



ECORICE Project

Vercelli rice fields: integrated plan for environmental requalification and sustainable management of rice agroecosystem

birdlife

forests

Habitat Directive

water habitats

improving biodiversity

renaturalisation

management tools

PROJECT DESCRIPTION

The **ECORICE** project has been conceived to preserve the natural species and areas of the Vercelli rice field plain, in particular the habitats threatened by monoculture practice. The rice agro ecosystem in the Vercelli plain develops for most of its surface on private areas not subject to specific conservation or environmental management, so the survival of its natural components, as well as of the animal and plant species depending on them, is often influenced by the decisions of individual owners. With this objective the ECORICE project gave significant space to participatory processes, activating a social network, and it realized dissemination products addressed to the different local managers, users and policy makers alongside the direct conservation actions of the rice agro environment. The area involved by the ECORICE project's activities is located in the Western part of the Po Valley and includes 6 Natura 2000 sites: "**Fiume Po - tratto vercellese e alessandrino**" (SPA IT 1 180028), "**Bosco della Partecipanza di Trino**" (SCI/SPA IT 1 12002), "**Paludi di San Genuario e San Silvestro**" (SCI IT 1 12007 e SPA IT 1 120029), "**Isolotto del Ritano**" (SPA IT 1 120013) and "**Risaie Vercellesi**" (SPA IT 1 120021). Each of these sites, established by the European Commission, represents a characteristic section of the rice agroecosystem and its landscape, such as the riverine environment of plain, the oak-hornbeam forests, the relicts of alluvial forest and the wetlands. The SPA "Risaie Vercellesi" is the only one among the referred sites not belonging to the system of the regional protected areas, and is mainly of private property; moreover 95% of its surface is cultivated with rice. This area is of great importance at national and European level for the elevated presence of aquatic birdlife attracted by the rice fields flooded in spring and summer.



OBJECTIVES

The project was aimed at conserving and improving the forest areas and ecological corridors of the riparian environment; identifying and realizing new natural areas serving as connection points in the ecological network (stepping stones); evaluating forest management techniques capable to improve the habitats of heronries of *Ardeidae* and other species (*Botaurus stellaris*, *Circus aeruginosus*, *Ixobrychus minutus*, *Egretta garzetta* and *Nycticorax*) in the low plain of Vercelli, and adopting an integrated action plan for environmental and agricultural management based on participatory methods.

PROJECT PHASES

Along the Vercelli section of the Po river the survival of habitats and species dependent on this primary ecological corridor is closely linked with the maintenance of its functionality, for which reason the project has identified some areas (habitat 91F0 D.H.*1) suitable for the restoration of such connections on a surface of 12,4 ha with the purchase of lands and reconstitution of the original riparian vegetation. In the SCI "Palude di San Genuario" 1 ha of cultivated rice paddy has been purchased with the aim of reconstructing edges of full grown woods, low woods and an heliophile belt of woods (habitat 9160, D.H.). The "Partecipanza di Trino" forest is the green lung of the lower Vercelli plain, with 500 hectares of oak-hornbeam and alluvial forests preserved during centuries of strict forest management. The forest was subject to restoration of some ecotonal areas (91E0* e

9160) by conversion of some rice fields in wood plantations, forest thickening and requalification of degraded wooded surfaces. The plant biodiversity of the area "Iso lotto del Ritano" has been valorized through delimitation of the xeric grasslands and riparian willows (3240 D.H.) by intervening on the areas of major spread of some invasive alien species (Heaven-tree, Black locust) and rebuilding local arboreal and shrubby strips of local essences (91 EO, priority and 9160 D.H). Different areas were identified within the "Partecipanza di Trino" forest and the SPA "Paludi di San Genuario e San Silvestro" as well as within the SPA "Risaie Vercellesi", where requalification actions have been carried out and some stepping stones have been created in the rice agroecosystem of Vercelli, because the natural elements that diversify these areas, such as artificial springs hedges, tree rows and small wooded patches, had already almost gone. It was the first time that decisions relating to the restoration of these environments and their realization have been taken and carried out jointly with the farm owners.

Within the "San Genuario" marsh and the "Partecipanza di Trino" forest some forest management techniques have been applied to maintain optimal the *Ardeidae* nesting sites, while in the Montarolo heronry a complex experimental technique has been put in place consisting in a gradual coppicing of the black locust woods in order to favour the renovation of young plants in the woodland, as they are preferred by the most sensitive species of *Ardeidae*, such as night heron, little egret, squacco heron.

PROJECT RESULTS

Thanks to ECORICE, 1.60 ha of new wetlands have been created in a purely rice paddy environment, 5 ha of marshy areas have been reconstructed and 2 km of irrigation channels have been renatured through the plantation of new arboreal-shrubby country hedges and of more than 1 ha of new shrubs and trees. The ECORICE interventions are recent, therefore it will be necessary to wait a few more years to be able to make significant correlations between the interventions realized in the areas and the increase of the nests concentration so as to evaluate their effectiveness, while the requalification activities have surely led to an important overall increase in terms of covered habitats and expected formations of nests.

The [Integrated Action Plan of ECORICE](#), whose objective was to identify priorities, expected results and sharable actions in the view of a careful management of rice cultivation capable to conserve and protect high biodiversity values, takes into account the precious environmental and agronomic data acquired through surveys performed within the IRFEN network (International Rice Field Ecological Network) and illustrates actions which can be well replicated within the rural development policies at European level.

Also the following outputs were realized within the project:

- [Guidelines for the sustainable management of the rice agroecosystem;](#)
- [Guidelines for the forest management of heronries;](#)
- "[ECORICE The Game](#)", an educational game for schools on the ECORICE project, on biodiversity issues and on ecological networks;
- Video;
- After LIFE Plan.

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Acronym

ECORICE

Number of reference

LIFE09/ NAT/IT/000093

Reference Programme

LIFE

Beneficiary Coordinator

Provincia di Vercelli, Sportello LIFE-
Rete ecologica

Contacts

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EU contribution

720.950,00

Call Year

2009

Start Year

2010

End Year

2013

Beneficiary headquarters

Via Manzoni, 8
13100 Vercelli VC
Italy

Region

Piemonte

Description

Provincia di Vercelli, SIC-ZPS
IT1180028, SIC-ZPS IT112002, SIC
112007, ZPS 1120029, ZPS IT
1120013, ZPS IT1120021, habitat
9160, habitat 91E0, habitat 91F0,
habitat6210