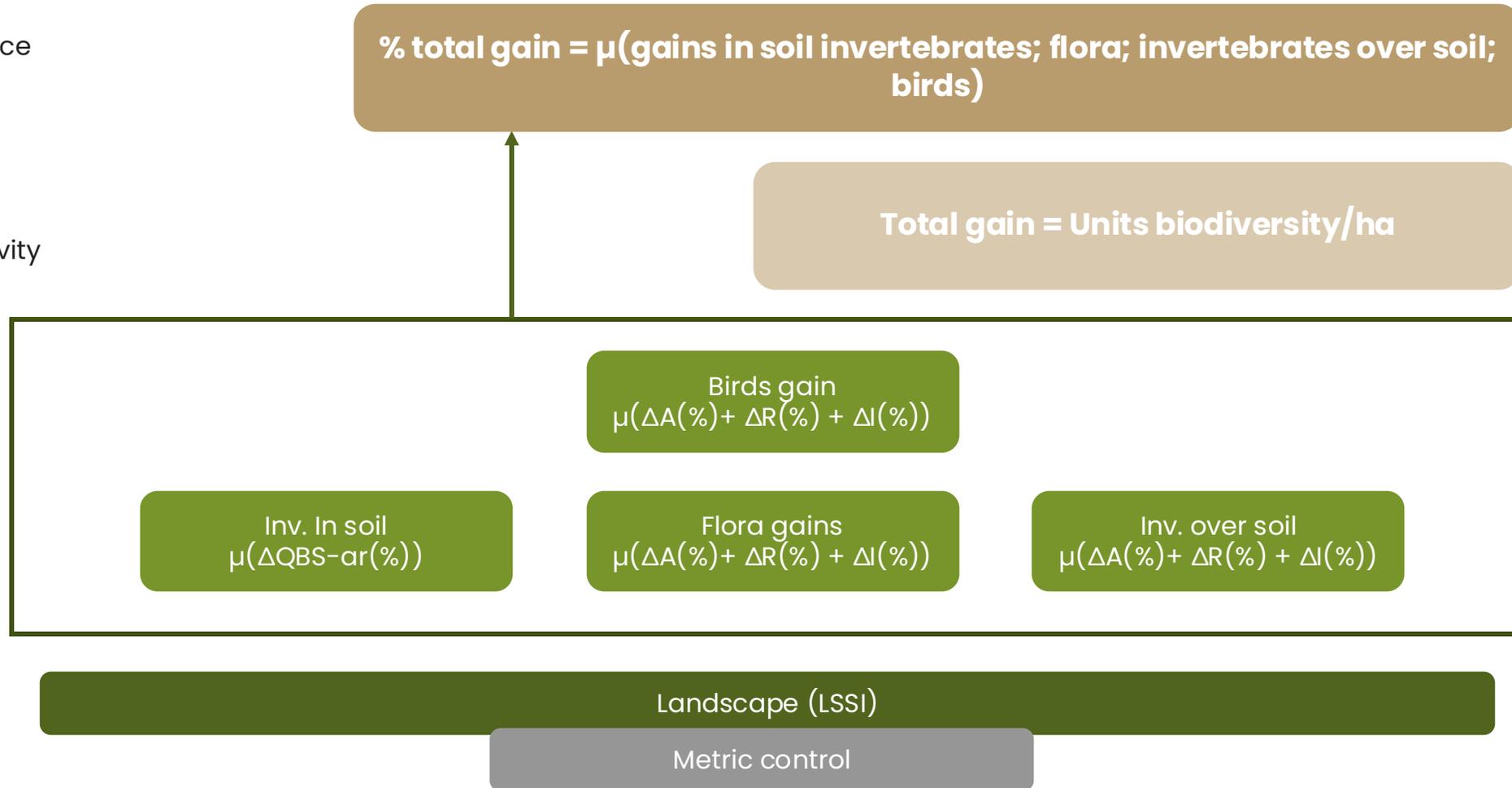
Probably, it will also be applied also to co-fund the reflooding of Ballesteros wetlands



Biodiversity metrics for the business sector

3 basic indicators + landscape connectivity:

- 1) Abundance
- 2) Richness
- 3) Interest
- 4) Connectivity



Applied for Nestlé, Energy and other companies, and now in adaptation to wetlands

Projects	What we assess	Biodiversity Gain
Fallow lands compensatory measures. Cuenca	<ul style="list-style-type: none"> Fallow land with spontaneous vegetation vs cereal 	32,54%
Fallow lands compensatory measures. Teruel	<ul style="list-style-type: none"> Different types vs cereal 	Average (70.96%) Old (45.21%). Leguminos mixture (74,71%). Sown (72.49%).
Fallow lands. Others	<ul style="list-style-type: none"> Fallow land with spontaneous vegetation vs cereal 	41.53%
Nestlé Cereals Iberia	<ul style="list-style-type: none"> Fallow land with a mixture of sown seeds vs cereal 	76%



Science, transfer and connection with the local population

Backed by the Science and the Academia



Shared and scaled up in Networks

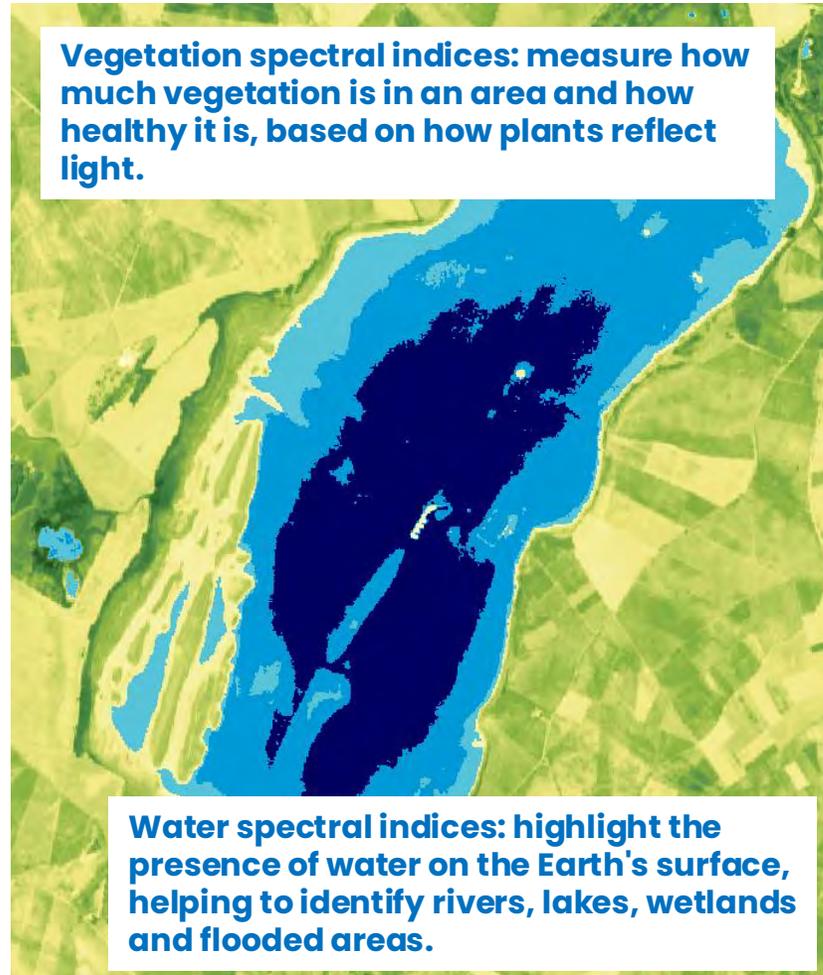


Wetlands inventory, mapping and viewer

Earth Observation tool for monitoring indicators and dynamics of surface waters in wetland ecosystems.

Developed on Google Earth Engine: a Google online platform that allows large amounts of geospatial data, such as satellite imagery, to be analyzed and visualized to study and monitor the environment and changes on Earth.

Spectral indices: mathematical algorithms that are applied to satellite imagery to highlight or measure certain parameters.



Let's not forget local communities



We cultivate the value of Nature

