

Rewilding of detention basin in Massa Lombarda

In Massa Lombarda the Consorzio di Bonifica della Romagna Occidentale (CBRO) purchased private lands to create a Repopulation and Capture area that at the same time helps in managing natural hazards. The Project aims to protect and manage this basin in order to control its natural growth, and to collect the excess of water.



Summary

The CBRO realised a compulsory acquisition of an area with the objective to develop a detention basin to manage resilience to natural hazards. The CBRO used the Council Regulation (EEC) No 2078/92 to finance the ecological restoration of the area. Despite the financial support envisioned for a 20 years period, the CBRO decided not to change the land use destination of the area after the end of the period. Recently the CBRO has uptake the wetland measure (121 Emilia Romagna RDP) for the next twenty years, as it is considered the most suitable measure to constitute the restoration of biodiversity and risk of flood reduction. The case study is a successful example of a land tenure approach to environmental management, carried out by a collective/public association with funding from the EU.

Objectives

Resilience to natural hazards (flood), biodiversity and landscape and scenery

Problem description

To conjugate the need of managing natural hazards (i.e. flood) around the municipality of Conselice, with the re-establishing a traditional wetland area with many local species that have been driven away from their habitat, the consortium has decided to realise a compulsory acquisition with public aims and used EU funds to ensure the ecological restore the area.

Data and Facts - Contract

Acquisition: The CBRO commissioned a study to the University of Bologna in 1986 to identify the most suitable area to develop a detention basin to reduce the flood risk for Conselice municipality. The CBRO conducted a compulsory acquisition after having declared that CBRO needed the property right of the area with the public aims in 1999. The CBRO paid three times the average market value of the land based on the real land use in 1999 (3*15.000€ per ha).

Participation: there is only one contract, the CBRO and the implementation area is 21.8 hectares. Hunting is forbidden because the expansion box is included in a Repopulation and Capture Zone. The local ornithological community is a specific element of greater naturalistic interest. The water basin with submerged and amphibious vegetation is spread over 70% of the surface, surrounded by grassy margins and adjacent to arable land. The management of the area will be oriented to a naturalistic recovery. Recently the CBRO renews the contract for about another 20 years by participating in wetland measure.

Involved parties: EU is the financing party which assigns the fund to the winning parties, in this case, the consortium that will use the support to improve the area.

Advantages of participation: possibility to plan long-term investment in natural capital. The basin brings back the ecological balance of birds, amphibians and reptiles. Restore the ancient ecosystem of the area. Inclusion of the area in the Natura 2000 protected areas (ZPS IT4070023)

Management requirements for farmers: mowing is forbidden between February and June. Condition to keep at least 50% of land flooded by water all the year

Controls/monitoring: monitoring was introduced with the new measure in 2022. Control of population of invasive species potentially damaging the water river border (i.e. Nutria - Myocastor coypus; Crested Porcupine (Hystrix cristata) Foxes (Vulpes vulpes)

Conditions of participation: the duration of the commitment is 20 years plus the continuation of the activities by participating in measure 121 (wetland) in 2022.

LAND TENURE

Purchase of private land by a public association for environmental and natural hazard management



PUBLIC GOODS



Landscape and Scenery



Biodiversity



Water quantity

LOCATION

ITALY



Massa Lombarda (RA), Italy

Contract

The contract is public – public partnership through the Government (with EU-funding).



Contract conclusion:
Written agreement



Payment mechanism:
incentive payments

Funding/Payments:
The financing chain begins with Europe, then region Emilia-Romagna, and then the CBRO.

Start of the program:
1999

End: ongoing



Estimation of success

The contract solution is successful as the case reported has allowed conducting (long-term) environmental improvements. Although climate change has reduced on average the precipitation during the fall and winter seasons, the detention basis has increased the resilience to extreme weather conditions. The area conjugates its primary function of detention basis with the preservation and restoration of natural capital in the area. The area is included in the Natura 2000 protected areas (ZPS IT4070023) and also provides birdwatching services.

SUCCESS OR FAILURE?

Success for the reduction of flood risk. Active only one time in the last 25 years, in addition has created positive environmental externalities by improving ecological capital in the area

Reasons for success:



Mainly three reasons:

- The water basin acts as actual protection for local biodiversity as well as can contribute to reduce natural hazards during water flow seasonal peaks
- Purchase of private land for public purposes to ensure a long-standing provision of these public goods
- The RIB can ensure optimal use in synergies with overall water management as well as keep it functional when is needed

SWOT analysis

