

LIFE 09 NAT IT 00093 ECORICE

AFTER LIFE CONSERVATION PLAN

Indice

Acronimi

Project history and situation analysis

The background and the project

The LIFE Natura Project ECO-RICE (hereafter the project) has been originally conceived in 2008 and, after a first proposal which got remarks and advices from the national competent Authority, was proposed for financing in 2009 and admitted in 2010.

The main purpose of the project is to deal with ensuring the key beneficial role that rice farming has historically played for biodiversity in the area of Vercelli lowlands. Traditionally, flooded rice-paddies have played as a surrogate wetland supporting the life of several bird species protected under the Birds Directive, and left space for a number of habitats in residual area (like channels, hedges, little woods, ponds, etc.) which constituted a valuable mosaic of farmed fields and refuge areas for wildlife species. Since new trends in agricultural techniques seem to be driving the rice-farmed landscape away from such virtuous shape, the project have worked along two strategies: directly restore some interest-habitats in order to increase their availability in the area and the connections between them; set the basis for an integrated management of the rice agro-ecosystem through the participation of the relevant actors.

The environment

Vercelli rice fields cover an area above 72.000 hectares and are hosting some Natura 2000 sites, as shown in the table beside.

Nature 2000 site	N2000 Code	Site Name
SPA and SCI	IT 1120002	Bosco della Partecipanza di Trino
SPA	IT 1120021	Risaie vercellesi
SPA and SCI	IT 1120013	Isolotto del Ritano
SCI	IT 1120008	Fontana Gigante (Tricerro)
SPA	IT 1120029	Palude di San Genuario e San Silvestro
Total SPA	IT 1180028	Fiume Po - tratto vercellese alessandrino
p SIC, to be listed in the National inventory	IT 1120030	Sponde fluviali di Palazzolo vercellese

The area is intrinsically linked with water regime and in historical times it was fully covered with woods. These have been replaced by farmed land, starting from XII century and nowadays the natural elements of the landscape have been confined to residual or relict patches. Besides Bosco della Partecipanza di Trino, few semi-natural areas still exist in riverine strips of Po and Dora Baltea and in relict patches within the rice agro-ecosystem.

COD. Natura2000 Dir. Habitat	Def_Nat 2000_ENG	Prioritario
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	NO
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	NO
3240	Alpine rivers and their ligneous vegetation with Salix elaeagnos	NO
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation	NO
3270	Rivers with muddy banks with Choenopodium rubric p.p. and Bidenton p.p. vegetation	NO
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (*important orchid sites)	SI (se importante sito di orchidee)
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	NO
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	NO
9160	Sub-Atlantic and medio-European oak or oakhornbeam forests of the Carpinion betuli	NO
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	SI
91F0	Riparian mixed forests of Quercus robur, Ulmus laevis and Ulmus minor, Fraxinus excelsior or Fraxinus angustifolia, along the great rivers (Ulmenion minoris)	NO

The most representative habitats are, anyway, still connected with water: there are habitats connected with rivers' dynamic (3240, 91F0, 3270, 3260, 3150, 3140) as the area is enclosed by three rivers (Dora Baltea on the West, Po South and Sesia on the East) and the water table is very close to surface giving rise to a number of canals and springs (mostly governed by humans historical intervention) . There are relicts of the ancient plain woods (9160 and 91E0*), which in the case of SIC/SPA Bosco della Partecipanza are relatively broad (more than 500 hectare patch). There are some natural or semi-natural meadows, variously related to farming activities which ensure the surviving of habitats like 6510, 6210* and 6430. There are remains of the ancient plain woods (9160 and 91E0*) which in the Bosco della Partecipanza site are quite wide (more than 500 hectares). (See table above with Natura 2000 habitats)

In general, the landscape is deeply shaped by the farming activities, which in this area is mostly rice farming. The input-driven, highly mechanized technology has confined the natural and semi-natural patches to less than 1% of the total surface, most of which are highly fragmented: the situation thence is one of low habitat availability and low connectivity.

Similar issues apply to the floodplains, where poplar plantations are run intensively.

Nonetheless, such landscape is still supporting a large quota of migrant birds such as Ardeidae and Charadriiformes. A relatively big population of several species is nesting in the neighborhood and it is not infrequent the wintering of couples and individuals in the most natural sites.

Sites are important also for mammals (mostly bats), reptiles (mammals (mostly bats), reptiles (*Emys orbicularis*), amphibians (*Triturus carnifex*, *Rana Latastei*). Among invertebrates, *Ophiogomphus cecilia* and *Lycaena dispar* are representative species.

Since agriculture is the main “user” of the land, the pressures deriving from her are to be considered most significant; other pressures derive from urban sprawl and hunting, when exercised in the core areas.

The project

ECO-RICE has been a product of the main environmental administrative agencies acting on the Piemonte sector of Italian rice farmed area. As said before, the main purpose of the project has been to deal with biodiversity conservation working along two strategies: direct improvement of habitats, increasing the size of patches and their connectivity; involvement of the main strategic actors in order to start a management system of the rice-fields agro-ecosystem.

Main products (outcomes) of the project have been the restoration of 11.2 hectares of habitat 9160, which means an increase of 2,1% at landscape level; restoration of 1,2 hectares of habitat 91E0* (1,2% increase at landscape level); restoration of 16 hectares of habitat 91F0 which means a significant increase of 1600% over the pre-project situation. Furthermore, 7,3 hectares of permanent marshy habitats have been restored (increase of 15.9% at landscape level), 25% of which on private land and by professional farmers.

On the side of dissemination actions, the project led 6 workshops at different levels: two were dedicated to the project (an opening one and a closing one); two have been targeting strategic players (i.e. farmers and local planning authorities) and their role in building and maintain a sound local ecological network; one was at the national scale (in collaboration with National Rural Network) and one at the international level (connected with the implementation of the International Network IRFEN). Given the differences between targeted publics the workshops had an average participation of about 70 people, which constitutes a remarkable achievement. More, many of the participants to the first meeting have been actively involved in the project and expressed the will to keep cooperating for biodiversity conservation within the rice fields. The table below shows the single events' attendants.

Action	Date	Participants	Subject
D.7.1 – Ecorice workshops	29/11/2011	135	Project presentation
D.7.1 – Ecorice workshops	22/01/2014	148	Project closing
D.7.2 - National Workshop	01/03/2013	113	Rice farming & biodiversity
E.5 International workshop	23/2/2012	28	Methods sharing for building up an International Network and Action Plan
D.7.4 – International Workshop	14/06/2013	14	Rice farming in Europe and Biodiversity – Action Plan preparatory workshop
D.8 – Local workshops	24/07/2012	37	Rice farming practices and biodiversity
D.8 – Local workshops	15/05/2013	78	Ecological network and local planning

During the project we aimed at drafting two guidelines about the following subjects:

- Rice farming and biodiversity – the objective was to start a positive discussion with farmers and define with their help a set of ready-to-start measures for biodiversity in the rice-fields which might constitute the basis for future RDP agro-climatic-environmental measures. The discussion technical aspects was led by University of Pavia which has a proofed experience in such topics. Meanwhile we tried to evaluate which processes could lead to a successful participation by farmers and other stakeholders in delivering effective conservation measures for biodiversity within the rice agro-ecosystem.
- Wood managing for heronries – The objective of these guidelines is that of defining criteria for wood management that ensure the structure needed by herons to roost and breed without compromising the conservation of 9160 and 91F0 habitats. The ratio behind this action is that the preservation of the few natural or seminatural woods (and reeds) still present in the area act as breeding site for many species of herons. Keeping to maintain this function is of uttermost importance, but at the same time it's wise to apply managing practices that will not interfere with the long term conservation of the woods habitats.

The current situation (SWOT analysis)

Risultati	The target-habitat presence in the area has been improved; Cooperative actions between stakeholders started;	Risultati	Many target habitats still too fragmented; Connetctivity between core areas far from being effective; Still young dialogue with rice growers
Team	Project team is structured within a well-working wider group devoted to biodiversity conservation; Availability of competences; Sufficient knowledge basis of the local biodiversity; Rice farmers are available to discuss about biodiversity oriented measures/practices;	Team	Financial constraints reduce the possibilities to work together (see administrative threats also); Farmers not fully aware of the biodiversity implications of different rice-farming practices; RDP measures not properly tuned with practices of rice growers
Siti	San Genuario (SCI/SPA) and Bosco Partecipanza (SCI/SPA) have a management plan and managing authority with clear conservation objectives; There is a general planning document (PPR) defining the ecological network but... Above average farming incomes and modern farming socio-economic environment Several farmers willing to start multifunctional activities (tourism,...) linked with valorization of rice landscape	Siti	Many of them with no management Plan, conservation measures; Some significant aeas not included in Sites (not protected) Little participation in defining management/conservation measures; The general planning document (PPR) defining the ecological network is NOT approved; Touristic activities related to biodiversity valorization still at start-up phase; Re-structuring of regional protected areas (L.R. n. 19/2009) have

<p style="text-align: center;">Strengths</p>	<p>lessened the possibilities of intervention from Managing authorities</p>
	<p>Weaknesses</p>
<p style="text-align: center;">Opportunities</p> <ul style="list-style-type: none"> • 2014-2020 RDP <u>IF</u> there will be ACES aimed at financing actions for Natura 2000 • Some initiatives for tourism promotion invest on local biodiversity • Finalization of international Rice/Natura 2000 projects • Availability of European financial instruments to support the project results (INTERREG, LIFE, etc.) 	<p>Threats</p> <ul style="list-style-type: none"> • 2014-2020 RDP <u>IF</u> there are <u>NOT</u> ACES aimed at financing actions for Natura 2000 • Climatic targets (blue agriculture) vs Biodiversity targets • Financial constraints in next programming period for management bodies • Administrative reform regarding the Province (statute modification) • Using IAS for biomass projects with potential impat on SCI/SPA • Extra UE competition (rice growers incomes)

Amongst threats the shift from farming rice to mais and cereals biomass is seen as highly destructive for the biodiversity local system.

The after-LIFE methodology and objectives

Identifying objectives

This action plan is structured on two levels:

- 1) Takes care of granting the project outcomes within a long term framework, looking for actions needed, responsibilities and resources;
- 2) Tries to provide insight for the future of biodiversity in the landscape considered with regard both to the Natura 2000 sites present (and their conservation objectives) and their inter-connections, for the improvement of the local ecological network.

Granting the project outcomes in the long term

The first level responds to the LIFE requirement which asks for beneficiaries to say how they will grant the conservation of the project results after the project's end. This step is mainly technical and involves the identification of the operation needed in order to keep the actions' results (objectives), their costs and who's responsible for them. The results of such exercise are reported in the table below.

Ensuring the conservation of the Project outcomes							
Action	outcome (quantitative)	Post project activities	Management	Competent authority	Objectives	Costs foreseen	Funding
C.1.1	habitat 91F0 restoration: Hectares 16	Management of the new plantation following naturalistic criteria. Requested operations on annual basis : Years 1-3: 2 weed removals; rescue irrigation on demand. From year 4 to 7 weed control once a year. After, thinning operation will be started	Directly and/or external assistance	Ente di Gestione delle Aree protette del Po vercellese-alesandrino e del Bosco della Partecipanza di Trino	To grant success of plantation and affirmation of 'habitat 91F0	weed removal with tractor and hedge trimmer around young plants: 500€/ha, about 16000€/year. From year 4 to 7, weed removal once a year about 8000€/year. Thinning can be made thru direct contract with private individuals at zero cost (in exchange for felled wood)	Budget of 'Ente-Parco; RDP
C.1.2	habitat 9160 restoration: ha 1,38	Management of the new plantation following naturalistic criteria. Requested operations on annual basis : Years 1-3: 2 weed removals. From year 4 to 7 weed control once a year. After, thinning operation will be started	Directly and/or external assistance	Ente di Gestione delle Aree protette del Po vercellese-alesandrino e del Bosco della Partecipanza di Trino	To grant success of plantation and affirmation of habitat 9160	weed removal with tractor and hedge trimmer around young plants: 500€/ha, about 3000€/year From year 4 to 7, weed removal once a year about 1500€/year. Thinning can be made thru direct contract with private individuals at zero cost (in exchange for felled wood)	Budget of 'Ente-Parco;RDP
C.1.3	habitats' restoration: 9160 ha 9,8; 91E0* ha 0,8	Management of the new plantation following naturalistic criteria. Requested operations on annual basis : Years 1-5: 3 weed removals; rescue irrigation on demand. From year 6 to 10 weed control twice a year. Years 11-20, 2 thinning operations	Directly and/or external assistance	Partecipanza dei Boschi di Trino	To grant success of plantation and affirmation of habitat 91E0 e 9160	weed removal with tractor and hedge trimmer around young plants: 500€/ha, about 15000€/year; rescue irrigation: 30€/ha, about 500€/year. From year 6 to 10, weed removal twice a year about 10000€/year. Thinning can be made thru direct contract with private	Budget of Partecipanza dei Boschi di Trino; RDP

						individuals at zero cost (in exchange for felled wood)	
C.1.4	habitats' restoration: 9160 e 91E0*ha 0,28 ; 6210* ha 0,45	Management of the new plantation following naturalistic criteria. Requested operations on annual basis : Year 1: 2 weed removals; 3 rescue irrigations. Year 2: 1 weed removals; 2 rescue irrigations. Year 3: 1 rescue irrigation. From year 4 to 5 rescue irrigations on demand. Management of the exotic tree (Ailanthus altissima and Robinia pseudoacacia). Requested operations on annual basis: Years 1-5: 1 chemical treatment and mechanical removals of the new exotic plants near the open clearings only if necessary	Directly and/or external assistance	Parco Fluviale del Po e della Collina Torinese	To grant success of plantation and affirmation of habitat 91E0* e 9160	weed removal with manual trimmer around young plants: 500€/ha, year 1: about 1000€/year, year 2: about 500 €/year; rescue irrigation: 500€/ha, year 1: about 1500€, year 2: about 1000€, year 3: about 500€. From year 6 to 10. From year 1 to 5, chemical treatment about 280€/day	Budget of 'Ente-Parco; PSR
C.2.1	natural springs restoration	Years 1-3: weed control by hand cutting 300€/year; access control to avoid visitors' pressure	Directly and/or external assistance	Partecipanza di Trino	To grant affirmation of habitat e and its proper status for targeted species		Budget of Partecipanza dei Boschi di Trino; RDP
C.2.2	wetland restoration ha 5	Water level regulation,	Directly and/or external assistance	Ente di Gestione delle Aree protette del Po vercellese-alesandrino e del Bosco della Partecipanza di Trino	To grant affirmation of habitat e and its proper status for targeted species	3 working days per year about 500 euro/year	Budget of 'Ente-Parco

C.2.3	Stepping stones creation	Water level regulation, Ordinary maintenance by hedge trimming. Whenever it's possible the management directions coming from the monitoring action E.2.1 will be followed about the target species of insects, amphibians, birds and plants.	External assistance	Farmers/Owners	To grant existence of natural elements and their proper status for targeted species		RDP
C.2.4	Wetland Restoration	Wetland habitat maintenance (weed removals)	Directly and/or external assistance	Partecipanza del Bosco di Trino	To grant existence of natural elements and their proper status for targeted species	1000€/year	Partecipanza dei Boschi di Trino; RDP
C.3.1		Guidelines divulgation	Directly and/or external assistance	Ente di Gestione delle Aree protette del Po vercellese-alessandrino e del Bosco della Partecipanza di Trino	to increase the application of guidelines criteria within relevant habitats		Budget of 'Ente-Parco
C.3.2	2 hectares of controller area	Application of the naturalistic plan for eradication of the Red oak; exotic sprout control	Directly and/or external assistance	Ente di Gestione delle Aree protette del Po vercellese-alessandrino e del Bosco della Partecipanza di Trino	To grant affirmation of habitat and its proper status for targeted species	control of red oak sprouts by hedge trimming 400€/ha , about 2500€/year	Partecipanza di Trino, RDP; other funds

D.1	Ecological network office	Office will be open with following objectives: Coordinating and engaging stakeholders about conservation actions at local and international level. Management and updating of the Open source (action D.6) about local biodiversity data. Keeping the project website for next 5 years.	Directly and/or external assistance	Provincia di Vercelli	Promote the biodiversity increase within the rice agro-ecosystem of Vercelli plain (Area 24 of PPR).	Employees of Provincia and consultants	Budget of Provincia; RDP; LIFE; INTERREG
E.5	Action plan draft	Network animation	directly	Provincia di Vercelli	Empowerment of european network in order to achieve a common action Programme.		RDP; INTERREG

Biodiversity conservation at the wider level

On the wider level, the project team has decided to focus on objectives relating to the overall conservation status of targeted species and habitats, approaching the issues in a more complex way.

As stated in EC “Note on setting conservation objectives for Natura 2000 sites”¹, even though “a broad conservation objective and achieving FCS can only be considered at an appropriate level, such as for example the national, the bio-geographical or the European level, [...] the general objective needs to be translated into **site-level conservation objectives**”.

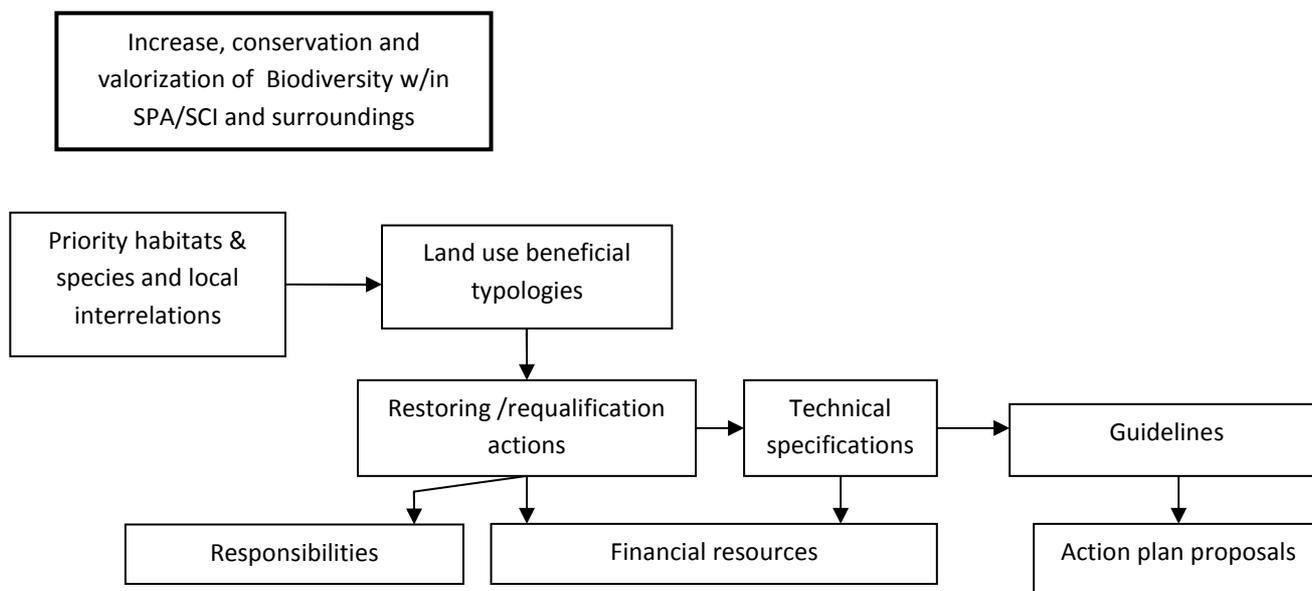
Nonetheless, where “sites are close together with the same species and habitat types there may be merit in setting conservation objectives for the group of sites”

Thus, general objectives were derived from the Standard Data Forms of each site (even though a revision of data is advisable following the project results), in comparison with the lesson learnt during the project and the drivers acting on the local environment, with a focus to the project actions and objectives. In this sense, we focused on the drivers and impacts connected with the socioeconomic context the project interacted with: farmers, local planners, the to-be-developed touristic sector and, more in general, the service industries connected with the valorization of the local biodiversity.

Strategic objectives

1. Maintain the functionality of SCI sites *Palude di San Genuario*, *Bosco della Partecipanza di Trino* and *Fontana Gigante (Tricerro)* as core areas of the ecological network.
2. Improve the ecological connectivity within the Vercelli rice fields, through the creation of stepping stones for target species focusing on the SPAs *Risaie Vercellesi* and *Paludi di San Genuario e San Silvestro* while maintaining the trophic function of ricefields for waterbirds;
3. Enhance the functionality of natural water courses as ecological corridors by requalification and restoration of the related habitats: 3140 Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp. ; 3150 Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation; 3240 Alpine rivers and their ligneous vegetation with *Salix elaeagnos*; 3260 Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitriche-Batrachion* vegetation; 3270 Rivers with muddy banks with *Chenopodium rubri* pp and *Bidention* pp vegetation; 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (*important orchid sites); 91E0* Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*); 91F0 Riparian mixed forests of *Quercus robur*, *Ulmus laevis* and *Ulmus minor*, *Fraxinus excelsior* or *Fraxinus angustifolia*, along the great rivers (*Ulmion minoris*)
4. Increase the awareness of local communities about the values of local Natura2000 sites, even with regard to the possibilities of including biodiversity into the value-chain for local development.

¹ http://ec.europa.eu/environment/nature/legislation/habitatsdirective/docs/commission_note2.pdf



Appropriate methodologies to pursue them

Given the framework above, we considered what actions would be needed and ranked their priority.

For general objective 1, actions are focused on the increase of the intrinsic value and characteristics of each site. Identification of actions takes into account the directions of the existing Management Plans. Both sites considered by this objective are “easier” to manage insofar as they are mostly enclosed sites where property of the land is mainly public - Palude di San Genuario, core area, Fontana Gigante (Tricerro) - or single-owned by a private (Bosco della Partecipanza, the whole SCI).

For general objective 2, given the pervasive rice-field land use and the highly fragmented land property distribution, a more complex approach is needed where local planners (Comuni –Townships), farmers and to a lesser degree private-owners are taken into account as strategic players. Direct action becomes more complex and costly. Then actions aimed at coordination, awareness raising and common planning become necessary to fill some structural gaps.

For general Objective 3, The base-strategy is one of re-activating and granting the natural geomorphological processes of the Po and other rivers. Such processes are fundamental for driving the space-time diversification of the natural habitats’ mosaic, since the simultaneous presence of successive (and regressive) dynamic phases sustains the high biodiversity of the alluvial plain. Within this framework, restoration of habitats 91F0 and 91E0* should be privileged, as well as restoration of habitats referred to wet and dry grasslands and shrubs, and the requalification of water bodies.

For general objective 4, different actors of local community should be involved in the management of local biodiversity. Starting from the collected experience, main targets of participation actions should be: 1) farmers; 2) touristic sector operators willing to work on biodiversity valorization; 3) schools and training institutions; 4) bodies involved in the land planning and management processes (public bodies, architects, enterprises, etc.).

In the following table we identify actions necessary compared with each objective, identifying at same time responsibilities, resources and potential funding sources.

Financial outlook and Responsibilities

Ensuring the conservation of the Project outcomes							
Objective	risultato	Post project activities	Priorità (orizzonte temporale)	Competent authority	Objectives	Costs foreseen	Funding
1.a	Long term conservation of highest naturality elements (ca 90 hectares)	Purchase of land or management	Low (5-15 years)	Sites Managing bodies	Increase of the intrinsic natural value of the sites	6.000-22.000 €/ha depending on land use (€ 700.000)	LIFE, Regione, RDP, Other funds
1.b	Reconstruction of natural habitats in strategic areas (ca 120 hectares)	Purchase of land or management, engineering and realization of works	Low (5-15 anni)	Sites Managing bodies	Increase of strategic habitats surface, functional to site conservation	15.000-30.000 €/ha including purchase and requalification costs (€ 2.500.000)	LIFE, Regione, RDP, Other funds
1.c	Control of Invasive Alien species (plants) within SCI Bosco della Partecipanza	Monitoring and control of IAS in SCI (Quercus rubra, following the eradication plan of Action C.3.2)	High(re-current)	Partecipanza dei Boschi di Trino, other forest owners	Eradication of invasive alien species, wood integrity	500 €/year for monitoring; felling at 0 costs; control ca 5.000€/year*ha	Budget of Partecipanza dei Boschi di Trino, Regione, RDP,
1.d	Widening of protected area	Extension of borders of SCI S. Genuario to include the lakes of Centrale di Leri Cavour	Medium high (2-5 years)	Sites Managing bodies, Regione, Ministero	Increase of the intrinsic natural value of the sites	Budget of public bodies	Budget Enti, RDP,

1.e	Widening of protected area	Extension of SIC/ZPS Bosco della Partecipanza and Fontana Gigante to include the area on the left bank of della Roggia Lamporo	Medium-high (2-5 anni)	Sites Managing bodies, Regione, Ministero	Increase of the intrinsic natural value of the sites	Budget of public bodies	Budget Enti, RDP,
1.f	Widening of protected area	Connection of core area sites to SPA Fiume Po – tratto vercellese alessandrino	Medium-high (2-5 anni)	Sites Managing bodies, Regione, Ministero	Increase of the intrinsic natural value of the sites	Budget of public bodies	Budget Enti, RDP,
1.g	Reconstruction of aquatic caenosis (reed)	Reed reconstruction	Medium-high (2-5 anni)	Sites Managing bodies	Increase of areas for herons' nesting	Ca 15.000 €/ha + costs of land purchasing (€ 450.000)	Budget of 'Ente-Parco, RDP, LIFE other funds
1.h	Monitoring trends of conservation status	Monitoring of population of target species and IAS	High (continuous)	Sites Managing bodies	Improvement of site management	Ca 20.000 €/year	RDP
2.a	Increase of habitat availability for Charadriiformes (circa 60 ettari)	Creation of sparsed wetlands (even by conversion of rice paddies)	High	Faremers public bodies	Increase of populations	Circa 10.000 €/ha for construction + maintainance costs 1.000€/ha*year (total 1.200.000 €)	RDP
2.b	Increase of habitat availability for amphibians (Triturus carnifex) (circa 70 hectares)	Realization of little lakes and <i>fontanili</i> requalification	high	Farmers public bodies	Increase of populations	Circa 8.000 €/ha for construction + maintainance costs 500€/ha*year (total 750.000 €)	RDP
2.c	Increase in ecological connectivity (circa 11 hectares)	Requalification of channels/canals bank and buffer zones	High	Farmers public bodies, irrigation bodies, etc.	Increase in biodiversity, improvement of water quality	Circa 15.000 €/ha + maintainance costs 7.000€/ha*year (total 550.000 €)	RDP, Regione, LIFE
2.d	Coordination of definition of planning instruments for requalification actions		High	Provincia Vercelli, Tavolo tecnico Biodiversità	Restoration of ecological functionality of rice agro-ecosystem	20.000 euro year for technical support and monitoring	Public bodies budget; RDP

2.e	Shared action for biodiversity improvement within the rice agro-ecosystem	Realization of processes to identify ready-to-use actions for biodiversity in rice fields, starting from the guidelines of action C.2.3	High	Farmers, Irrigation consortia, managing bodies, Provincia Vercelli	Increase of the effectiveness of actions for biodiversity	20.000 euro year for technical support	Public bodies budget; RDP
2.f	Monitoring trends of conservation status	Monitoring of population of target species and IAS	High (continuous)	Managing bodies, Provincia, Tavolo tecnico Biodiversità	Proper connectivity indicators	Monitorings 40.000 €/year	RDP
2.g	Sensibilization and active action of stakeholders and general population	Sensibilization activities, on site visits, didactical material	High (continuous)	Managing bodies, Provincia, Tavolo tecnico Biodiversità	Awareness of the importance of Natura 2000 for quality of life	Identifying and realization of actions (total 20.000 € year)	Regione, RDP
3.a	Requalification of water bodies and alluvial plain	Restoration actions, even in PPP (including reconstruction and requalification of habitat 91F0, 91E0*, 9160; reconstruction and requalification of dry grasslands, wet grasslands, lakes and little wetlands)	High	Managing bodies, private enterprises	Re-activation of natural dynamics of main water bodies; increase biodiversity; increase the connectivity on large scale	10.000-30.000 €/ha including land purchase and restoring/requalification actions (€ 4.500.000)	LIFE, Regione; RDP, Flood protection funding, private financing
3.b	Re-activate and grant the geo-morphological processes of water bodies	Start programmes for dismission of non-strategic hydraulic infrastructures	High	Autorità di Bacino del Fiume Po, Regione Piemonte, AIPo (autorità idraulica), Enti	Restore the space-time dynamics of natural system as base-ground for biodiversity	6.000-20.000 €/ha including land purchase and works (€ 2.800.000)	Life, Regione, Fondi per la difesa idraulica

				Gestori dei Siti, Province, Comuni			
3.c	Long term conservation of highest naturalty areas (ca 50 hectares)	Purchase of land or management, engineering and realization of works	Low (5-15 anni)	Sites Managing bodies	Increase of strategic habitats surface, functional to site conservation	6.000-20.000 €/ha depending on land use (€ 500.000)	LIFE, Regione, RDP, Other funds
3.d	IAS control (Plants)	Monitoring and control of IAS	High (continuous)	Managing bodies, farmers, AIPO	Conservation of habitats' integrity and defense of impacted specie	Monitoring 5000 €/year; Control 100.000 €/year	RDP
3.e	IAS control (Animals)	Monitoring and control of IAS	High (continuous)	Managing bodies, farmers, anglers, hunters	Conservation of habitats' integrity and defense of impacted specie	Monitoring 20.000 €/year; Control 50.000 €/year	RDP,
3.f	Monitoring trends of conservation status	Monitoring of population of target species and IAS	High (continuous)	Managing bodies, Provincia, Tavolo tecnico Biodiversità	Improving of Sites management	Monitoring 40.000 €/year	RDP

4.a	Schools' sensibilization	Realization of school programmes	High (continuous)	Managing bodies, Provincia, Tavolo tecnico Biodiversità	Awareness of the importance of Natura 2000 for quality of life	Identifying and realization of actions (total 20.000 € year)	Regione, RDP
4.b	Farmers' sensibilization	Communication actions and training	High (continuous)	Managing bodies, Provincia, Tavolo tecnico Biodiversità	Awareness of the importance of Natura 2000 for quality of life and local development	Identifying and realization of actions (total 15.000 € year)	Regione, , RDP
4.c	Sensibilization of other economic operators	Communication actions and training	High (continuus)	Managing bodies, Provincia, Tavolo tecnico Biodiversità	Awareness of the importance of Natura 2000 for quality of life and local development	Identifying and realization of actions (total 15.000 € year)	Regione, Province, RDP
4.d	Training for public bodies employees	Training actions	High	Managing bodies, Provincia, Tavolo tecnico Biodiversità	Tuning of administrative measures, plans and projects in coherence with Natura 2000 requirements	Identifying and realization of actions (total 15.000 € year)	Regione, , RDP