INBO
International Network
of Basin Organizations

Management of water resources at Basin context

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Po River Basin Authority

ADBPO

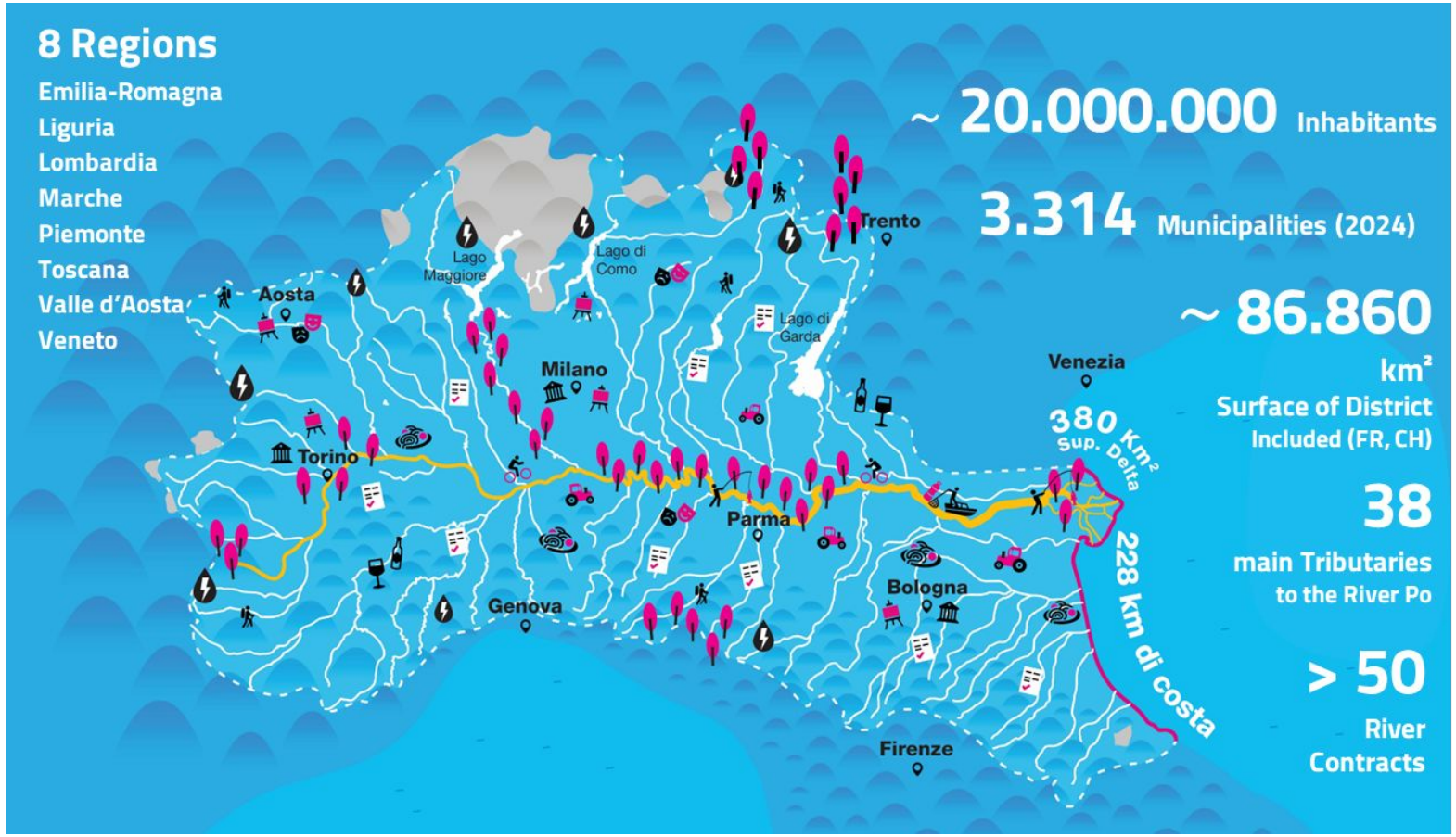
The Po Basin

Flood risk management and Hydrogeological risk mitigation
(Floods Directive 2007/60/EC)

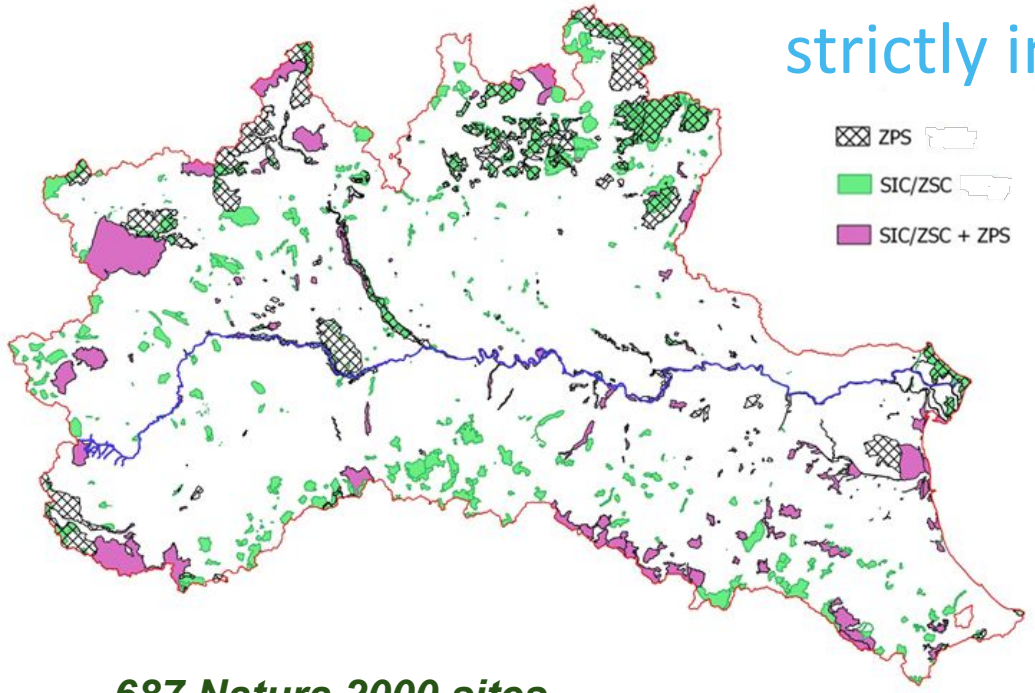
Water resource management and protection
(Floods Directive 2000/60/EC)

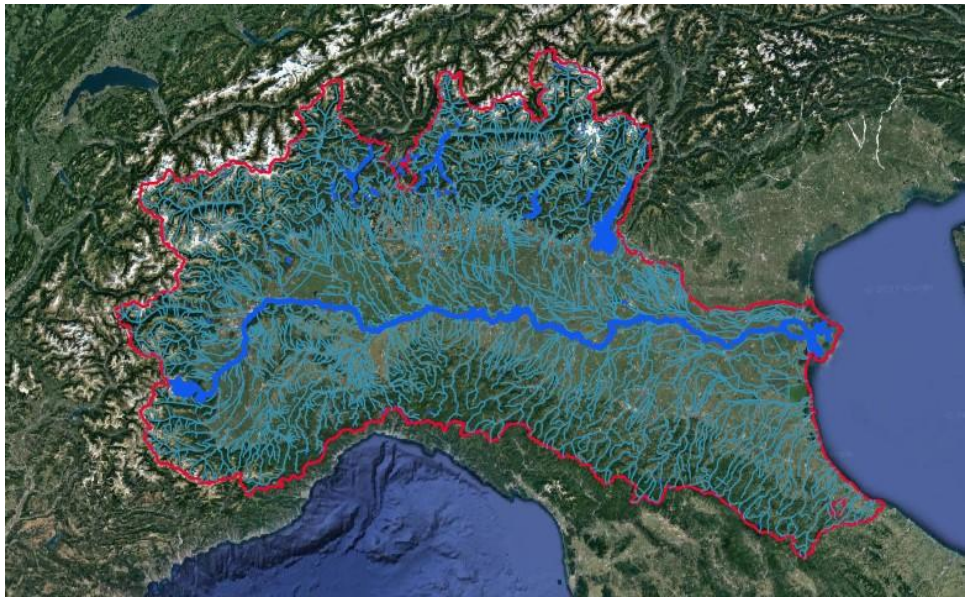
Water quality
(Water Framework Directive 2000/60/EC)

Management entity of the Po Grande MAB Unesco Reserve



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

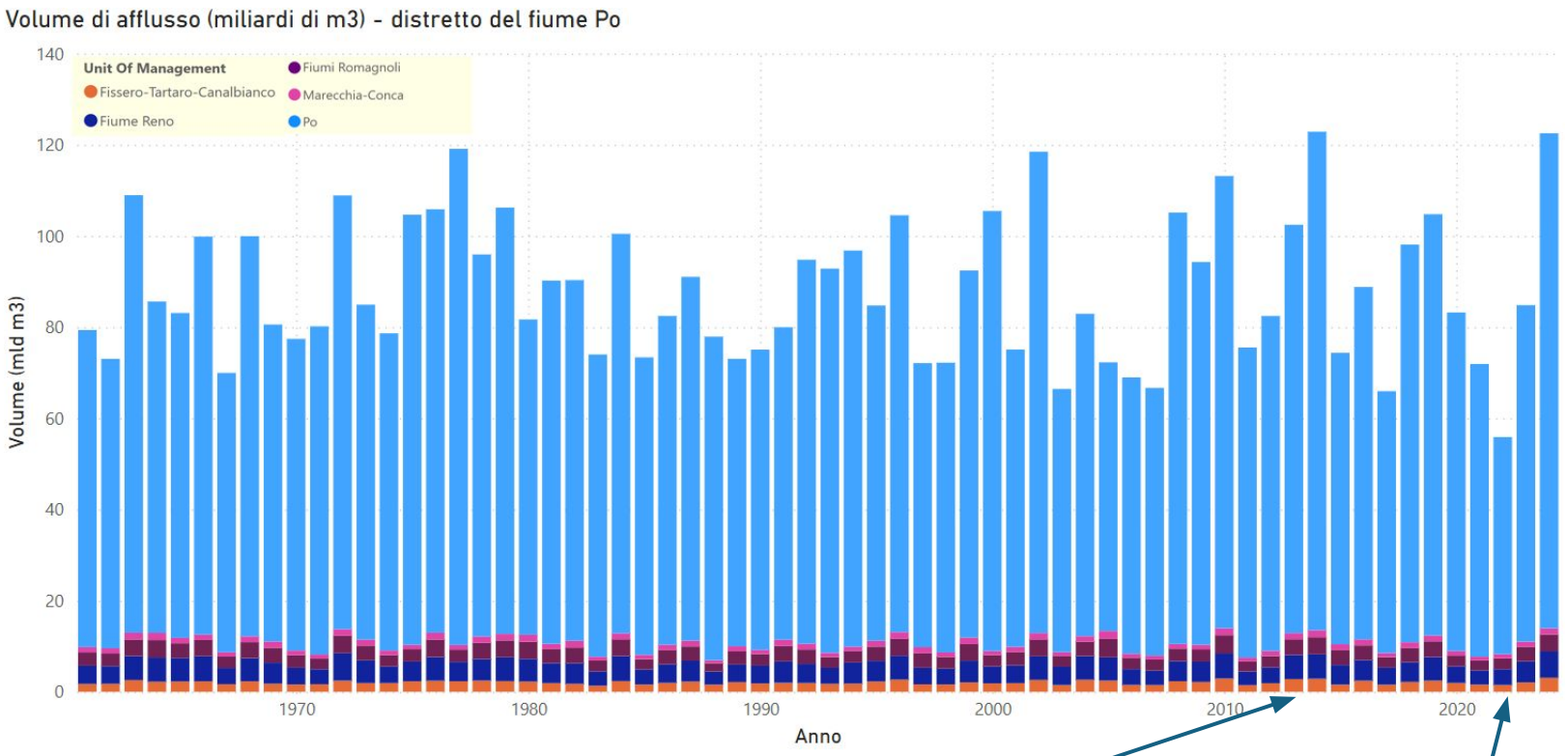
Egretta garzetta and Sterna hirundo

The Po river Delta

ADBPO

Influx volume in the District : the role of climate change

Starting from the 2000s the hydroclimatic balance (i.e. the difference between precipitation and evapotranspiration) was strongly negative with an increase in the intensity of individual rainfall events but an overall reduction in the number of total events.

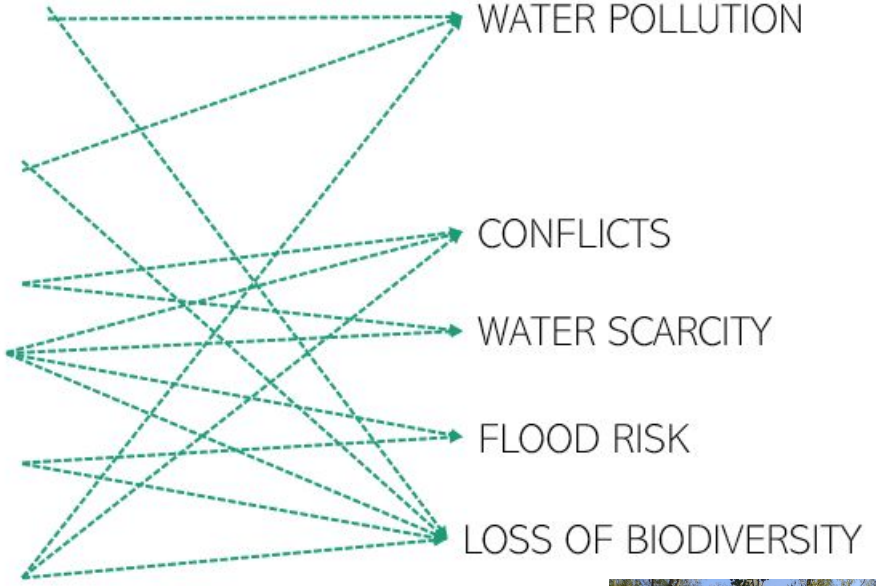


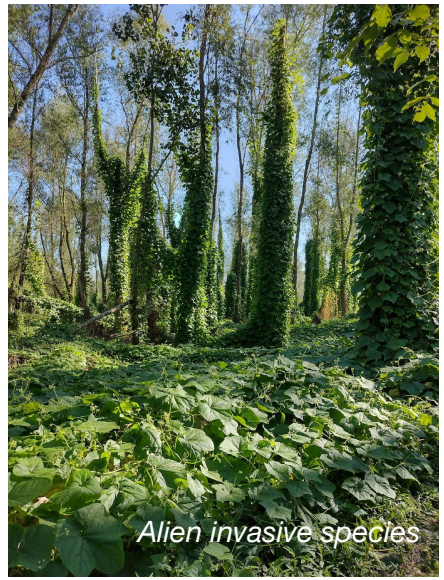
Wettest years with a precipitation 1.389 mm and meteoric influx around 124 mld m^3

The driest years with an average of total meteoric flow of 65 bln and m^3 56 bln m^3

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



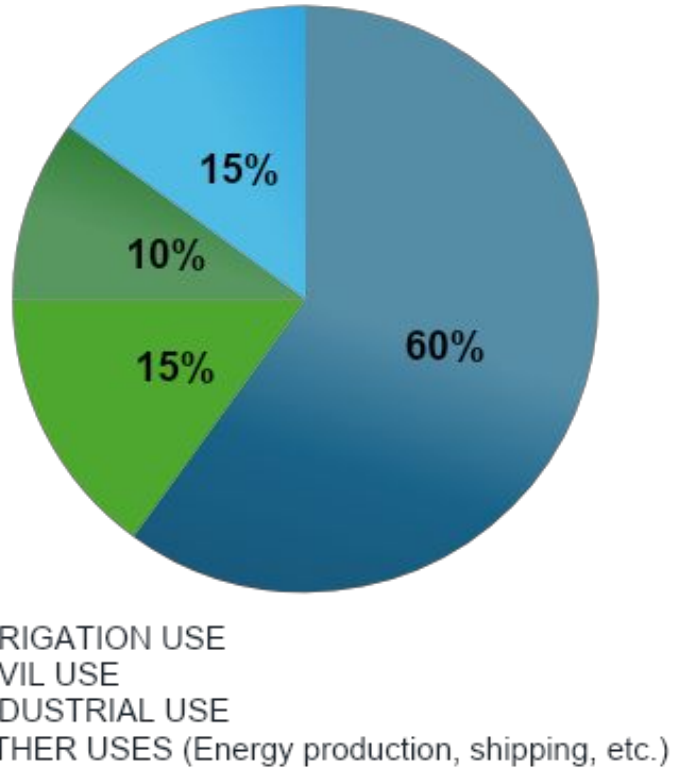


Impact on Biodiversity

Po River Basin District and the resource numbers

The overall demand for the various uses appears to be sustainable under conditions of normality and abundance, but the increasingly frequent and long-lasting drought periods observed in recent years have led to the emergence of major scarcity problems, especially in the irrigation sector.
Greater demand and less availability are thus making the management of water resources within the Po River District increasingly difficult.

- ***12 BILLION m^3*** IRRIGATION USE
- ***3 BILLION m^3*** CIVIL USE
- ***2 BILLION m^3*** INDUSTRIAL USE
- ***3 BILLION m^3*** OTHER USES (Energy production, shipping, etc.)

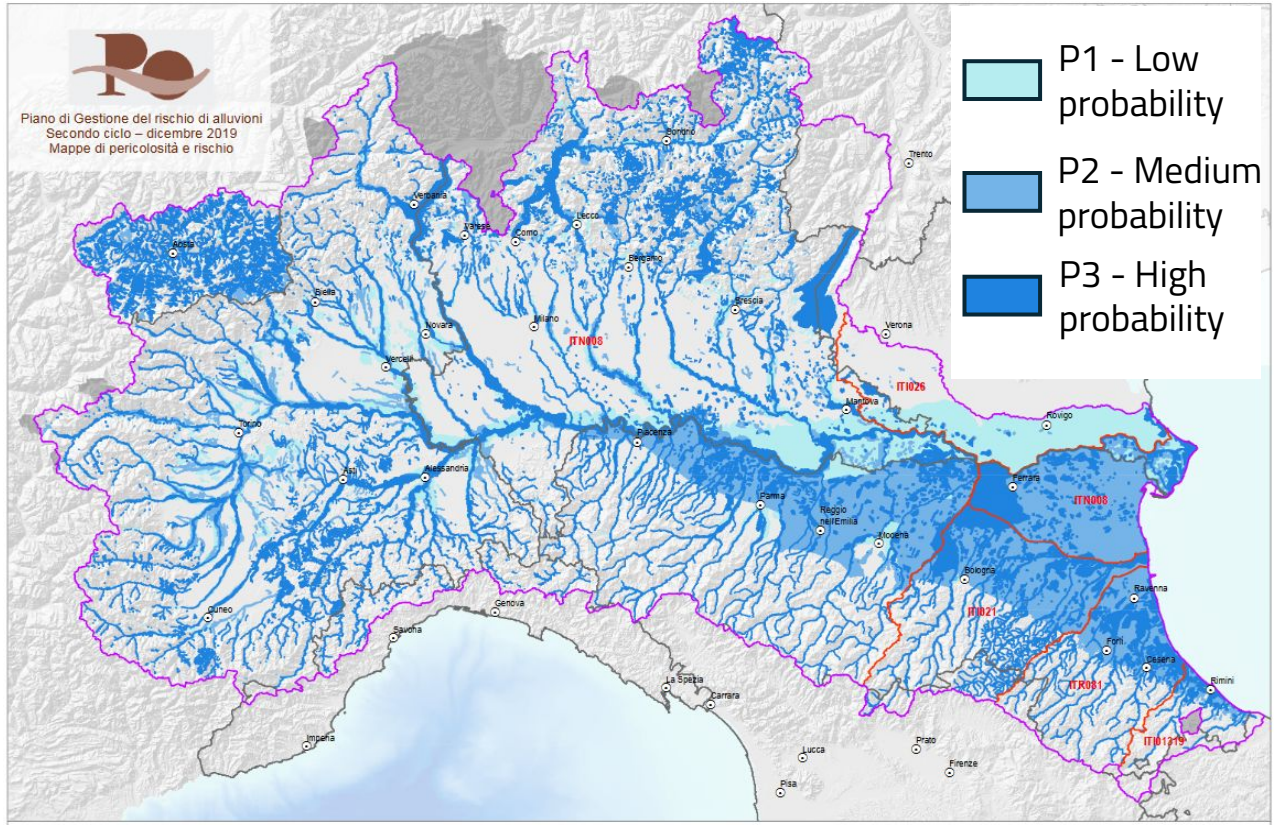


20 BILLION m^3 WATER WITHDRAWN FOR DIFFERENT USES

Flood risk in the Po river District

The main river network consists of the Po river and its main tributaries that flow in the plains and the main mountain valleys. The main river network has a length of about **6000 km**.

FLOOD RISK MANAGEMENT PLAN - FRMP



Flood hazard map

Some flood risk numbers

34% District area potentially subject to flooding

> 3 million District inhabitants living in areas with medium flood hazard level (P2)

~ 4000 km Total length of district rivers levees


Challenges and Solutions

Review process of ADBPO Plans

On 22 December 2024, with the publication of the “Single calendar, work programme and consultative measures”, the process of updating the District Plans of the Po River Basin Authority begins:

Water Management Plan of the Po River Hydrographic District (PdGPo), third update;

Water Balance Extract Plan (PBI), first update

Flood Risk Management Plan (PGRA), second update

The process will conclude with the final adoption of the three plans expected by the deadline of 22 December 2027 and their approval with Prime Ministerial Decree.

Per informazioni:
https://www.adbpo.it/partecipazione-pubblica-2027/

The integrated planning: an opportunity for NbS

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

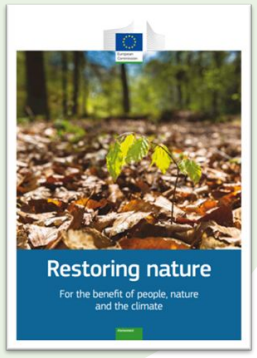
EU Floods Directive 2007/60/EC

win-win Measures

Water Framework Directive 2000/60/EC

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

EU Nature Directive 2009/147/EC 92/43/EEC

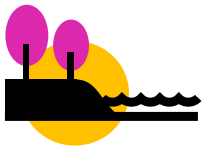


The Biodiversity Strategy calls for greater efforts to restore freshwater ecosystem and the natural functions of rivers, to achieve not only the WFD objective of achieving good ecological status, but also the objective of habitat and species restoration

FRMP – Plan measures typologies

Measures to adapt to climate change and win-win

Sediments management
(General Sediment Management Programme)



Vegetation management in the riverbed and floodplain areas

Return of naturalness to watercourses to improve the natural lamination of floods

Relocations
Adjustment of bridges

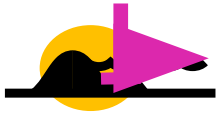
Grey measures

Adjustment and completion of levee systems and expansion tanks

Monitoring and control of levee vulnerability

Assessment of residual risk in fascia C, flood forecasting, warning and emergency management

Levee relocation



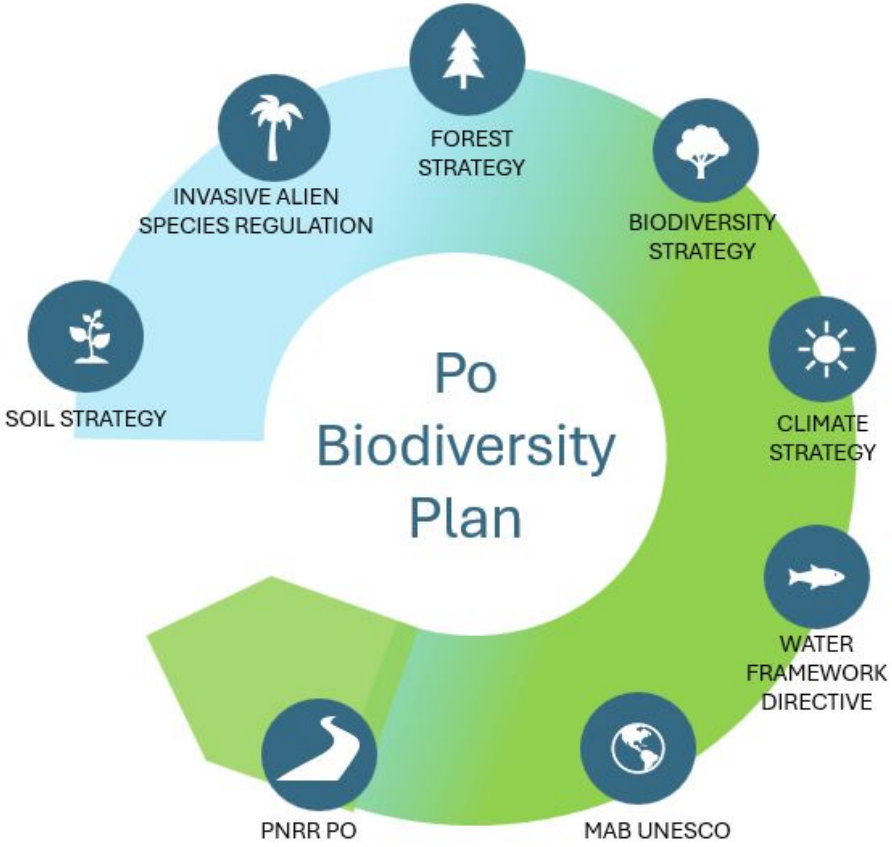
Improvement of the outflow capacity and flood plains by lowering the flood plains

Controlled flooding

Early warning system

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



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FONDAZIONE PER LO SVILUPPO SOSTENIBILE
Sustainable Development Foundation

Working groups

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

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

Permanent Observatory On Water Uses and Climate Adaptation

Osservatorio Permanente sugli utilizzi idrici

Law passed in 2023 contains a new article that establishes “The institutional cooperation and coordination table” constitutes by the ***competent authorities*** and ***stakeholders*** in the water sector.

Its objective is to:

- strengthen ***cooperation*** and dialogue between the actors belonging to the water resource governance system within the district

- promote the ***sustainable use*** of water resources in implementation of Directive 2000/60/EC also by identifying the actions necessary for the proactive

LIFE CLIMAX PO project

CLIMate Adaptation for the PO river basin district

EU programme: LIFE SIP
Study area: Po River basin District
Duration: 9 years
Estimated project cost: 17,890,937 €
Partners: 21+ 4 associated

Autorità di Bacino Distrettuale del Fiume Po

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