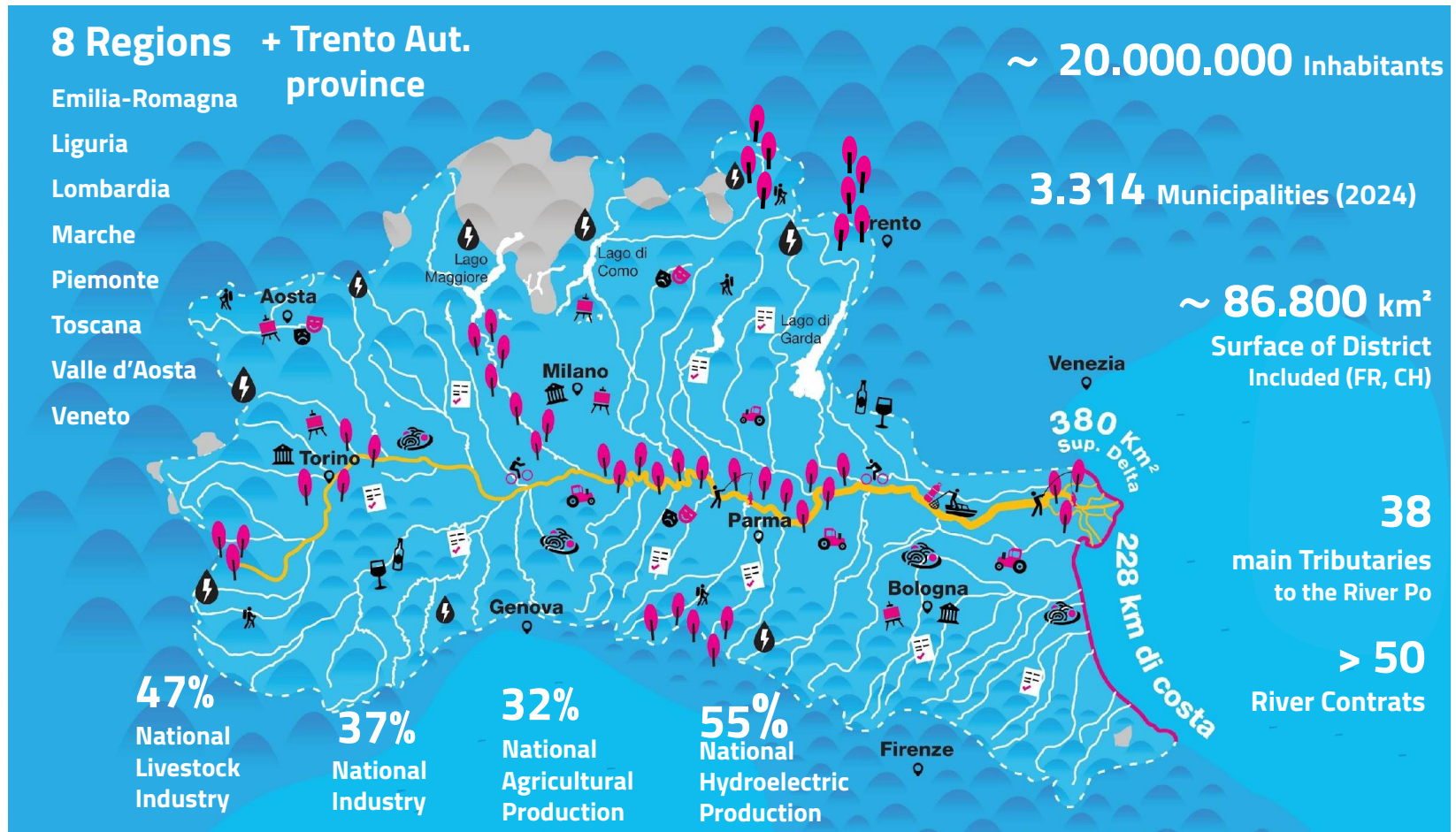


“Improving the coherence of water and biodiversity policies –from cities to basin. Challenges of a changing climate”

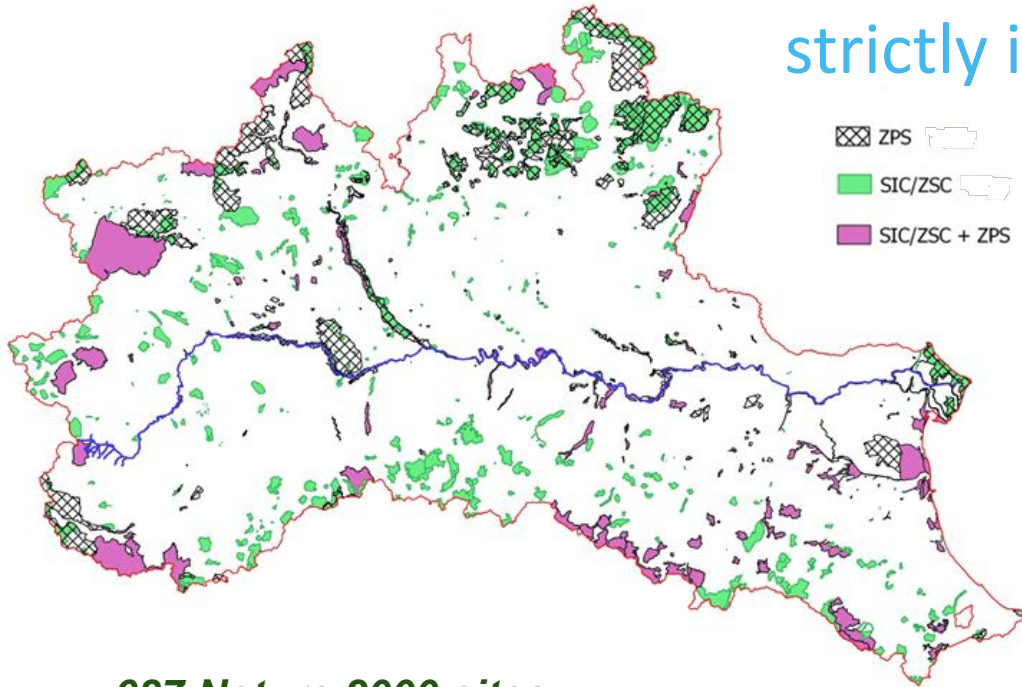
River Po Basin Biodiversity in a context of climate change

*Alessandro Bratti, Paola Gallani
Po River Basin Authority
Bordeaux, 7 October 2024*

Po River Hydrographic District

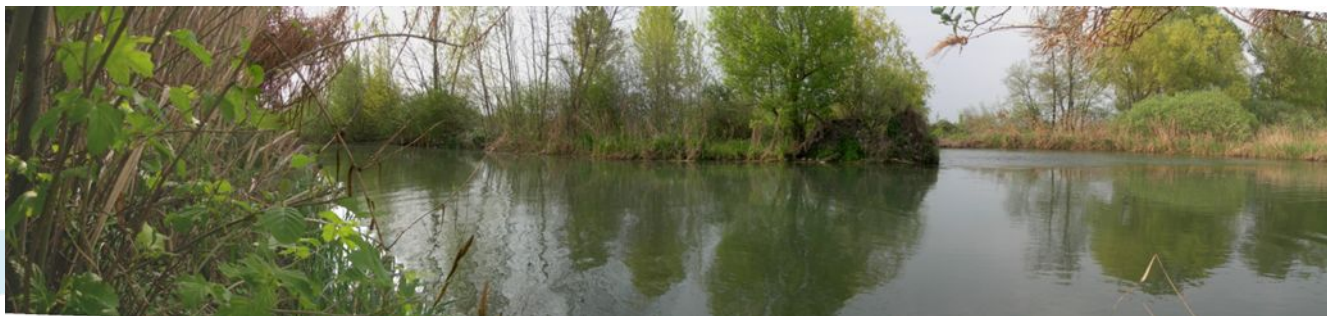
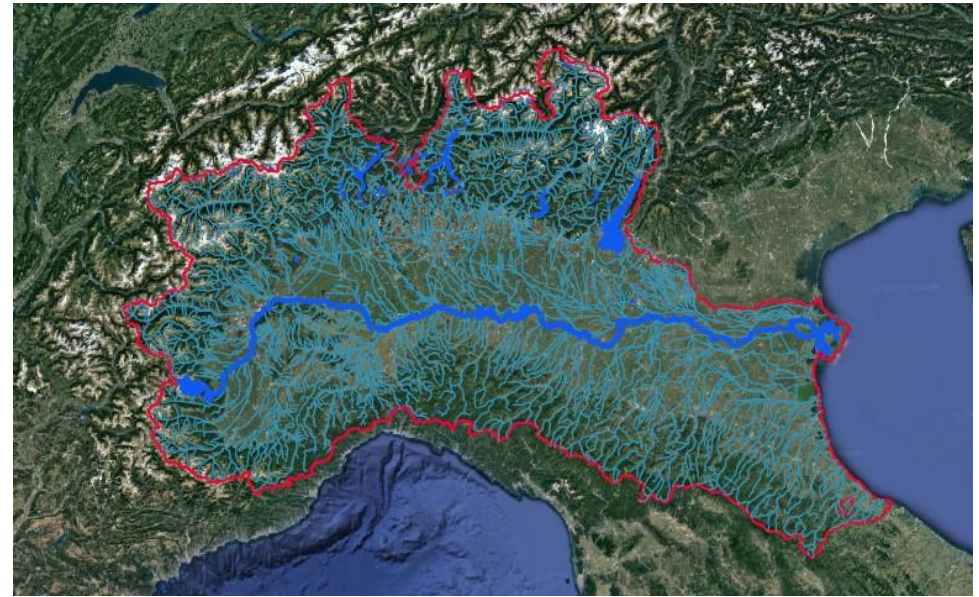


River Po basin ecological corridors and biodiversity: our natural capital strictly interconnected with water



687 Natura 2000 sites
cover 20% of the entire river district

52 Natura2000 sites along the River Po



A characteristic ox-bow lake along river Po



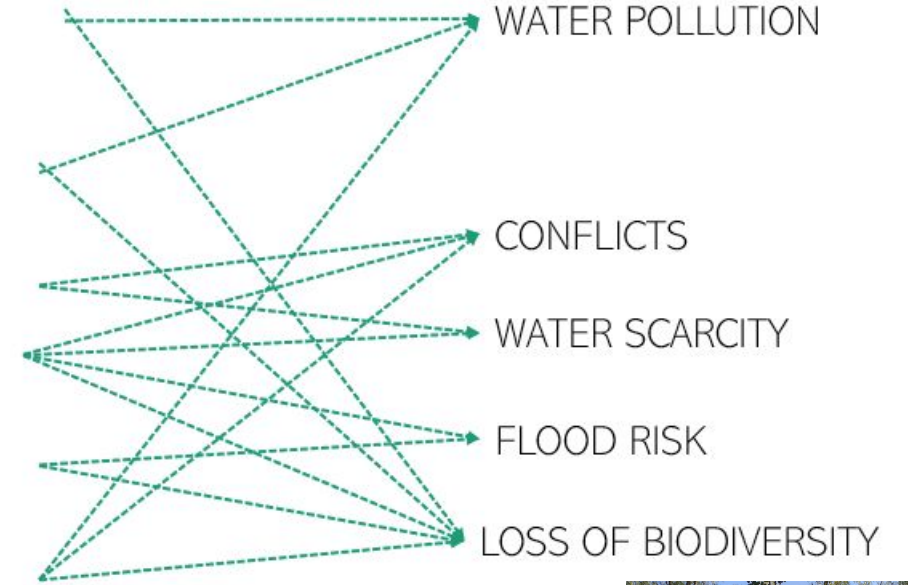
Egretta garzetta and Sterna hirundo



The Po river Delta

Main criticalities

1. POINT DISCHARGES FROM URBAN SETTLEMENTS AND INDUSTRIES
2. DIFFUSED POLLUTION FROM AGRICULTURAL RUN OFF
3. WATER ABSTRACTION
4. CLIMATE CHANGE
5. HYDROMORPHOLOGICAL ALTERATIONS
6. PRESENCE OF INVASIVE SPECIES

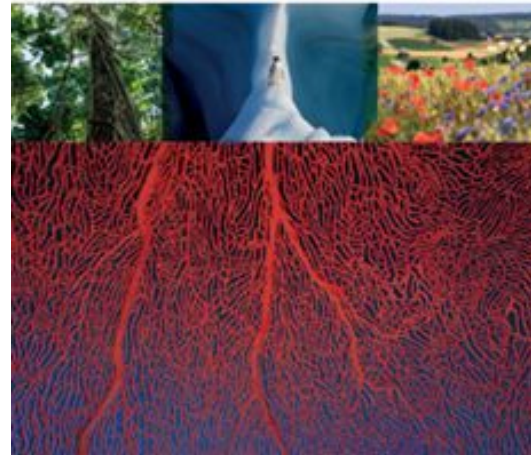


Alien invasive species

....in a climate changing context

The Po River Basin District is located in the climatic transition zone between the Mediterranean and Northern Europe, in which *uncertainty* about the *future climate* is *higher* than in other European areas

IPBES-IPCC CO-SPONSORED WORKSHOP
**BIODIVERSITY AND
CLIMATE CHANGE**
Scientific outcome



climate change and biodiversity are interconnected.

Innovative and multi-sectoral actions are needed to prevent and mitigate the complex threats to human health from the ongoing and interconnected crises of climate change, biodiversity loss and pollution.



Flood events in Romagna, May 2023

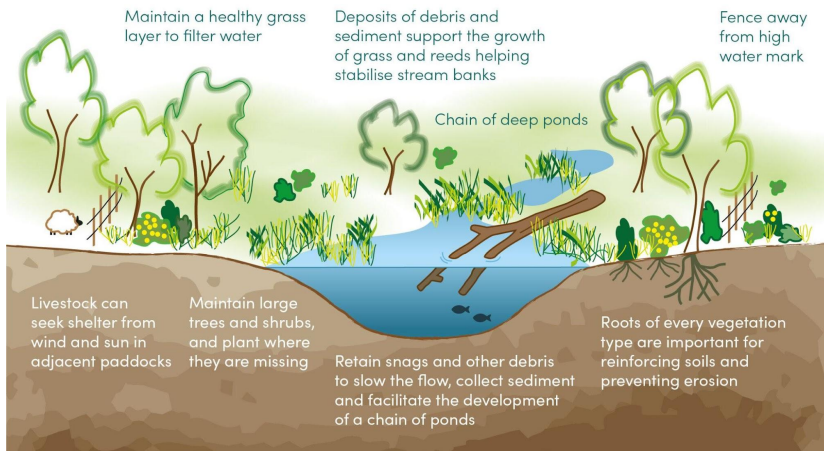


Drought and water scarcity, summer 2022

The effects of riverbed modifications: loss of biodiversity

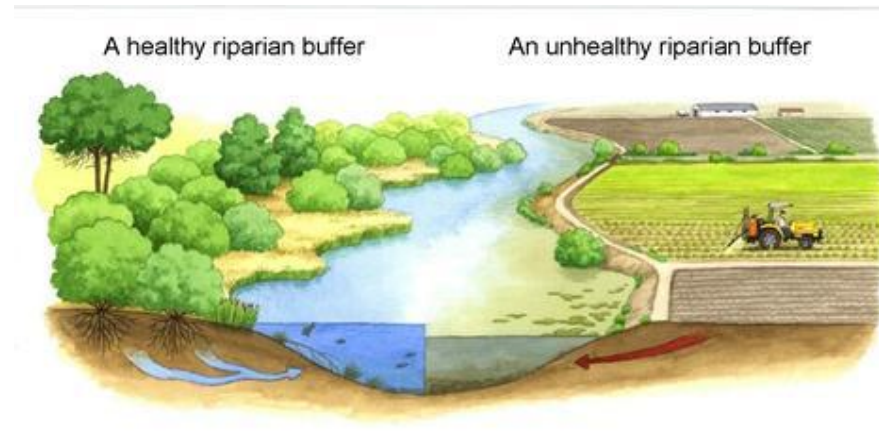
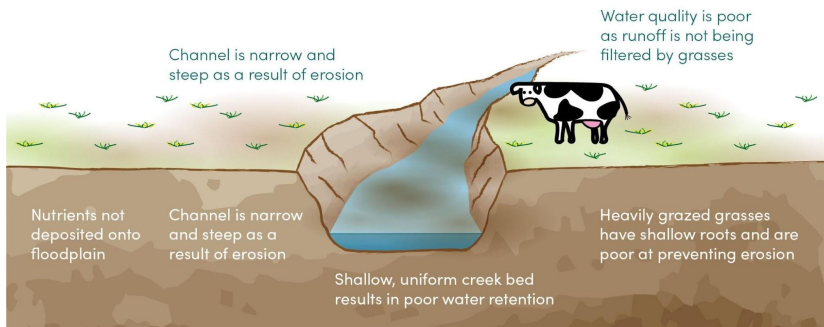
Comparison between healthy and degraded riparian areas

Healthy riparian area



Biodiversity loss – alien species
Degradation of ecosystems

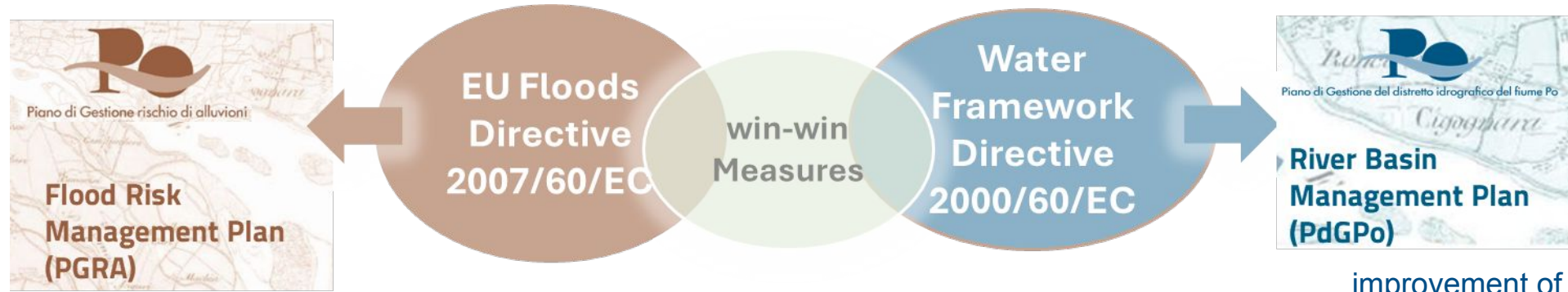
Degraded riparian area



A satellite-style topographic map of a mountainous region. A red line outlines a large area that includes a high mountain range with snow-capped peaks. A cyan line outlines a smaller, more specific area within the red boundary, primarily in the lower, valley regions. The text "Challenges and Solutions" is overlaid in yellow in the center of the map.

Challenges and Solutions

The integrated planning: an opportunity for NbS



reduction of hydraulic risk and identify the morphological and ecological recovery measures of river beds

improvement of the ecological status of watercourses and the protection of ecosystems and biodiversity



The Biodiversity Strategy calls for greater efforts to restore freshwater ecosystem and the natural functions of rivers, to achieve not only the WFD objective of achieving good ecological status, but also the objective of habitat and species restoration

Our commitment to the protection and restoration of biodiversity in the Po area



WATER QUALITY

Improve knowledge of nutrient transport to the sea

Links between Water Framework Directive and Nature Directives (Birds and Habitat)



ECOSYSTEM RESTORATION



Natural connections for Natura2000 in Northern Italy to 2030

ecological restoration of habitats and species and reducing the impact of invasive alien species

strengthen the governance of the Natura 2000 network and connection areas



THE VALUE OF NATURE

Enhancement of wetlands and their role in mitigating climate change

knowledge of the ecological values and ecosystem services provided by the river system



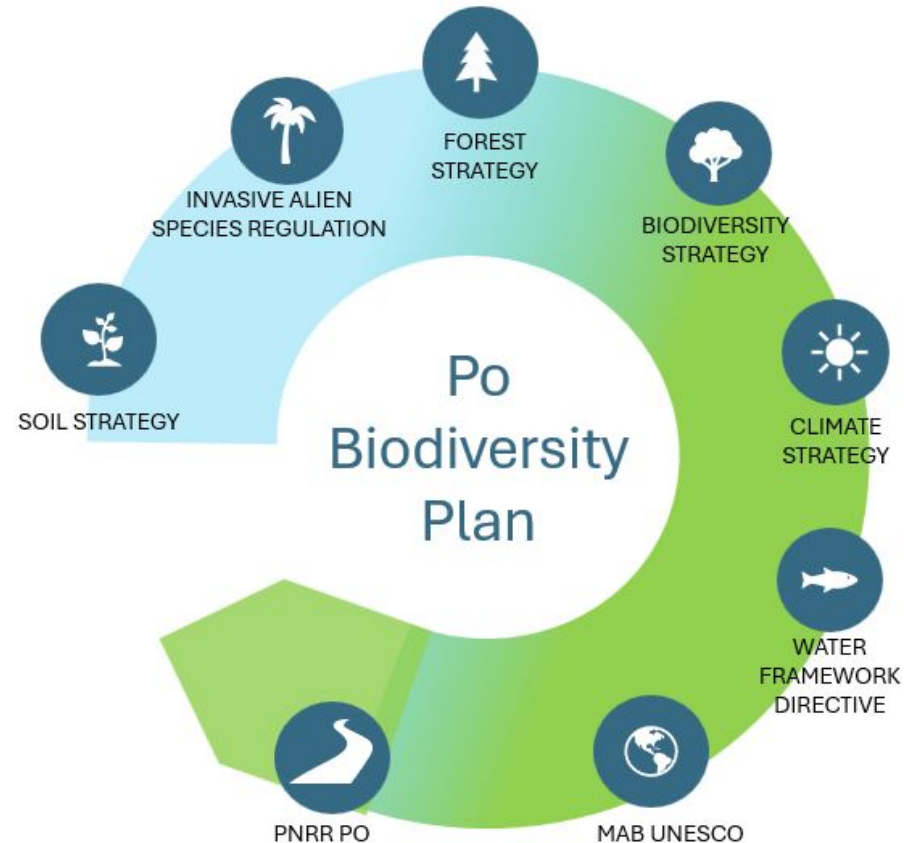
EDUCATION AND AWARENESS RAISING

The "Divento un Po Grande" Project supports the new generations of the UNESCO Po Grande MAB Reserve

Pilot awareness-raising action "Adopt the Sturgeon"

Research and development for the biodiversity of the Po River District

Concrete actions for **WORKING WITH NATURE** to increase natural capital through the **protection, management and restoration** of the functions of complex aquatic ecosystems



ACTIVITY 1 – Organization of the “First Forum on Biodiversity, Natural Capital and Ecosystem Services in the Po River District”



ACTIVITY 2 – Biodiversity Plan of Po district - Guidelines and proposals for measures for the integration of biodiversity protection objectives into district planning

Working groups

ACTIVITY 3 – Creation of the Nature Positive Solutions Network, with the economic world



GOOD PRACTICES FOR THE VALORIZATION OF NATURE



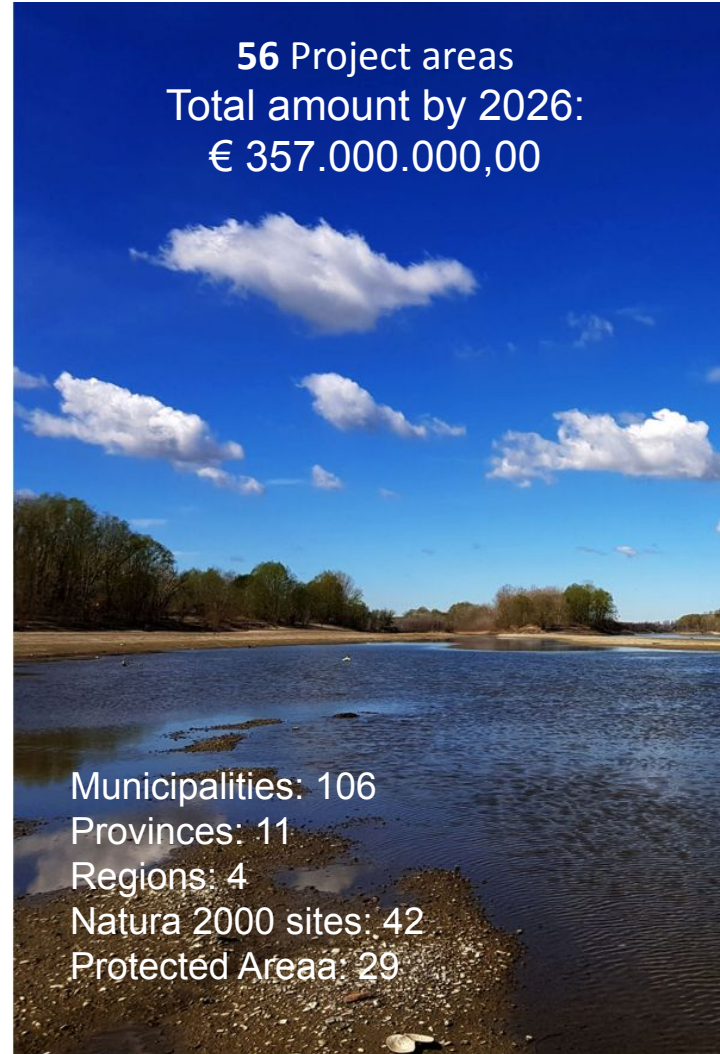
The **Nature Positive network** is a dynamic network of companies that wish to make a difference in Italy by concretely committing themselves to the transition of the production system towards a nature-positive economy.

How? Through the implementation of effective actions in favor of the protection and enhancement of nature

Around 30 companies have already signed up their commitment towards a nature-positive economy in the Po River District

<https://naturepositivenetwork.net/>

The restoration of river ecosystems to improve the ecological status and reduce hydraulic risk



ENVIRONMENTAL-NATURAL INTERVENTIONS



Reforestation



Requalification of oxbow lakes and of abandoned branches



Control of invasive alien species

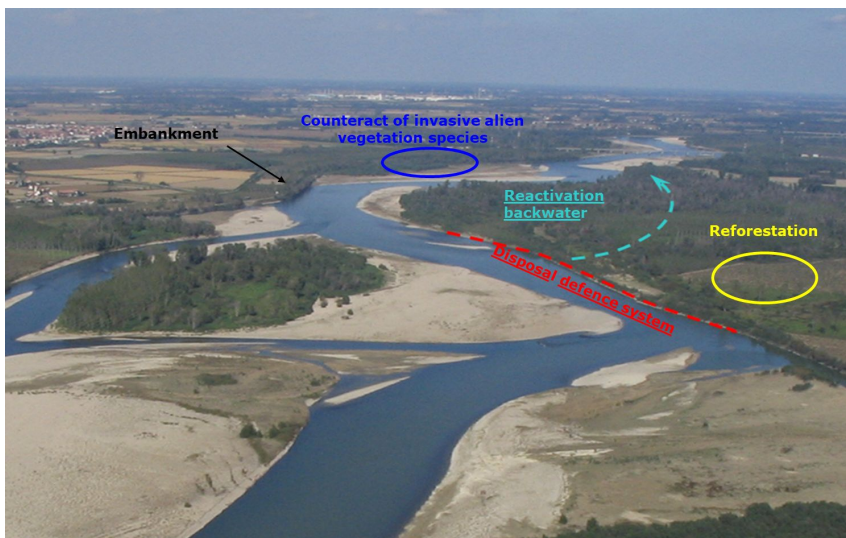
HYDRAULIC-MORPHOLOGICAL INTERVENTIONS



Reduction of the artificial riverbed, alongside the adjustment of navigation groynes and the decommissioning/ modification of defense works



Restoration and re-opening of oxbow lakes, abandoned branches and opening new fluvial branches



Culture-based Solutions: MAB UNESCO Biosphere Reserve



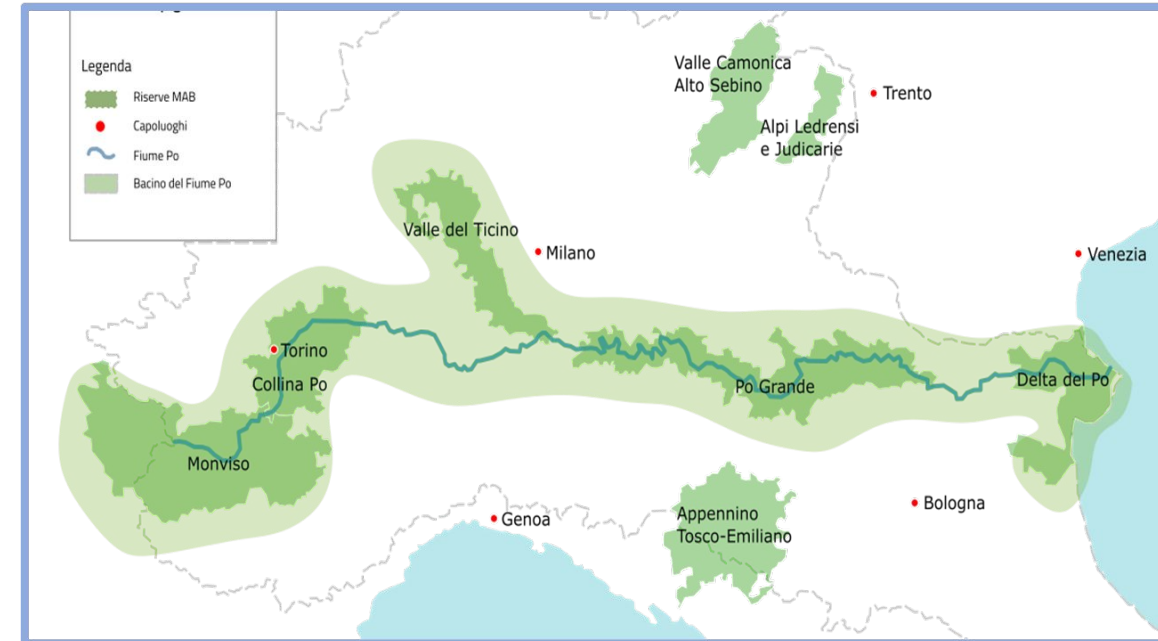
CONSERVATION: contribute to the conservation of landscapes, ecosystems, and species



DEVELOPMENT: foster economic and human development that is socio-culturally and ecologically sustainable



LOGISTIC SUPPORT: support in the demonstration of projects, environmental education and training, research and monitoring related to local, regional and global issues of conservation and sustainable development



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