

LIFE AND LAND STEWARDSHIP

Inga Račinska, Lynne Barratt and Christina Marouli

Current status, challenges and opportunities

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LIFE AND LAND STEWARDSHIP

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ACRONYMS

BA	Biodiversity Act (Bulgaria)
CAP	Common Agricultural Policy
CBD	Convention on Biological Diversity
CBO	Community Based Organisation
CEN	Conservatoires des Espaces Naturels
CEREMA	Centre d'études et d'expertise sur les risques, l'environnement, la mobilité et l'aménagement
CSR	Corporate Social Responsibility
EC	European Commission
EIB	European Investment Bank
ELO	European Land Owners Organisation
EU	European Union
FCLP	Fundación Calatunya-La Pedrera
FD	Floods Directive
IUCN	International Union for Conservation of Nature
LS	Land Stewardship
LIFE +	European Union Financial Instrument for the Environment (2007 – 2013)
LIFE III	European Union Financial Instrument for the Environment (2000 – 2006)
LPO	Ontwikkeling Vijvergebied Midden-Limburg
MAWP	Multi-Annual Work Programme
MoA	Memorandum of Understanding
N2K	Natura 2000
NCCF	Natural Capital Financing Facility
NE	Natural England
NGO	Non-Governmental Organisations
NRW	Natural Resources Wales

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NT	National Trust
OVML	Ontwikkeling Vijvergebied Midden-Limburg
PES	Payment for Ecosystem Services
RDP	Rural Development Payments
SAC	Special Area of Conservation
SAFER	Land Use and Rural Settlement Corporation
SNH	Scottish Natural Heritage
SPA	Special Protection Areas
SSSI	Sites of Special Scientific Interest
SWOT	Strengths, Weaknesses, Opportunities, Threats
WFD	Water Framework Directive

1. Introduction

1.1. Land stewardship

Land stewardship is a strategy to involve landowners and users (farmers, foresters, shepherds, hunters, fishers, recreationalists) in the conservation of nature and landscape, with support by a wide range of civil society groups¹. Through the implementation of voluntary agreements between landowners/users and land stewardship organisations, nature, biodiversity, ecological integrity and landscape values will be maintained and restored.

The stewardship approach offers a means of extending conservation practices beyond the boundaries of conventional protected areas to address the nature conservation and management needs on the “land in-between” statutorily or otherwise protected areas. When used with respect to natural resources, the term *stewardship* means, in its broadest sense, people taking care of the earth. The concept encompasses a range of private and public/private approaches to create, nurture and enable *responsibility* in users and owners to manage and protect natural resources.

Land stewardship draws on an array of tools used to conserve landscape and cultural values of areas withheld from strict protection measures implemented for economic or political reasons, or where the objective is to maintain land uses which are beneficial for nature. The methods employed generally focus on encouraging landowners, individuals and families, businesses, municipalities and other organisations and users (e.g. farmers, hunters, fishers) to manage areas to protect or enhance these values, or to allow others to manage the biodiversity and natural heritage. While the Land stewardship concept is being widely applied to different stakeholders, we will focus on the private lands in the context of this report.

Stewardship is an especially helpful concept in the many instances where sustainable management rather than absolute protection or preservation of natural resources is the objective. Though stewardship tools may be employed to preclude the use of specific areas, they more often are used to *restrict* certain uses (e.g. intensive agricultural, forestry or hunting practices) or to maintain or restore others (e.g. extensive agriculture, use of ecologically sensitive lands). A stewardship approach is often implemented where a wilderness preservation approach may not be suitable. As techniques are introduced to a broader range of players, and adapted for use in new regions,

¹ Sabaté, X., Basora, X., O’Neill, C., and Mitchell, B. (2013). *Caring together for nature. Manual on land stewardship as a tool to promote social involvement with the natural environment in Europe*. LandLife documents. www.landstewardship.eu

stewardship can offer new ways of meeting conservation objectives in and outside of protected areas. It is a complement to, and not a replacement for, these other approaches¹.

As remarked in the LandLIFE Manual (Sabaté et al, 2013²), the land stewardship can become a strategy of modern and sound management of privately and independently owned rural lands, supporting sustainable and ecological agriculture and forestry practices, with elements of restoration and maintenance of habitats through innovative or traditional practices (or modernised traditional practices, as in the case of management regimes).

In Europe, land stewardship has the potential to be more widely used as a practical tool to implement and complement many different policies and legal instruments of biodiversity conservation. It can help to create opportunities for nature conservation and contribute to biodiversity conservation across Europe by direct involvement of the public.

This report is prepared at a time when the issue is being actively debated in the EU arena. An EU commissioned study on Alternative Ways to Support Private Land Conservation was published in June 2015³, describing the legal mechanisms that are in place in various EU countries, and assessing the possibilities for wider application of the U.S. model for financing conservation easements in the EU. The urgency of the issue was confirmed during the annual EU Green Week, which was held in 2015 with the theme “Our Health, Our Wealth”. During the conference, a presentation was dedicated to the issue “Engaging and rewarding private landowners: can we find new ways?” and was one of the most attended and lively sessions during the conference. The First Annual Congress of the International Land Conservation Network will take place in October 2015, in Berlin. It will focus on exploring financial, legal and organisational strategies that facilitate the creation and stewardship of privately protected lands.

1.2. The LIFE program

The LIFE programme is the EU’s funding instrument for the environment and climate action. The general objective of LIFE is to contribute to the implementation, updating and development of EU environmental and climate policy and legislation by co-financing projects with European added value.

² Sabaté, X., Basora, X., O’Neill, C., and Mitchell, B. (2013). *Caring together for nature. Manual on land stewardship as a tool to promote social involvement with the natural environment in Europe. LandLife documents.* www.landstewardship.eu

³ Disselhoff, T. (2015). *Alternative ways to support private land conservation.* Report to the European Commission. http://ec.europa.eu/environment/life/publications/lifepublications/generalpublications/documents/support_land_conservation.pdf

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LIFE began in 1992 and to date there have been four complete phases of the programme (LIFE I: 1992-1995, LIFE II: 1996-1999, LIFE III: 2000-2006 and LIFE: 2007-2013). During this period, LIFE has co-financed some 3954 projects across the EU, contributing approximately €3.1 billion to the protection of the environment.

The LIFE 2014-2020 Regulation (EC) No 1293/2013 was published in the Official Journal L 347/185 of 20 December 2013. The Regulation establishes the Environment and Climate Action sub-programmes of the LIFE programme for the next funding period, 2014–2020. The budget for the period is set at €3.4 billion, current economical rate.

The LIFE programme will contribute to sustainable development and to the achievement of the objectives and targets of the Europe 2020 Strategy, the 7th Union Environmental Action Programme and other relevant EU environment and climate strategies and plans.

The 'Environment' strand of the new programme covers three priority areas:

- Environment and resource efficiency;
- Nature and biodiversity;
- Environmental governance and information.

The 'Climate Action' strand covers climate change mitigation; climate change adaptation; and climate governance and information.

The programme also consists of a new category of projects (Jointly-funded integrated projects) which will operate on a large territorial scale. These projects will aim to implement environmental and climate policy and to better integrate such policy aims into other policy areas.

The new regulation also establishes eligibility and the criteria for awards as well as a basis for selecting projects. The programme is open to the participation of third countries and provides for activities outside the EU. It also provides a framework for cooperation with international organisations.

More information about the EU LIFE programme can be found on the LIFE website:

<http://ec.europa.eu/environment/life/about/index.htm>

2. The purpose and aim of the study

This report focuses on the LIFE programme, and its contribution to establishing land stewardship approaches in the EU. The main purpose of this study was to assess the contribution of the LIFE programme in engaging private stakeholders in nature conservation and to explore further opportunities to do so in future LIFE projects. By sharing the cases from all over EU, we aim to inspire project beneficiaries and other stakeholders in the EU countries to apply on a much wider scale, the different land stewardship mechanisms that are available, and have been sporadically used to date in the EU.

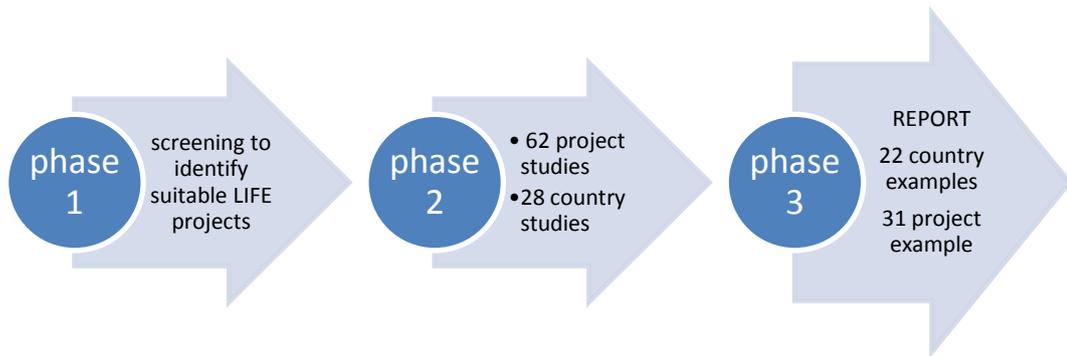
The mandate of the study was to highlight LIFE projects offering best practice examples on providing incentives to private landowners (farmers, foresters) or holders of rights (fishing, hunting, etc.) to engage in nature-friendly management. Therefore, in the context of this study, we have focused on privately owned lands, and mostly analysed the cases of involvement of the private landowners into nature conservation.

In order to provide a wider context to the study, we analysed the extent of the use of different land stewardship mechanisms in the EU countries (see their definitions in Annex 1), and assessed how many of these mechanisms have been taken up, for wider application and demonstration, by LIFE projects. We also highlighted good examples of applying different land stewardship mechanisms in different EU countries, both in LIFE projects, and outside the scope of LIFE. The cases of applications of land stewardship mechanisms in LIFE projects are listed in chapter 5, while cases from other initiatives can be found in chapter 4.

A SWOT analysis (strengths, weaknesses, opportunities and threats) has been provided on a selection of land stewardship projects implemented under the LIFE programme.

This study mostly deals with management tools complementary to those already in place such as those used within nature conservation in Natura 2000 sites. In the context of this study, we have focused on voluntary mechanisms that can be used in the protection of both Natura 2000 sites and the wider countryside. Therefore, when highlighting the good practice examples, we have focused on those complementary to public service conservation.

3. Methodology



The study was done in three phases:

Phase 1: Screening of all LIFE projects that have been finalised after 2005 to identify and select land stewardship projects with good demonstration value, which applied innovative land stewardship methods and which were very successful in engaging private land owners/user in nature conservation. Phase 1 yielded 62 LIFE projects (mostly LIFE Nature, but also projects from LIFE Information and LIFE Environment) that were the subject of further, in-depth analysis in Phase 2.

Phase 2: This represented the major part of the study, performing the in depth-analysis of 62 LIFE projects that were identified in Phase 1. Those studies formed the basis for chapter 5 of this report. A summary table of all LIFE projects analysed in the context of this study is attached in Annex 5.

In parallel to the LIFE project studies, country studies were undertaken, screening each EU country for presence of land stewardship mechanisms. This information formed the basis for chapter 4 of this report. A summary table of different land stewardship mechanisms identified per country is attached in Annex 2.

Phase 3: Selecting the best examples from the Project and country case studies and presenting them as good practice in this report. Further information about each LIFE project mentioned can be obtained by clicking on the link to the LIFE webpage contained in the project name and number.

- The best examples from the country studies were selected based on their potential for transfer and their novelty, innovation or originality. We have featured 22 examples from a number of different countries in chapter 4 of this report. It is worth noting that there are no examples from some countries, e.g. Croatia, Cyprus, Latvia, Lithuania, or Malta in the analysis because no suitable examples were identified.

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- The best examples were clustered by different land stewardship mechanisms, such as conservation easement-type mechanisms, covenant/deed restrictions, private protected areas/voluntary reserves, tax benefits and different types of land stewardship agreements. We have presented a number of examples from LIFE projects in chapter 5 and Annex 3 to this report.

4. Land Stewardship in the EU - Country Studies

LIFE projects operate within the legal, regulatory and institutional frameworks of the countries where they are implemented. Thus, in order to understand the possibilities and limitations for the LIFE projects that are determined by each country's framework, we undertook rapid screening of the existing situation in each country and with regards to the incentive mechanisms in place for involving private landowners. In doing so, we screened the situation in EU countries in general and with consideration to the application of the land stewardship approaches in nature conservation. The summary table with results of the country screening is attached in Annex 2.

The statistics retrieved (see in chapter 4.1) show that the most common land stewardship mechanisms include management transfer and property transfer; which are used in 23 out of 28 countries. Management support mechanisms are also popular, with 20 countries using them. The least used, as expected, are tax incentives and tax benefits for engaging in voluntary land stewardship mechanisms and used only in seven countries, and are not widely applied. While some tax benefits (e.g. lowering of the property value due to nature restrictions, and thus lower property tax and inheritance tax) are widespread in EU, the tax incentives for voluntary engagement in nature conservation are rare. We have outlined some of them in the chapter 4.2.

The country screening allowed us to glimpse into overall situation in EU in regards to different land stewardship mechanisms. Spain is one of the countries that are the most active in the application of land stewardship agreements, and LIFE projects have played an important role in this. The UK has the most experience with the Land Trusts who manage many protected areas and sites of nature importance. The cases are highlighted in chapter 4.2.

France has recently taken a most daring step towards stewardship in drafting the Biodiversity Law that defines a new type of easement: an agreement voluntarily entered into by a property owner and a qualified conservation organisation (such as a public body or a non-profit entity) in private law. This law includes a significant step to complement the panel of tools by introducing environmental easements, without the obligation of a dominant tenement, and with the possibility of financial incentives. In the event of a positive decision of Senate, France would become the first EU country to implement the US approach to the conservation easements. More information about French initiatives can be found in chapter 4.3.

4.1. Statistics on application of the land stewardship mechanisms per country

There are eight different land stewardship mechanisms identified and implemented in one or more member states. The results are displayed in Figure 1 and demonstrate that the voluntary mechanisms, involving management and property transfer and management support, are the most popular mechanisms in the Member States. Safe harbour, fiscal benefits and covenant or deed restrictions are the least popular mechanisms in operation.

These mechanisms are discussed in more detail in the sections that follow.

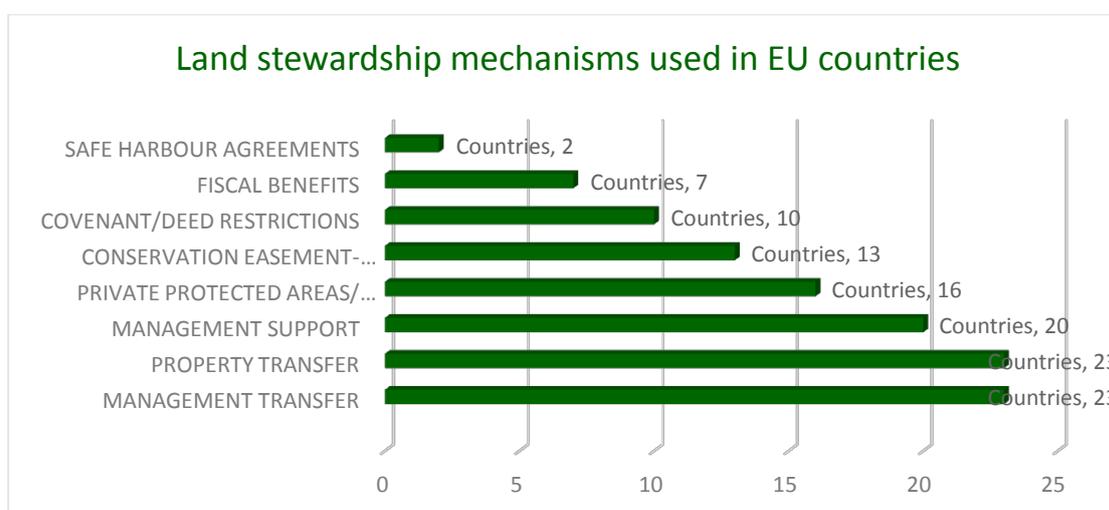


Figure 1: Land Stewardship Mechanisms in use in the EU Countries

4.2. Land stewardship examples from the country studies

4.2.1. Land management organisations and Land Trusts

The development of land stewardship projects across Europe was assessed within the framework of LandLIFE project. The "Study of the development and implementation of land stewardship in the Mediterranean Arc and Europe"⁴ launched an online questionnaire in January 2012. The main targets were organisations, both public and private. A total of 186 responses were obtained, covering a total of 31 countries, including 21 of the 27 EU Member States. According to the replies, (which are also useful reference indicators) land stewardship is not an unknown concept (74% of respondents knew about it), and 63% of responding organisations had already participated in land stewardship projects and agreements (Sabaté et al, 2013).

⁴ Quer, B., Asensio, N., Codina, J. (2012). Study of the development and implementation of land stewardship in the Mediterranean Arc and Europe. Xarxa de Custòdia del Territori.

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In fact, 16,269 land stewardship agreements were identified in Europe by the LandLIFE study, through the replies. However, the study showed a large variability and lack of homogeneity about land stewardship as a concept in Europe, with differences about the forms of agreements, what may or may not constitute an agreement, etc. Therefore, this figure has more significance as an indicator of potential types of forms of land stewardship, rather than having any substantial quantitative significance.

From the LandLIFE study we can conclude that Land Management organisations are widespread across the EU and they play an important role as facilitators for nature friendly land management. Land Trusts are most common in the United Kingdom, but other EU countries also have some elements of these bodies being used. We have identified some inspiring initiatives to share. For example, in Italy, Piedmonte region, the *Associazione fondiaria* are being established, that consist of private landowners and whose main task is to support the landowners in joining their efforts in land management. River Trusts and River Boards in UK represent an excellent tool to support an integrated approach to the nature conservation, taking into consideration not only Nature directives, but also other related directives and domestic legislation including the Water Framework directive etc.

The level of development of such bodies varies among EU countries. While the UK, Netherlands, Belgium and Spain have numerous Land Trust-type organisations in place, there are some countries that are only beginning the establishment of those bodies, and are taking the first steps in adopting the approaches known in other countries for decades. Thus, although the example of establishing a site management NGO in Kalimok-Brushlen in Bulgaria might not seem very innovative, it reflects well the situation in many Central and South European countries.

United Kingdom - the National Trust

The membership of the National Trust currently stands at over 4 million and it represents the largest voluntary conservation organisation in Europe, both in terms of the historic environment and the amount of land held in trust for nature conservation. Almost 40% of the 250,000 ha owned by the Trust is of national or international importance for nature including 10% of all the Areas and Sites of Special Scientific Interest (SSSI) in England, Wales and Northern Ireland and nearly 18% of the National Nature Reserves in England. The Trust also has a significant stake in sites designated as being of European

importance. Nearly a third of both the UK's Special Areas of Conservation and Special Protection Areas include Trust land⁵. In the UK SSSIs are part of the Natura 2000 network.

Other private organisations in the United Kingdom also have a long tradition of acquiring land for conservation, albeit without the statutory remit enjoyed by the National Trust. The Wildlife Trusts Partnership, established by the Royal Society for Nature Conservation, is a nationwide network of local voluntary organisations which work to protect wildlife in town and country. Wildlife Trusts buy or lease land to be managed specifically for the benefit of wildlife with each Trust having its own acquisition policy. Shine (1994)⁶ estimated that over 2,000 statutory or voluntary nature reserves are managed by the Trusts. However, the author does not comment on the proportion of sites which are Natura 2000.

Italy: Associazione fondiaria

Organizations named "Associazione fondiaria" have been established in Piemonte Region, Italy since 2012⁷.

The Associazione fondiaria is an independent organization constituted of private landowners (it has a statute); the municipality can support it but it is not mandatory. The aim of the association is the conservation of the territory, its restoration and enhancement. The property remains in private ownership and the organization provides the management of the land (mainly grazing, farming). The organization does not hold the right of use. In case of profits, they are used by the organization for the achievement of the objectives of the organization. The following eight organizations have been established so far (the establishment of further three organizations is in progress⁸):

1. "Carnino", Parco Marguareis, Alta Val Tanaro, 2012 (about 30 members)⁹;
2. Avolasca, Valle Scrivia;
3. Fabbrica Curone, Val Curone;

⁵ Nature and the National Trust (2005) updated 2008. The National Trust

⁶ Shine, C., 1994. *Private or voluntary systems of habitat protection and management*. Convention on the Conservation of European Wildlife and Natural Habitats. Nature and environment, No. 85. Council of Europe Publishing.

⁷ http://www.comitato4p.org/docs/PieMonti_gennaio_febbraio_2013.pdf

⁸ <http://www.torinoealpi.it/bando-ricerca-i-progetti-sul-territorio/>

⁹ <http://www.carnino.info/wp/?cat=13>

4. Caldirola¹⁰
5. Montemale, Val Grana;
6. Celle Macra, Valle Maira ;
7. "Cornalin" (Coltivare Risorse Naturali Lavorando Insieme), Lauriano and Tonengo, 2014¹¹
8. Ostana in val Po.

From the legal point of view, the "Associazione fondiaria" is not acknowledged by the Italian civil code. It is acknowledged as an association of social promotion. However Piemonte regional council is discussing a proposal of regional act to bridge the legal gap. The idea of the Association (Associazione fondiaria) comes from France where the "Association Foncière Pastorale" and the "Groupements Pastoraux" are common and regulated at legislative level.

United Kingdom, Scotland: River Trusts and River Boards

The River Trusts, together with the River Boards, play a vital role in bringing together the different communities to work towards a common goal under the guidance of the competent authority and using financing from a number of sources including the private sector. There are two management models.

The first is for the in-stream works, this is a voluntary management transfer agreement where the river proprietors, under direction from the River Board, agree to a series of management actions carried out by, or on behalf of, the River Trust. The actions are funded by the Trust and all subsequent management is carried out by the Trust. The proprietor clearly benefits and makes a contribution to the River Trust in line with the scale of the works carried out.

The second is for the riparian work; this is a voluntary management support model where work is being carried out and financed by the project but all subsequent management actions for maintenance are carried out by the landowner under an agreement with the competent authority and secured by an annual payment. The agreements last for 10 years but can be renewed provided they are still valid.

¹⁰ <http://www.assfocaldirola.org/>

¹¹ <https://socioambientale.wordpress.com/associazione-fondiaria/>

Bulgaria: the first site management NGO

A unique case in Bulgaria is the management of the protected site “Kalimok-Brushlen”, a wetland situated on the Danube River, in north-eastern part of the country. The area boasts a significant biodiversity and preserved wetland habitats. 55% of the area is state property, but the remaining 45% are owned by 120 different owners, including individuals with very small land plots (1-3 ha each). The management is performed by an NGO, established for this purpose, which is governed by a voluntary Public Council formed by representatives of all local stakeholder groups (state authorities, municipal administrations, public libraries, farmers, foresters, fishermen). The NGO was registered in 2002. On 17 October 2003 the Ministry of Environment and Water donated a grant to the NGO in order to help it to perform its operative management functions, and to implement a project for restoration of the wetland’s water regime and reduction of the water pollution in the protected area. Nevertheless, in the recent years, and due to a decline in public funding, the activity of the organisation has significantly decreased.

4.2.2. Conservation easements and covenant/deed restrictions

A conservation easement transfers a portion of the rights associated with a piece of property, while allowing landowners to maintain ownership and to use the land in ways that do not conflict with the terms of the easement. A covenant is a contract between a landowner and a second party that may stipulate certain land uses or practices. Like easements, a covenant can be used to restrict certain land uses, and such restrictions may be applicable to the property after a transfer of ownership to subsequent land owners^{12 13}.

We have identified 13 countries that have to some extent applied the easement mechanism to the nature conservation purposes, and 10 countries that have applied covenant/deed restrictions to the nature conservation purposes. This signifies that legal systems in EU are fit for adopting such measures. The highlighted examples - Estonian example of voluntary restrictions for protection of forest key habitats, or Swedish *Naturvårdsavtal* - are all embedded in the legal systems in the countries, and confirm the thesis that EU legal systems do not restrict a more wide-spread application of those

¹² For full definitions, see Annex 1.

¹³ Mullins, S., Theoharides, K., Harrelson, C., Macdonald, L., 2008. *Current Conservation and Incentive Mechanisms for Biodiversity Conservation*. Cooperative Conservation Blueprint Project Report. <http://www.fws.gov/verobeach/FloridaPantherRIT/Conservation%20Incentives%20Toolkit%20-%20Defenders%20of%20Wildlife%20for%20CCB%202008.pdf>

mechanisms, at least in some member states. Although some examples listed in this chapter (like Swedish voluntary set-aside forests) cannot be considered as easements in a strict legal sense, but we have included them as example of the initiative that can become an easement if an appropriate legal basis would be established.

Estonia: Covenant/deed restrictions for key forest habitats

Based on the Forest Act, a private forest owner can voluntarily conclude a notarised contract for the protection of a key habitat¹⁴ provided that the habitat complies with certain criteria. For the protection of a key habitat, a notarised contract will be concluded with the owner of the immovable property, on the basis of which the immovable property will be encumbered with a personal right of use in favour of the state via the Ministry of the Environment for a term of 20 years. A contract can be concluded for the protection of a key habitat that has been entered in the environmental register. The state has the right to prohibit or restrict economic activities in a key habitat arising from the objective of the protection of the key habitat and the forest owner must ensure preservation of the key habitat. Compensation is paid to the owner of the immovable property in equal yearly instalments during the period of encumbrance with a personal right of use for the benefit of the state.

Sweden: Environmental protection agreements

The Environmental Protection Agreements, Naturvårdsavtal, are civil contracts that are becoming more common in Sweden. The agreement has been included in the Swedish Land Law since 1999 and follows the estate i.e. remains with the land even if the land changes ownership. The private landowner and the state agree on a term and on a certain compensation for the property owner. The compensation does not always include financial benefits. In return, the property is bound to a specific action plan. The management can be performed by the state or by the landowner. The agreement is typically valid for a few decades, but may last no longer than 50 years. The landowner keeps the right to get an income from the land, e.g. wood. The early agreements

¹⁴ For the purposes of this Act, a key habitat is an area of up to seven hectares, which needs protection outside a protected natural object and where the probability of the occurrence of narrowly adapted, endangered, vulnerable or rare species is great.

included mainly forest sites but today they are increasingly used in forest and agriculture landscapes as an alternative to the more costly traditional protected areas. The first agreements were initiated in 1993 by the Forest Agency. Since 2007 the Swedish Environmental Protection Agency and the 21 County Administrative Boards are also signing this type of agreements.

Sweden: Voluntary set-aside forests

Inspired by the Finnish METSO partnership, the Swedish Forest Agency launched the set-aside forest programme KOMET, a voluntary opportunity for private landowners. This programme is running since 2010¹⁵. The target is to focus on information, introduce cooperation between authorities and landowners, and increase the use of nature conservation agreements (Naturvårdsavtal). The forest owners are encouraged to voluntarily set-aside part of their property to preserve its environmental values without payment.

In the last reporting 1,130 ha had been set aside on a national scale until 2014. The KOMET programme has significantly contributed to positive effects such as improved cooperation between authorities and landowner organisations. In addition, the interest of private individual landowners in nature conservation has been stimulated and previously unregistered natural assets have been recorded.

Nevertheless, the programme has been criticized by the Swedish Society for Nature Conservation, a leading nature conservation non-profit organization, as a weak management tool that does not secure particularly large areas^{16,17}. Although this example cannot be considered as easement in a strict legal sense, we have included it as example of the initiative that can become an easement if appropriate legal basis would be established.

Spain: Pilot case - Paisatges Vius, Lluçanes

As easements and covenant/deed restrictions have not been used for conservation purposes in Spain so far, five pilot experiences were tested in 2014, to determine which legal practices are possible¹⁸. The pilots consisted of the signature of a land stewardship agreement between an NGO and the

¹⁵ <http://www.skogsstyrelsen.se/en/AUTHORITY/Projects/Avslutade-projekt/Ovriga-projekt/The-KOMET-programme/>

¹⁶ <http://www.skogsaktuellt.se/?p=45975&pt=108&m=1422>

¹⁷ <http://www.naturskyddsforeningen.se/sveriges-natur/2013-2/sveriges-skogar-skyddas-allt-langsam>

¹⁸ http://paisatgesvius.org/actuacions/2014_02_25

landowners to transfer a “real right of partial use” for conservation purposes that was then included in the land registry.

As from the five experiences, four of them were notarised, three with public register and a fourth agreement was included in the land registry.

These experiences served to prove that it is legally possible to include conservation easements and restrictions in the land registry and to identify the uncertainties and unexpected difficulties due to the novelty of these agreements. The methodology was reported and has opened a new pathway for landowners, notaries and registrars to consider the registration of easements or restrictions for conservation purposes.

4.2.3. Safe harbour agreements

Under a Safe Harbour Agreement, landowners voluntarily propose to implement restorative and habitat management measures aimed at the conservation of threatened species. In return for restoring natural habitats of endangered species, the landowner is provided with a so-called ‘safe harbour guarantee’, ensuring them that no additional conservation measures will be required and no additional land, water or resource restrictions will be imposed if the number of listed species increases as a result of the landowner’s actions¹⁹
²⁰

Belgium and Netherlands are two EU countries that have been using this land stewardship method for nature conservation purposes. This mechanism is well placed to support the voluntary nature conservation activities outside the protected areas, but it does not sit well with the mandate of Nature directives, and thus is regarded as controversial and is not being used more widely in the EU. Due to a limited application of this mechanism, we have not included it in our statistics.

Belgium: port of Antwerp

A safe harbour agreement was made in the port of Antwerp between the port, the competent authorities and the NGO Natuurpunt²¹. The concept of this agreement is to develop an ecological network in the port area to protect the existing species without halting economic development. This was implemented

¹⁹ For a full definition, see Annex 1.

²⁰ Schoukens, H. *Habitat Restoration on Private Lands in the United States and the EU: Moving from Contestation to Collaboration?* (January 30, 2015). *Utrecht Law Review*, Vol. 11, No. 1, p. 33-60, January 2015. Available at SSRN: <http://ssrn.com/abstract=2611595>

²¹ <http://www.sustainableportofantwerp.com/en/content/nature-and-economy-harmony>

by creating an ecological network with permanent green infrastructure (cf. nature areas) and temporary zones (zones that can be developed for economic activity). A species protection plan was implemented to manage and conserve 90 species. In the instance where a new site is developed, mitigation or compensation is required in order to guarantee the safeguarding of all 90 species in a favourable conservation status. Several Natura 2000 sub-sites are within the port area.

Netherlands: the green deal

In the Netherlands, a 'Green deal' on temporary nature can be regarded as safe harbour agreement. One of the first examples was demonstrated in the port of Rotterdam where several large industrial zones are not yet developed. In the interim, the port of Rotterdam agreed that nature could be allowed to develop on these sites (nieuwe natuur) with the assurance of the Dutch authorities that the zone could be developed in the future without any restriction regarding nature conservation legislation/objectives. Until now, several organisations (development corporation, ports) obtained this 'Green Deal' and realized 28 sites in the Netherlands where nature can develop spontaneously with the guarantee that the zone can be developed for industrial, commercial or housing purposes. This is supported by various nature conservation organisations such as the Butterfly society, Zeeuwse Milieufederatie and '12 Landschappen' (An umbrella organisation for 12 Landscapes organisations in the Netherlands).

4.2.4. Tax incentives

Although taxes, fees and charges is one of the most common market based instruments that are used to change a behaviour in the field of biodiversity conservations²², the tax incentives for nature conservation through land stewardship are not very common in the EU. We have identified seven EU countries that have some mechanisms in place for the reduction of taxes in case of voluntary restrictions of property rights for the benefit of nature conservation. Income tax incentives to encourage habitat conservation include, in theory, deductions for donating conservation easements, for incurring conservation expenditures, and from revenue derived on lands that are managed to support natural habitats. Income tax incentives for nature conservation through land stewardship are not common in the EU, and we

²² Bräuer et. Al (2006). The Use of Market Incentives to Preserve Biodiversity. Final Report. <http://ec.europa.eu/environment/enveco/biodiversity/pdf/mbi.pdf>

could only find some partial examples of this mechanism in the EU, e.g. in Finland and the Netherlands.

Property tax incentives related to nature conservation are more common in the EU. Landowners are given tax credits, if they restrict the potential development or use of their property for the benefit of nature conservation, and this often also results in decreased inheritance tax. Reductions in property and inheritance tax because of the obligatory restrictions placed on the properties are widespread throughout the EU, and have not been included further within the scope of this study.

Finland: several tax benefit incentives

Tax benefits for engaging in voluntary mechanisms include:

- Income tax reliefs: a person selling private land to the government or a government institution for nature conserving purposes is exempted from paying profit tax on any income he/she gains by selling the property.
- Property tax reliefs: The real estate value for taxation purposes for agricultural land transferred into a nature protection area is calculated as nil.
- Other tax reliefs: Lowered inheritance tax for agricultural land transferred into private nature protection areas as the real estate taxation value for nature protection areas is nil.

France: property tax exemptions for Natura 2000 contract

Any landowner who signs a Natura 2000 contract or a Natura 2000 charter qualifies for a full exemption of the property tax on undeveloped land. The exemption is granted automatically, for 5 years (renewable) after presentation of the landowner engagement²³.

²³ <http://www.developpement-durable.gouv.fr/Les-contrats-Natura-2000,24352.html>
<http://www.developpement-durable.gouv.fr/La-charte-Natura-2000,24356.html>
<http://vosdroits.service-public.fr/professionnels-entreprises/F31638.xhtml>

Belgium: Reduced inheritance tax

Heritage of property in the Flemish region is subject to no inheritance tax when the following conditions are met (only applies in the Flemish region):

- The parcels are woodland and a management plan is in place and approved by the competent authority;
- The parcels must remain woodland for at least 30 years; and
- The agreed and approved management plan must be carried out in this period of 30 year;
- The exemption of the inheritance tax is regarded as a subsidy for a period of 30 years. In case the successor does not meet the criteria, the tax authority will reclaim the remaining inheritance tax pro-rata.

Where the parcel is located within the Flemish Ecological Network (large areas of it are included in Natura 2000), no inheritance tax is to be paid. The parcel may not contain any housing or construction (e.g. stable, weekend cottage, etc.).

In addition, several tax reductions or even exemptions can be obtained in the Flemish region when the land is designated as a 'monument'. A total of 30% of half of the restoration or maintenance cost can be deducted from the land-owners income tax.

In the Walloon region, no inheritance tax is to be paid, if the parcel is within a Natura 2000 site. This rule applies to all parcels in Natura 2000, regardless of the land use.

Netherlands: Reduced inheritance tax and property tax

The inheritance tax regulations in the Netherlands are very similar to those in Belgium. Landowners in the Netherlands can also gain exemption or reduced tax rates when their parcels are within certain 'protected' areas 'Natuurschoonwet (NSW) landgoed'²⁴. The owner has to maintain the land in ownership for 25 years (it cannot be sold, otherwise one has to pay the tax) and a management plan must be in place or developed within 3 years. The land must also be accessible to the public (otherwise, only 50% exemption is granted).

²⁴ Part of them are in the Natura 2000 network.

In addition, property tax reduction rates of up to 80% may be applied on parcels within protected areas (cadastral value is lowered). As a consequence, owners have to pay less tax (not only real estate linked but also linked to 'waterschapstax' - tax to be paid to water boards).

UK: Reduced inheritance or capital gains tax

The Inheritance Tax Act 1984 covers the whole of the UK and sets out a provision for landowners to derive a tax relief on inheritance or capital gains tax if land or property which qualifies under section 31 of the act as of scenic or scientific interest is managed or maintained for those purposes. Thus a private landowner can avoid paying inheritance tax provided the land is managed for conservation purposes – in this respect the conservation easement runs with the land. These lands can be, although do not have to be, designated SAC or SPA.

As for other tax reliefs, there are no income tax benefits in the UK for engaging in conservation practices. Furthermore, the Law Commission's consultation document²⁵ expressly rules out any tax benefits like those based on the USA/Canada/Australia/New Zealand model.

4.2.5. Property transfer or management transfer

These methods have a very wide spectrum of application. In the case of property transfers, the landowner transmits his or her property (or part of it) to a land steward, which commits itself to developing responsible management of the property²⁶. The typical legal tools for these kinds of agreements are the sale, the legacy, the donation and the exchange (Sabaté et al, 2013). Property transfer is a very common land stewardship method – we have identified its application in 23 EU countries. Since it is a rather well established method, we have not been focusing on it in our study, apart from three examples – Germany, Luxembourg and Netherlands. The Dutch approach used by Prolander is a case of a property transfer, and it is worthy of note as a good tool to provide an assignment of the land to the nature conservation in perpetuity, but at the same time, allow it to be used in economic activities that are not detrimental to the nature conservation goals.

²⁵ The Law Commission (2013) Consultation Paper 211, Conservation Covenants – A Consultation Paper. 152pp. <http://www.lawcom.gov.uk/project/conservation-covenants/#conservation-covenants-2>

²⁶ Full definition is provided in Annex 1.

Management transfer encompasses transfer of the management rights, while retaining the property rights²⁷. It is a common land stewardship tool, being used in at least 23 EU countries. As remarked in LandLife Manual (Sabaté et.al, 2013), some landowners may prefer another body or organisation taking care of their lands whilst retaining the property rights, or the land stewardship organisation may want to undertake their own specialised management of valuable lands. As in the case of management support agreements, the landowner and organisation agree which actions will be implemented on the land, but in this case, it is the stewardship organisation itself that will carry them out. Management transfer as a method is legally possible in most EU countries, but it is often (like in the case of Bulgaria) used only sporadically or not at all for the nature conservation purposes.

Bulgaria, the legal framework in place, but not implemented

There is a legal framework that allows the conclusion of the agreements for management transfer. Article 115, para 9 of the Biodiversity Act (BA), as amended in State Gazette vol. 98 of 28/11/2014, states that *"the Minister of Environment and Water develops and implements mechanisms for stimulating the activities of landowners and land users, NGOs, associations and others, targeted at conservation, maintenance and restoration of the biological diversity"*. The assignment of management functions to public entities and/or NGOs is one of the mechanisms foreseen. However, these legal instruments are not yet implemented. Concerning the property transfer, the only legal way applicable to land stewardship is a form of concession, the so called "temporarily allowed right" i.e. without buying forever the land property.

Netherlands: Prolander

Prolander is a semi-public organisation that acquires and manages land in the Dutch provinces of Drenthe and Groningen.). This organisation carries out the policy that is set out by the provinces and/or state. The two main policy fields are agriculture and nature: by buying land, the organisation is able to swap land between farmers and/or nature organisation (public and NGO). If necessary, the organisation also assists in the land development (including setting up nature restoration projects) and sometimes also coordinates the financing of it. Therefore, this organisation should be regarded as a facilitator, or land trust.

²⁷ Full definition is provided in Annex 1.

Prolander buys land, prepares and manages it in accordance with the terms and conditions of the (provincial) policy, and then sells it whilst providing management advice to the new owners. They also own land that they can exchange with landowners (e.g. farmers). The objective of the organisation is to achieve the policy goals of both provinces; it is a facilitator in the land stewardship approach since it transfers the property to nature conservation NGOs, public/semi-public bodies and farmers. Purchased land can be used in exchange for parcels of land with a farm owner within the framework of implementing nature conservation policy, water policy (e.g. flood plains), landscape objectives or infrastructure. For example, by swapping land, environmental threats such as high nitrogen deposition and inappropriate land use within Natura 2000 can be addressed by moving this threat outside Natura 2000 without touching the economic viability of a farm. In addition, the land inside Natura 2000 can be restored (e.g. top soil removal) in favour of the designated EU habitats and species.

4.2.6. Management support by the LS organisations

Landowners do care about their land and many landowners appreciate the support, advice, and directions from a land stewardship organisation in taking care of their land. Land stewardship organisations can contribute their resources (financial, volunteer, advisory) to supporting the nature-friendly management of the lands. When completing the management support agreement, the landowner keeps the management of the land, but commits to conservation-oriented actions. Land stewardship organisations and landowners agree to a set of actions to be developed in the property, and both parties commit to the terms and conditions of the agreement. The land stewardship organisation ensures that the agreed actions are implemented, and assists the landowner with advice, grant or incentive opportunities that could benefit the property (Sabaté et.al, 2013).

We have identified that this mechanism is being used in at least 20 EU countries. This mechanism is very widely used in LIFE projects, thus we have not listed any examples in this chapter. A wide selection of examples of application of this mechanism within LIFE projects is provided in Chapter 5.

4.2.7. Private protected areas and voluntary reserves

This mechanism involves private land that is protected by the landowner. IUCN has recently done the assessment of the global situation in regards to the private protected areas²⁸. The report admits that the global coverage of private

28 Stolton S., Redford KH and Dudley, N. (2014). The Futures of Privately Protected Areas. Gland, Switzerland: IUCN

protected areas remains unknown due to a variety of factors including a lack of common definitions on what comprises a private protected area and the fact that governments do not report on them. The country reviews commissioned for the IUCN report revealed that western and northern Europe contains many private protected areas while some central and eastern European countries have few if any.

Privately protected areas will be an essential component in achieving the Convention on Biological Diversity Aichi Biodiversity Target 11 on completing ecologically representative protected area networks around the world. IUCN remarks that individuals and groups have been involved in establishing private protected areas for well over a century. Many involved are driven by philanthropic motives, interest in endangered species or the desire to leave behind a positive conservation legacy. Others want to preserve particular places against development change because they have cultural, religious or spiritual importance. Landowner motivations often include issues relating to quality of life. Corporations set up private protected areas as part of development projects or as a condition of resource use (e.g. as part of forest or agricultural certification systems).

Whilst being a moderately widespread mechanism in EU countries (16 countries identified in our study), the level of application varies between each country. In some countries this kind of protection is recognised as a separate category for nature protected areas, but in most the application is still a “grey zone” where it is largely unregulated and the management dependent on the understanding and level of awareness of the landowner. The distribution of private protected areas in the EU is assessed by Disselhoff (2015)²⁹ and he concludes that the private protected area concept has very mixed results in different contexts, and that defining their concept in the country and establishing the legal basis does not necessarily mean that it will be taken up and implemented. Disselhoff underlines the importance of economic incentives in the process.

We have identified several good examples of nature conservation working hand in hand with business activities when exploring this land stewardship mechanism. Spain and Greece provide notable examples, also including the Natura 2000 network.

²⁹ Disselhoff, T. 2015. Alternative ways to support private land conservation. Report to the European Commission

Spain: FCLP

FCLP (Fundación Calatunya-La Pedrera) is a foundation created by a bank entity. FCLP has been independent since 2012 and gets its income from the visitors to the tourist building La Pedrera in Barcelona. It has 24 natural sites (7800 ha acquired), mostly in the Natura 2000 Network, and carries out management with nature conservation purposes and an aim towards education. Additionally, they also manage other land under land stewardship agreements (15 sites, 561 ha); they have 27 forest reserves with wood rights and 64 agreements for 160.000 ha for conservation planning. The sum of their land accounts for 5% of the land in Catalonia.

Czech Republic

61 land trust organisations in the Czech Republic work with private protected areas, one of them was the beneficiary of the project LIFE04 NAT/CZ/015 Rupicolous. In addition, some NGOs other than land trusts and private owners have established private protected areas.

Greece: Bourazani

Bourazani is a private wildlife resort and environmental park³⁰, which comprises an area of 205 ha. It was established in 1916 and was originally used for grazing the owner's animals (sheep flocks, in particular). In 1974, the owner attempted to transform it to a wild-game hunting farm. In recent years, the younger generation of the family that owns the land has transformed the estate, with the support of EU funds, into an environmental and education park, open to visitors. The main aim of this activity – as described in the park's website – is "the good treatment and attendance of the animals, the preservation of their natural balance, the observation of the animals in their natural environment, as well as to give to the visitors all the useful information on these animals and their biological circles".

The park is self-sustained through the visitors' fees. A traditional hotel, a natural history museum, and an environmental education and conference centre are included in the park. This is a private, profit-making enterprise, based on the preservation and demonstration of the fauna and flora living within its privately

³⁰ www.bourazani.gr

owned land. Bourazani will be included in the National Park of Grammou-Konitsa-Pogoniou, expected to be designated soon (a Special Environmental Study for it was conducted in 2009).

4.2.8. Voluntary contractual agreements

The spectrum of land stewardship mechanisms would not be complete without voluntary contractual agreements. The application of these does not require a special legislative framework, and thus we assume that this mechanism is being used in nearly all EU countries. River contracts in Italy and *Pacte pastoral* in France are an interesting example of agreements that integrate multiple interests.

Italy: River contracts

River contracts are a voluntary mechanism emerging as practical application of the Water Framework Directive and of the Flood Directive.

The Flood directive was received by the Italian government with the Legislative Decree n. 49 of 23rd February 2010. According to this act, the reference body - the Basin Authority ("Autorità di bacino") - has to prepare a plan to flood risk management. The involvement of the stakeholders is at two levels:

Firstly, the stakeholders provide their observations for the preparation of the plan during a participatory process using a theoretical approach. At this level all the subjects (administrations, associations, economic operator) having an effect (direct or indirect) by this plan could play a role (as example the URL http://www.alporientali.it/index.php?option=com_content&view=article&id=18&Itemid=348 reports all the stakeholders involved in the preparation of the plan for the east Alps).

Secondly, the stakeholders adopted a more practical approach applying the interventions foreseen in the plan through the river contracts. The river contracts, through an integrated approach and participatory processes, should achieve objectives of environmental restoration, reduction of the water pollution, improvement of conservation and management of the hydraulic risk, as well as sustainable use of the water at level of the river basin system.

The river contracts are currently quite widespread in each Italian region, but the most advanced experiences are those practiced in Regione Piemonte. Regione Piemonte was the first Italian region where river contracts were completed and officially signed.

Regione Piemonte has provided a legal value to the river contracts through an administrative act which establishes the structure for the contract (Regional guidelines for the elaboration of the river contracts³¹), defining the contents and principles behind the contract. This approach has simplified the preparation of the river contracts and allowed the expansion of its application across all the regional territory,

The river contract is an official document and its duration is established depending on the requirements of the interventions to be undertaken. The river contract implementation stage starts soon after signing. During its fulfilment, the contract may be revised on the basis of unexpected events and in the event that other subjects join the contract. The interventions foreseen in the contract and the actions to be carried out by the stakeholders are specific for each contract, depending on the critical issues highlighted in the preparatory document and the protocol of agreement.

Usually the contract is signed between public bodies (Basin authority or Region with Municipalities, Mountain Communities, Provinces, Park management bodies), but there are examples of contracts signed also with private such as environmental associations, trade associations for economic activities or for recreational/sport activities.

France: Pacte Pastoral

The Pacte Pastoral is part of an intercommunal agreement in the territory of the Causses Aigoual Cévennes Terres Solidaires, where cultural landscapes are connected with, and fashioned by pastoral farming. This agreement is implemented in the management plan of the Causses and Cevennes from 2015 to 2021. Therefore it is very recent and the results are not yet known. The pacte is a form of "soft law", built and validated by the managers of the area to guide public policies and individual practices. Based on the agreement that pastoralism is part of the local intangible heritage, the pacte ensures a priority or support given to pastoralism through the following:

1. To adopt a rule of priority to pastoralism in any property transfer;
2. To recognize pastoralism as a community service;
3. To define areas dedicated to pastoralism in the urban and rural planning document
4. To oblige any opened tenement to allow free passage and grazing of the flocks.

³¹ http://www.regione.piemonte.it/ambiente/acqua/dwd/LINEE_GUIDA_Contratti_Fiume.pdf

One of the tools of this pacte is a negotiated easement called “servitude pastorale”. This easement allows farmers to use private lands for non-injurious pastoral activity (grazing and transhumance). The pacte includes the commitment to encourage the adoption of pastoral easements whenever they are relevant.

4.3.France – on the way to embracing the conservation easement approach

Conservation easements are the most popular conservation tool in the United States. In the EU, despite being stipulated in legislation in several countries (see Figure 4.1) this mechanism has failed to reach wide application. One of the reasons for this, as identified by Disselhoff (2015), is the fact that EU tax laws do not explicitly foresee tax reliefs for the donation of easements, contrary to the situation in the US, where deductibility of their donation has created high demand from the landowners to engage in this mechanism.

Of all the EU countries, France is the most proactive in adopting the US approach in the use of the conservation easements. Therefore, we have elaborated more on the recent events in France that might lead to the first case in EU of taking over the US approach to the application of the conservation easement mechanism.

In the French legal system, a number of instruments can be used to protect natural and agricultural lands. Such instruments include urban planning, targeted land acquisitions in sensitive areas, and contracts. However, land use changes are increasingly rapid. Each year, an average of 80,000 hectares of agricultural and natural lands are converted into urban areas, or used to build new infrastructure (e.g. roads, malls, etc.). Three quarters of the natural habitats that are considered to be of interest to the European Union are in an unfavourable, inadequate, or bad state.

In the above context, experts and practitioners were assessing whether new land tenure instruments, in particular new types of contracts, could be usefully introduced in the French legal system. On the 28th June 2012, the French Ministry for Ecology, Sustainable Development and Energy organised a workshop on this subject.

4.3.1. Securing environmental commitments – conference on land tools complementary to acquisition³²

The seminar gathered presentations of the current use of existing legal tools to preserve biodiversity, natural and agricultural areas, in an alternative model to land acquisition; contributed to the exchange of experiences, to identify potential loopholes and to explore foreign legislation. Paths for improvements and eventual modifications to the legislation were then suggested. The benefits and drawbacks of three main tools are briefly described here below.

SAFER (Land Use and Rural Settlement Corporation) are able to use different juridical tools to protect the environment: environmental pre-emptive right and environmental technical specifications. The environmental pre-emptive right allows the SAFER to choose the future landlord on environmental considerations. The environmental technical specifications can be part of a land sale contract which can last up to 30 years and are bonding for future landlords. Since 2006, rural leases with environmental clauses have been promoted and implemented by NGOs such as Terre de Liens³³ (108 farms with ongoing rural leases which include environmental clauses) and the Conservatoires des Espaces Naturels (CEN) (with almost 100 ongoing rural leases with environmental clauses), as well as by SAFER. This rural lease is an agreement between the landlord and the tenant, in a high environmental value area and usually involves a reduced rent for the tenant but no fiscal incentives for the landowner.

The conventional easements (“servitudes environnementales” in French), as defined by the French Civil Code, have a limited scope for long-term environmental preservation. A conventional environmental easement is only applicable when a key environmental role of a servient tenement (juridical term for land plot) relative to a dominant tenement can be proven. A dominant plot is for instance a plot (called plot “A”) located on a riverside downhill from another plot (plot “B”). Plot B is covered by permanent grassland and cannot be converted to arable land according to an environmental easement signed between the two plots. The easement requirements apply to plot B, which is therefore the servient tenement, and they benefit plot A, the dominant one (e.g. the permanent grassland reduces soil loss, hence protecting water quality in the river). Benefits of this tool can include financial compensation. Also, it is well spatially targeted and is agreed on voluntary basis. However, these easements (as the only legal tool available so far to impose positive obligations

³² “Sécuriser des engagements environnementaux – Séminaire d’échange sur les outils fonciers complémentaires à l’acquisition / Securing environmental commitments – conference on land tools complementary to acquisition” Commissariat general au développement durable, n°82, avril 2013.

³³ Highlighted in LIFE 10 INF/ES/540 LANDLIFE Land stewardship manual page 52

between two related tenements) are not well adapted to establish environmental obligations mainly because they depend on the existence of a dominant tenement which is not always the case, and they often extinguish after property transfer. Additionally, the follow up of the commitments is complicated and difficult to fund. The issue of sanctioning has not been addressed in most cases. Finally, these conventional easements are quite rare and often attached to a deed of sale, hence poorly visible. The law should shed light on this tool, according to a notary specialist.

The Conservatoire du Littoral³⁴ and the Fédération of Conservatoires des Espaces Naturels³⁵ discussed their respective need to secure land stewardship in highly sensitive areas. Are the current tools sufficient or new contractual approaches should be developed? Conventions or contracts are often used in a complementary manner to land acquisition on a same piece of land, but they can also be a substitute to land acquisition. When contract and acquisition are complementary, the former is usually residual. Nevertheless it can be very relevant in two cases: either, in the periphery of the priority zones (acquired) in order to ensure some sort of ecological continuity (corridors, buffers, etc.); or as a transitional tool, the conventions foster good management practices when acquisition is not possible but the landowner is willing to participate, in anticipation to an eventual pre-emption.

During the seminar, several areas of innovation were suggested and some experts agreed on the need for longer term tools. A possible improvement would be easements that would not require the definition of a dominant tenement. A very good example was mentioned during the seminar. A farmer and landowner with high environmental awareness (Mr. X), wanted to ensure that environmentally-friendly practices would continue to be used on his land after his death. But, together with his notary (who presented this case at the seminar), they could not identify any dominant tenement, eg. another piece of land that would clearly benefit from the environmental requirements attached to the land of Mr X. Therefore, they could not use this conventional easement. In that case, Mr X. would be willing to sign an environmental easement with a nature conservation organisation for instance, but this would not have any legal value. The notary therefore suggested that the law establishing the conventional easements (dated 1803) be improved by creating a new type of easement binding a land owner and a public environmental body for instance, without any dominant tenement. This is actually what has been included in the new biodiversity law, currently being voted (see below).

³⁴ CDL is a public body created 40 years ago to protect coastal areas through land acquisition; currently owns 159,612 ha of land; often managed under transfer agreements by NGOs

³⁵ This is a network of 29 NGOs across France working for the protection of natural areas.

In addition to the development of legal tools, some other improvements are required in order to reinforce the long-term preservation of the environment. The experts of the workshop highlighted the necessary partnership between land agencies and environmental organisations, the coordination between territorial land use strategy, the definition of environmental clauses suitable to a specific territory, the improvement of environmental monitoring tools and the capitalization of experiences/distribution of results obtained with the existing legal tools. This would contribute to a more appropriate use of these tools. For instance, the CEREMA (Centre d'études et d'expertise sur les risques, l'environnement, la mobilité et l'aménagement) mandated by the Ministry of Ecology, has recently assessed the use of the rural lease with environmental clauses over its 10 years of implementation. The study was published in June 2015. It highlighted the relevance of this tool for the development of biodiversity-friendly practices and at the same time pointed out some loopholes that limit its use.

A new law on biodiversity is currently being discussed and will most probably be adopted in 2016. This law includes a significant step to complement the panel of tools by introducing environmental easements, without obligation of a dominant tenement, and with the possibility of financial incentives. Further details are provided below.

4.3.2. A brief note on the French draft biodiversity law

Currently, in France, the easement is defined in the article 686 of the French "Code Civil", decreed in 1804, as an action imposed to a servient tenement for the benefit of a dominant tenement. With regards to substantive law, there is a gap in the national legislation. Indeed the necessary creation of two distinct but connected tenements limits the further use of environmental easement. The improvement of this law has been considered by creating a specific type of environmental easement in favour of a public body that owns the dominant tenement. However this option was not retained.

On the other hand, in the draft law on biodiversity (*law for biodiversity, nature and landscapes recovery*), which is still being discussed³⁶, the article 33 defines a new type of easement, similar to the American equivalent: an agreement voluntarily entered into by a property owner and a qualified conservation organisation such as a public body or a non-profit entity in private law. The agreement could contain duties (for actual and following landlords) aiming to

³⁶ The draft law on biodiversity, initially expected for 2013, was adopted during the first reading by the Assemblée nationale (first chamber of the French parliament) in March 2015. It is planned to be examined by the Senate (second chamber) in January 2016. The examination by the Senate has already been postponed twice. It was first planned in June 2015, then in October 2015 and now in January 2016.

LIFE AND LAND STEWARDSHIP

maintain, manage or restore the biodiversity and ecosystem services of a natural, agricultural or forest area. According to the law, the agreement must contain a given duration and the possibility of withdrawal. Moreover, the consent of the tenant has to be written.

This juridical tool is not yet used, so we cannot identify specifically the strengths and weaknesses. A special attention must be paid to the fiscal or financial incentives that are, according to the draft, to be established shortly after the adoption of the law.

5. LIFE and Land Stewardship

5.1. Introduction

LIFE is an inclusive programme which is designed to embrace all relevant stakeholders in the project not least the landowners. Establishing management structures, opening dialogues, networking and adopting participatory approaches are at the heart of many LIFE projects. The communication and demonstration aspects of the projects are specifically developed to inform and attract landowners who might otherwise not be interested in taking part. These aspects also provide a relatively risk free environment for any landowner to observe how things work in a similar context and setting to their own land holding but without the risk and expense. One really important role that LIFE projects play is as a catalyst, allowing one landowner to promote the land stewardship methods to other landowners. A landowners talking to another landowner has long been recognised as an effective means of transferring skills, ideas and practical methods.

Land stewardship methods are being used by most of the LIFE Nature projects that deal with nature restoration and management. In the following chapters we have clustered and described the different land stewardship methods, and their relative use in LIFE projects can be seen in Figure 2. Separate chapters have been dedicated to those land stewardship methods that are either most commonly used in LIFE projects, and fit the scope of our study, or should be more commonly used and are thus featured for demonstration.

In chapter 5.2, we have described three LIFE projects that have taken a strategic approach to land stewardship. They have assessed the method as such and provided useful recommendations and tools for its further implementation in the EU.

Management support agreements (chapter 5.3.1) are a very common tool in the LIFE programme (63% of the projects assessed in our study used them) and the chapter dealing with those is the most voluminous in this study. Management support agreements vary a lot in their content, conditions agreed and duration. We consider them a crucial tool for engaging private landowners into nature conservation, and recommend that use of those, especially long-term management agreements, should be further encouraged by the LIFE programme.

Management transfer agreements are less frequently used in the LIFE programme (27% of projects used them), and they are very varied in their application. Nevertheless, we decided to feature them in this study (chapter

5.3.2), as they show a good perspective in engaging private landowners. Management transfer to the LIFE beneficiary is a commonly used tool during the LIFE project, while after the LIFE project the former LIFE beneficiary resumes the role of management support organisation. Furthermore, the management transfer can take another direction, in land management being transferred to the farmers, with environmental restrictions and recommendations for the land management. This approach allows the land to be used for economic activities, while respecting the nature requirements.

Establishment of a joint management body (be it a Land Trust, management association, management board etc.) is also a tool used in LIFE projects, and we see very good potential for further application of this land stewardship method in LIFE programme, to engage the landowners into the sustainable land management. Twenty one percent of LIFE projects assessed in our study have used this tool, and in many areas such bodies existed already before the project implementation. This method is described in Chapter 5.3.3, along with good examples of its application in LIFE programme.

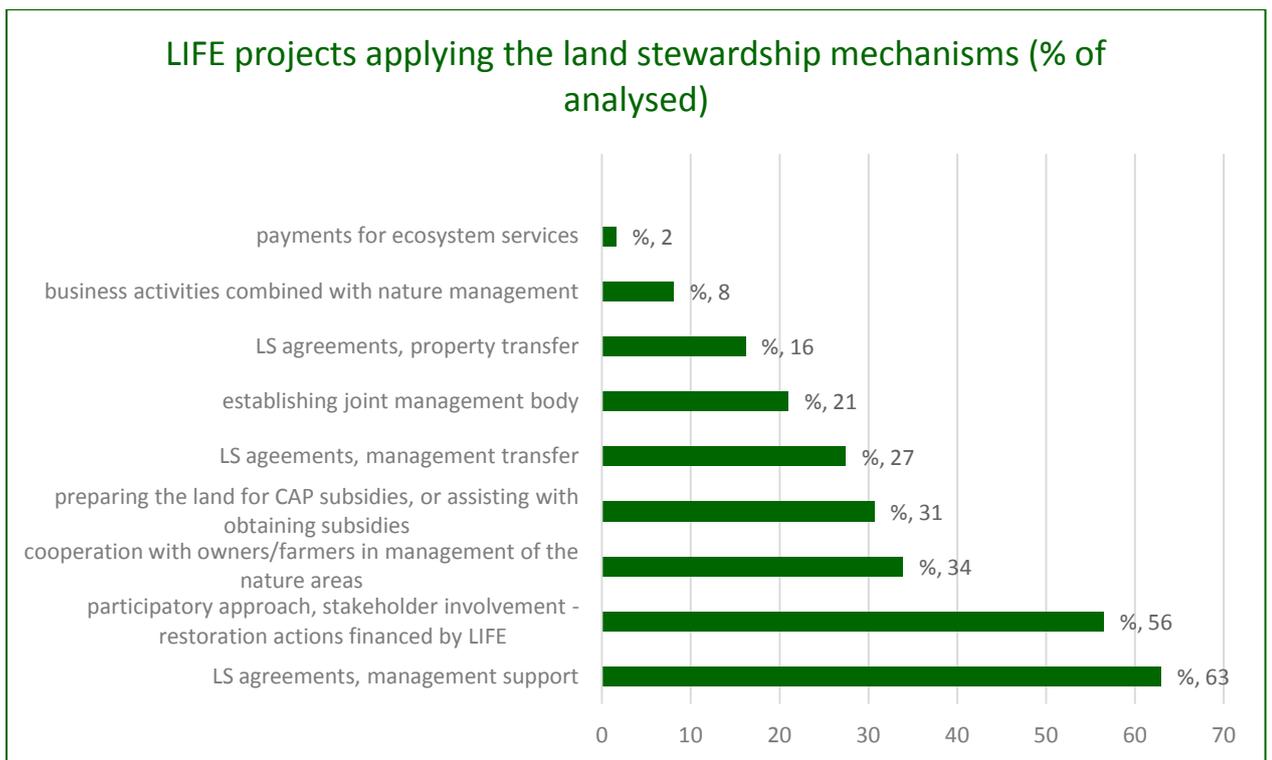


Figure 2: LIFE Projects Applying Different Land Stewardship Mechanisms

Payment for Ecosystem Services (PES) approach is not widely used in LIFE projects (2% identified), and this approach is only beginning to spread in the EU. Nevertheless, we thought it important to feature the method in our study

(Chapter 5.3.4), to underline its potential importance as a tool for engaging private landowners in the nature conservation.

Business activities can be and are often combined with nature management. LIFE projects have proven it, by engaging with businesses in nature management. 8% of LIFE projects that we analysed in our study have been working closely with business entities (be it a company or private entrepreneur) on the ground of common interests in sustainable nature management. In Chapter 5.3.5, we have featured some examples of this method that clearly demonstrate the potential and benefits derived from such cooperation.

There are several land stewardship categories that we did assess during our study, but chose not to describe in particular detail in this report. Those are:

- 1) Property transfer: not featured due to the fact that we did not identify particularly good examples in LIFE projects (except the traditional land purchase) and due to the fact that this method is not innovative and does not pursue the goal of this study – to support the engagement of private landowners in the nature conservation.
- 2) Contributing to obtaining Common Agricultural Policy (CAP) subsidies, although a common task in LIFE projects, we did not consider it particularly interesting for our study.
- 3) Examples of cooperation and public participation in LIFE projects, those are very common in the LIFE programme, and have been featured in other publications, thus we did not focus on those in our study.

5.2.Strategic LIFE projects addressing land stewardship

During our exercise, we have singled out three LIFE projects that have been operating with a more strategic approach to the land stewardship, and have done assessments of the situation and tools available for the land stewardship. Those projects are [LIFE10INF/ES/540: LANDLIFE](#), [LIFE11INF/DK/891: SMART Natura](#), and [LIFE11NAT/UK/000385: N2K Wales](#). The projects have addressed the issue of involving the private stakeholders in the nature conservation. They have proposed various innovative methods and have produced an array of interesting tools, starting from Manual on Land Stewardship produced in [LIFE10 INF ES 000540: LANDLIFE](#), a Handbook for cooperation with landowners in SMART Natura and a list of potential new mechanisms that go beyond traditional biodiversity conservation measures in the N2K Wales.

Please see short description of each project, their methods, their outcomes and references to further information.

5.2.1. LIFE10INF/ES/540 - LANDLIFE - Boosting land stewardship as a conservation tool in the Western Mediterranean Arch: a communication and training scheme.

[LIFE10 INF ES 000540: LANDLIFE](#) is an information project that developed a methodology and tools to implement Land Stewardship principles trying to be as flexible as possible in order to be easily adopted in different local and regional contexts. Numerous successful dissemination activities have been carried out to spread out the Land Stewardship tools created in the framework of the projects. The targeted areas of implementation have been Lombardia, Languedoc-Roussillon and Catalonia, but the scope is all of Europe.

Due to the project actions, at least 133 new Land Stewardship agreements have been signed in Italy and France, covering an area of 8.303,4 ha.

In Italy, 60 new agreements were signed covering 1.161 ha. 8% of them are related to Natura 2000 sites and 30% in areas without any protection regime.

In France, 73 new agreements were signed covering an area of 7.141 ha. 75% of them are related to Natura 2000 sites and 23% in areas without any protection regime.

The number of new agreements in Spain was not counted as emerging from the project as the concept has already been widely used in Spain.

The main output of the project was a European Manual on Land Stewardship. The main dissemination events carried out were the regional workshops, the European Land Stewardship Week and the final Congress. Additionally, in order to provide more knowledge on the subject the beneficiaries have developed a help-desk tool available on-line at the project website, accompanied by an on-line course.

The final output of the project was the signing of the "Barcelona Declaration" and the initiative to create the European Network on Land Stewardship. These are the two pillars for the project continuation. The dissemination activities also involved other countries in Europe - 22 countries participated in the European Land Stewardship Week, and the final Congress had participants from over 20 countries. Land stewardship toolkit was also prepared, containing basic tools for land stewardship organisations in Europe; it can be accessed via this link:

http://www.landstewardship.eu/images/downloads/LandLife_TOOLKIT.pdf

The barriers of the transferability of land stewardship are the diversity of each of the European regions, with its idiosyncrasies and unique features; the lack of formulas that encourage the use of land stewardship, such as development of

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legal and tax incentives, direct economic aid, and collaboration between companies and stewardship organisations is an added impediment. Despite this, one of the advantages of LS is that it is a flexible strategy that offers different tools, which can be adapted easily to respond to local and regional contexts.

An assessment of the leverage effect was done to assess the potential replicability of the project results in terms of Land Stewardship agreements signed and land surface protected. It showed that there was an exponential tendency in the growth rate of the signed Land Stewardship agreements and areas protected during the project in the three regions: Catalonia, Languedoc Roussillon and Lombardy. This tendency was emphasized during the last year of the project due to the accumulative effect of promoting the Land Stewardship. This indicates that the project's impact shall continue after the project is completed.

The economic analysis of the agreements signed during the project estimated that the average annual investment per agreement was of 2,635 €. The project efforts served to sign 21.12 agreements per person a year; and 4.435 ha per person and year.

More information is provided at the website: <http://www.landstewardship.eu/>



Figure 3: Tree planting with school children © GNF

5.2.2. LIFE11INF/DK/891 - SMART Natura - Smooth methods of communication, cooperation and awareness raising tools of the Natura 2000-plans

In Denmark the management and implementation of the Natura 2000 areas on private land are the responsibility of the municipalities and should be based on voluntary agreements with the landowners. There are no designated funds (other than agri-environment funds) to use when implementing the plans, making a good cooperation with landowners a crucial element. This LIFE information project aimed to find solutions and ways of cooperation with landowners so that they can use all means available to manage their land as foreseen in the Natura 2000 plan. Since SMART Natura is an information and communication project, it was important to work with the people who usually work with the implementation of nature projects.

The project worked within two pilot areas, the Upper Grejs River Valley and the Egtved River Valley; between 20 and 40 landowners were involved. In addition advisers from the agricultural advisory service of central and Eastern Jutland, LMO, and the agricultural advisory service of Kolding, KHL, and the Danish Forest Owners Association South have been involved. They have assisted in the project SMART Natura by visiting landowners and preparing project material. In the project, it has been important that employees from the municipality and advisers from the agricultural advisory service visited the landowners together. The usual working procedure for the advisers from the municipality and the advisers from the agricultural advisory service is to visit the landowners separately. Before the SMART Natura project, there was no actual cooperation between the municipality and the agricultural advisers in Egtved River Valley. However, at the request of SMART Natura new advisory methods were tested during the negotiations involving the presence of both agricultural advisers and municipal employees.

In Egtved River Valley, 10 contracts were done about fencing and clearing covering a total of 157 ha. Of these five contracts were made with individual landowners and five were made with 2-4 landowners. The contracts have been made by the municipality, the agricultural advisers, the Danish Nature Agency or a co-operation between these parties and the landowners. Furthermore, one landowner has applied for a Natura 2000 fencing project.

In Upper Grejs River Valley three contracts were done concerning fencing and clearing covering a total of 109 ha. Of these, one contract of a large fencing project of 97 ha was made with 21 landowners, one contract of a smaller project of six ha involving five landowners and finally an individual landowner project of six ha.

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The negotiations and the processes connected to the entering into these agreements were closely followed by the LIFE project. One of the main outcomes of the project is a handbook, which analyses the difficulties for cooperation. It also assesses the barriers for the landowners when they attempt to implement the Natura 2000 plan or to cooperate with municipalities or other landowners to implement the plans. The aim of the handbook is to give concrete advice and examples for municipalities, agricultural advisers, and landowners on how to cooperate when it comes to implementation of N2000 plans. The handbook is not a fact sheet that should be followed strictly but a guide with a "hands on" approach.

The main suggested method is to make voluntary agreements with landowners on how their land should be managed or should not be managed. The focus in the handbook is on defining types of landowners and barriers and finding ways how to approach it in a constructive manner. The handbook can be found here:

http://www.smart-natura.dk/English/Natura_2000_Handbook.aspx



Figure 4: SMART agricultural advisors meet SMART Natura in Gres Valley, © Frank Bondgaard SEGES

The project has also produced other materials, e.g. the inspiration catalogue, model tenancy contracts and other contracts, which can be found on the project website www.smart-natura.dk.

5.2.3. LIFE11NAT/UK/000385 – N2K Wales - Development of a programme for the management and restoration of Natura 2000 in Wales

The purpose of the project is to develop a strategic, prioritised programme for the management and restoration of Wales' Natura 2000 network. As the management of Natura 2000 sites is influenced by many stakeholders, both public and private, the project is working closely with stakeholders to ensure they are engaged in the process. The project is bringing together organisations from across Wales (representing landowners, farming and fishing enterprise, recreational users, conservationists, the public sector and regulators) to find the best solutions for management and restoration of the Wales Natura 2000 network over the next decade.

In relation to land stewardship, the programme that the project is developing requires a high level of commitment from stakeholders in the public, private and voluntary sectors to ensure its successful implementation.

The project completed a study to identify and appraise a range of potential new mechanisms to better address the challenges facing Natura 2000, identifying and appraising 89 potential new mechanisms. Some of the mechanisms identified are already available in Wales but not widely used, while others are in operation or being trialled elsewhere in the UK, Europe and the world. Many of the approaches focussed on delivery mechanisms but there were some that addressed the management and funding requirements for Natura 2000.

The potential new mechanisms identified by the study went beyond traditional biodiversity conservation measures and simple regulation and control, to consider the use of incentive or contract based management and the possibilities of making links and synergies between Natura 2000 management and the delivery of other environmental, social and economic goals. The relevant themes emerging from the study included those listed below which represent potential motivations to encourage landowners and land users to engage in land stewardship.

- *New funds, grants, investments or tax relief schemes* (new or improved means of accessing funds for Natura, including accessing funds from other sectors, establishing a loan scheme, a Natura 2000 grant fund, or making better use of European funds);
- *Payback schemes and donations* (opportunity to generate income from visitors attracted to Wales because of its high quality

environment and directing funds generated in this way directly to site restoration and management);

- *Schemes to allow payment for ecosystem services* (the amendment of agri-environment schemes to align them more closely to specific conservation outcomes on Natura 2000 sites was mentioned. There was significant interest in facilitating private companies and utilities to contribute to the management of sites that deliver services such as water purification or flood control);
- *Partnership working* (coordinated working between organisations to facilitate 'grassroots' management groups of farmers, commoners or other users to come up with locally suitable solutions to a range of identified problems);
- *Marketing and accreditation of produce* (such as marketing meat or other products from protected sites which would simultaneously generate income to farmers to deliver conservation improvements).

Further information about the LIFE project can be found on the website³⁷ which includes downloadable reports of project outputs thus far to inform stakeholders.

5.3. Case studies from the LIFE projects – application of land stewardship mechanisms

In this chapter we have highlighted 22 examples from different LIFE projects that illustrate the contribution of the LIFE program in engaging with private landowners, by using a wide range of land stewardship mechanisms. The cases are clustered in the following categories: 1) management support; 2) management transfer; 3) establishing joint management body; 4) payments for ecosystem services; 5) business activities combined with nature management. We have also selected one LIFE project per each category that has been described in more detail in Annex 3, to provide a better overview about the content and a wider context of a LIFE project.

LIFE projects have contributed to the development of a wide range of fiscal incentives for landowners in managing their land in nature-friendly way, for the benefit of particular species or habitats. Those are described in this chapter, starting from management support/transfer agreements, or establishing a joint management body that might take over the organisation of the management for the lands and thus bring additional income, by using wider opportunities for funding, and more cost-effective approaches, ending with improved business opportunities that are offered by sustainable nature management.

³⁷ <http://naturalresources.wales/about-us/our-projects/life-n2k-wales/?lang=en>

We have not found any cases of LIFE projects developing innovative legal incentives for private landowners, and that is most likely due to the focus of the LIFE Nature programme on the best practice and demonstration activities that can be achieved during the project's lifetime. Development of legal incentives typically takes more time than is available during the project's life span, and thus, the beneficiaries are cautious of including such initiatives in LIFE projects.

LIFE projects operate in the legislative, regulatory and institutional framework of the countries where they are based, and thus, the application of different land stewardship mechanisms in LIFE mostly reflects the overall application frequencies in the country in general (as illustrated in chapter 4). However, there are two categories of the land stewardship mechanisms, where their application is significantly lower in LIFE than it is in the country in general. Those are "private protected areas/voluntary reserves" and "management transfer".

5.3.1. Management support

Landowners do care about their land, and many appreciate the support, advice, and directions from a land stewardship organisation in taking care of their land. Land stewardship organisations can contribute their resources (financial, volunteer, advisory) to supporting the nature-friendly management of the lands. When concluding the management support agreement, the landowner remains responsible for the management of the land, but commits to conservation-oriented actions. Land stewardship organisations and landowners agree to a set of actions to be realised in the property, and both parties commit to the terms and conditions of the agreement. The land stewardship organisation ensures that the agreed actions are implemented, and assists the landowner with advise, grant or incentive opportunities that could benefit the property³⁸.

Management support is the most commonly used land stewardship method in LIFE projects and it was applied in 63% of the projects analyzed in our study. Management support contracts are very different – from simple contracts limiting or modifying one or two land-use methods on the land, to more complicated ones, listing a wide range of restoration and management measures to be taken. LIFE project beneficiaries usually contribute financial and advisory support to the landowners in undertaking the restoration work, while

38 Sabaté, X., Basora, X., O'Neill, C., and Mitchell, B. (2013). Caring together for nature. Manual on land stewardship as a tool to promote social involvement with the natural environment in Europe. LandLife documents

landowners commit themselves to maintaining the results of the project after its end.

Agri-environment subsidies play an important role in providing the after LIFE funding for the management of the sites restored in the framework of LIFE projects, and they are an important incentive for landowners. 31% of LIFE projects analyzed in our study provided some support towards obtaining these subsidies, be it in a form of advice or restoring the land to make it eligible for payments. However, agri-environment subsidies are a widely known and used incentive mechanism, thus we have not focused on it further in our study.

The cases highlighted below show a wide range of management support agreements that have been concluded in LIFE projects across the EU. The cases clearly demonstrate that the best results in terms of sustainability and cost-effectiveness of the restoration actions are to be achieved, when the project works hand in hand with the landowner. However, engaging landowners and obtaining their support to the project goals and activities might be a lengthy process, and sometimes the lifespan of a LIFE project is too short to manage that. The cases listed below represent successful engagement of the landowners or land users in the project activities, ensuring that the interests of both landowner and nature conservation are met.

LIFE08 NAT/UK/000199 Alde-Ore: Securing a Sustainable Future for Wildlife Alde Ore

Given that the UK National Trust, founded in 1895, is considered to be the original land stewardship organization in Europe it is appropriate to consider at least one LIFE project that features this organization. The project improved the hydrological structures that are used to maintain the water balance within the lagoons, reshaped some of the islands within the lagoons, managed predation (mainly by rats), improved visitor experience and engaged with the public to embrace sustainable access to the vegetated shingle bank which is the second largest (132 ha), and best preserved area of vegetated shingle in Britain.

Example of a management support agreement – land owned by the National Trust (NT) which is also the beneficiary – the conditions for management are agreed by the regulator Natural England (NE) and implemented by the Land Owner (NT).

Conditions agreed

- Written agreement - the land is held in freehold ownership by the Trust.

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- Land must be managed both for nature conservation and as a site of 20th century (WWII) historic interest. Access controlled.
- Project activities included introduction of new structures to maintain the salinity of the lagoons at times of peak water flow and to retain water in times of drought.

Benefits for landowner

- Better on-site interpretation, webcams and improvement of Orford Ness 'gateway' encourages members and attracts more visitors during summer season to sustain activities.
- NT sales increase.
- NT fulfils its mandate to conserve the land 'in perpetuity'.



Figure 5; ©Lynne Barratt: The Vegetated Shingle Road at Orford Ness

LIFE03NAT/E/000050 CBD 2003: Conserve the Spanish Imperial Eagle, Black Vulture, Black Stork.

The aim of this project was to propose and support a new type of habitat management in Natura 2000 sites, proving that it is possible to combine threatened species' conservation with traditional and profitable estate

management. The project beneficiary was Fundación CBD Hábitat who signed land stewardship agreements with landowners.

This project covered an extensive area (circa 60.000 ha) and aimed at protecting three protected bird species in Spain (Imperial Eagle, Black Vulture and Black Stork). Private owners were encouraged to join in partnership and find suitable financing schemes that would help them to maintain their threatened bird populations. Basic implementation actions involved suitable habitat management, measures to increase rabbit populations (serving as prey for the raptors), close surveillance of target birds (with supplementary feeding when needed) and other measures oriented to better protect these birds.

The project encouraged private owners to unite their forces as owners of a significant area of Natura 2000 sites with priority species. This work was fundamental to the establishment of an association named 'Amigos del Aguila Imperial' (Friends of the Imperial Eagle). Shortly thereafter, this association became part of the Foundation of Friends of the Imperial Eagle and the Iberian Lynx, that unites 140 private owners that strive to ensure protection of these two priority species that live in their estates.

Example of a management support agreement between the project beneficiary and a landowner

Conditions agreed

- Cease rabbit hunting if the population densities are below the threshold determined (established as a minimum optimum for the targeted species).
- Respect of nesting areas during critical periods (no game hunting or agricultural work in the surrounding to avoid disturbances).
- Specific actions aimed at boosting the rabbit populations (sowing crops, constructing refuges, etc.).
- Detailed monitoring of target species.

Benefits for landowner

- Technical assistance to landowners or estate managers.
- Habitat improvement in their estates.

This project paved the way to reconciling human activities with Natura 2000 conservation and searching win-win situations. Results were excellent and all the information was suitably compiled in manuals and best practice documents. The project worked hand-in-hand with owners and also made an excellent lobby job with administrations. Overall, we consider that this project

had a remarkable demonstration value and that it can still be highlighted as a very successful LIFE project.



Figure 6; Anguila posada en pino

LIFE09NAT/RO/000618 STIPA: Saving Transylvania's Important Pastoral Ecosystems

The project aimed at preservation of one of Europe's finest surviving lowland High Nature Value farmed landscapes, with largely traditional agriculture. The beneficiary's main strategy for achieving the conservation objectives has been to help and motivate local farmers and public administrations to continue applying the traditional use of these grasslands and, where the case (i.e. in hot spots), to stop the exploitation. Land stewardship approaches were used as methods for providing direct/indirect support and some incentives as part of this strategy, which led to more farmers starting to work their land and ensuring more coherent and sustainable management of grasslands in this area.

The beneficiary, ADEPT Foundation, creatively designed a strategy for bridging the gaps between local traditional products and the market, between the funds available for agriculture and the local farmers who had abandoned their land, which also addressed the delicate issue of the local stakeholders' lack of trust in their own abilities as farmers and in the possibility of overall improving their lives. They created a system to provide direct support to farmers who wanted

to use their land in a traditional manner. One of the main pillars of this strategy was to make the agri-environmental budget of Romania available to the local people of this particular Natura 2000 site. Based on verbal agreements, ADEPT helped farmers/land owners bring their land to a status that made it eligible for the agri-environmental schemes and helped them to enter the scheme, while adding certain environmentally friendly management measures to it. The farmers could thus start having constant revenue from their land, which also contributed to a change in mentality and perspective on the traditional livelihoods of this area: people started to appreciate and value again their land and traditional livelihoods. This is an essential aspect for developing a sustainable and environmentally friendly approach to agriculture, which is also one of the reasons why the project has a high replication potential.

Furthermore, the organisation provides a regular management support to the farmers, they organize regular meetings and events and also make visits to farms in order to inform the local landowners/farmers about the importance of the biodiversity on their lands, about possibilities for using this land and living on it in a traditional way but effectively etc. This activity is done with no particular agreement between the foundation and individual land owners. It is part of the foundation's overall objectives for the area.

Example of a management support agreement between the project beneficiary and a private owner (sheepfold)

Conditions agreed

- Lower stock rates (0.5 UVM/ha).
- Moving the sheepfold (once a day when it rains and once every 3 days when it is dry).

Benefits for landowner

- One-off payments/ha for 2 years.
- Installing solar panels at sheepfold.
- Buying products from farmer, paid visits with tourists.
- Management support from LS organisation.

For example, shepherds are informed about the benefits of moving the sheepfold constantly so that the grass does not get destroyed. If there is forest on the land (under 100 sq. m), the owner does not need to cut it, also if there are some isolated trees growing on a piece of land that undergoes agri-environment schemes (especially if they are fruit trees), a certain surface of these trees is accepted. Also, the foundation encourages and stimulates people

to make use of the products they can collect from their land (medicinal plants, fruits etc.), e.g. by means of the fruit processing centre they opened, where people can bring their own fruits to make jam, bottle it and sell it.

The Foundation also edited a brochure with indicator species (butterflies, flowers etc.) for high nature value grasslands and they have taught farmers to identify these species on their land.

LIFE02NAT/E/008609 Lince Andalucía: Recovery of populations of Iberian lynx in Andalusia.

The project was a pioneer in implementing the land stewardship approach in Spain, to save the Iberian Lynx from extinction. It signed a significant amount of stewardship agreements (over 60), covering an extensive area (circa 200.000 ha). The implementation of these agreements was an innovative conservation strategy at the time. The beneficiary was the regional government of Andalusia, Spain and this was one of the first times that this approach was taken by a Spanish administration. The agreements signed included a series of management actions defined by the project team with the active collaboration of the landowners and set some sustainable practices that granted a protection to both the Iberian lynx and rabbit populations. This was and still is a basic element of the whole lynx conservation strategy that was continued in the subsequent LIFE projects LIFE06NAT/ES/00209 and LIFE10 NAT/ES/000570 (still ongoing).

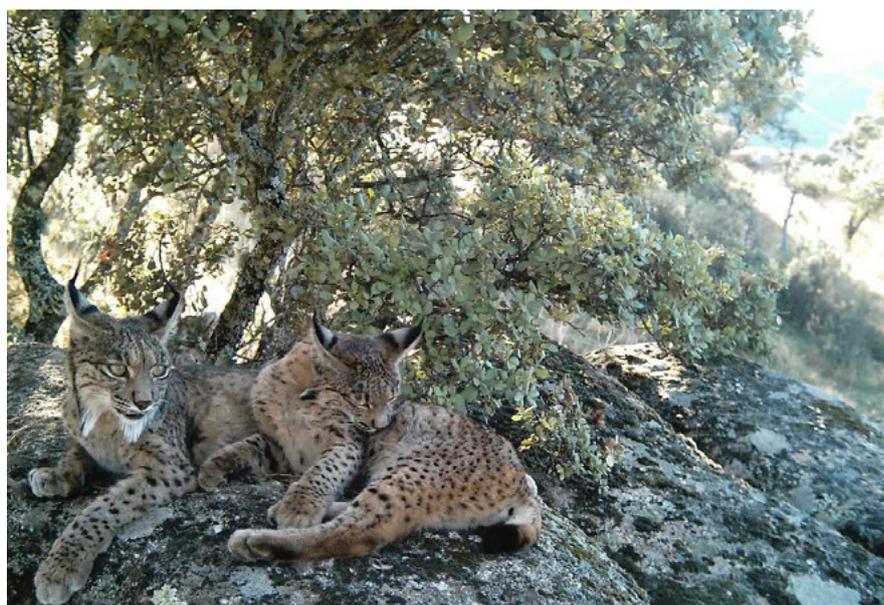


Figure 7: Photo-trapping Female Iberian Lynx with cub

Thanks to the LIFE programme that fostered the intensive and continuous ongoing conservation actions based on the collaboration of the landowners through the land stewardship agreements, the Iberian Lynx has been saved from extinction: the IUCN ranking has improved the status of the Iberian Lynx as from Critically Endangered status to Endangered.

Example of a management support agreement between project beneficiary and a landowner

Conditions agreed

- Ban on small game hunting.
- Allowing the restoration measures implemented in the framework of LIFE project: to improve the Lynx habitat (increase areas of refuge and feeding grounds and connect isolated populations); increase the availability of prey (including the leasing of hunting rights over rabbits); and reduce unnatural mortality (animals being snared or run over, etc.).

Benefits for landowner

- Support in applying for RDP subsidies.
- Recognition for hosting Lynx population.
- Participation in community events linked to Lynx.

LIFE02NAT/E/008617 Lince Toledo: Conservation of the Iberian Lynx in Montes de Toledo-Guadalmena

Another project, targeted at Iberian Lynx, which was implemented in parallel with the above mentioned [LIFE02 NAT E 008609 Lince Andalucia](#) project. The aim of the project was to ensure protection of the Lynx and improvement of its habitat in 17,000 hectares of private property located in two of the last areas where there was a stable population of the species, namely the areas known as Montes de Toledo and the Guadalmena river basin-Relumbrar mountain range, both situated in the Community of Castile-La Mancha. To achieve this, management agreements were concluded with owners with the objective of reconciling the exploitation of land resources (mainly game hunting) with the presence of the species. Measures were planned to improve the Lynx habitat, to increase the availability of species of prey (including the leasing of hunting rights over rabbits), to monitor the lynxes and to patrol the project areas. The project methodology was successfully undertaken, though unfortunately, it was already too late and despite the intensive monitoring carried out, the Iberian

lynx was not recorded in the project areas. The project confirmed its extinction in the area. Nevertheless, the approach of management support agreements allowed the project to secure significant areas for Lynx, as suitable management, and the efforts were not in vain. The impact and effectiveness of these agreements was significant as the project granted suitable habitat for the lynx conservation strategy, providing suitable grounds for both reintroduction of the species (done during 2014) and dispersal of individuals from the populations of Sierra Morena (in Andalusia).

Example of a management support agreement between project beneficiary and a landowner

Conditions agreed

- Restrict the hunting of the rabbit or lease the hunting rights.
- Restrict any activity that diminishes habitat quality or undermines lynx conservation actions.
- Increase the surveillance on illegal hunting methods (traps).
- Allow the monitoring of the presence of lynx and rabbits in the estates.
- Increase rabbit populations by means of specific management actions (sowings, clearings, installation of water points, refuges and warrens, fencings and restocking of rabbits).

Benefits for landowner

- Support in applying for RDP subsidies.
- Income from lease of hunting rights.
- Hunting plans.

LIFE11NAT/ES/000711 TAXUS: Improvement of Taxus baccata conservation status in north-eastern Iberian Peninsula

The project is an example of land stewardship agreements concluded to protect and manage the yew woodlands in the Catalonia region (Spain). The project beneficiary is the Forest Sciences Center of Catalonia, a research institute. The project has achieved (so far) 13 land stewardship agreements with management support (with duration of 10 and 25 years) and 4 land stewardship agreements with management transfer (25 years, including financial compensation), as well as other, more simple agreements. This project

is a good example of how to set up land stewardship mechanisms as part of a LIFE project, and it shows various possibilities for conclusion of agreements.

Example of a management support agreement between project beneficiary and a landowner

Conditions agreed

- No wood cuttings or clearings in the yew forests.
- No earthworks.
- No fencing unless stated in the action plan, to guarantee public access.
- Conservation of singular elements (such as stone walls).
- Allow access to the beneficiaries to implement conservation actions, and define the Action (management) plan.
- After the project: ensure management of yew woodland according to the Action plan.

Benefits for landowner

- Improvement of grazing area for cattle, inside the estate, but outside the yew woodlands (done by LIFE).
- Preparation of an Action plan during the project, making compatible conservation goals and other land uses (forestry, grazing).

LIFE13 NAT/UK/000258 LIFE Hen Harriers: Conserving the hen harrier (Circus cyaneus) in northern England and southern and eastern Scotland

Though still in the first year of implementation, this project concerns the protection of the hen harrier (*Circus cyaneus*) from illegal persecution whilst providing suitable habitat conditions in which population recovery can occur. The majority of the project area is under the ownership and management of private landowners and estates managed for grouse shooting which is in conflict with the principles of conservation of birds of prey. A challenging yet essential element of the project will be the out-reach work required to engage with these private landowners and shooting communities and for them to enter into management agreements supporting hen harrier protection and habitat management for the species.



Figure 8; ©John Houston : Hen Harrier Nest Watch Site in the Forest of Bowland

Example of a management support agreement between project beneficiary and a landowner

Conditions agreed

- Habitat management will be done in the framework of LIFE, to ensure that a sufficient high quality habitat is available for hen harrier e.g. by carrying out cutting and burning of vegetation and ensuring low-intensity grazing.
- Designated 'sensitive areas' for hen harrier to be left out of moorland burning rotation.

Benefits for landowner

- Possible that ecotourism based around birds of prey could make a contribution to local economies.
- Provision of high-quality habitat for hen harriers will also benefit other species of concern in upland conservation. The hen harrier is seen as a 'flagship species' for the Forest of Bowland which is also an Area of Outstanding Natural Beauty.

LIFE08NAT/PL/000513 XericGrasslandsPL: Conservation and restoration of xerothermic grasslands in Poland - theory and practice

The project aimed to reintroduce the traditional agriculture (mainly extensive grazing) on the xerothermic grasslands to ensure their lasting and effective conservation. During the project implementation the project beneficiary (Klub Przyrodników, NGO) signed voluntary, legally non-binding agreements with

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the landowners and reintroduced the extensive grazing on xerothermic grasslands. According to the agreements, the landowners are obliged to conduct the grazing using their own animals (cows, sheep or horses), while the project provides infrastructure and necessary equipment (wooden shelter, electric or wooden fence, trailer for transport of animals) and/or conducts preparatory activities (construction of fencing, shrub removal).

Example of a management support agreement between landowners and land trust organisation (Klub Przyrodników, NGO)

Conditions agreed

- The landowners are obliged to conduct the grazing in line with the specific requirements beneficial for xerothermic grasslands (limited stock density, timing of grazing, leaving un-grazed areas etc.), by using their own animals (cows, sheep or horses).
- The landowners were obliged to use received equipment and infrastructure only for the purposes of the project.

Benefits for landowner

- Equipment and infrastructure provided by LIFE project (wooden shelter, electric fence, wooden stumps, trailer for transportation of animals)
- The necessary preparatory activities (construction of fencing, shrub removal) are undertaken in the framework of LIFE project.

LIFE13 NAT/HU/000081 ROLLER LIFE: Conservation of the European Roller (Coracias garrulus) in the Carpathian Basin

The project aims to strengthen the Central European core population of the European Roller *Coracias garrulus* through mitigating electrocution, restoring feeding habitats and planting and maintaining forest patches within the frame of a "Farmers for Roller" programme. The beneficiary is BIRDLIFE Hungary and the main stakeholders are farmers. The main motivation mechanism is the donation of material goods (tree seedlings, nest-boxes and perches). Project beneficiaries also provide assistance to bird-friendly land management. After-care of seedlings requires efforts in the long term but it is expected to be done by the farmers themselves. The cooperating farmers sign a voluntary, legally non-binding declaration of cooperation, which lists their commitments. The duration of the cooperation is not specified in the declaration.

Example of a management support agreement between the farmers and beneficiary

Conditions agreed

- Farmer commits to plant donated seedlings and to look after them (including protection, watering and cutting), to erect perches and wooden poles with nest-boxes.

Benefits for farmer

- Donation of native tree seedlings, roller nest boxes and perches.
- Project communication and dissemination materials (guidelines, brochures, t-shirts etc.).
- Advise/training on bird-friendly land management.
- 'Greening' land management which provides benefits under rural development schemes.

LIFE12NAT/PL/000060 LIFE PODKOWIEC+: Protection of the Lesser Horseshoe bat and other bat species in southern Poland

The project develops cooperation with owners and managers of the objects, which apart from their primary roles (households, churches, buildings of public use) at the same time provide shelter and breeding places for the Polish populations of the most threatened bat species. The composition of stakeholders and mutual benefits gained by them and the cooperating NGO are unique. The project demonstrates that it is possible to build synergy between nature conservation and conservation of cultural and historic heritage at the local community level. With use of voluntary involvement, it may ensure sustainability of the conservation results reached due to the cooperation.

The bat protection is planned to be achieved by standard conservation measures (protection of summer and winter roosts) as well as by creating a Natura 2000-based network of roosts specially adapted to meet the needs of bats. Special attention needs to be paid to maintenance of the bat roots and careful renovation of buildings, which would ensure their survival.

A voluntary, written agreement is a unilateral act, in which the owner of the object (building) gives a permission to the LIFE Coordinating Beneficiary to conduct building adaptations and roof renovations. The owner commits himself to maintain the LIFE project effects for min. 20 years.

Example of a management support agreement between the owners of the buildings and beneficiary

Conditions agreed

- Owner agrees to keep the primary function of the object and to maintain project/conservation effect for min. 20 years (with exception in cases of security for people and buildings).

Benefits for owner

- Costs of technical designs, building adaptations and roof renovations are covered or shared by the project and object owners.

LIFE11NAT/GR/001011 Lesser Kestrel Thessaly: Conservation and Management of the Lesser Kestrel (Falco naumanni) at three Greek SPA sites*



Figure 9; Lesser Kestrel, photograph courtesy of project

The project demonstrates a successful case of biodiversity friendly agro-pastoral practices benefiting both the protected species and the quality of local products. The project was coordinated by the University of Thessaly with assistance from the municipality and independent nature conservation consultants. The project concluded written voluntary agreements with farmers in the project area, so that they agree to specific restrictions to cultivate their land using local cereal (barley and wheat) cultivars, and with biodiversity and

Lesser Kestrel-friendly farming practices. In return, the farmers received free horticultural advice and the cereal seeds, as well as financial support for the harvesting costs.

The signed agreements are private bilateral agreements between the Municipality of Rigas Feraios and the farmer/producer. They do not specify the duration on them but the beneficiary explained that they are renewed annually for the project's duration. Participation has been increasing yearly. The project aims to support the implemented management scheme in the long term by working on establishing a Lesser Kestrel-friendly certification and a higher price for the products of the farmers that participate in the scheme, at the same time promoting relevant eco-tourism activities in the area. Private initiatives through agricultural banking and collaboration with industries, such as the brewing industry, could also provide sustainable win-win schemes.

Example of a management support agreement between farmers and the beneficiary

Conditions agreed

- Cultivation of traditional cereal varieties.
- Using mild tillage methods.
- No burning of the stubble.
- Restricting the use of agrochemicals.
- Leaving un-harvested barley strips.
- Prolonging the duration of the harvesting period by using a mixture of barley and wheat cultivars, harvested using traditional methods.

Benefits for farmer

- Provision of seeds.
- Supporting the harvesting costs at an agreed rate of 3 € / 0.1 ha.
- Provision of horticultural advice.
- Promotion of a biodiversity/Lesser Kestrel certification scheme for the products.
- Promotion of eco-tourism in the area.

LIFE08NAT/BG/000278 VULTURES' RETURN: Recovery of the Populations of Large European Vultures in Bulgaria

This project, being undertaken by Green Balkans Stara Zagora, an NGO, aims at reintroducing the Griffon vulture in the Balkan Mountains, and enhancing the habitat for Black vultures in the Rhodope Mountains. Within its preparatory actions, the project ensures development of a voluntary local network of

project supporters (farmers, land-owners, local people, NGOs) who report dead domestic animals and, in cases where they own the respective carcasses, provide them for the vultures' supplementary feeding site. This is a win-win situation, since the supplementary feeding sites are officially registered and legalised and this saves costs for other (relatively expensive) means of carcass disposal. This practice also promotes the key environmental role of vultures and their ecosystem functions, and increases public awareness about the environment.

The legal base regulating the existence of the local supplementary feeding sites is the EC Regulation 1069/2009 and Directive 64/432/EEC amending Regulation 142/201, which are transposed in the Bulgarian legislation on food security, control of diseases and animal by-products, which provides derogations for disposing of carcasses. The supplementary sites are officially registered at the Bulgarian Food Safety Agency and the project team is allowed to issue confirmations for the safe disposal of the carcasses.



Figure 10; © LIFE 08 NAT BG 278 : Taking the carcass to the feeding stations

There is no other formal contract with the local communities, and no duration constraints. Within the current project, it is rather an oral mutual agreement for cooperation, as the project team is providing the service of safe disposal of the carcasses, issuing the relevant document for the livestock owners to use the disposal site, thus saving costs for the owners.

Example of a management support agreement between land and livestock owners and beneficiary

Conditions agreed

- The area is managed traditionally, no poisons are used against predators, and dead livestock is provided for supplementary feeding of vultures. This has to continue during the project, and for non-specified number of years after the project's end.

Benefits for land and livestock owners

- This contract allows a substantial cut-down of the high costs owners would otherwise pay for processing the carcass in line with the single other legal alternative (i.e. submitting the dead animals to a licensed incinerator, which is authorised for this purpose but is very often located far away from the farmer's location).

- In return for the commitment not to use poisons, the livestock owners receive shepherd dogs and/or electric fences and/or compensatory animals, whichever they prefer, or qualify for, in order to best suit their specific needs.

LIFE08NAT/BE/0036 3WatEr : Ecological restoration of the Pond area M-L through a close participation of the private and public landowners and a triple E-approach

The objective of the project is to improve the conservation status of several species like Bittern and Tree frog and to restore the habitats of the EU importance. The main purpose of this cooperation is to establish a durable development of the Natura 2000 sites, which is in balance with the economical aspect of certain activities (e.g. fish farming, forestry, and farming).

The project is considered as a land stewardship pilot project in Belgium where private landowners participate actively in nature conservation. Within the framework of this project private landowners, public bodies, NGOs and other relevant stakeholders established a co-operation. The main objective of this co-operation was to manage the Natura 2000 sites together and share knowledge and experience. An important feature was that all participating landowners voluntary agreed to implement nature conservation measures on their land and committed to keep these measures in place for at least 15 to 20 years. For example, many dikes of ponds were restored by removing trees and bushes. Also the hydrological network was improved in order to manage the ponds.

When confirmed as a participant, all landowners signed up to an agreement stipulating the following; that they agree to the actions performed on their terrain, that he will do the necessary preparations so that works can effectively be performed (including studies, permissions, consultations, and tenders). In this regard, the landowner in questions was always able to call on unlimited technical and administrative support from Ontwikkeling Vijvergebied Midden-Limburg (OVML). Further, the landowners also stipulate that they will respect the budget of the project, and that they will conserve and maintain the actions in the field for the coming 20 years. In total 18 partners signed such agreement in the project.

All parties of the project have committed themselves by signature to the 'Post LIFE engagement' manifesto, which outlines in broad strokes the principles of continued engagement and maintenance of the area, while guaranteeing the independence of the various parties. Private landowners (OVML) have also committed themselves to sustainable practices with regards to hunting, forestry, fishing, tourism, agriculture etc., to ensure that these are in line with the maintenance of the project.

Example of a management support agreement between landowners and beneficiary

Conditions agreed

- Maintenance of the restored areas to be done by landowner for at least 15-20 years.

Benefits for farmer

- Restoration of habitats done in the framework of LIFE project.

5.3.2. Management transfer

There are landowners who prefer someone else taking care of their lands whilst retaining the property rights. There are also the cases when the land stewardship organisation undertakes an own specialized management of valuable lands. In those cases the landowner appreciates a land stewardship organisation taking practical responsibility of the management of the land. As in the previous type of stewardship agreements, the landowner and organisation agree which actions will be undertaken in the land, but in this case, it will be the stewardship organisation itself that will carry them out³⁹.

39 Sabaté, X., Basora, X., O'Neill, C., and Mitchell, B. (2013). Caring together for nature. Manual on land stewardship as a tool to promote social involvement with the natural environment in Europe. LandLife documents

Management transfer mechanisms are reasonably well represented in LIFE projects and 27% of the LIFE projects analysed in this study did apply the method, at least for the duration of the project. The contracts are very similar to those of management support, except that in this category the land stewardship organisation (usually a project beneficiary) takes over the restoration and management works on the land. Some of the contracts foresee deed restrictions for the land, and thus could be also considered in the other categories of land stewardship mechanisms that are assessed in this report.

Another interesting case in this category is a case of management transfer to the farmer, or lease with environmental clause ([LIFE04NAT/FR/000087: LIFE Marais](#)). Similar cases have been discussed in the chapter 4.2.5, e.g. Prolander case (see section 4.2.5) in the Netherlands. The land stewardship organisation obtains the land, restores it and places the deed restriction on it, stipulating the use of the land for the nature conservation purposes. Afterwards, the land stewardship organisation rents or leases the land to the farmers or other land users. This is an effective method to ensure the definite use of the land for the nature conservation purposes, while, at the same time, keeping it in the economic use. We consider that this method is worth promoting further in the context of LIFE programme in countries where this approach is not widespread.

LIFE08NAT/UK/000201 ISAC: Irfon Special Area of Conservation Project

The Wye and Usk Foundation, an NGO, successfully developed the collaborative scheme to address acidification and hydrology issues in the upper catchment of the river Irfon. Originally, the project sought to purchase or lease land as they considered that this was the only way to bring about the changes needed to protect first the waterway and second the upland mires. Instead of purchase or lease the project developed a different approach building a successful partnership between private landowners, NGOs and statutory agencies.

The issue which was addressed by the land stewardship approach in this project was the acidity problem in the upper catchment (mitigating the effects of commercial forestry). This issue required the cooperation of the public and private landowners, without which the conservations goals could not have been met. The project sought changes to forest practice to ameliorate the impact on the water quality of the upper river system. By using the management contracts, the project could achieve its aims without incurring the costs or liabilities of land purchase /long lease.

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The project was a successful partnership between NGOs and statutory agencies, resulting in conclusion of management agreements that could bring about lasting change benefitting both the river system and the associated upland bogs. The project was influential in changing attitudes in the forestry sector to help reduce the problems of acidification of upland streams and flash flushing of pH and nutrients into the main river stem.

There is less land in private ownership and the project agreed written work plans on 2 coupes under management transfer agreements which lasted for the 2-year lifetime of the project.

The area of publically owned forest under management now totals 104 ha, 23.5 ha were agreed under the project and a further 87 ha agreed after project closure. The public forest is owned by Natural Resources Wales (NRW – formerly the Forestry Commission). There is a written Memorandum of Understanding (MoA) between the land owner (NRW) and the Wye and Usk Foundation in the form of a management support agreement encompassing a partnership approach to tree removal and drain blocking. The initial agreements were for 2 years but NRW has agreed to continue the project activities and these are now embedded in the 30-year forest management plans.



Figure 11; © John Houston : Riparian Bank Works on Farmland on the River Irfon

Example of a management transfer agreement with a forest owner

Conditions agreed

- No further planting of trees following harvesting of forest on sites identified by project as critical hydrological sources.
- Restoration of natural hydrology and amelioration of acidity by the project.

Benefits for forest owner

- Sale of wood.
- River achieving good status for pH under WFD.
- Water quality improves for salmonids spawning.

LIFE04 NAT/UK/000250 CASS: Conserving Atlantic salmon in Scotland

CASS project was, at the time, the single most significant salmon conservation project ever undertaken in Scotland, with the aim of significantly improving the natural freshwater habitat for Atlantic salmon on eight of the key salmon river Special Areas of Conservation (SACs) in Scotland. The project significantly improved the natural freshwater habitat for salmon on eight of the key salmon river pSCIs in Scotland and provided a major vehicle for raising awareness of the needs of the species, both to managers and to a wider audience. It produced a range of management demonstration products, which fed into wider conservation strategies for the species, and guidance for application throughout Scotland. In particular, the project established a voluntary management system covering the river habitat and the adjacent riparian habitats.

The project was revisited in 2015, to assess the effect of the management schemes started in the project. The management structures were in place and in-stream works were still being implemented, monitored and maintained as necessary by the River Trusts either using their own man-power or through contract work. A range of obstacles had been removed and there was a general move towards restoring heavily modified channels, which had been altered by dredging and straightening, to their original course. This work is being funded for by the Scottish Environment Protection Agency under their WFD fund and by some of the private land owners. This approach also benefits other wildlife, improves the fishing habitat and has a positive impact on flood defences further downstream.



Figure 12; ©Lynne Barratt : Fish Pass on the River Dye

A total of 37 management support agreements with various private land owners and tenant farmers have been agreed with the regulator Scottish Natural Heritage (SNH), any works are carried out by the River Trusts under the auspices of the River Boards. The agreements run for 10 years with an option to renew. These agreements cover the riparian habitats.

The in-water habitats are managed directly by the River Boards (a statutory body) and works are carried out on behalf of a series of private owners by the Rivers Trusts. There

are written agreements between all three parties which stipulate that the river must be managed for the welfare of salmon and trout. The duration of the agreements is not specified but their success rests on the number of salmon and trout in the rivers and the quality of the fishing. The River Trusts may be vulnerable if salmon stocks fail for reasons outside their control e.g. reduction in food supplies during the marine phase of the salmon and sea trout life cycles.

Example of a management transfer agreement between the river proprietors, the Regulator, the River Boards and the River Trusts

Conditions agreed

- The river must be managed for the welfare of the salmon and trout.
- The maintenance of any structures (fish passes) and in-stream works is the responsibility of the River Trust.
- The proprietors on the river contribute to the upkeep of the River Board - a statutory body tasked with protecting and enhancing stocks of salmon and sea trout across the district.

Benefits for landowner

- The River proprietors benefit because (in theory) there should be more salmon for recreational fishing which is the key financial incentive for maintaining the river.
- Maintaining the river for salmon also brings benefits for other species (e.g. Fresh water pearl mussel) and general eco-system services' benefits.

LIFE10NAT/GR/000637 ANDROSSPA: Management of the SPA site of Andros Island to achieve a favourable conservation status for its priority species

The project concerns the implementation of conservation actions for the four priority bird species (*Falco eleonora*, *Hieraetus fasciatus*, *Phalacrocorax aristotelis*, and *Larus audouinii*) in the SPA of Andros island, in Greece, and the establishment and pilot operation of an effective and economically viable Management Scheme for the SPA. The SPA Management Scheme will ensure the achievement and maintenance of a favourable conservation status for the targeted species in the long-term. The project activities include cultivating previously abandoned agricultural land with traditional barley crops, with the aim to increase and improve the foraging habitat of *Falco eleonora* and *Hieraetus fasciatus*. The landowners/farmers have offered the land to the project for its duration on a voluntary basis (without financial reimbursement), and have committed to continue cultivating it traditionally for 20 years after the project's conclusion. The incentives for offering the land include the offer, by the coordinating beneficiary, to fence the land, cultivate it and maintain it in good condition and allow the farmers to use the crop/harvest for their purposes. The coordinating beneficiary (the Municipality of Andros) has committed to continue supporting the landowners for the 20-year duration after the project's conclusion, with the assistance of the Local Volunteers Group, also being established by the project. Bilateral management transfer and support agreements have been signed between the Municipality of Andros and each landowner/farmer. In Greece, where land stewardship mechanisms are scarce and/or non-existent, this constitutes a best case example.

Example of a management transfer (during the project) and support (after the project) agreement between the farmers and beneficiary

Conditions agreed

- The land will be cultivated traditionally during the project and for 20 years after the project's conclusion.
- The Municipality of Andros will cultivate the land traditionally during the project and will assist the landowner to continue cultivating the land traditionally after the project finishes.

After the project, the support will be provided through the established SPA Management Scheme and the Local Volunteers Group.

Benefits for owner

- Fencing of land, use of crop as feedstock for the animals, provision of seeds, continued support for the cultivation activities, caring for the land.



Figure 13; © LIFE 10 NAT GR 637: ANDROS SPA – Revitalisation of Abandoned Terraces Fields and Traditional Crops to Support Feeding and Breeding of Rare Birds in Greece a) Before b) After

LIFE04NAT/FR/000087 LIFE Marais: Conservation of the most remarkable habitats and species of the Poitevin Marshes

The project represents a case of a management transfer to the farmer that can be also classified as a lease with environmental clause. The first land lease agreement with environmental clause in France was concluded in 2007 in the framework of LIFE project Marais. The contract between the *Ligue pour la Protection des Oiseaux* (LPO), an environmental association that owned the land (purchased with LIFE funds), and a livestock farmer, covers 43 hectares of meadow in the Poitevin Marshes. An environmental clause is attached to the lease, restricting the activities of the farmer on the land.

In addition to this rural lease, the project team used two other tools to carry out other actions on land management: they purchased land and they signed management agreements with farmers. This shows the complementarity of tools depending on the stakes, the landownership, and means.

Example of a management transfer agreement between beneficiary and farmer

Conditions agreed

- Environmental clause included in a land lease transferring the management to the farmer.
- Extensive pastoralism should be practiced, in order to recover meadows.

Benefits for farmer

- Farmer can use the land for his livestock.

5.3.3. Establishing a joint management body

Establishment of a joint management body is another category in the wide array of management support/transfer land stewardship mechanisms. Establishment of such bodies is common throughout the EU, and, while only 21% of LIFE projects, that we analysed in our study, used this method, we are convinced that this rather low percentage is due to the fact that in many sites such joint management bodies existed already prior to the LIFE project, and thus were not necessary. Establishing a management group, management association, management committee, landowner association, or network of farmers, as listed in the examples below, all serve one purpose: to optimise the management of the site, and to allow better involvement of the landowners in the decision making processes. Such practices are common throughout the EU, and those management bodies could serve a wider purpose than only assisting in the site management. They can serve as a starting point for common business and marketing activities, thus providing even wider benefits for the land owners and users.

LIFE09NAT/IE/000220 Blackwater SAMOK: Restoration of the Upper River Blackwater SAC for the Freshwater Pearl Mussel, Atlantic Salmon, European Otter and Kingfisher

The project focused on the River Allow catchment of the Upper Blackwater SAC and engaged with a range of stakeholders: mainly farmers, foresters, anglers, tourism operators, statutory authorities, schools and the general public. The main purpose of the project was to bring about a sustained enhancement of

the Upper Blackwater SAC by carrying out actions aimed at restoring the quality of the river bed and riparian zone. These actions included bank protection works, pruning and coppicing, tree planting, invasive species removal and the provision of silt traps. While many of these could be seen as emergency short-term measures, the project realised the need for a longer-term plan which would come from, and be agreed by, the stakeholders.



Figure 14: Blackwater SAMOK catchment management group

Therefore, in 2014 the Allow Catchment Management Group was formed to provide a collaborative and coordinated approach to the future management of catchment. The Catchment Management Group was formed comprising all land use interests. The group-developed Catchment Management Plan is now at final draft stage and farmers and the local community have played a pivotal role in tailoring the scheme to the individual needs of their catchment. The discussions are in process on developing a comprehensive suite of water protection measures funded under an agri-environmental scheme for the River Allow Catchment.

A key strength to the process is having a community-based organization as the lead facilitator and this would seem to be an essential factor in its transferability. This is a project in its early stages and so as yet there are no formal agreements. The project has been included to illustrate the importance

of establishing the right framework for effective facilitation to allow management transfer agreements to emerge.

LIFE12NAT/IT/000818 LIFE XERO-GRAZING: Semi-natural dry-grassland conservation and restoration in Valle Susa through grazing management

The project aims at restoring semi-natural dry-grassland habitats in Valle Susa through grazing management. The management association (Associazione fondiaria or similar) that would be in charge of the management of all land plots (private and public properties), for a benefit of restoring grassland habitats in the Valle Susa will be established in the project. The landowners will not transfer the property of the land plots to the association, and they will be free to withdraw from the association at any time. The association will assign the management of the land plots to a livestock farm, which exploits the grasslands and will be in charge of the maintenance of the restoration actions carried out within the project and of some restoration actions included in the agreement.

In case possible profits are gained by the association from the lease fees, these will be used for the achievement of the objectives foreseen in the agreement (for example, restoration of areas by shrub cuttings, improvement of the water distribution for livestock etc.). Moreover, the municipality can highlight the positive effects of a shared agreement in terms of public safety (to defend from fire, hydro-geologic risk etc.). The project is in its implementation stage, thus the results are not available yet.

LIFE08NAT/BG/000277 LIFE FOR THE BOURGAS LAKE: Ensuring Conservation of Priority Bird Species and Coastal Habitats at the Bourgas Natura 2000 Wetland Sites

The project is dedicated to conservation and enhanced management of a unique complex of coastal wetlands and saline lagoons around the city of Bourgas, on the Bulgarian southern Black sea coast. With the help of the project, an Association of environmental organisations, hunting and fishing associations & fishing sport clubs in Burgas was established. The Association is a unique (for Bulgaria) model of successful partnership between various organisations/groups, with supposedly conflicting interests, joined for the benefit of nature conservation and for promoting sustainable pro-nature business models. A framework agreement between Bulgarian Society for the Protection of Birds (BSPB) and the Association of Hunters and Anglers in

Bourgas was signed defining the common activities against poaching. In addition, an agreement was signed between BSPB and six local NGOs to support the state institutions undertaking anti-poaching activities. A synchronised system to report the observed illegal fishing and poaching activities to responsible authorities was developed. Among the future tasks of the Association is obtaining the sustainable use rights for the resources in and around the Bourgas lakes, e.g. the fish stock, which will include anti-poaching patrols, restocking, awareness rising, etc. The project also established the so-called "caretaker groups" (local support groups) which represent rather innovative practice for Bulgaria. The local support groups are organised in proximity to each of the three focal NATURA 2000 sites. Each support group has a core team of 3 to 5 volunteers who are not only enthusiastic to contribute to the protection of the project target species, but are also prominent stakeholders in their local communities (farmers, hunters, fishermen, teachers, government officials, public opinion leaders, or artists). The local support groups are voluntary, non-formal structures, the members of which are part of the Association described above, and commit to ensure the favourable conservation status of sites important for the target bird species.

LIFE09INF/GR/000319 PROM.SUS.FIS.PR.PRESPA: Halt the decline of fish biodiversity, in the Prespa basin, by promoting sustainable fishery practices in compliance with EU policy

The project's overall objectives were to promote the conservation of threatened endemic and rare fish fauna of the area and to implement sustainable fishery practices. The project aimed to inform local people, professional and recreational fishermen of the importance of sustainable fishery practices across the Prespa basin and of the applicable regulations for maintaining the lakes' native fish populations.

The project achieved fishing rights stewardship and land/water stewardship through its awareness raising and educational activities and the resulting inclusion and active participation of fishermen and cattle farmers' associations in a multi-stakeholder committee that formulates the decisions for the wetland's management (Water Management Committee). The main motivation mechanisms for the fishermen were their participation in the decision-making process that directly affects their profession and livelihood, the introduction of fish and fishery issues in the priorities of all wetland management discussions, and the continuous provision of information and support about the quality of the lake and its fishing stock. The closed season for fisheries was extended with

the agreement of the fishermen associations, and the wet meadows' management by local inhabitants increased. All of the above actions resulted in increased important fish spawning grounds and paved the way for the development of a sustainable fish and fishery management system. The inclusion and active participation of the target groups mostly affecting and affected by the wetland conditions contributed to more sustainable fishing practices that are expected to improve the spawning habitat for the fish, with the consent of all parties involved.

LIFE11NAT/DK/893 LIFE LAESOE LIFE LÆSOE: Restoration of birdlife and natural habitats at Læsø

The project deals with restoring and developing a sustainable grazing management of the Natura 2000 areas at the island of Læsø. The concept is based on the establishment of a Landowner Association, which will manage the grazing of the N2000 sites both during and after the LIFE project. Even though the mechanism includes a tenancy paid to the landowner, the base is a voluntary agreement by the landowner to participate in the association.

The important element behind the main idea of the Landowner association is the transfer of farming and environmental "rights to claim" from all individuals joining the association, to the association. This enables the Landowners association to claim these rights as a tenant of the areas.

The LIFE project contributes with:

- Restoration of the N2000 areas (clearing, burning, clearing of non-native species);
- Purchase of cattle, the owner will be the Landowner association;
- Fencing of areas to be restored;
- Needed infra-structure;
- Personnel resources for the upstart of the Landowner association; and
- Biological monitoring.

It is voluntary for the landowners having areas included in the LIFE project to become members of the Landowners association. The benefits for the landowners are:

- They receive a tenancy for the land;
- They do not have to apply for subsidies as that is taken care of by the Landowner association for all areas included;

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- Their area is managed/grazed by animals belonging to the tenant or owned by themselves or somebody else but managed by the Landowner Association; and
- New fencing, repair of old fence etc. is taken care of by the Landowner association.

There is also an idea to brand the island even stronger than it is today as a clean and natural food production entity. The island already has some goods which are popular but these can be developed even further. The project is currently being implemented, thus the final results are not available yet.

LIFE12NAT/GR/000275 LIFE Stymfalia: Sustainable management and financing of wetland biodiversity – The case of Lake Stymfalia

The main objective of the project is the establishment of a sustainable management and financing system for Lake Stymfalia, an important but degraded wetland, in order to improve the conservation status of target species and wetland habitats and to ensure a viable scheme that will, in the long term, finance all necessary management activities.

Part of the management scheme to be established concerns the creation of a Network of Farmers that will apply best agricultural and water use practices with the support of the Management Unit instituted by the project, and will promote the conservation objectives of Lake Stymfalia. This Network of Farmers, which is still in the early stage of development, will be created from farmers that have signed a Wetland Management Agreement. The Wetland Management Agreement declares the support of the signatories to the project activities and the implementation of best practices (rational and decreased use of chemical pesticides and fertilizers, appropriate tillage methods, rational water use) and defines the incentives given to the farmers by the project. The incentives include support in implementing the best practices, training, provision of information on funding opportunities and the new CAP, support in getting organised in a professional group with more commercial power, support in obtaining a certification for their products, support in promoting ecotourism in the area, provision of processed biomass, produced by the project, as compost and soil improver. The project is among the best cases because the land stewardship approach above, if successful, is very innovative for Greece and will be part of a management scheme that, once established, will be self-financing. One of the project's actions concerns reed bed management and the production and utilization of biomass from the harvested reeds. An investor's scheme will be identified during the project that will

support the commercial production of biomass after the project's end. The scheme will return part of the profits to the management of the area. The self-financing nature of the scheme will enhance its sustainability.

5.3.4. Payments for ecosystem services

Payments for ecosystem services (PES) are incentives offered to farmers or landowners in exchange for managing their land to provide some sort of ecological service.

PES might include direct payments from ecosystem service beneficiaries to land stewards, as well as indirect payments earned through eco-certified production. PES is usually implemented through contingent agreements between land stewards and ecosystem service beneficiaries such as private businesses, communities, and society as a whole⁴⁰. PES concept has a very high potential for incentivising the private landowners, but its application is still in a very early phase. The concept is developing in the EU and LIFE projects are being slowly implemented. We have identified one LIFE project that deals exactly with the PES concept, testing and demonstrating it in Italy. The project is currently being implemented, thus the final results are not yet available.

LIFE11ENV/IT/000168 MAKING GOOD NATURA: Making public goods provisions the core business of Natura 2000

The project aims to provide a governance tool for an efficient management of Natura 2000 sites based on the qualitative and quantitative valuation of ecosystem services and innovative models for financing (Payment for Ecosystem Services (PES) or PES-like schemes).

The outputs will be:

- The evaluation of the ecosystem services provided by Natura 2000 sites from a qualitative and quantitative point of view; and
- The application of Payments for Ecosystem Services and self financing mechanisms developed through participatory processes and stakeholder agreements to funds the stakeholders who conserve the ecosystem services.

⁴⁰ Milder, J. C., S. J. Scherr, and C. Bracer. 2010. Trends and future potential of payment for ecosystem services to alleviate rural poverty in developing countries. *Ecology and Society* 15(2): 4. [online] URL: <http://www.ecologyandsociety.org/vol15/iss2/art4/>

This will be done by the end of the project in each of the pilot sites, so as to establish a formal commitment among the private and public parties for example, through:

- Voluntary agreements based on a legal commitment; and
- win-win schemes of private business opportunities (e.g. using ecosystem services for business and returning the part of the benefit to nature / innovative win-win schemes of private small scale businesses using the nature areas as a source for products and labelling the production accordingly).

To achieve the above listed results, models elaborated ad hoc for each selected case study will be tested and applied through participative processes involving local communities and stakeholders. The project is currently being implemented, thus the final results are not yet available.

5.3.5. Business acts as nature conservation manager

Nature is the main resource for numerous businesses all over the EU. It is important to note that the rules and requirements governing the protection and conservation of Natura 2000 sites do not prevent them from being used for economic activities, and finding a good balance between biodiversity protection and economic needs. The LIFE programme has supported numerous conservation actions that indirectly promoted biodiversity business opportunities. Since the LIFE-Biodiversity component was introduced in LIFE+, the application of LIFE programme for supporting the business extended also beyond Natura 2000 network. LIFE has been providing support to biodiversity businesses to go beyond the pilot and learning phase and to stimulate demand for commercial conservation services.

The businesses act as land stewards and their motivation might vary from direct business interests to corporate social and environmental responsibility. We have featured four examples of business sectors taking the responsibility for nature conservation and land stewardship in LIFE projects. All cases are very different, in their motivation and benefits derived from the participation in LIFE project. But in all cases business entities benefitted from investing in nature, either indirectly as in the case of [LIFE 07 NAT A 000010 Mostviertel-Wachau](#) and [LIFE 08 NAT BG 000277 LIFE for the Bourgas Lake](#) projects, or directly, by ensuring the continuity of the resource for business, as in the case of [LIFE 09 NAT SI 000376 MANSALT](#) and [LIFE 07 NAT D 000236 Vogelschutz im Altvorland](#) projects. It is obvious that involvement of business sector in nature conservation and their role as land stewards should be further promoted via LIFE programme.

LIFE07NAT/A/000010 Mostviertel-Wachau : Living Space in the Rivers of Mostviertel - Wachau

The LIFE-project aimed to achieve a good biological and hydro-morphological quality of the River Ybbs. For this reason bank reinforcement structures have been removed by the project and the river was given more space. This, however, required the transition of formerly agricultural land to wetlands and alluvial forests. The company MONDI provided its land along the river for free. A deed restriction was entered into a land register regarding the definitive assignment of these land parcels to nature conservation purposes.

There are five reasons why the company agreed with the LIFE measures on its ground and with the assignment of their land parcels to nature conservation:

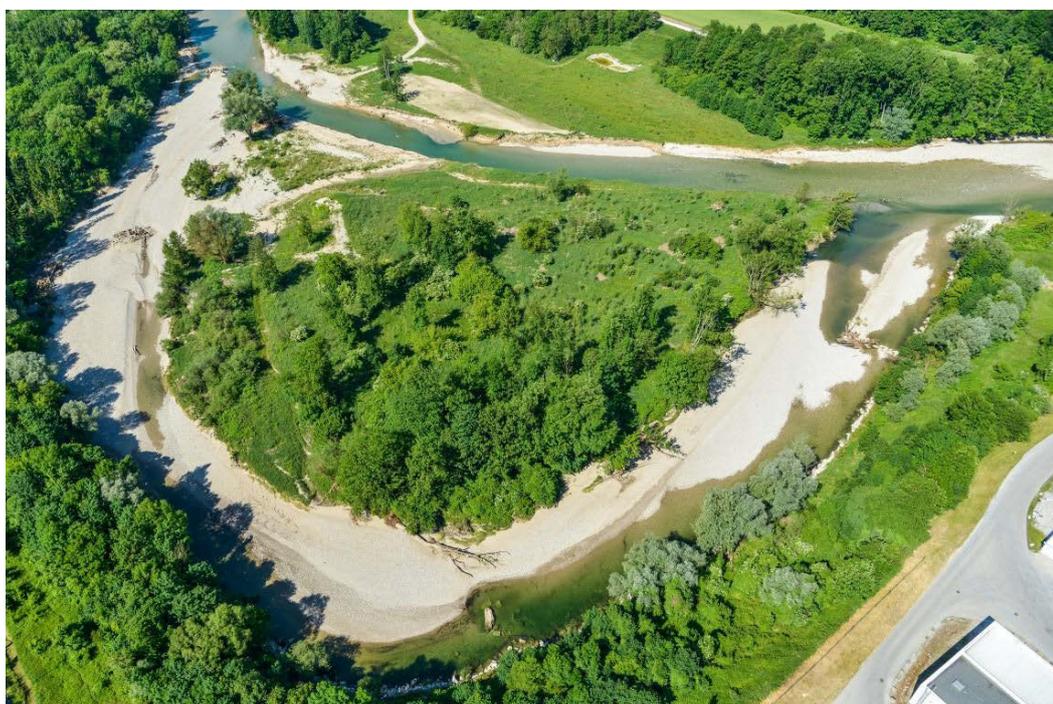


Figure 15; ©LIFE07 NAT AT 00010: Site provided by the Company showing the LIFE project actions

LIFE09 NAT/SI/000376 MANSALT: Man and Nature in Secovlje salt-pans

A project beneficiary, a private company SOLINE d.o.o., runs the production of salt and other related products, but at the same time manages the landscape park Sečovlje salina. In the context of the project the company restores the habitat supporting structures, and will proceed in maintaining the favourable conservation status of habitats/species through the sustainable traditional

production of salt. The area is owned by the state and the government has to provide a certain amount to the budget of the park. The rate of this contribution is less than 30 % of the needed budget for the management of the protected area. The government has issued concessions for the commercial salt production and public service of park management (nature conservation) to the company SOLINE for the period of 20 years with a possibility for a 10-years extension. Clearly the benefit for business is the licence to operate a lucrative business within a protected area.



Figure 16: Newly colonised abandoned salt pans, with glasswort a target Natura 2000 habitat (1310)

LIFE07NAT/D/000236 Vogelschutz im Albvorland: Vogelschutz in Streuobstwiesen des Mittleren Albvorlandes und des Mittleren Remstales

This is the first LIFE project in Germany, which specifically addressed the conservation of traditional orchards and systematically combined various conservation strategies. Hence, the project has a very high demonstration value for other projects and programmes that are dealing with traditional orchards with high conservation value.

The main outcome of this project is that various measures for the restoration of traditional orchards, which have been successfully tested within this LIFE project (such as a funding scheme for private landowners), are now applied on a larger scale.

The special approach of the project was to help communes and people to do something what they would most probably want to do but lacked conviction or expertise, either as their own initiative or facilitated by external pressure. With a

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wide set of facilitation activities the task of the maintenance of the orchards became much easier than before.

An interesting element of the project was a Demonstration project "Champagner Bratbirne". The partner "Manufaktur Jörg Geiger GmbH" is a company that produces a high number of different products out of fruits that grow in traditional meadow orchards, such as fruit wine, "fruit liquor" and sparkling wine made out of a special pear variety, the "Champagner Bratbirne" (<http://www.manufaktur-joerg-geiger.de>). A slogan of the company is "Valuable products and valuable habitats". Planting of 2300 trees, restoration of 40 habitat trees, installation of 100 nesting boxes (for birds, bats, hornets) and 100 perches for birds (Sitzstangen) was done in LIFE project, with co-financing from the company.



Figure 17: Trees in blossom - Neidlingen

LIFE08NAT/BG/000277 LIFE FOR THE BOURGAS LAKE: Ensuring Conservation of Priority Bird Species and Coastal Habitats at the Bourgas Natura 2000 Wetland Sites

The project⁴¹ is dedicated to conservation and enhanced management of a unique complex of coastal wetlands and saline lagoons around the city of

⁴¹ See section 5.3.3. for more analysis of this project

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Bourgas, on the Bulgarian southern Black sea coast. As with many LIFE projects education is an important part of the project.

With the help of the project, a win-win scheme is set up with the project partner Chernomorski Solnitsi (Black Sea Salinas) JSC. The scheme involves the company in the voluntary maintenance of the lakes and pro-nature practices within the obligations set in the lakes' management plans. This includes repairing the dike systems and establishing (and implementing) a predator control system in the Atanasovsko Lake coastal lagoon in order to ensure favourable conditions for the project's priority wetland habitats and waterfowl species. Moreover, keeping the lakes in better status in the future will help the salt company to increase its own profits; therefore the company intends to continue doing this in the future.



Figure 18; © Jana Gocheva: Educating Children at the project site

6. LIFE for land stewardship and nature conservation: Pay for what?

6.1. Introduction

Land stewardship mechanisms have been devised in order to facilitate the reconciliation between nature conservation and human activity, as “a strategy that tries to connect people with nature”⁴². Although such efforts worldwide (e.g. USA, Australia, Europe) have brought about some very positive results, they have not proven to be universally successful in terms of participation of landowners and/or protection of biodiversity. Why? How can engagement of landowners be enhanced? How can nature conservation become more effective? These are the questions that will be addressed in the following sections of this chapter, utilising insights from social sciences literature on nature conservation and engagement of landowners, as well as literature on the way behavioural changes occur.

6.2. Participation in nature conservation schemes - important parameters: Insights from the literature ⁴³

The observed gap between people’s environmental attitudes and behaviours has intrigued many social scientists. Much has been written on this “gap”, relating to a wide range of environmental issues, such as waste management, climate change and nature conservation.

6.2.1. *Gap between environmental attitudes and behaviours. Factors influencing behavioural change*

In an effort to explain this gap, several social scientists have explored the factors that mobilise or hinder pro-environmental behaviours.⁴⁴ Environmental

⁴² Land stewardship toolkit - Basic tools for land stewardship organisations in Europe http://www.landstewardship.eu/images/downloads/LandLife_TOOLKIT.pdf .

⁴³ In this section, we do not intend to give a comprehensive overview of relevant literature, but rather to highlight parameters that have been identified as significant for environmental behavioral change and for the success of nature conservation / land stewardship programs.

⁴⁴ Indicative list of sources:

Kollmuss, A., & Agyeman, J. (2002) “Mind the Gap: Why do people act environmentally and what are the barriers to pro-environmental behavior?” *Environmental Education Research*, 8(3): 239 – 260.

Paavola, J. (2007) “Institutions and environmental governance: A reconceptualization”. *Ecological Economics*, 63: 93-103.

Lorenzoni, I., Nicholson-Cole, S., & Whitmarsh, L. (2007) “Barriers perceived to engaging with climate change among the UK public and their policy implications”. *Global Environmental Change*, 17: 445 – 459.

O’Connor, R.E., Bord, R.J., & Fisher, A. (1999) “Risk perceptions, general environmental benefits, and willingness to address climate change”. *Risk Analysis* 19(3): 461 – 471.

Patchen, M. (2006) “Public attitudes and behavior about climate change: What shapes them and how to influence them?” Purdue, IN: Purdue Climate Change Research Center Outreach Publication. Retrieved December 28, 2014, <http://www.purdue.edu/discoverypark/climate/assets/pdfs/Patchen%20OP0601.pdf>

attitudes and personal values, perceived social feedback about one's ecological behaviour, knowledge (as a modifier of attitudes and values), habits and perceived ability to act and effect change, an individual's evaluation of benefits and costs, motivation and feelings, sense of shared responsibility for the society and the environment, knowledge about actions one can take to mitigate the problem, trust or distrust in institutions – all constitute important "psychological" parameters that influence an individual's behaviour. Furthermore, an individual's "locus of control" (Hines et.al., 1986)⁴⁵, "... an individual's perception of whether he or she has the ability to bring about change through his or her own behaviour" (p. 255), is a significant factor explaining people's choices and actions.

As individuals live and act in specific socio-economic, cultural and political contexts, contextual factors may facilitate or obstruct individual choices or behaviours. Lack of or inadequate action by governments (e.g. no recycling bins nearby), business or industry; 'free rider effect'; lack of enabling initiatives; pressure of social norms and expectations; a top-down environmental governance that is based on expert knowledge and little recognition of individual everyday knowledge and needs, may all inhibit individuals from adopting environmentally sensitive behaviours.

Consequently, any attempt that aims to promote environmentally friendly practices and sustainable societies ought "to address individual motivations for behavioral change as well as to take structural measures to empower individuals and organizations to make meaningful changes in their social practices." (Marouli & Duroy, 2015 – under publication)⁴⁶.

6.2.2. Landowners' choices and nature conservation schemes: Important parameters

Further to the literature on environmental behaviours and the gap between attitudes and behaviours, there is also considerable literature on nature conservation and landowners' engagement.

In land management schemes, financial instruments are often used, because landholders were assumed to be profit maximising agents. However, literature

Shove, E. (2010) "Beyond the ABC: Climate change policy and theories of social change". *Environment and Planning A*, 42: 1273 – 1285.

Cassell, P. (ed.) (1993). *The Giddens Reader*. London: The MacMillan Press.

⁴⁵ Hines, J.M., Hungerford, H.R., & Tomera, A.N. (1986) "Analysis and synthesis of research on responsible pro-environmental behavior: a meta-analysis". *The Journal of Environmental Education*, 18(2): 1–8.

⁴⁶ Marouli, C. & Duroy, Q. (2015) "The nexus between climate change and social practices: Theoretical and empirical reflections for policy-making". *The Journal of Diplomacy and International Relations*. Under publication.

indicates that other parameters are more important determinants of landowners' participation or nonparticipation.

Comerford (2014)⁴⁷ found that landowners' positive attitude towards the environment (environmental motivation), previous experience in natural resource management programs, high formal education were positively associated with participation in conservation schemes. On the other hand, poor information, lack of clear guidelines and little understanding of the process, as well as a non-credible, unreliable and inflexible programme, made landowners unwilling to join. A feeling of uncertainty deterred landowners from adopting the proposed conservation schemes.

Moon (2013)⁴⁸, reiterating previous authors' writings, identified structural variables (including property-related variables - like land size, use of land for farming or not, program eligibility etc., and institutional variables - like the role of the state and its policies), external sources of control (e.g. extent of administrative work; potential to achieve stated ecological goals; likelihood of receiving funding; tax implications; time, labour and other costs; program characteristics), and internal sources of control (like landholders' attitudes and values) as parameters that play a crucial role in participation (or non-participation) of private landholders. The three most cited reasons for non-participation - especially for landholders that were considering participation - were: that the landholders "believed they protected the land sufficiently on their own"; that they did not have sufficient information about the conservation program; that they wanted to keep control over their land ("maintain their autonomy"). The landholders that were resistant to participating expressed a "deep mistrust of government agencies" (p. 20) and a belief that "land management programs inadequately accommodated landholder knowledge and often recommended sub-optimal, or even threatening, land management practices" (p. 22). Landholders wanted flexible programs which "would allow them 'to add or remove clauses' " (p. 21) "Social recognition of landholders who demonstrate good land stewardship" and general education and information on land management, including one-to-one consultations, were suggested ways to support participants in these schemes.

⁴⁷ Comerford, E. (2014) "Understanding why landholders choose to participate or withdraw from conservation programs: A case study from a Queensland conservation auction". *Journal of Environmental Management*, 141: 169-176.

⁴⁸ Moon, K. (2013) "Conditional and resistant non-participation in market-based land management programs in Queensland, Australia". *Land Use Policy*, 31: 17-25.

Moon and Cocklin (2010)⁴⁹ highlighted the significance of landowners' personal circumstances. They argue that differences on the one hand in the personal circumstances of production of landholders (i.e. deriving or not deriving income from their land), and on the other in their attitudes and norms regarding how an individual should act, greatly influence landholders' reaction towards land management schemes. They propose that knowledge of such differences should inform the design of land management programs so that these "better meet the needs of the landholders and thus increase participation in conservation programs and retention of native vegetation." (p. 493)

Overall, literature shows that landowners adopt conservation practices "if it fits with their goals and they have the capacity to implement the practice" (Mendham et.al., 2007, p. 43)⁵⁰ "... [T]he personal characteristics of the landholder; the social and environmental context in which landholders operate; the nature of the practice; and the process of learning in which the landholder is engaged" (Mendham et.al., 2007, p. 43) significantly influence landholders' decision to adopt a nature conservation scheme.

However, adoption is only a first concern in nature conservation schemes; long-term effectiveness and sustainability of such schemes is another aspect that also needs attention. As Stroman and Kreuter (2014)⁵¹, who studied landowners with perpetual conservation easements show, successive generation landowners are less successful; they are satisfied with the knowledge of easement terms but they desire "more ongoing contact with their easement holding organization" (p. 285), and an approximate one-third of them would amend their easement terms if they had the option. Adaptive management capabilities should be incorporated in easement contracts. Furthermore, the authors suggest that "connecting easement landowners with peer-to-peer social network natural resource management groups" (p. 291) would increase easement holders' satisfaction.

6.3. An alternative view of land stewardship schemes

The market-based (i.e. based on fiscal incentives and disincentives) or regulation-centred instruments that have been widely used for nature conservation programs are based on the logic that individuals act on a rational

⁴⁹ Moon, K., Cochlin, C. (2010) "A landholder-based approach to the design of private-land conservation programs". *Conservation Biology*, 25(3): 493-503.

⁵⁰ Mendham, E., Millar, J., Curtis, A. (2007) "Landholder participation in native vegetation management in irrigation areas". *Ecological Management*, 8(1): 42-48.

⁵¹ Stroman, D.A. and Kreuter, U.P. (2014) "Perpetual conservation easements and landowners: Evaluating easement knowledge, satisfaction and partner organization relationships". *Journal of Environmental Management*, 146: 284-291

basis, or “fiscal self interest” as Dobson (2007)⁵² indicated. In other words, individuals’ behaviours can be modified by “inducements and punishments that focus on the money in our pockets” (p. 277).

Land stewardship mechanisms are institutionalised relations, with the explicit aim to protect nature but also bring benefits to participating landowners. Land stewardship is a relation between humans and the land, between landowners and the administration of the land stewardship effort, and between participating landowners, the community and other individuals, within a specific social context. Since land stewardship is a relation, money is rarely an effective way to start or maintain a good relationship. As Moon (2013) indicates: “... economic interests ... are unlikely to be the determining factor in landholders’ decision making” (p. 23).

Seen from this angle, for a land stewardship mechanism/effort to be successful, attention should be paid to the following challenges:

- *Building mutual trust*: Land stewardship organisations/administrators should pay special attention to building a good relation with landowners, and potentially other stakeholders as well. Mutual trust is an imperative condition for successful agreements with landowners. It is also a solid base for building community.
- *Continuous achievement – continuous effort – flexibility*: A good relation is not a “one-off” effort; it is a continuous achievement, it takes time and considerable face-to-face interaction (Wyborn & Bixler, 2013)⁵³. Land stewardship schemes, which often have a considerable duration, require that the land stewardship organisation dedicate resources and people to maintaining good relations with landowners throughout the land agreements life time. In addition, as Giddens indicates (see Cassell, 1993⁵⁴), agency is located in specific space – time structures, and the two – agency and structures – evolve together. As change in time and space is continuous, flexibility and adaptive management should characterise conservation agreements, especially if their duration is long.
- *Legitimacy*: Participants in a relation need to feel that principles of fairness and justice are applied and they need to have positive opinions towards the regulating institution (Arias, 2015⁵⁵). If landowners perceive nature conservation efforts to be justly and effectively implemented, they will grant

⁵² Dobson, A. (2007) “Environmental citizenship: Towards sustainable development”. *Sustainable Development*, 15: 276-285

⁵³ Wyborn, C. & Bixler, R.P. (2013) “Collaboration and nested environmental governance: Scale dependency, scale framing, and cross-scale interactions in collaborative conservation”. *Journal of Environmental Management* 123: 58-67

⁵⁴ Cassell, P. (ed.) (1993). *The Giddens Reader*. London: The MacMillan Press

⁵⁵ Arias, A. (2015) “Understanding and managing compliance in the nature conservation context”. *Journal of Environmental Management*, 153: 134-143.

legitimacy to the managing institution and thus, they may voluntarily collaborate. Legitimacy and accountability are required for credible programs and effective and inclusive governance (Wyborn and Bixler, 2013).

- Programs catered to landowners' needs: Individual landowners need to be persuaded that entering a land stewardship relationship will be beneficial for them. This assumes that on the one hand conservation programs have been designed to address the specific landowners' circumstances and needs, and on the other an appropriate communication strategy is adopted.
- Significance of local context and culture: For long term results, the land stewardship team should understand the local context and culture, take it into account and design the land stewardship initiative accordingly. A "win-win" situation can be delineated only after a good understanding of the socio-cultural context in which the land stewardship effort is located. In a context where landownership is an achievement that shows social progress and a sign of self-determination (see Theodossopoulos, 2000⁵⁶), conservation schemes that remove control over one's land from the landowner are highly likely to fail. In addition, given that in Western societies, individual benefit is often seen as separate from the public good and ecosystems wellbeing or nature conservation, land stewardship efforts should also aim to highlight the inherent interrelation between human society and environment, between individual, other individuals and society at large.
- Effective communication early on: The land stewardship organization should make participation to the program attractive and desirable to non-participants too, potentially via advertising or demonstrations of good cases. Effective, inspiring and clear communication is required.
- Cooperative governance and inclusion/participation of stakeholders in decision making regarding land use and nature conservation is an important parameter. Landowners want their opinions and knowledge taken into account in the design of nature conservation programs. Furthermore, their knowledge of the local environment and context may be a valuable input to the design of such schemes.
- Understanding and removing barriers: Land stewardship schemes should investigate which are the existing barriers (e.g. financial, land related, cultural, program related, knowledge and support etc.) and work to remove them so that landowners are not deterred from joining due to external reasons. Education and information sharing (via formal means or networking) should be used as tools for skills development and provision of

⁵⁶ Theodossopoulos, D. (2000) "The land people work and the land the ecologists want: Indigenous land valorization in a Greek island community threatened by conservation law". In Theodossopoulos D. & Abramson, A. (eds) *Land, Law and Environment: Mythical Land, Legal Boundaries*. Pluto Press

information that landowners need (e.g. not explaining why nature is important to people that already know that).

As nature conservation on privately owned land – like other environmental issues - is basically a relation that can generate conflict, modifications in existing institutions or establishment of new institutions as appropriate may help dissipate or avoid conflict (see Paavola, 2007⁵⁷). Furthermore, land stewardship efforts should aim to build a common understanding and vision among the landowners and the land stewardship administration and should strengthen voluntary participation and compliance. Such an approach is best based on moral grounds (Dobson, 2007) and has more chances for longer-lasting and more effective results (Arias, 2015).

6.4. Management implications for land stewardship

As the previous sections of this chapter showed psychological, structural and cultural parameters inform individual decisions, behavioural choices and relations. As land stewardship is an institutionalised relation between social agents, social – psychological aspects may show the way to more effective land stewardship programs.

Land stewardship can be an effective mechanism for nature conservation, if a common vision and understanding regarding the land use that can exist in harmony with nature conservation, well-adjusted to the specific socio-cultural context, is achieved.

- *Participatory processes of decision making* – with landowners' views and knowledge being heard - and an adaptive management approach may help generate common understandings, consensus, voluntary participation and compliance.
- *Education and capacity building* are useful tools for required skills development – in response to landowners' needs. Education can lead to shared values and visions. "Shared identity and vision are central to successful environmental stewardship" (Wyborn & Bixler 2013, p. 64).
- *Social networking*, via natural resource management groups, can play a significant role in building community and shared visions, and can lead to successful collaborations for nature conservation (Wyborn & Bixler, 2013, p. 64). Social networks can promote skills development – i.e. cultivation skills and practices that promote nature conservation, knowledge transfer and development of a conservation culture.

⁵⁷ Paavola, J. (2007) "Institutions and environmental governance: A reconceptualization". *Ecological Economics*, 63: 93-103

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- Close and regular *communication* of the land stewardship organization with the landowners should be maintained, from the time a landowner joins until the end of the contract, adjusting it as needed (especially when the next generation of landowners takes over).
- Land stewardship schemes should be well-adjusted to the specific socio-cultural context. In this effort, socio-cultural and structural elements characterising the local context should be understood, taken into account and addressed.
- A deep *understanding of the local culture and history* (e.g. social, economic and political meaning of landownership for landowners, existing policies), as well as an understanding of landowners' personal circumstances, should inform the design of the land stewardship scheme. Possibly, a "study" of the local culture and history should be a first step of any nature conservation effort.
- The land stewardship team should work with the local people in a *participatory and inclusive governance process*, in which landowners' views are viewed as a valuable input of decisive importance. Where mistrust to government and authorities characterises local societies, such a governance process is essential. In addition, in such a setting, management decisions should rather be made at the local level.

Land stewardship programs themselves should be credible, in line with landowners' needs and reality, and attractive.

- Continuous change characterises ecosystems and land management. Also, "one size" does not fit all. Consequently, land stewardship schemes should be characterized by flexibility (in terms of capacity to join: e.g. can change clauses, trial period possible; in terms of possibility to change terms of contract in the future, variety of conservation options, etc.) and should be based on the logic of adaptive management (i.e. change, learn and adapt to circumstances as these change in time). This flexibility is especially important for long term or permanent agreements.
- Land stewardship schemes should be supported by administrators that are inspiring, passionate and spend a significant amount of time with landowners throughout the contract's duration, in order to build landholders' confidence, foster environmental values and build trust in government/administration.

Fiscal approaches to environmental policy may mobilize environmental behaviours in the short run or may be useful in the case of "people with

ingrained beliefs resulting in deliberate and persistent noncompliance” (Arias, 2015, p. 140). They can indeed lead to quick changes in people’s behaviours. However, they may cultivate attitudes that are not conducive to long-term behavioural changes, as they “educate” people to react to fiscal incentives or disincentives above and beyond ethical concerns. Dobson advocates that a moral stance - environmental citizenship - is needed. Environmental citizenship – a sense of responsibility and right for environmental protection and sustainability – is more likely to bring about sustained changes in individual and social practices as these modifications depend on internal – rather than external – motivators.

7. SWOT analysis on applying the land stewardship practices in LIFE

It is important to try to understand why there are differences in approach to Land Stewardship in different countries. Why, for example, does it appear that voluntary approaches work well in some countries, while in others voluntary mechanisms are rarely encountered? The study shows that voluntary approaches are commonly used in all but three Member States (Cyprus, Croatia and Malta) and that the application of such approaches is quite variable. This is particularly interesting because, as stated in Chapter 6, land stewardship efforts should aim to build a common understanding and vision among the landowners and the land stewardship administration and should strengthen voluntary participation and compliance.

It must be stressed that there are some limitations when trying to draw conclusions from this study. Clearly the sample size of 62 LIFE projects is small when considering the number of member states and the diversity of different land stewardship approaches. As such the sample size is not statistically representative of each country and each approach. In addition, it may be that the project material may not contain all the information required and so parts of the analysis may be lacking. The country observations outside LIFE projects were somewhat restricted both by time limitations and by the technical, rather than legal, nature of the study. Therefore any conclusions should be considered with caution.

However, by conducting a SWOT analysis on the projects we can determine some interesting patterns and themes that run through the examples from the Member States at the LIFE programme (rather than the project) level. The analysis, displayed in Table 7.1, could provide some indication of where the LIFE programme could be strengthened to encourage beneficiaries to develop different and more varied approaches to land stewardship.

The SWOT assessment was conducted by analysing the combined project case studies for common Strengths and Weaknesses, this part of the analysis shows where LIFE projects excel and areas where projects could improve on delivery. Sometimes a feature that is considered a strength at the programme level could also be considered a weakness as there may be an over-reliance on certain approaches or techniques. The second part of the analysis examines the Opportunities and Threats that are possible through the transfer of ideas and approaches that have worked in other member states and in other contexts. The Opportunities and Threats are defined by one or two examples that have been used in isolated cases or indeed may only have been identified

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as a possible way forward within a single study. They are, by definition, not widely implemented or accepted but possibly indicate potential ways forward along with potential pit falls. Note that this analysis does not really examine approaches outside the member states and so the possible approach of applying fiscal incentives as per the USA has not been included. This analysis focused predominantly on the potential opportunities presented.

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Table 7.1 SWOT analysis of the LIFE projects

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • 63% of projects adopt management support agreements and 27% of projects adopt management transfer agreements (at least for the project duration) – in both cases the role of the facilitator is crucial • 21% of projects establish joint management structures • Nine different Land Stewardship methods are used between the 62 projects analysed • Key factors for success of LS schemes are all strengths of the LIFE programme (e.g. participatory process in decision making) • Land Owners involved in joint management • Business as usual - assisting entry into agri-environment schemes • Dealing with difficult areas/concepts/problems flexibly • Demonstration value • Communication to all stakeholders (from top to bottom) • Added benefits (cultural/historical/geological etc) 	<ul style="list-style-type: none"> • Rely too heavily on traditional sources of finance • Long term sustainability not always guaranteed • Focus on Best Practice– innovation often comes from outside • Lack of innovation in use of financial mechanisms • Few fiscal incentives; MS laws are not appropriate • Fixed long-term agreements • Size – small scale projects do not always translate to large scale • Time –LIFE projects may be too short to establish sustainable structures
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> • Private protected areas and voluntary reserves • Legislation reform (in the Member States) • Expand and innovate the range of funding opportunities • Harness the ability of volunteers • Increase management transfer agreements • Make better use of Land/Water Trusts – expand • Branding/marketing/image • Introduce adaptive management and accept that landowners want to take care of their land • Use value added benefits (tourism, products) to decrease dependence on financial incentives • Make better use of business links 	<ul style="list-style-type: none"> • Fundamentally nature conservation costs money and someone has to pay while the revenues of nature conservation are less visible (e.g. through ecosystem services) • Wide-scale changes in Member States legal systems are unlikely • Restrictive, long term (in perpetuity) covenants do not appeal to land-owners • There is no one fix for all; different countries require different solutions • Over-reliance on a single financing approach • Lack of knowledge transfer across member states • LIFE rules as a barrier

7.1. Strengths

Not all the strengths of the LIFE program are considered further as many have already been discussed in Chapter 5. We have elaborated further on some key issues that we believe are important to understanding land stewardship in the context of the LIFE program.

7.1.1. Joint management structures

There are many excellent examples of projects where a joint management structure has been established, generally building on an existing structure, rather than creating a new one. There is a general agreement that a joint management structure, which represents the views and opinions of all the stakeholders, is a key ingredient of effective land stewardship. The LIFE project analysed demonstrate where the beneficiaries have both built upon existing structures and started from scratch. One good example is [LIFE 08 NAT BG 000277 LIFE for the Bourgas Lake](#) where organizations that are normally in conflict (bird NGOs, hunters and fishermen) have come together to form an effective land stewardship organization. Clearly, it will be important for this structure to endure past the end of the project and into the future – this is the challenge faced by this project. In the case of the Irish [LIFE 09 NAT IE 000220 Blackwater Samok](#) project the lead facilitator was a Community Based Organization (CBO), already active on the ground, which was considered critical to the success of the land stewardship arrangements during the project and is highly likely to remain active and interested after the project. Key points to note include:

- Work with existing land stewardship organizations where possible;
- If none exist then work with CBO or NGO that could represent the majority of the stakeholders;
- If a new organization is to be created then ensure that all interested parties are represented and ensure that there is sufficient time built into the project to address all potential conflict areas; and
- Structures must be sustainable after the end of the project and funding must be in place to sustain the structure.

7.1.2. Role of the facilitator

Our study shows that a facilitator plays a crucial role in the land stewardship process. There are numerous cases when all the other actors (landowners, land users, rights users, financiers, public institutions in charge of management) are present on the site, but they do not manage to work together towards a common goal. LIFE projects have proven to be successful in acting as the facilitator, helping the stakeholders to find a common language and agree on

common goals. Of the 62 analysed LIFE projects 35 adopted a participatory approach and 21 established strong cooperative links with landowners in respect of the management of their land *inter alia* for nature purposes.

Although written management support agreements usually cover a rather short period (3-5 years) they can be effective and sustainable because they are combined with other elements, such as involvement of the respective stakeholders in other actions/initiatives, certain material benefits etc. In time, due to these LS schemes and to the continuous awareness-raising and education efforts of the facilitator, the stakeholders slowly become aware of the importance of protecting the land (or using it in a responsible manner) and the threat to habitats becomes less and less intense. This makes the method sustainable in a long term provided the facilitators remain engaged. Key points are:

- Independent facilitators are often important catalysts to kick-start dialogue between uncooperative stakeholders.
- Facilitators need to remain engaged throughout the project and often after the project has closed (e.g. embedded in AfterLIFE plan).
- Short-term management support agreements may benefit from intervention by a facilitator in order to promote sustainability.

7.1.3. A variety of approaches

The full range of possible management approaches are displayed within the 62 LIFE projects analysed for this study (Figure 5.1). Clearly some are more widely used than others and the reasons are explored in Chapters 4 and 5. The wide range of approaches adopted by the LIFE projects provides many opportunities for demonstration of good practice. The obvious exceptions are involving businesses and payments for ecosystem services (PES) where only a few projects have tried to engage with the business sector and only one project has attempted to determine payments for ecosystem services. These approaches will be discussed as opportunities.

The use of taxation systems as a land stewardship mechanism is not represented in the LIFE projects and is limited in the country studies with only 7% of the countries having some kind of tax incentive system in place. Income tax incentives, like those common in the USA/Canada and Australia/New Zealand, are not in use in Europe although land and inheritance tax incentives are used in some countries. The use of tax incentives would generally require a change in legislation which may not be within the scope of a LIFE project and the timescales for enacting legislation can be long.

7.1.4. Success factors

In Chapter 6.4, we highlighted the fact that the effectiveness of land stewardship schemes is determined by several factors. Those highlighted are:

- Participatory processes in decision making;
- Education and capacity building;
- Social networking; and
- Communication.

These are all factors that are deeply embedded in LIFE projects, especially LIFE Nature projects and which LIFE beneficiaries are familiar with. This familiarity means that in LIFE projects these pre-requisites for effective land stewardship are likely to be met, at least within the timeframe of the project.

7.1.5. Business as usual

There is no denying that LIFE projects are extremely effective in assisting land-owners to access agri-environment funds. Although only 31% of the case studies were recorded as preparing the land for agri-environment subsidies or assisting with obtaining subsidies, it must be remembered that this was not a focus of this study and projects were actively selected to exclude this aspect. During the course of selection many projects where there was a heavy reliance on agri-environment schemes were excluded from the study. Not only can LIFE have a significant effect on the uptake of agri-environment payments within Natura 2000 sites, some projects have also influenced the agri-environment payment agenda in different member states. Actions undertaken in LIFE projects have been shown to be so beneficial in terms of nature conservation that the methods have become accepted for agri-environment payments. Some projects, like [LIFE 04 NAT UK 000250 CASS](#) in Scotland, have built on their experience to embed the agriculture advisory officers in the team for a second LIFE project. It is highly likely that a much higher percentage than 31% of LIFE projects have some influence on obtaining funding via agri-environment programmes and it is this aspect that often makes projects sustainable in the After LIFE phase.

Undoubtedly LIFE projects will continue to influence this agenda and agri-environment payments will continue to be an important financing mechanism for nature conservation into the future.

7.1.6. Dealing with difficult issues

The very nature of the LIFE programme allows projects to explore difficult issues, concepts and problems which might not be funded by other mechanisms because they are too risky. For example the re-introduction of

grazing in areas considered to be economically non-viable ([LIFE 12 NAT IT 000818 Xero-grazing](#)) is a difficult concept to sell to a farming community. Similarly, in the active blanket bog in Wales project farmers were persuaded to re-wet the blanket bog after it could be demonstrated that sheep could not only graze in the areas but could do so safely, without exposure to disease or risk. By demonstrating the viability of the scheme the farmers had confidence that the plan would work, that it would not cost them anything and that there would be no detrimental effects on their livestock. This meant that they were happy to sign up to nature conservation without any financial reward.

Flexibility in dealing with difficult issues is a real strength of the programme and this is illustrated by [LIFE08NAT/UK/000201 ISAC](#), a project which initially envisaged land purchase as the only option but was successful in adopting a conciliation approach during the project lifetime that will bring lasting benefits. In the final report the beneficiary makes the following statement: *"The project was conceived at a time when forestry interests were extremely reluctant to accept that there was any negative impact of their operations on the aquatic environment. This would have necessitated taking forests out of their control to enable restoration actions to proceed and recover the SAC. During the project there was a change of attitude within forestry interests and from the Welsh Government from a position of intransigence/denial to an increasing acceptance of their impacts on rivers and a willingness to find a solution. This movement was accelerated by the pressure of this project as a ready-made solution and by the compilation and presentation of the increasing weight of evidence of the impacts and the likely benefits of restoring upland hydrology."*

The quote above is an excellent example of the way in which a LIFE project can demonstrate and communicate the need for change. Whilst at the start of the project WUF may have felt that it was a 'lone voice' by the end of the project it had government policy supporting its position. In 2013 the Welsh Government published a green paper which is intended to become the Environment Bill by 2016. A central tenet of the paper was the inclusion of the consideration of the ecosystem approach and the value of ecosystem services. The removal of all trees from blanket bog was cited as an example of this. The project was therefore extremely effective and demonstrated maximum impact.

7.2. Weaknesses

7.2.1. *Lack of innovation in funding mechanisms*

Long term funding for nature conservation (both within and outside the LIFE programme) is of paramount importance. LIFE projects are ideally placed to explore and test alternative funding mechanisms and, once demonstrated,

these could be transferred outside the LIFE project to benefit the wider Natura 2000 network.

However, our study did not reveal a wide range of funding opportunities in the LIFE projects examined. However, it should be remembered that the projects were not selected for this parameter and so the sample size may not be entirely representative.

One of the most obvious sources of alternative funding is the private sector but only a few projects have tried to engage with businesses. Similarly, payment for ecosystem services (PES) is possibly a growing market but only one project has attempted to adopt this practice. These approaches will be discussed as opportunities as they may become more attractive as beneficiaries become more aware of the potential.

The use of taxation systems as a land stewardship mechanism is not represented in the LIFE projects and is limited in the country studies with only 7% of the countries having some kind of tax incentive system in place. Income tax incentives, like those common in the USA/Canada and Australia/New Zealand, are not in use in Europe although land and inheritance tax incentives are used in some countries. The use of tax incentives would generally require a change in legislation which may not be within the scope of a LIFE project and the timescales for enacting legislation can be long.

What our study did reveal is that there is an apparent over-reliance on a single strategy, in this case, agri-environment payments, and while this will remain an important mechanism for funding nature conservation in the future there may be other ways of securing long term sustainability. We also highlight in Chapter 6 that money is rarely an effective way to start or maintain a good relationship. Most of the agri-environment schemes begin with money and in some cases can encourage dependency.

Therefore introducing more diversity into long term funding mechanisms represents an opportunity and is also discussed in section 1.3.2 below.

7.2.2. Fixed long term agreements

Several of the projects analysed suggest that fixed management terms can be problematic from a number of perspectives. Landowners and tenants are less willing to enter into agreements that have fixed terms particularly if the agreement is for a long time. Land owners and tenants generally like to have flexibility over the use of their land so that they can respond to market forces and if necessary change the land use to meet their changing needs. In many ways this is why agri-environment schemes are ideal as they run for a fixed

term so the management prescriptions could be changed (either to increase or decrease nature conservation benefits) to meet the landowners immediate needs.

7.2.3. Focus on best practice

LIFE Nature exclusively supports the Natura 2000 network and has been most successful over the years in developing range of best practice delivery mechanisms which have been used as 'blue prints' for habitat management throughout the Member States. Although innovation is encouraged in LIFE Nature projects it is not a requirement and as a result innovative practices are more likely to be developed and explored elsewhere. There is room for transfer of innovative delivery mechanisms into the LIFE Nature programme as well as transferring good practice outside the programme. It is appreciated that there is no direct evidence from the project analysis alone to demonstrate that a lack of innovation in delivery translates to lack of innovative land stewardship practices. However the [LIFE11NAT/UK/000385 – N2K Wales](#) project, which reviewed management practices throughout the Natura 2000 network in Wales observed that a fairly narrow range of well-used management mechanisms are relied upon to deliver improvements and whilst these can be very effective, they do have limitations and are constrained by the size of public budgets.

7.3. Opportunities

7.3.1. Private protected areas/voluntary reserves

This method is being applied in 17 countries (of 27), but LIFE is using it only in 7 countries. Thus, we have 10 countries where the method is possible in the country, but LIFE projects do not use it. There is no clearly identifiable reason why this should be so and there is insufficient evidence in the study to determine land holder patterns in private protected areas and voluntary reserves. It is possible that these areas do not overlap with Natura 2000 and have therefore not been targeted by LIFE Nature. However, this is one of the mechanisms which could feature more prominently in the LIFE programme and the use of this mechanism could be stimulated within the programme to manage private lands in the Natura 2000 network. If this mechanism is to be promoted through the LIFE programme then further enquiry into the reason why this is not, as yet, a popular mechanism for LIFE projects to use needs to be determined so that any promotion of using voluntary tools can be correctly targeted.

7.3.2. Expand and innovate the range of funding opportunities

The case studies suggested a whole range of alternative funding opportunities to improve sustainability. Clearly there is a perception that more innovation is needed to support funding for nature conservation. There is also a realization (see threats) that nature conservation is not cheap and that someone has to pay. The N2K project in Wales suggested the following funding options could be explored at the strategic level:

- *New funds, grants, investments or tax relief schemes* (new or improved means of accessing funds for Natura, including accessing funds from other sectors, establishing a loan scheme, a Natura 2000 grant fund, or making better use of European funds)
- *Payback schemes and donations* (opportunity to generate income from visitors attracted to Wales because of its high quality environment and directing funds generated in this way directly to site restoration and management)

At the project level the [LIFE 11 ENV IT 000168 Making Good Natura](#) project is investigating ways to identify ecosystem services that could generate payments, part of which could be returned to promote nature conservation. The mapping and economic valuation of ecosystem services is deeply embedded in the EU Biodiversity Strategy 2020. Indeed Action 5 of the strategy requires '*member states, with the assistance of the Commission, to map and assess the state of ecosystems and their services in their national territory by 2014, assess the economic value of such services, and promote the integration of these values into accounting and reporting systems at EU and national level by 2020*'.

The valuation of ecosystem services is included among the priorities of the LIFE Multiannual Work programme 2014-2017, thematic priorities for Biodiversity: developing methodologies for valuation of and payment for ecosystem services. As a consequence we recommend that the LIFE programme should continue supporting the development of PES concept, as an important incentive for private landowners. Biodiversity offsets are another mechanism worth exploring but the use of this concept was not recorded in any of the LIFE projects,

On a more general level the Land LIFE project has developed a comprehensive toolkit for Land Stewardship organisations in Europe. The toolkit contains a great deal of useful information that is appropriate to most (if not all) member states. There is one tool in the kit that focuses on how to fund land stewardship initiatives. Some interesting and innovative considerations for funding include:

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- Teaming: it is a charitable initiative to collect several microgrants in a single whole donation and focus it on the organisation chosen by the patrons. Every employee in the enterprise makes a voluntary contribution, a nominal amount (it can be just one euro) from his/her paycheck: when all individual contributions are combined there will be a significant grant for the chosen organisation;
- Crowd-funding is a new form of financing cultural, social and environmental projects based on micro-grants (mass finance). These are typically initiatives by private individuals that want to raise money for a specific project. A large number of small donations can provide significant funds for a specific project;
- Venture capitalists looking to maximize a value or general interest, providing capital to a non-profit organisation for nature conservation, An example would be Verde Ventures⁵⁸, a venture capital fund that deals in priority areas of biodiversity hotspots, high biodiversity wilderness and key marine regions;
- In many countries both individuals and enterprises, benefit from tax savings generated from contributions to foundations and organisations declared to be of public utility. Tax incentives can be another tool to encourage collaboration with, and donations to, non-profit organisations. The most experienced charities know exactly how to exploit this system but there could be scope for more uptake provided the legislature of the country allows for such tax incentives.

The project [LIFE 12 NAT GR 000275 Lake Stymfalia](#) identified a long term funding opportunity through the harvesting of reeds from wetlands and selling the product for biofuel. This is perhaps a less innovative suggestion and is clearly not applicable in all situations but the general premise of selling a product derived from the land under stewardship is sound and frequently sustainable. Selling products can aid funding but promotion needs to be accurate and strict when analysing the merchandising commercial viability.

The issue is to some extent included among the priorities of the LIFE Multiannual Work programme 2014-2017 (MAWP), thematic priorities for Biodiversity: innovative management schemes addressing, in particular, water related ecosystem services, which could provide potential funding mechanisms to achieve the Biodiversity Strategy targets and contribute to aims of the Water Framework Directive and the Floods Directive. Pilot or demonstration projects using innovative ways of direct or indirect financing (including public and private partnerships, fiscal instruments, biodiversity offsets etc.) for Biodiversity-

⁵⁸ <http://www.conservation.org/projects/Pages/Verde-Ventures.aspx>

related activities in the public and private sector are also listed among the priorities in the MAWP.

We recommend that LIFE projects are encouraged to explore as wide a range of financing mechanisms as possible.

7.3.3. Make better use of Land/Water Trusts

As noted in Chapter 5, some countries have well developed land and water trusts whereas other countries do not. It is not within the scope of this study to determine why this should be so and there could conceivably be a number of reasons why Trusts are not as widespread as perhaps they could be. The Trust mechanism allows the land stewardship organisation to harness a number of financial mechanisms that might not otherwise be available, such as membership fees, members' donations and tax relief on charitable donations. However, such corporate tax exemptions do not appear to be available in Malta, Ireland and Sweden (Shine, 1996). The Netherlands and UK have a long tradition of private sector involvement in nature conservation through the involvement of Trusts and this knowledge could be shared amongst those member states where this type of private sector involvement is in its infancy. For example our country studies revealed that Malta, Cyprus and Croatia had no land stewardship mechanisms in place.

We recommend supporting the development of land stewardship organisations and Land Trusts in the LIFE programme, which may best be achieved through:

- Platform event: knowledge sharing to promote the use of Land and Water Trusts in land stewardship throughout the member states.
- Twinning: promoting close cooperation and mentoring between countries with a strong tradition in Land Trusts and those with none e.g. UK with Malta or Netherlands with Greece.
- Land Stewardship Network: this was developed as a result of the [LIFE10 INF ES 000540 LANDLIFE](#) project and should be further promoted as the Platform for Land Trusts.
- Linking land purchase for nature conservation with the establishment of Land Trusts or other Land Stewardship Organisations where it is considered appropriate to do so.

7.3.4. Branding/marketing/image

Several of the cases studies provided examples of one or more instances where branding, marketing or 'green' image were considered valuable. So instead of payment for providing nature conservation measures, organisations are

content to be able to promote the use of their product through taking part in the project. Some examples are:

- *Offer an interesting product or service related to the land in question* (guided tours, etc.);
- *Marketing and accreditation of produce* (such as marketing meat or other products from protected sites which would simultaneously generate income to farmers and conservation improvements); and
- *Promote a green image* ([LIFE 07 NAT A 000010 Mostviertel Wachau](#) project where the commercial land owner donated land adjoining river to allow re-meandering – the land was of no real commercial value as they could not build upon it but the company felt that the donation of the land for nature conservation purposes promoted their green image).

7.3.5. Make better use of business links

Corporate social responsibility (CSR): over the past few years, enterprises have revised their attitudes towards society and the environment. In this context, growing concerns over the environment, biodiversity and natural heritage have been translated into the concept of CSR. The European Union Green Paper defines CSR as a concept whereby companies integrate social and environmental concerns in their business operations and in their interactions with their stakeholders on a voluntary basis⁵⁹.

There are few examples of projects engaging directly with business in the LIFE case studies, one exception is the [LIFE 07 NAT A 000010 Mostviertel Wachau](#) project mentioned in the previous section. There are however, many examples of how businesses might be engaged in nature conservation if not directly then indirectly.

Corporate volunteering is becoming more popular⁶⁰: workers employed by an enterprise can provide human resource, advice and expertise. So for example an enterprise might donate trees to a riparian planting scheme provided that they use their own staff to plant the trees under the guidance of the land stewardship organisation. This type of engagement was actually recorded in the [LIFE 04 NAT UK 000250 CASS](#) project case study in Scotland.

⁵⁹ Green paper - Promoting a European framework for Corporate Social Responsibility.

<http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1433318086120&uri=CELEX:52001DC0366>

⁶⁰ CODESPA and CEV, 2014. The 2013 Preparatory Action for EU Aid Volunteers. *Employee Volunteering and Employee Volunteering in Humanitarian Aid in Europe.*

http://ec.europa.eu/echo/files/euaidvolunteers/EUAV_Study_Employee_Volunteering_Europe_FINAL_en.pdf

The engagement of the business sector and searching for innovative ways for financing biodiversity is included among the priorities of the LIFE Multiannual Work programme 2014-2017. For example, the thematic priorities for Biodiversity state that the following activities should be supported: Pilot or demonstration projects using innovative ways of direct or indirect financing (including public and private partnerships, fiscal instruments, biodiversity offsets etc.) for Biodiversity-related activities in the public and private sector. As a consequence we recommend that the involvement of business sector is encouraged in LIFE projects.

7.4. Threats

7.4.1. Transferability

The barriers to the transferability of land stewardship are the diversity of each of the European regions, with their idiosyncrasies and unique features; the lack of formulas that encourage the use of land stewardship, such as legal development and tax incentives; direct economic aid; collaboration between companies and stewardship organisations. Despite this, one of the advantages of land stewardship is that it is a flexible strategy that offers different tools which can be adapted easily to respond to local and regional contexts.

7.4.2. LIFE rules as a barrier

There is a possibility that the LIFE rules do pose some difficulties in the application of land stewardship methods:

- Beneficiaries are reluctant to engage with the recent requirement that the voluntary agreements with private landowners have to be valid for 30 years. Not many farmers want to (or can) commit themselves in such a long-term agreement (because this may already impact the next generation inheriting the land). E.g. agri-environmental schemes work well and they are based on 5-10 year contracts. In Chapter 6 we highlighted the desire that land owners express towards adaptive management and 30 year agreements leave little room for adaptive management.
- Another identified bottleneck is the pre-financing of LIFE: private landowners do not always have enough financial capacity to pre-finance LIFE measures (especially after the first co-financing is used). So, this might limit their participation in LIFE in general.

8. Recommendations for further supporting the application of land stewardship schemes in LIFE

The projects analysed in this study were selected because they demonstrated, either in part or in full, a range of different approaches to land stewardship that did not rely *per se* on agri-environment schemes. While it is appreciated that agri-environment schemes have played, and will continue to play, a vital role in supporting habitat restoration and management in the Natura 2000 network, any analysis of the importance of these schemes in relation to LIFE projects is not a main focus of this review. It follows that this review concentrates on alternative mechanisms of funding and management.

A number of recommendations are outlined in the sections below. It is not known whether there are any particular barriers embedded within the LIFE instrument that prevent some of the recommendations being adopted at the present time. It is likely that some of the possible strategies and mechanisms outlined in these recommendations could be adopted but for some reason are not being fully exploited. This aspect may require further assessment.

8.1. Making the most of the strengths and opportunities

We highlighted in Chapter 7 the range of possible opportunities such as expanding the range of funding mechanisms for securing nature conservation that could be incorporated in LIFE projects in order to embrace the full range of land stewardship options that are available. While this is possible in theory, in practice some models could be extremely difficult to implement in the normal timeframe of a LIFE project. An example would be projects that facilitate the changes in legislation required to enable fiscal and legal mechanisms designed to increase the involvement of private landowners in nature conservation. It is difficult for a single project with a limited timescale to bring about such changes. Furthermore, without the necessary laws already in place, a project is unlikely to be able to demonstrate the benefit of the approach. Nevertheless, LIFE should support projects that aim to facilitate such fiscal and legislative changes and where appropriate beneficiaries could be encouraged to build follow up activities into their AfterLIFE conservation plan.

Some of the main strengths of LIFE projects can be found in their ability to create networks, test and promote new concepts, work with difficult issues and resolve conflicts. However, innovation and trying out new things is not a prominent feature of LIFE Nature projects in general and our study highlights the fact that, for the most part, projects are content to operate a 'business as usual' approach built around demonstrating 'good practice' and sustaining

nature conservation actions by harnessing nature conservation funds from agri-environment schemes. This approach has proved to be very effective in delivering nature conservation in respect of the Natura 2000 network thus far and will remain an important aspect of land management on Natura 2000 sites in the future. Indeed, a further strength of LIFE projects is their success in expanding the range of nature conservation measures adopted under agri-environment schemes in their member states. It is anticipated that LIFE projects will continue to contribute to improving the portfolio of available agri-environment schemes in the foreseeable future.

However, our report suggests a need to explore additional means of support to ensure that the Natura 2000 network can continue to be managed effectively, that the range of conservation measures can continue to expand, while at the same time ensuring that the financial reliance on agri-environment schemes does not become too burdensome. Accordingly, there is a strong argument to encourage projects to explore a more diverse portfolio of land stewardship approaches where alternative methods can supplement the more traditional approaches to be found under the current agri-environment schemes.

In support of this argument, in Chapter 6, we define land stewardship as a relationship between humans and the land, between landowners and the administration of the land stewardship effort, and between participating landowners, the community and other individuals, within a specific social context. We further point out that because land stewardship is a relationship, money is rarely an effective way to start or maintain a good relationship because:

'economic interests are unlikely to be the determining factor in land holders decision making' and

'fiscal approaches may cultivate attitudes that are not conducive to long-term behavioural change'

If we accept the fundamental basis of these statements then this sets out a challenge to the reliance of direct payment schemes as the mechanism of choice to carry out nature conservation work in a sustainable way. Therefore, new approaches to both land stewardship and how they are funded, which not only meet the requirements of the Habitat Directive but also address some of the concerns raised in the EU Biodiversity Strategy 2020 and the Multiannual Work Programme⁶¹ might be considered as a priority for LIFE.

⁶¹ LIFE Multiannual Work Programme 2014-2017;

8.2. Introducing innovation in funding nature conservation

All projects assessed in this study had a substantial component of engaging the landowners, farmers or other land-related stakeholders. The most common method of engagement with landowners is by participatory planning and other forms of cooperation (56 of 62 analysed projects), and management support agreements (39 of 62 analysed projects).

Innovative funding mechanisms are not prominent in LIFE Nature projects but some countries e.g. UK are more innovative than others in establishing different landowner organisations, Land Trusts, Boards etc. There could be several reasons for this for example it could be difficult for private sector organisations to commit funds under the requirements for co-financing within a LIFE project. However, opportunities may exist, for example in the UK it is mandatory for private water companies to set aside substantial funds each year for environmental improvements in the catchments in which they operate. These funds are intended to meet the WFD requirements and activities can range from reducing point source pollution to addressing diffuse run off from agriculture. Almost all the catchments have Natura 2000 sites represented within them. As a consequence this type of funding could, and should, be harnessed to support land stewardship organisations. At the present time it is much easier for beneficiaries to pay for restoration and management from LIFE money, supported by applications to agri-environment schemes, than search for innovative ways to attract private funding.

As discussed in chapter 6, the involvement of private landowner does not necessarily depend on fiscal motivations. The attitudes and behaviours of the landowners play an important role in their decision-making and in the success of the mechanisms set in place. Any attempt that aims to promote environmentally friendly practices ought to address individual motivations for behavioural change as well as to take structural measures to empower individuals and organizations to make meaningful changes in their social practices. The LIFE programme – with its ability to support innovation, demonstration, networking and dissemination – is well placed to do it.

However, to achieve these changes LIFE financing mechanisms need to focus more on land stewardship issues. It has been recognised that nearly all current habitat stewardship incentive mechanisms, public and private, are opportunistic. That is, they are based on voluntary decisions by landowners to participate, provided they meet the programme criteria. With an opportunistic

programme, everyone can participate (in theory) with the prospect that neighbours can be influenced by neighbours, thereby communicating the availability of incentives throughout the wider community. The LIFE 08/INF/UK/214 – Birds Directive project is a very good example of this because by the end of the project the farming community has established a land stewardship network through the influence of peer groups.

Given that resources are often limited it is better to adopt a strategic approach to defining and applying specific stewardship incentive mechanisms in order to maximize the long-term benefits of public investments⁶². Again, the LIFE programme, with its multiannual planning approach, is well placed to focus public money on the priority issues related to the land stewardship initiatives.

Recommendations:

- 1) The LIFE programme should support projects that test, demonstrate and facilitate the application of innovative LS schemes and bring in new funding principles.*
- 2) The LIFE programme should encourage better use of LIFE Nature and Biodiversity funding in to promote different land stewardship approaches and examine any possible synergies with new land stewardship approaches that could then be transferred to LIFE Nature projects.*
- 3) The LIFE programme should serve as a tool to focus land stewardship incentive mechanisms at the strategic level by setting the priorities for support in the annual LIFE calls.*
- 4) The LIFE programme could fund innovative efforts for design and implementation of land stewardship programmes that are based on local culture and context, adaptive management principles, participatory decision-making and an emphasis on the relational aspects of land stewardship. The emphasis could be shifted from market-based mechanisms to approaches with a strong socio-psychological focus.*
- 5) Beneficiaries could be actively encouraged to consider and demonstrate links to a range of alternative funding sources for the long-term implementation of the management plans and other after-LIFE activities. For example the use of European Funds, Venture Capital, Carbon Taxes,*

⁶² Casey et al, 2006. Incentives for Biodiversity Conservation. Washington DC: Defenders of Wildlife.

Crowd-Funding etc could be prioritised along with the promotion of Private Sector/Business involvement.

- 6) *LIFE could support public institutions by funding efforts to design, test and market innovative habitat conservation incentive programmes.*

8.3.Supporting land stewardship organizations

The LIFE programme has made a significant contribution to supporting the organisations that take care of the land. One study called LandLIFE⁶³ identified 16,269 land stewardship organisations in Europe. However, the study also demonstrated a considerable variability and a lack of homogeneity about land stewardship as a concept. They concluded that there is a lack of a focused approach towards using land stewardship resources in solving most priority nature conservation problems.

Most of the EU countries have some land stewardship mechanisms in place, and not all of them require legislative changes. Voluntary contracts, management support and transfer contracts are already available in virtually every EU country. In spite of the seemingly large number of land stewardship organisations in Europe, there are too few organisations which provide help and advice to private landowners to explain and deliver incentives for biodiversity conservation and restoration. Conservation planning and the strategic application of incentives would be more efficient if more expertise were available to assist landowners in deciding what incentive mechanisms, land protection, and management strategies are available, most appropriate and cost effective.

The LIFE programme is well placed to support an effort that aims to coordinate and develop effective advisors and administrators for land stewardship schemes. This would require funding for education/training for land stewardship administrators and funding to land stewardship organizations.

Recommendations:

- 7) *The LIFE programme could support land stewardship organisations, by providing the networking platform, supporting the establishment of the coordinating body and providing core funding, in the similar fashion to the NGO support programme, but with a national and land stewardship focus.*
- 8) *The LIFE programme could support capacity building for land stewardship advisors and administrators.*

⁶³ LIFE 10 INF/ES/540 LANDLIFE www.landstewardship.eu

- 9) *The LIFE programme could support the development of land stewardship through a Platform event: knowledge sharing to promote land stewardship organisations throughout the member states and to celebrate landowners with good land stewardship practices.*
- 10) *Encourage LIFE applicants to include policy actions targeted towards informing, debating with and supporting land stewardship organisations to share information and allow LIFE demonstration projects to work on practical interventions, on regional and national authorities and at the policy level.*
- 11) *Support national initiatives targeted at establishing a suitable legal basis for the operation of land stewardship organisations.*

8.4. Strengthening Land Trusts

One thing that can affect habitat restoration is land purchase or acquisition of the lands rights and these difficulties are compounded by the fact that land sections are frequently very small and may have multiple owners. In cases where the land is leased to farmers, the legislation makes it difficult to remove the tenant from the land. While land purchase and land lease are the most obvious approaches to acquire the land rights, this is generally quite expensive.

LIFE has been supporting the purchase of land since 1992, and the requirement to ensure a definite assignment of the land to nature conservation has facilitated land registries all over Europe to adopt rules that allow a land purchase clause, stipulating the permanent allocation of land to the nature conservation purposes, to be entered on the cadastre. Land purchase is expensive, but it is secure. However, in the case of public lands, it requires further public funding from the nature conservation budget to maintain the nature values. Land stewardship could offer a more cost-efficient outcome. The challenge lies in finding a common understanding on the land use that can lead to a win-win situation.

Land management by Land Trusts is recognised as a viable option between two other choices for management of the land: by a private landowner or by the state. In terms of costs it falls between private- and state-ownership management, while being very positive in terms of the ease of implementation. Land Trusts are very popular in UK and Netherlands (of EU countries). Some other countries are only beginning to apply this approach, and we see some good initiatives emerging in Poland, Italy, Czech Republic, Spain and Ireland and LIFE projects have been instrumental in promoting this approach. The LIFE programme is very well placed to further contribute to this process, as it encourages wide stakeholder participation and generally cost-effective solutions to the nature management and restoration challenges.

Recommendations:

- 12) *To strengthen the mandate in the LIFE programme to establish joint management bodies for the management of nature areas, especially Land Trusts. In addition, land purchase for nature conservation purposes in the LIFE programme could be linked with the establishment of a Land Trust or other Land Stewardship Organisation where it is considered appropriate to do so.*
- 13) *To support the development of Land Trusts in the LIFE programme, possibly through a twinning approach: promoting close cooperation and mentoring between countries with a strong tradition in Land Trusts and those with none e.g. UK with Malta.*

8.5.Promoting cooperation among private landowners

The majority of Natura 2000 sites are likely to be in private ownership⁶⁴, thus the landowners are the core of nature conservation efforts in many Natura 2000 sites. Although numerous landowner networks are already in place (e.g. European Landowners Organisation ELO⁶⁵, The European Federation of Associations for Hunting and Conservation FACE⁶⁶, COPA-COGECA⁶⁷ etc.) their main focus is not often nature conservation. There are also EU wide organisations that have done a lot of work on involving and motivating private landowners towards nature conservation, such as Eurosite⁶⁸, the EUROPARC Federation⁶⁹, ECNC⁷⁰ and ELO.

As discussed earlier in chapter 6, the main motivation for the landowner is not fiscal benefits, but rather the positive recognition and support from society and like-minded individuals. Cooperation among those private landowners who are willing to take a step towards nature should be encouraged and supported.

We have analysed some excellent examples of landowner cooperation in chapter 5 of this study. Landowners have demonstrated their capacity to take the responsible decisions necessary for nature conservation and to work together in achieving that goal. Their cooperation is of utmost importance in the countries with fragmented land ownership and varied land use.

⁶⁴ <http://ec.europa.eu/environment/nature/natura2000/management/gp/>

⁶⁵ <http://www.europeanlandowners.org/>

⁶⁶ <http://www.face.eu/>

⁶⁷ <http://www.copa-cogeca.be/Menu.aspx>

⁶⁸ www.eurosite.org

⁶⁹ www.europarc.org

⁷⁰ www.ecnc.org

Recommendations:

- 14) Recognise and celebrate landowners that adopt good land management practices. LIFE can support regional events celebrating landowners that promote nature conservation. Similar events promoting effective land stewardship could be organised centrally (in Brussels).*
- 15) LIFE could fund networking activities among landowners (peer-to-peer) practicing nature conservation at local/regional and EU level, with the aim of enhancing landowners' exchange of know-how, capacity building and satisfaction.*

8.6. Acting as a facilitator in helping landowners to obtain other EU funds

LIFE is closely linked with payments from agri-environment schemes. Often the lands are not eligible for such payments, as they are overgrown and have been abandoned for some time. LIFE provides initial funding for restoring the lands, and activating the landowners, also helping them to apply for agri-environment payments. Accordingly, the LIFE money is used as starting money, while the long term management is further funded by agri-environment schemes.

Arguably the role of the LIFE programme should not stop at this. Across the EU the collaborative catchment approach is potentially highly transferable. The land use issues (particularly CAP influenced agriculture) will be similar and a consistent land stewardship approach among stakeholders could be expected. LIFE can play a crucial role in supporting the partnerships that can result in a wider uptake of EU funds.

[LIFE08 INF/UK/000214](#) is an example of such project, that has played an instrumental role in encouraging the land stewards to adopt nature-friendly methods in agriculture and demonstrating added value, not only in terms of income from subsidies, but also in terms of landscape, ecosystem services, and social factors.

The project aimed to encourage farmers (the land stewards) throughout the UK to adopt wild-bird friendly farming practices through a variety of measures designed to support populations of the most vulnerable species - species that have dramatically declined due to farming practices.

RSPB (the LIFE beneficiary) engaged the farming community and from this grew 'champions' – farmers who took on the role of demonstrating the benefits of wild-life friendly farming and convincing other farmers of the advantages. Demonstration farms were created under the LIFE project and the beneficiary still engages with the 'champions' to help them get the message

across. As a result some farmers, at least within the hotspot areas, appear to be adopting wildlife friendly farming for altruistic reasons rather than just as a mechanism for applying for agri-environment payments.

Recommendation:

16) LIFE should continue supporting 'soft' projects that have high demonstration and stakeholder involvement potential, and aim of being seed money than the main source of funding.

8.7. Working with and encouraging the businesses in Natura 2000

The business sector can potentially play an important role in advancing nature conservation. Protecting nature and building stronger businesses can be mutually reinforcing. Changing the ways companies value and interact with the natural resources they affect and depend on presents a tremendous opportunity to transform corporate policy and practice for the benefit of both nature and people. Nowadays, numerous nature conservation organisations work with businesses with a dual purpose of nature conservation and sustainable use.

The LIFE Environment component has played a prominent role in making businesses more environmentally friendly since 1992 focusing on all of Europe's key environmental challenges, including: water protection, waste management, reduction of air and noise pollution, clean technologies, soil protection, sustainable use of resources and reducing product-related environmental impacts through integrated product policies⁷¹.

Conversely, while the LIFE Nature component has been widely used by public organisations and NGOs, business entities are rarely beneficiaries. At the same time, the LIFE programme has supported numerous conservation actions that indirectly promoted biodiversity business opportunities. The introduction of the LIFE-Biodiversity component in LIFE+ allowed projects to extend beyond the Natura 2000 network and so is more open to applications from businesses. LIFE has been providing support to biodiversity businesses to go beyond the pilot and learning phase and to stimulate demand for commercial conservation services i.e. increasing the demand for companies that restore habitats.

Business entities that rely on natural resources and manage them should be encouraged to improve their policies and adopt land stewardship principles in managing their landholdings in a manner consistent with responsible care for the biodiversity, resources and values that they contain. The LIFE programme should encourage and support such initiatives.

⁷¹ LIFE Focus publication "Breathing LIFE into greener businesses";
<http://ec.europa.eu/environment/life/publications/lifepublications/lifefocus/documents/greening.pdf>

In this respect there is scope to harness funds from the Natural Capital Financing Facility⁷² (NCFF). The European Investment Bank (EIB) will provide loans and investments in funds to support projects which promote the preservation of natural capital, including adaptation to climate change, in the Member States. The NCFF will support projects working on the themes of ecosystem services, innovative pro-biodiversity and adaptation investments, green infrastructure and biodiversity offsetting. The NCFF may support projects involving Natura 2000 sites under all the above themes, except for projects falling under the biodiversity offset category.

In the Chapter 5.3.5 of this study, we have demonstrated four excellent examples of the involvement of private businesses in nature conservation via LIFE projects. All four cases have very different motivations and derive different benefits from participation in the LIFE project. However, in all cases the businesses benefitted from investing in nature, either indirectly, or directly. It is obvious that involvement of the business sector in nature conservation and their role as land stewards should be further promoted by the LIFE programme.

The companies that depend on natural resources for their operation, or those that manage important natural areas, should be encouraged to promote and support the conservation of species, habitats and ecosystems. Furthermore, the Natura 2000 network provides an excellent basis for local, nature friendly and sustainable business opportunities.

Recommendations:

- 17) Better promote the possibilities offered by the LIFE programme to the private sector.*
- 18) Support start-up businesses that are based in the Natura 2000 network via the LIFE programme.*

8.8. Promoting the use of easement concept in LIFE

As can be seen from the study the practice of applying nature conservation easements in the EU is not widespread. Even in countries where appropriate national legislation exists this mechanism is not used for nature conservation purposes (see Annex 3). From the analysis done in this document we conclude that easements and deed restrictions are tools that should be used much more widely for nature conservation purposes to pursue long-term nature conservation goals. Easements need not encumber the whole property as they can be applied to limited areas within the property boundary as necessary.

⁷² http://ec.europa.eu/environment/life/funding/financial_instruments/ncff.htm

As we see from the LIFE experience with land purchase and formalizing the nature conservation clause in the land registers, it requires persistence and time, for changing practices to transfer into national legislation; but it is possible. With its resources and long-term planning approach, the LIFE programme is well placed to contribute towards implementing the easement concept into the nature conservation in the EU.

Recommendation:

19) To integrate gradually a requirement for nature conservation easements/deed restrictions to be established for areas restored with substantial co-financing from the LIFE programme.

8.9. Stimulating tax incentives for nature conservation

Various tax incentives for nature conservation purposes are an excellent mechanism that should be used more widely in the EU where the fiscal laws allow. LIFE could contribute to the uptake of this mechanism by supporting the changes required in national legislation so that tax incentives for nature conservation can be adopted.

It can be argued that tax incentives are passive mechanisms that act on the basis of restrictions often excluding active management. However, this is not always the case as can be seen from the example in France with Natura 2000 contracts, or woodland management practices in Belgium (chapter 4.2.4) where tax incentives can stimulate positive and active nature management actions.

We realise that implementing the introduction of tax incentives in the normal timeframe of a LIFE project is impractical. Single projects are unlikely to bring about such changes and, without the necessary laws in place, it is difficult to see how a project could demonstrate the benefit of the approach. Nevertheless, LIFE should support projects that aim to facilitate such fiscal and legislative changes which could possibly be incorporated in the AfterLIFE planning.

Recommendation:

20) To support projects that facilitate legislative changes towards adopting the tax incentives for nature conservation.

8.10. Promoting establishment of private protected areas

As recognized by IUCN⁷³, incentive schemes provide powerful motivation for some landowners. IUCN has recognised the role of private protected areas in expanding the conservation coverage of existing protected areas, connecting protected areas, developing protected area networks, and extending the coverage of threatened species and rare and endangered ecosystems. It has also highlighted the importance of understanding the relationship between incentives and the motivation of landowners. It also calls for improving, and supporting, national private protected areas associations, networking and knowledge sharing.

There are inspiring examples in the EU that show the involvement of the private sector in nature conservation, they are addressed in chapter 4.2.7. The LIFE Nature programme deals exclusively with the Natura 2000 network and its main focus should remain there. Private protected areas can help to pursue the goal of implementation of the Natura 2000 network - they can serve either as part of Natura 2000 network, or as important stepping stone to ensure its connectivity.

Recommendation:

21) Support establishment of private protected areas, in particular within the Natura 2000 network, to improve connectivity between Natura 2000 sites, or to promote the implementation of the Biodiversity Strategy to 2020.

⁷³ Sue Stolton, Kent H. Redford and Nigel Dudley (2014). The Futures of Privately Protected Areas. Gland, Switzerland: IUCN

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NNEX 1. Definitions

Please note that the explanations to the terms are provided in the light of our study, so they cannot be used as academic definitions for the terms

Conservation easement – A conservation easement transfers a portion of the rights associated with a piece of property, while allowing landowners to maintain ownership and to use the land in ways that do not conflict with the terms of the easement. A landowner creates a conservation easement by donating or selling the development rights to another party. Easements may be either “perpetual” or “term.”⁷⁴ In the United States, a conservation easement is a power invested in a qualified private land conservation organization (often called a “land trust”) or government (municipal, county, state or federal) to constrain, as to a specified land area, the exercise of rights otherwise held by a landowner, to achieve certain conservation purposes. The conservation easement “runs with the land,” meaning it is applicable to both present and future owners of the land. Conservation easements do have limitations. Donors are not bound to carry out active management measures, nor may holders transfer their property rights by gift or sale to a third party⁷⁵. The decision to place a conservation easement on a property is strictly a voluntary one whether the easement is sold or donated. The landowner who grants a conservation easement continues to privately own and manage the land and may receive tax advantages for having donated and/or sold the conservation easement. Perhaps more importantly, the landowner has contributed to the public good by preserving the conservation values associated with their land for future generations. In accepting the conservation

⁷⁴ Mullins, S., Theoharides, K., Harrelson, C., Macdonald, L., 2008. *Current Conservation and Incentive Mechanisms for Biodiversity Conservation*. Cooperative Conservation Blueprint Project Report. <http://www.fws.gov/verobeach/FloridaPantherRIT/Conservation%20Incentives%20Toolkit%20-%20Defenders%20of%20Wildlife%20for%20CCB%202008.pdf>

⁷⁵ Shine, C., 1994. *Private or voluntary systems of habitat protection and management*. Convention on the Conservation of European Wildlife and Natural Habitats. Nature and environment, No. 85. Council of Europe Publishing.

easement, the easement holder (land trust or government) has a responsibility to monitor future uses of the land to ensure compliance with the terms of the easement and to enforce the terms if a violation occurs.

Safe harbour agreements - Under a Safe Harbour Agreement, landowners voluntarily propose to implement restorative and habitat management measures aimed at the conservation of threatened species. In return for restoring natural habitats of endangered species, the landowner is provided with a so-called 'safe harbour guarantee', ensuring them that no additional conservation measures will be required and no additional land, water or resource restrictions will be imposed if the number of listed species increases as a result of the landowner's actions. Under safe harbour agreements, participants are guaranteed a reduction in liability and are ensured that they will be exempt from any future regulations not included in their agreement. At the conclusion of the agreement term, landowners are allowed to return the property to the baseline condition and still be covered by the assurances of the agreement⁷⁶.

Covenant and deed restrictions – A covenant is another contractual mechanism, generally concluded between private parties, which imposes permanent conditions on the use of specified land⁷⁷. Covenant is a contract between a landowner and a second party that may stipulate certain land uses or practices. Like easements, a covenant can be used to restrict certain land uses, and it may follow the property to subsequent owners. A covenant can also be placed in a land deed itself, which then becomes a deed restriction. Deed restrictions are similar to covenants in that they can be used to restrict, for example, the conversion of wetlands or forests to more intensive uses⁷⁸. We only deal with voluntary restrictions in our study.

Private protected areas – private land that is protected by the landowner. Term internationally recognised (e.g. by IUCN) to include the management of a private land with the main aim to protect its natural values, independently of its legal status or level of protection (in some countries, this kind of Protected Area can also be recognised by specific legislation). Usually, this is done by a

⁷⁶ Schoukens, Hendrik, Habitat Restoration on Private Lands in the United States and the EU: Moving from Contestation to Collaboration? (January 30, 2015). Utrecht Law Review, Vol. 11, No. 1, p. 33-60, January 2015. Available at SSRN: <http://ssrn.com/abstract=2611595>

⁷⁷ Shine, C., 1994. *Private or voluntary systems of habitat protection and management*. Convention on the Conservation of European Wildlife and Natural Habitats. Nature and environment, No. 85. Council of Europe Publishing.

⁷⁸ Mullins, S., Theoharides, K., Harrelson, C., Macdonald, L., 2008. *Current Conservation and Incentive Mechanisms for Biodiversity Conservation*. Cooperative Conservation Blueprint Project Report. <http://www.fws.gov/verobeach/FloridaPantherRIT/Conservation%20Incentives%20Toolkit%20-%20Defenders%20of%20Wildlife%20for%20CCB%202008.pdf>

nature conservation organisation (NGO, Foundation, Trust, etc.), but can be done also by a private owner who cares about his/her land⁷⁹.

Voluntary reserves – A few European countries have enacted legislation, which confers special protection on voluntary reserves, which have been officially approved on the basis of their conservation value or other criteria. Contrary to the private protected areas that can be closed to the public, they would consist of land with open access, which is managed by a group of voluntary stakeholders⁸⁰.

Property transfer to the land stewardship organization – This means that the landowner transmits his or her property (or part of it) to a land stewardship organisation, which commits itself to developing responsible management of the property. The typical legal tools for these kinds of agreements are the sale, the legacy, the donation and the exchange. Transfer of the property can take place through a number of mechanisms and does not always mean the stewardship organisation is actually buying the land. Donation of private land to stewardship organisations in order to guarantee its long-term management and protection can become a usual procedure in countries where land donations receive tax incentives, or where the values of conservation have really a social recognition. Another way to receive land is through a legacy left by individuals in their will⁸¹.

Management transfer to the land stewardship organization – Some landowners may prefer someone else taking care of their lands whilst retaining the property rights, or the land stewardship organisation may want to undertake an own specialized management of valuable lands. Whatever the reason, the landowner probably desires to maintain and upgrade the value of the estate, and will appreciate a land stewardship organisation taking practical responsibility of its management. As in the previous type of stewardship agreements, the landowner and organisation agree which actions will be developed in the land, but in this case it will be the stewardship organisation itself that will carry them out. In some cases, these agreements imply a no-action: the land stewardship organisation may obtain (after a donation, a

79 Sabaté, X., Basora, X., O'Neill, C., and Mitchell, B. (2013). Caring together for nature. Manual on land stewardship as a tool to promote social involvement with the natural environment in Europe. LandLife documents.

80 Shine, C., 1994. Private or voluntary systems of habitat protection and management. Convention on the Conservation of European Wildlife and Natural Habitats. Nature and environment, No. 85. Council of Europe Publishing.

81 Sabaté, X., Basora, X., O'Neill, C., and Mitchell, B. (2013). Caring together for nature. Manual on land stewardship as a tool to promote social involvement with the natural environment in Europe. LandLife documents.

cession or a purchase) the rights of use of some part of the property precisely to not to use them. The primary purpose of these “land stewardship rights” is to protect land from certain forms of development or use (intensive agriculture, logging, grazing, water extraction, construction, etc.)⁵⁸.

Management by landowner himself/herself, motivated by benefits – Most landowners manage their own properties on a regular basis, and have been caring for their land, sometime for a long period of time across generations. This is the case of most farmers, foresters, and other landowners that live continuously in or close to the property. The benefits for taking care of the land for the nature conservation purposes may include tax benefits, or market - oriented incentives (e.g. user fees for hunting, eco-tourism, eco-labelling and certification etc.), or fiscal incentives (compensations, grants, conservation contracts)⁸². In our study, we focus on tax benefits and innovative mechanisms, but do not look at traditional market – oriented or fiscal incentives, that have been listed above.

Management by landowner, with support by the land stewardship organization – These landowners know well how to take care of their land, but are likely to appreciate any advice, information on natural heritage and specificities on their lands, and directions from a land stewardship organisation. On the other hand, some organisations have knowledge but don't have enough financial assets and staff capacity to manage a property, so what they can best offer is their technical expertise to help landowners maintain and improve nature conservation in their own lands. Some organisations can contribute to the implementation of the action via the organisation's pool of volunteers. In this type of agreement, the landowner keeps the management of the land, but he or she commits to conservation-oriented actions. Land stewardship organisations and landowners agree to a set of actions to be developed in the property, so both parties commit to the terms and conditions of the agreement. The land stewardship organisation will ensure that the agreed actions are implemented, and will assist the landowner with any nature management issue that may show up, and will inform him or her of any grant or incentive opportunities that could benefit the property⁵⁹.

Tax benefits – income tax incentives. Income tax incentives to encourage habitat conservation include deductions for donating conservation easements, for incurring conservation expenditures, and from revenue derived on lands

82 Sabaté, X., Basora, X., O'Neill, C., and Mitchell, B. (2013). Caring together for nature. Manual on land stewardship as a tool to promote social involvement with the natural environment in Europe. LandLife documents.

that are managed to support natural habitat. Landowner expenditures for restoring or creating habitat for endangered species can either be deducted from income taxes or received as a tax credit. Another strategy is to exempt, or tax at a lower rate, revenues from lands that are managed for endangered species habitat⁸³. The most common state income tax relief programs involve donating an easement to the state or qualified non-profit organization for conservation purposes. These programs typically allow a credit against the state income tax in some proportion to the value of the donation⁸⁴.

Tax benefits – property tax incentives. Landowners are given tax credits if they restrict the potential development or use potential of their property. For example, the more a landowner does to protect wildlife habitat, the larger the credit⁸⁵. There are also the practices to provide for property tax relief for land subject to a conservation easement⁸⁶.

One-off compensations for engaging in voluntary mechanisms – the landowner might receive one-off compensation (from government agency or LS organisation, or else) for agreeing to engage in the voluntary mechanism – to place restrictions on the land, or agree to management⁶².

⁸³ Mullins, S., Theoharides, K., Harrelson, C., Macdonald, L., 2008. *Current Conservation and Incentive Mechanisms for Biodiversity Conservation*. Cooperative Conservation Blueprint Project Report. <http://www.fws.gov/verobeach/FloridaPantherRIT/Conservation%20Incentives%20Toolkit%20-%20Defenders%20of%20Wildlife%20for%20CCB%202008.pdf>

⁸⁴ Defenders of Wildlife, 2002. *Conservation in America: State Government Incentives for Habitat Conservation*. A Status Report. http://www.defenders.org/sites/default/files/publications/conservation_in_america.pdf

⁸⁵ Shine, C., 1994. *Private or voluntary systems of habitat protection and management*. Convention on the Conservation of European Wildlife and Natural Habitats. Nature and environment, No. 85. Council of Europe Publishing.

⁸⁶ *Conservation Property Tax Exemption Act* (Chapter 36 of the Acts of 2008). Halifax, Nova Scotia. <http://nslegislature.ca/legc/PDFs/annual%20statutes/2008%20Fall/c036.pdf>

A NNEX 2. Land stewardship mechanisms applied in the EU

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Country	Conservation easements or covenant, deed restrictions, chapter 4.2.2.	Safe harbour agreements, chapter 4.2.3	Tax incentives, chapter 4.2.4	Property transfer or management transfer, chapter 4.2.5	Management support, chapter 4.2.6	Private protected areas, voluntary reserves, chapter 4.2.7
AUSTRIA				Y	Y	
BELGIUM	Y	Y	Y	Y	Y	Y
BULGARIA				Y	Y	
CYPRUS						
CROATIA						
CZECH REPUBLIC	Y			Y	Y	Y
DENMARK	Y			Y	Y	
ESTONIA	Y			Y		Y
FINLAND	Y		Y	Y	Y	Y

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FRANCE	Y		Y	Y	Y	
GERMANY	Y		Y	Y	Y	Y
GREECE				Y	Y	Y
HUNGARY				Y	Y	Y
IRELAND				Y	Y	Y
ITALY	Y			Y	Y	
LUX	Y			Y	Y	
LATVIA				Y		
LITHUANIA	Y					
MALTA						
NETHERLANDS	Y	Y	Y	Y	Y	Y
POLAND				Y	Y	Y
PORTUGAL	Y			Y		Y

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ROMANIA				Y	Y	Y
SLOVAKIA			Y	Y	Y	Y
SLOVENIA	Y			Y		
SPAIN	Y			Y	Y	Y
SWEDEN	Y		Y	Y	Y	Y
UNITED KINGDOM	Y		Y	Y	Y	Y

Cases marked in Green are those described in this study, in the Chapter 4.2.

A NNEX 3. Project case study descriptions

Task 9b - Case studies – Blackwater SAMOK

Summary

This project evolved from a rural community that recognised the ongoing decline of their local natural heritage and felt action was required to preserve it. While initially this was driven by a small number of passionate anglers, a local rural development company had the courage to take the lead and develop a LIFE Project. While an SAC Management Plan is mandatory for most such projects, this project chose to develop this in the context of an Integrated Catchment Management Plan more specifically focussing on their own river catchment. A Catchment Management Group was formed comprising all land use interests whose common vision was agreed as:

"That all the citizens living in the catchment can thrive while the environment is protected for future generations. That all land uses, including agriculture and forestry, can achieve its maximum potential consistent with maintenance of a healthy environment. That the co-operative spirit demonstrated by this plan and the improvement in the environmental quality of the area will lead to job creation"

A plan was developed which identifies measures that would contribute to the necessary improvement of the river and seeks the support of the local community for these measures. This is an excellent example of the collective responsibility aspect of stewardship.

Project information

Project number: LIFE09 NAT IE 000220 Project name: Blackwater SAMOK

Background

The Blackwater SAMOK project, which ran from September 2010 to June 2015, was led by a small rural development company, IRD Duhallow in partnership with the state body responsible for fisheries, Inland Fisheries Ireland. The project focused on the River Allow catchment of the Upper Blackwater SAC and engaged with a range of stakeholders: mainly farmers, foresters, anglers,

tourism operators, statutory authorities, schools and the general public. Notably, this project originally evolved from some of these local stakeholders who wanted to see a reversal of the steady decline of the conservation status of area caused by a long history of mismanagement of both the river itself and its catchment.

The main purpose of the project was to bring about a sustained enhancement of the Upper Blackwater SAC by carrying out actions aimed at restoring the quality of the river bed and riparian zone. These actions included bank protection works; pruning and coppicing; tree planting; invasive species removal; and the provision of silt traps. A significant amount of awareness raising and education activities were also undertaken and a range of riparian management guidelines for various species were also produced.

While many of the actions could be seen as emergency short-term measures, the project realised the need for a longer-term plan which would crucially come from, and be agreed by, the stakeholders. So, in 2014 the Allow Catchment Management Group was formed to provide a collaborative and coordinated approach to the future management of catchment. The Catchment Management Plan will be launched at the project's closing conference in May 2015. Further reading: www.duhallowlife.com

Environmental problems addressed by the project

The conservation status of the site has come increasingly under pressure with agricultural practices over recent times leading to increased nutrient enrichment and pollution. This has come from a more intensified form of agriculture largely driven the EU's Common Agricultural Policy (CAP), which directly rewards increases in production. According to the EPA's 2012 report *'Ireland's Environment – An Assessment'*, agriculture remains the greatest source of diffuse nutrient pollution accounting for 47% of the suspected causes of river pollution. The Nitrate Regulations are the main policy measure for addressing water pollution in Ireland but, according to the SWAN Integrated Water Management publication, there are widespread reservations amongst the environmental and academic community about their efficacy to address water pollution. For example, it is considered that the allowed levels of phosphorous are too high and the buffer zones from spreading slurry near watercourses are too narrow.

As there are now funds through the new RDP for agri-environment measures specifically in Freshwater Pearl Mussel catchments, the Catchment Management Plan is currently being used to tailor a scheme to the requirements of the River Allow. As well as nutrient enrichment, other issues

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that the scheme hopes to address include the roll out of silt trapping, better management of farm roadways to reduce soiled water runoff, and changes in farmland grazing design. None of these are included nor proposed under Ireland's new main agri-environment scheme (GLAS).

The EPA is very interested in this approach, as they see the potential benefit of such customised schemes not just for the River Allow catchment, but for all Irish rivers. The scheme is being developed through intensive farmer engagement, where the farmers are working in partnership with the initiative to develop a scheme that works for them and the environment.

Land Stewardship methods applied in the project

Stakeholders directly involved in the land stewardship approach

The Catchment Management Group has a broad representation from a wide range of land use interests. These include (on the actor's side) individual farmers and landowners including farmers association representatives; forest owners; wildlife groups; and angling clubs. It also includes a range of key statutory authorities (mainly facilitators) including the local council; National Parks and Wildlife Service; the Environment Protection Agency; Inland Fisheries Ireland and Irish Water. These represent all of the major and relevant stakeholders operating within or with an interest in water quality or habitat in the river catchment.

The role of the Catchment Management Group is to provide a collaborative and coordinated approach towards the implementation of the South Western River Basin Management Plan within the River Allow Catchment. The Group will update the River Allow Catchment Management Action Plan on an ongoing basis. Importantly the group is coordinated by a small community based rural development company IRD Duhallow (who are also the LIFE Project beneficiary), and not by one of the statutory bodies. Their role is to champion the approach, energise stakeholders and facilitate contributions. This again demonstrates the community based angle of the approach. Although the group is still in its infancy (established April 2014) this type of collaboration appears to be working well.

Methods, motivation mechanisms

It is worth pointing out that the example being presented here is not so much about farmers or landowners entering into voluntary agreements to manage land in a more nature friendly way. Rather, it is more about these key actors

voluntarily wanting to be part of an agreed vision of sustainable land management for their community and countryside in which they live and work. In this case it would perhaps be more appropriate to analyse the methods/motivation mechanisms that were involved that brought these key stakeholders into the Catchment Management Group. This is best analysed in terms of the sectors which have an impact on the water quality of the river Allow:

Agriculture

Agriculture is the principal economic activity in the Allow catchment with pasture comprising 73% of the land cover. With dairying and the raising of beef cattle the main farming activities, agriculture is the significant source of nutrients and silt to the River Allow.

Through the project's awareness raising work farmers have been targeted both individually and collectively to discuss these issues and how they can be addressed. For those farmers whose activities are currently directly affecting the river, the project has offered to pay the costs of restorative / protection measures. For example: fencing to keep cattle out of the river; the provision of cattle drinking facilities and silt traps. Although this is entirely voluntary the uptake has unsurprisingly been quite high largely because the actions are being 100% funded. The motivation in this case is that the farmers are getting necessary work done on their land for free.

While this may seem irrelevant to the discussion on stewardship, it does actually play an important role. For many of these farmers, this will be the first time they have engaged with a conservation body (in the form of the LIFE Project) in a positive initiative. This, crucially, allows the start of dialogue where farmers will listen, perhaps for the first time, to what it means having land on an SAC. They realize now they need to be part of the discussion. When this developed into a Catchment Management Group, farmers were now highly motivated to be in it.

With the advent of the new Rural Development Programme (2014 – 2020) and the news that Freshwater Pearl Mussel catchments were being prioritized for a new agri-environment scheme, the Group is now well positioned to influence this. Action 1 from the Catchment Management Plan reads:

Develop a comprehensive suite of water protection measures funded under an agri-environmental scheme for the River Allow Catchment. Farmers and the local community will play a pivotal role in tailoring such an agri-environmental scheme

Although the ultimate motivation here has been money (by getting an agri-environment scheme for the catchment), the method by which this is being done is innovative and is based on the principles of land stewardship. The Catchment Management Group is a collective of stakeholders with a genuine common interest in the sustainable management of their river and its catchment.

The sustainability of the Group depends very much on the willingness of an organization to lead on it. IRD Duhallow is best placed to do this as they are community based and seen as a more impartial facilitator. The Catchment Management Plan itself will need to be reviewed, perhaps in 5 years, to ensure issues are kept up to date.

Forestry

Nutrient exports from forested land are generally lower than those recorded from agricultural land. However, forest activities, similar to all other land uses, have the potential to impact on the aquatic environment if they are not managed adequately. In very sensitive upland area, exports of phosphorus from forested land can be higher than comparable rough grazing areas. Furthermore, forests can contribute to enhanced acidification of some acid sensitive waters and be a cause of sediment losses, if adequate mitigation measures are not implemented and maintained. Forest operations, including establishment i.e. cultivation and drainage, forest road construction, harvesting and forest replanting are a potential source of both silt and nutrient run-off in highly sensitive freshwater systems, including pearl mussel catchments.

The principle forestry stakeholder in the catchment is the semi-state company Coillte who own and manage the bulk of Ireland's forests. Coillte have been actively involved in some of the LIFE project actions and have also been keen to be part of the Catchment Management Group. While Coillte aims to conduct its operations in full compliance with a range of statutory guidelines and certification standards the Catchment Management Plan states the need to examine the capacity of certain areas for future commercial forestry. This will require decisions of what is suitable for commercial forestry from a water quality perspective. It may be the case that commercial forestry is possible but only with certain mitigation measures, e.g. buffer zones, restriction to certain tree species.

Action 4 from the Catchment Management Plans reads:

A long-term, forest management catchment plan should be prepared with the aim of minimising hydrological, sediment, nutrient and other potential impacts

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from forests and forest operations. This should include a strategy which will identify the most sustainable locations for future commercial plantations.

As the state forestry company, Coillte has to be seen to be conducting their activities to the highest environmental standards. Hence their involvement in such things as the Forest Stewardship Council's certification scheme. In line with that, the Allow Catchment Management Plan would be seen as something they would be highly motivated to be involved with as it would further strengthen their 'stewardship' credentials.

Other sectors

Key stakeholders from a number of other sectors impacting on the river have all voluntarily become active participants in the Group.

- Water Services infrastructure (local council, EPA, Irish Water);
- On-site wastewater treatment systems (local council, EPA, general public);
- Land use planning (local council);
- Flood risk management (local council, farmers, Inland Fisheries Ireland)

These issues are complex and of course highly inter-related. It is perhaps recognition of the need for 'joined-up thinking' that is the motivation behind their involvement.

Results

The establishing of a Catchment Management Group was completed in April 2014 and is the first essential action necessary to achieve the overall land stewardship goal. The motivation for this is described above. The fact that the beneficiary describes this action as relatively straightforward shows how highly motivated the various stakeholders were to become involved and start to address the problems in the catchment.

In terms of the agricultural sector of the Plan the main action was to '*Develop a comprehensive suite of water protection measures funded under an agri-environmental scheme for the River Allow Catchment*'. The Catchment Management Plan is now at final draft stage and farmers and the local community have played a pivotal role in tailoring the scheme to the needs of their catchment. There is ongoing discussion with the Department of Agriculture and it is anticipated the outcome of this will be positive and a River Allow agri-environment scheme will be rolled out in 2016. In terms of essential actions, this should mean a significant increase of the type of works demonstrated in the core LIFE project eg fencing and drinking water provision

(to keep cattle out of the river); silt trap provision (to reduce siltation); slurry spreading control (to reduce diffuse pollution).

With regard to the forestry sector of the Plan, the main action was to 'Develop a Forestry catchment management plan'. This is ongoing and is being led by the principal forestry stakeholder Coillte. It is anticipated the results of this should minimize the hydrological, sediment, nutrient and other potential impacts from forests and forest operations. Importantly, the expectation for this is a plan that will identify the most sustainable locations for future commercial plantations.

The progress on work in the other sectors as listed above is also ongoing. While the complexities of the issues involved are highly challenging, this innovative collaborative approach is anticipated to help find solutions. A good example of this was the early resolution of an ongoing chronic pollution problem in a small town on the river. The flocculent settlement tank of an industrial plant had not been maintained and was discharging directly into the river eliminating life for several hundred metres downstream and probably causing a negative impact further downstream. The LIFE team highlighted the problem and made the case that this needed to be addressed as the emergency it was. Prior to the Catchment Management Group this would not have been dealt with as promptly.

Overall, there is a high degree of expectation from this approach and as a result the motivation remains high. The anticipated roll out of the catchment specific agri-environment scheme will be crucial to maintaining the motivation, not least because of the influence carried by the agricultural sector. Results - tangible results - are key to the success and continuation of this approach and therefore it is imperative that the stakeholders start to see the positives coming out of it in the next 12 months.

Potential for transfer

The process involved in setting up the Catchment Management Group should be highly transferable certainly within Ireland and most likely across other Member States. Within Ireland, the issues being addressed are familiar in a significant number of catchments across the country. The range of stakeholders would be equally similar. A key strength to the process is having a community based organization as the lead facilitator and this would seem to be an essential factor in its transferability. Again within Ireland this role could be performed by similar groups to IRD Duhallow who were originally established to administer the LEADER programme.

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The model of using the Catchment Plan to influence a catchment specific agri-environment scheme is also potentially highly transferable. Indeed the Department of Agriculture is looking at this scheme as a blueprint to roll out to other river catchments in Ireland, particularly those featuring Freshwater Pearl Mussels.

The recently completed MulkearLIFE Project (LIFE07 NAT IRL 342) would be an example of a potential project to which the stakeholder led catchment approach could be transferred. The issues are almost exactly the same and the stakeholders would largely be from the same sectors. This project has also done a lot of work in engaging with the farmers as part of some essential riparian management work. Although this has been funded through the project, the work has potentially paved the way for a catchment management approach based on the model of Blackwater SAMOK.

Across the EU, there is potential for a high level of transferability particularly in terms of the collaborative catchment approach. Again, the land use issues (particularly CAP influenced agriculture) will be similar and therefore an appreciation of the need for a land stewardship approach among stakeholders could be expected.

Scoring

Transferability *(please click "1" if not transferable, and "5" if very transferable)*

1 2 3 4 5

Impact and effectiveness *(please click "1" if not effective and "5" if very effective)*

1 2 3 4 5

Sustainability *(please click "1" if not sustainable, and "5" if very sustainable)*

1 2 3 4 5

Flagship project *(please click YES, if scoring in each of the above sections are "4" and more)*

Yes No

Flagship project

As this project is still in its relatively early stages with limited tangible results, it would be too early to call this a Flagship Project.

Task 9b - Case study:

LIFE 07 NAT/D/000236

Vogelschutz im Albvorland / Streuobstwiesen

'Vogelschutz in Streuobstwiesen des Mittleren
Albvorlandes und des Mittleren Remstales'

Summary

Upon project conclusion, the orchards of at least 36 communities and more than 1000 private land owners were managed in a manner that benefitted nature conservation. Whilst the initial management was organised by the project, the follow up management is organised by the owners in co-operation with, and with the support of, a landscape management association.

The main outcome of the project was a large-scale re-initiation and facilitation of orchard maintenance and a demonstration of the possibility for implementation on much larger areas. The future management of project sites as well as other sites is supported by a new funding scheme from Land Baden-Württemberg that was developed with support of the project.

By training individuals as 'multipliers for meadow orchards' and by producing a lot of supporting information and technical material, the project has a large outreach and potential for transfer.

Project information

LIFE 07 NAT/D/000236: Vogelschutz im Albvorland - 'Vogelschutz in Streuobstwiesen des Mittleren Albvorlandes und des Mittleren Remstales'

Background.

The project duration extended from the 1st January 2009 to the 31st August 2013. It focused on the conservation of breeding bird species living in traditional orchards, as well as migratory bird species protected under the Birds Directive. Target bird species included collared flycatcher (*Ficedula albicollis*), Eurasian wryneck (*Jynx torquilla*), woodchat shrike (*Lanius senator*), grey-headed woodpecker (*Picus canus*), red-backed shrike (*Lanius collurio*), as well

as the biocenoses cohabiting with and supporting these species in the traditional orchards. The endangering of these target bird species is closely linked to the general economic and social conditions of fruit-growing in traditional orchards and its dramatic decline (see below 2.2).

The project implemented several actions to maintain orchards and to reestablish and secure the crucial management for communal and private orchards in the future. The main actions included the implementation of the initial restoration and the facilitation of the future management by the communal and private land owners.

The project was coordinated and led by a regional public authority, the Regierungspräsidium Stuttgart. The seven associated partners were: Kompetenzzentrum Obstbau Bodensee (Orcharding Competence Center Lake Constance), Stiftung Naturschutzfonds beim Ministerium für Ländlichen Raum und Verbraucherschutz Baden-Württemberg (Foundation Nature Conservation Funds at the Ministry for Rural Areas and Consumer Protection of Baden-Württemberg), Marketing- und Absatzförderungsgesellschaft für Agrar- und Forstprodukte aus Baden-Württemberg mbH (MBW) (Marketing and sales promotion company for agricultural and forestry products from Baden-Württemberg - MBW), Landesverband für Obstbau, Garten und Landschaft Baden-Württemberg e.V. (LOGL) (Regional union for fruit-growing, gardening and landscape in Baden-Württemberg – LOGL), the community of Dettingen/Teck, the Jörg Geiger Manufaktur (Jörg Geiger Manufactory) and, as of 2013, the town of Weilheim/Teck as well.

For further information see <http://www.life-vogelschutz-streuobst.de/>.

Environmental problems addressed by the project

Within the last 20 years there has been a 20% decline in orchards. The remaining traditional orchards of the project area have been threatened for decades by changes in their use and by abandonment, due mostly to the changing economic framework conditions regarding the marketing of fruits. The results of this are over-aged tree populations which are subject to breakage, leading to the loss of hatching sites for the target bird species. At the same time, the absence of grassland use affects the quality of the feeding habitat for a large number of bird species and bats. The main problem was that the extensive grassland management has stopped due to very difficult ownership structure (10-15 land owners per ha) and a difficult topology (walls, steep slopes).

Within the remaining orchards, about 80% of the trees are unpruned or not in a suitable manner. Pruning is needed to maintain the trees and the habitats

otherwise the trees age and die earlier. Maintenance of trees and the surrounding grassland is crucial to preserve the habitats, but from an economic perspective this maintenance is not profitable.

The dramatic decline of traditional orchards called for a variety of approaches to the solution. The sustainable protection and development of the traditional orchard as a habitat by purposefully increasing the value of the habitat trees on an area as large as possible and thus creating orchards that will be used in the long-term. Furthermore, the integration of nature conservation objectives into the orchard management was employed to support a long-lasting effect. Measures aiming to simplify the orchard management were essential in communicating the subject of Natura 2000 and to promote additional future funding. All these actions were incentives to guarantee a future management of the orchards by their owners.

Land Stewardship methods applied in the project

Stakeholders directly involved in the land stewardship approach

For a short description of the beneficiaries refer to Section 2.1.

The coordinating beneficiary, a regional public authority, managed to engage with important stakeholders from the application stage. Consequently public as well as private associations, unions, competence centres, promotion companies as well as a foundation and a private manufacturer also became involved.

A key challenge of the project was to reach the land owners including owners of public land and large numbers of private land owners. These parties were reached by making use of intensive information gathering activities. Despite a typical resistance to new, external ideas the project actions were well received. Land owners were not happy with owning small land parcels, which they were not able to maintain in a proper or economically advantageous way, but due to the Birds Directive they were not allowed to use the parcels for other purposes. In addition, high levels of maintenance on personal property are promoted and expected within the local culture, which was a task made difficult in the existing situation of the orchards.

Under these circumstances the project came up with methods to make conservation-friendly treatment of sites easier. Thus the claims or requests of the project were combined with a lot of support and locally-adapted facilitating activities.

Methods, motivation mechanisms

Restoration of habitat trees (action C1):

Main activities in the project:

Pruning of 8.300 fruit trees; new plantation of 90 trees; clearance of shrub to facilitate the maintenance; protection for 320 trees to enable grazing; support with contracts with lease holders; support to apply for funding for grassland management; and information on suitable contractors for future management.

Private owner or manager?	Surface concerned	Type of agreement	Duration of agreement	Restrictions agreed
Orchards of 36 communities, partly leased to private persons	196 ha	Written co-financing contracts between co-financing communities and beneficiary within project; Consequently the beneficiary contracted management support. Project and communities paid together the staff that implemented the management under C1	Active maintenance of the orchards for at least 5 years; existence of orchards for at least 15 years fixed in written agreement	Implementation of measures by qualified personnel
Management agreed	Fiscal benefits	Other material benefits	Immaterial benefits	Land trust or other body
First management (see above) by the project; follow up by the owners	No	First management financed by the project but co-financed by the communities with 30% – thus not completely for free!	Restoration of a typical, regional landscape; improved appearance of the overgrown orchards	No

Within eight communities the follow-up management of the trees will be completed with project personnel (Bauhof). The remaining communities signed maintenance contracts with service providers. Future grassland

management can be supported by agri-environmental payments (LPR/Landschaftspflege richtlinie).

38 (of 58 potentially possible) involved communities were motivated from the outset of the project and gave a commitment for co-financing for the project application. Others became motivated by the demonstrated effects during the project's duration.

A primary motivation was to find means to take care of the surrounding landscape. The major obstacles for the project were sites deemed to be unsuitable. In these cases, the beneficiary tried to integrate such areas into another task (C3).

Creation of suitable units for grassland management (action C2)

The objective of the action was:

- to create relatively large units for the grassland management;
- to optimise existing extensive use of grassland; and
- to establish new and extensive use of grassland.

The main problem was that the extensive grassland management had stopped, due to very difficult ownership structure (10-15 land owners per ha) and a difficult topology (walls, steep slopes). The aim was to initiate either mowing or grazing. This task was quite difficult to implement due to the high number of involved land owners.

Creation of suitable units for grassland management: organisation and implementation of a common grazing system for a large number of land parcels (action C2a1)

Description for Plüderhausen; similar activity at Schornbach on 2,74 ha but common mowing instead of grazing. The nature conservation organisation/NGO "Bund Naturschutz Alb-Neckar e.V." (BNAN) will take care of the LIFE sites in future.

Private owner or manager?	Surface concerned	Type of agreement	Duration of agreement	Restrictions agreed
27 private owners with 34 parcels of land	2,6 ha	The beneficiary holds contracts with the shepherds that the fencing equipment will be used for the purpose. For the private owners the	Contracts with shepherds supported by agri-environmental payments	Fencing equipment has to be used and maintained for project

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		beneficiary just provided organisational help. The land owners have contracts with the shepherds.	(LPR), thus restricted to funding periods (5 years).	purpose.
Management agreed	Fiscal benefits	Other material benefits	Immaterial benefits	Land trust or other body
In LIFE clearance of shrubs etc and fencing took place to enable grazing. Follow up: Common grazing by two shepherds with sheep and goats	no	No	Parcels are in use and 'tidy' again	Future guidance and help: LEV (see below)

A Landschaftserhaltungsverband (LEV, or sometimes Landschaftsentwicklungsverband) is a special purpose association for landscape maintenance organised as a society. Members can be those communities, authorities, nature conservationists, farmers and land owners that are involved in the maintenance of the landscape. It aims to provide a coexistence of the interests and needs of nature conservation, communities and agriculture. They provide consultancy on actions and funding schemes.

Motivation: Simplification and facilitation.

Management can go on as long as grazing schemes will be supported. Several owners were initially reluctant to sheep grazing as the traditional management is mowing. The demonstration effect from neighbouring sites convinced several additional land owners.

Creation of suitable units for grassland management: restoration of paths to improve access to orchards and facilitate maintenance (action C2a2)

Private owner or manager?	Surface concerned	Type of agreement	Duration of agreement	Restrictions agreed
Many private owners of the adjoining parcels with orchards	6 ha	No written agreement with the land owners. Effect reached by facilitation of access.	No restriction for the maintenance of the paths:	None

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		Written agreement with commune to maintain the paths in future (community was co-financing and has an own interest in the maintenance).	permanent; Permanent management of the orchards not guaranteed	
Management agreed	Fiscal benefits	Other material benefits	Immaterial benefits	Land trust or other body
LIFE: restoration of path/access. Follow-up: orchards can be maintained again	no	Facilitation of access	Parcels are in use and 'tidy' again	Future guidance and help: LEV (see above)

Motivation: facilitation of access.

Initial action within the project; now there are more and more land owners leasing their orchards for grassland management to the shepherd.

Creation of suitable units for grassland management: improvement of the grazing scheme on 114 ha through the construction of a sheepfold at Weilheim (action C2b)

The sites were already leased to a shepherd before. But the long-term management was not secured without a stable for the flock. With this sheepfold the shepherd has a long-time perspective on site.

Private owner or manager?	Surface concerned	Type of agreement	Duration of agreement	Restrictions agreed
Owner is the community of Weilheim, one of the co-financers of the project.	114 ha	Written LIFE partnership agreement, including the sheepfold. Community has contract with shepherd for the use of the	Earmarking of the sheepfold for 20 years.	None

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		sheepfold. + shepherd receives agri-environmental payments (LPR) for right management; contracts for 5 years		
Management agreed	Fiscal benefits	Other material benefits	Immaterial benefits	Land trust or other body
Life provided sheepfold to the town of Weilheim, but Weilheim was co-financing. Earmarking of the sheepfold for 20 years. Commune is forced to implement right management due to N2000 sites.	no	Sheepfold provided	Parcels are in use and 'tidy' again	Agri-environmental contracts from the local nature conservation authority (UNB)

The approach was a means to support the shepherd and to give him a perspective on the site, otherwise the shepherd could not have maintained the needed on-site flock of sheep, resulting in the loss of the instrument for management (the sheep).

A positive side effect is that more valuable sites profit from the secured presence of the shepherd.

Demonstration project "Tree care on private land parcels" (Action C4)

The implementation of this action was very successful. Instead of the foreseen 4000 trees, more than 8800 trees were treated within this action. This clearly shows that the project achieved its objective to mobilise the participation of high number of private landowners:

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The action began with a testing phase for different funding/compensation schemes.

Tree care of 8.825 trees on 1.736 parcels of land within 33 communities.

Private owners were compensated for the care/revitalisation of each tree.

For the revitalisation of the trees only persons that have participated in the training for tree care (D3) could be contracted.

Private owner or manager?	Surface concerned	Type of agreement	Duration of agreement	Restrictions agreed
Private land owners	390 ha	Written support agreement: Written application at the community; written agreement on support; implementation; refunding of the compensation after request.	The land owners who wanted to participate had to declare that the respective trees will be maintained through the following ten years	Long-term interest in maintenance needed.
Management agreed	Fiscal benefits	Other material benefits	Immaterial benefits	Land trust or other body
Suitable tree care + maintenance of the trees for ten years.	No	Compensation paid within the project: fixed amount per tree or a fixed percentage of the invoice of a professional tree care expert (about 2/3 of the real costs).	Parcels are in use and 'tidy' again; Maintenance of cultural landscape	No

Mainly the owners were interested in the care of the orchards (traditional task, responsibility for the own property) but challenged by this task (age, active schedules). The LIFE support provided sufficient motivation and initiation to restart the maintenance, even when some land owners had to invest additional funds of their own (amounting to several €100).

New motivation for conservation and awareness of environmental issues was imparted through improved knowledge on the natural value of the habitat.

Besides the general project management by the coordinating beneficiary the project implemented a second layer of management for each C-action. It was important to have a management team on site, which was both known by and accessible to the people on site.

The pruning of orchard trees lead to a very high amount of clippings. The removal and use of these clippings was a crucial factor to avoid the scrub encroachment. Within C2, a pilot project was implemented in order to collect these clippings at central places and to produce energy in a biomass power plant located nearby. The easy dumping of clippings enlarged the success of the action. Furthermore, many communities will maintain this system.

The owners of the trees implemented the care/revitalisation of trees for a higher number of trees than they were compensated for.

The highest implementation rate was reached when there was a joint contracting by the beneficiary for the professional tree care experts. In future this might be done by the local LEVs (see above).

Demonstration project "Champagner Bratbirne" (Action C5)

The partner "Manufaktur Jörg Geiger GmbH" is a company that produces a high number of different products out of fruits that grow in traditional meadow orchards such as fruit wine, "fruit liquor" and sparkling wine made out of a special pear variety, the "Champagner Bratbirne" (<http://www.manufaktur-joerg-geiger.de>). The company's slogan is "valuable products and valuable habitats".

Main activities were: Plantation of 2300 trees, restoration of 40 habitat trees, installation of 100 nesting boxes (for birds, bats and hornets) and 100 perches for birds (Sitzstangen).

It will take 25 to 30 years before the first pears can be harvested. This shows that it is of commercial interest to immediately initiate the planting of old varieties, however following a twenty-five year period these specific varieties will yield prices approximately five to ten times higher than normal. This can be interesting for other farmers as well, as the company needs to buy valuable pears from others due to them owning insufficient amounts of land.

C5 was aimed at copycat projects. Detailed information with brochures and coverage on the internet would help enable similar such projects from benefiting from their actions.

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Private owner or manager?	Surface concerned	Type of agreement	Duration of agreement	Restrictions agreed
Private company	11,23 ha	Partnership agreement + co-financing (own investment!)		Mowing not before June
Management agreed	Fiscal benefits	Other material benefits	Immaterial benefits	Land trust or other body
Permanent management as orchard	No	Plantation financed by LIFE (with own contribution/co-financing)	New orchard	No

Motivation mechanisms: Marketing; opportunity to perform trials with specific trees.

This action was planned with a demonstration effect for suppliers as well as other manufacturers. The aim was to show that sustainable economic and ecological management is possible.

Results

At the end of the project, 36 communities and more than 1,000 private land owners were involved in the project.

On communal grounds about 8,300 trees and 196 ha were maintained (action C1).

On more than 1,700 parcels of private grounds (action C4) more than 8,800 trees and more than 390 ha were maintained. It is estimated that approximately the same amount of trees were maintained additionally solely with own funds of the owners. Thus LIFE triggered additional large scale investments.

Additionally, the optimization of grassland management on a total of around 140 ha took place (action C2) by the establishment of a mowing/grazing regime on 6.3 ha, by the improvement of access to traditional orchards on 6 ha through the construction of a path, by the transformation of traditional orchards on 12.25 ha and by the improvement of the grazing scheme on 114 ha through the construction of a sheepfold.

For all the sites where a LIFE funding was involved the future management of the trees by the owners (communities + private) was secured for at least 10 to 15 years.

A newly planted orchard with about 2,500 trees will develop on another 11.8 ha. It will be maintained by a fruit growing and processing manufactory (action C5).

Due to the large knowledge transfer (intensive information actions, consultancy and networking activities) on the importance of orchards and key knowledge, such as how to treat the trees correctly, the large-scale effect cannot be estimated in detail, but it is clear, that it extends beyond the project area.

Potential for transfer

One of the most important outcomes of the project is the replication and application of the restoration measures that were tested within the project on a larger scale. The project had a real impact on regional policies that are dealing with the conservation and management of traditional orchards.

The main aspects demonstrating the transferable benefits of the project are summarised below:

- The project has tested a scheme to pay private landowners of small traditional orchards (Gütlebesitzer) in order to maintain the conservation value of their private sites (action C4). After some initial problems the project has developed a conservation scheme, which was very well used by local land owners. This scheme has been adopted by the federal state of Baden-Württemberg. In August 2014 a new funding and conservation scheme has been established based on the experiences of this LIFE-project. This is a very large leverage effect of this LIFE project.
- Within action A4 the project developed a methodology, how the restoration of traditional orchards can be used as "compensation measures" within an existing "habitat banking and biodiversity offsets scheme" at a municipality level. The project has developed a standard methodology on how ecological improvements of traditional orchards can be measured based on standard criteria (and then calculated with so called "Eco-points"). This method has been incorporated into the standard scheme for the evaluation of compensation measures of the state of Baden-Württemberg.
- Considering the outcome of A1 (the development of a conservation strategy) a new orchard was planted with about 2.500 trees on another 11,8 ha. It will be maintained by a fruit growing and processing manufacturer (action C5). Intensive public relation activities promote this demonstration project to develop new valuable habitats. The experience can be used by other land users and producers.

- Within action D3 a training module has been developed which includes the methodology of tree caring and tree pruning and the specific requirements to restore traditional orchards based on the Natura 2000 objectives. More than 700 persons have been trained during the LIFE project. The content of the training schemes has also been used for the development of other training modules, such as within the LIFE project "Heckengäu".
- Within action D4, 49 persons were trained as "multipliers for meadow orchards", called "Obstler". The main aim of the action was to qualify these persons to organise specific events related to environmental education whilst also raising awareness of the objectives of the LIFE projects. This has been very successful, as during the implementation of this action around 500 events were organised. During the LIFE project, the "Obstler" have created a unique society ("Die Obstler - Kulturlandschaftsführer Streuobstwesen Albvorland und Mittleres Remstal e.V.") in order to continue the activities after the end of the project. The experiences of this training programme have been used to initialise similar training programmes in four other regions with traditional orchards.

Nearly all the actions of the project are of a demonstrative nature using best-practice or innovative methods which can be applied to other areas as well. Thanks to the cooperation with many players and the editing of the results in the form of high quality materials (brochures, films, etc.) as well as interesting expert meetings, it was possible to distribute them well. Requests for this material from all over Germany from communities, authorities, nature conservationists as well as private land owners show, that there is a high interest in this high quality material. Thus there is a high multiplier effect.

This effect is increased by the high number of trained persons within the project. As a consequence of their additional experience from the project, several of them found jobs related to the project issues within other region. Now they import and spread their 'LIFE knowledge' within authorities, associations for landscape management etc. outside of the project area. E.g. in the administrative district of Schwäbisch Hall a new funding scheme for orchards was launched.

Scoring

Transferability *(please click "1" if not transferable, and "5" if very transferable)*

Just a '4' as a lot of coordination and human input is needed.

1 2 3 4 5

Impact and effectiveness *(please click "1" if not effective and "5" if very effective)*

1 2 3 4 5

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Sustainability (please click "1" if not sustainable, and "5" if very sustainable)

1 2 3 4 5

Flagship project (please click YES, if scoring in each of the above sections are "4" and more)

Yes No

Flagship project



This is the first LIFE project in Germany, which specifically addressed the conservation of traditional orchards and systematically combined various conservation strategies. Hence, the project has a very high demonstration value for other projects and programmes that are dealing with traditional orchards with high conservation value.

The main outcome of this project is that various measures for the restoration of traditional orchards, which have been successfully tested within this LIFE project (such as a funding scheme for private landowners), are now applied on a larger scale.

The innovative approach of the project was to help communities and people to do something voluntarily that they would have otherwise feel forced to do. With a wide set of facilitation activities the task of the maintenance of the orchards became much easier than before. Thus the project provided a lot of support to improve a potentially otherwise unpleasant situation.

Success factors were the intensive preparation of the project to have many communities as co-financers (and supporters) of the project from the beginning. Another important aspect was the intensive presence of staff from the project on site and the training of multipliers.

Task 9b - Case studies

Summary

The project has developed both a methodology and a series of guides describing practical methods for co-operation on nature conservation projects when implementing Natura 2000 (N2000) plans on privately owned land in Denmark. The main stakeholders are the municipalities (responsible for the implementation of N2000 plans on private land), agricultural advisors (there is a very strong link between agriculture and nature in Denmark), and the landowners.

Two areas in the Vejle Municipality have been used as pilot areas where cooperation with landowners on a voluntary basis has been trialed. The project has produced several good documents including a N2000 Handbook describing the methods to cooperate with landowners, inspirational catalogues for decision makers, example contracts and agreements, and fact sheets on nature conservation.

Project information

LIFE11INF/DK/891 SMART Natura

Background

Project objectives:

- The overall objective of the project is to ensure a smooth and cost effective implementation of the Natura 2000 plans for the benefit of biological variety, natural amenities, and the people who live in the Natura 2000 areas.
- The specific objective of the project is to involve landowners actively and positively in the implementation of the Natura 2000 action plans. The objective is therefore to generate increased awareness and ownership among landowners in relation to the issues concerning biodiversity and Natura 2000 in such a way that the individual landowners will no longer see limitations but gain an understanding of and see opportunities in implementing concrete Natura 2000 action plans and thus contribute to maintaining biological diversity.
- The project focuses on mobilising and educating relevant authorities and advisers with the aim of actively involving affected landowners in the preparation and implementation of Natura 2000.

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- Furthermore, the objective of the project is to facilitate the development in the targeted Natura 2000 areas, will spread to surrounding zones via the creation of ecological connections and networks to other natural habitats.
- Finally, the project aims to improve Natura 2000 planning processes in order to reduce the chance of negative impacts, such as fragmentation, due to inappropriate development strategies.

Actions:

- A survey is undertaken among stakeholders to identify the challenges in implementing the Habitat and Birds Directive through cooperation;
- A procedure to assist the implementation of the Natura 2000 plans in the two pilot sites will be developed. ;The procedure will be implemented;
- A co-operation methodology will be developed enabling project members to assist landowners in finding solutions for potential problems;
- A manual for 'Smooth Methods of communication, cooperation and Awareness Raising Tools' for the N2000 plans will be developed; and
- The project will also produce recommendations for adjustments of the national guidelines on the implementation of the Habitat and Birds Directive.

The coordinating beneficiary is the Knowledge Centre for Agriculture which changed its name to SEGES. The associated beneficiary is the Municipality of Vejle. Stakeholders are agriculture advisors, landowners, other municipalities and local authorities etc.

Environmental problems addressed by the project

This project is not primarily a land stewardship project, however it is targeted towards land stewardship. In Denmark the management and implementation of the N2000 areas on private land are the responsibility of the municipalities and should be based on voluntary agreements with the landowners. There are no designated funds to use if and when implementing the plans, therefore making good co-operation with landowners crucial. This INF project focussed on finding means of cooperation with landowners that allowed them to utilize all methods available to manage their land as foreseen in the N2000 plan.

One of the main outcomes of the project is the production a handbook which analyses the difficulties for cooperation and identifies the barriers for the landowners to either implement the N2000 plan or to co-operate with either municipalities or other landowners to implement these plans.

Land Stewardship methods applied in the project

Stakeholders directly involved in the land stewardship approach

One of the main outcomes of the project is the production of a handbook which analyses the difficulties for co-operation with landowners as well as potential barriers for landowners attempting to either implement the N2000 plan or to co-operate with municipalities or other landowners.

The aim of the handbook is to give advice and examples for municipalities, agricultural advisers, and landowners on how to co-operate when it comes to implementation of N2000 plans. The handbook is not a fact sheet that should be followed strictly but a guide with a hands on approach.

The main method employed is to create voluntary agreements with landowners on how their land should be managed. The focus in the handbook is on defining types of landowners and barriers and finding means to deal with these in a constructive way. The voluntary agreements are made to ensure that the landowner can apply for different subsidies for the management of the area.

The handbook can be found here:

http://www.smart-natura.dk/English/Natura_2000_Handbook.aspx

Other achievements in the project include:

- The inspiration catalogue which is targeted at supervisors, decision makers in municipalities, and in advisory companies. The catalogue emphasizes the importance of good project management when starting a nature conservation project where the main target group are landowners and the means for accomplishing the goal is voluntary agreements. The catalogue can be found at: <http://www.smart-natura.dk/Materialer/Inspirationskatalog.aspx> , the English version is in production .
- Model tenancy contracts and other contracts. To facilitate the discussions between the different stakeholders the project has produced model contracts which can be found at: http://www.smart-natura.dk/Materialer/Aftaler_og_kontrakter.aspx .
- Fact sheets on nature conservation in the agricultural landscape have been produced within another project Taste the Landscape (Smag på landskapet) https://www.landbrugsinfo.dk/Miljoe/Natur-og-arealforvaltning/Natur-kultur-vildtpleje/Naturpleje/Sider/faktaark-om-naturpleje_pl_13_1478.aspx .

The project has focused on the interaction between facilitators and actors and produced the above mentioned documents to support the development in Denmark towards more voluntary agreements on nature conservation.

Concerning the interaction between stakeholders (green arrow on Fig. 1 below) there is a lot of information and practical examples in the N2000 Handbook (chapter 7 and 8).

Methods, motivation mechanisms

In the N2000 handbook the conclusions on how to implement a Nature Conservation Project or a N2000 plan on a privately owned area have been presented in chapter 16. These are summarised here.

The planning phase

- Project work is a team task.
- Create an overview of the skills and resources available. This is about the project culture supporting the skills needed in the project team, whether it is a small or a large municipality.
- Be aware that nature projects take time as they are based on the voluntary participation of landowners (see Chapter 3 on good project culture in the municipality and advisory companies).

The motivation phase

- Gather as much knowledge as possible about the area where you have to negotiate and the landowners you will be talking to (Chapter 5).
- Be aware that landowners can be very different and have many different interests and motivations associated with a project (Chapter 3).
- Be aware of the types of barriers which are important to landowners, and which you might encounter in landowner dialogue in an area (Chapter 4).
- Always be aware of the following barriers:
 - Rules and inspections for funding subsidies for nature conservation
 - Finances of nature conservation
 - Hunting interests
 - Nature conservation takes time for the landowner/grazier
 - The municipality's role as both authority and as the one responsible for landowner dialogue
- Identify people in the area who may be suitable as ambassadors for the nature project. Be aware of what role a person can and cannot take on as an ambassador (Chapter 6).
- Be well prepared for landowner dialogue – both in terms of maps of the area, the objectives of the project and what room you have to negotiate (Chapter 7).

- Foster trust with the landowner by meeting them where they are and being responsive to what they say about the area – even if they go off on a tangent. It is important the landowner trust that the project is something you are together on and that they have a real opportunity to influence the project (Chapter 7).
- Identify the interests landowners may have in a given project by showing interest, asking questions and listening to the landowner when a project idea is presented (Chapter 7).
- Respect if a landowner is not interested in a project from the start and make sure to create a "loophole" so that it is possible to return at a later date if circumstances change or the landowner changes their mind (Chapter 7).
- Do not spend too much time on landowners who are already making unrealistic demands in the initial negotiations or have a negative attitude (Chapter 11). Consider whether the landowner can be motivated if they are contacted by another person, possibly an adviser or an ambassador (Chapter 6).
- Landowners must have information the specific consequences a nature project can have for an individual.
- A nature project may limit future operations and increase obligations. The neighbours' nature conservation can also influence the future farming in the area (Chapter 13). This is a task for agricultural advisers, as only they can take on professional liability.
- Provide landowners with information on opportunities for cooperation on grazing and fully explain responsibilities, advantages and disadvantages. In many cases a standard grazing or leasehold agreement is appropriate, but sometimes the solution is grazing guilds/associations or forming a company (Chapter 9). This is clearly a task for advisers, who know more about the landowners' operational conditions and are covered by professional liability.

The application phase

- Clarify who has sufficient resources to pay contractors while the project is carried out. It often takes a long time from project start until the accounts have been prepared and the money comes in from the Danish AgriFish Agency. The bigger the project, the more money this will be, and the longer it will typically take before the money is paid. Often there will be a set-up of a minimum of ½-1 year (Chapter 12).
- Enter into agreements with landowners where they are responsible for grazing or allow grazing and possibly maintain fences. It is important that they know and accept their obligations before the application is submitted.

Otherwise, the municipality risks being stuck with the responsibility for fences and areas for the five years required for fencing and clearing projects, if the municipality is the applicant (Chapter 9 and 15). It is also the first step to ensuring long-term management of the areas (Chapter 14).

- Think through the construction phase from start to finish before submitting the application and check where it is and is not safe to drive. Be aware that there are periods where work must be avoided. Remember agreements on who should repair roads and bridges damaged during construction work (Chapter 8).

The construction phase

- Inform landowners about what should happen and when it will happen – even the landowners who have chosen not to participate in the project. (Chapter 15).
- Many landowners have close ties to the project, and most would like to help in the actual execution.
- Contact with the landowners can prevent misunderstandings and mistakes, e.g. in connection with crossings and stowage space. Therefore, make sure that the contractor has the phone numbers of relevant landowners (Chapter 8).
- Remember to celebrate the nature project with the landowners when the construction work is completed.
- The nature project can be inaugurated, e.g. by inviting landowners and other stakeholders. All involved participants in the project can thus celebrate the good cooperation (Chapter 15).

The operation phase

- The future management must be ensured in the best possible way. This can be based on a nature plan.
- The landowners' interest can also be maintained by fostering pride in the nature they are managing (Chapter 14).
- If landowners have entered a grazing agreement with a grazier, it is important that he or she orient the grazier on the commitment conditions imposed on the area each year. The subsidy conditions can change from year to year and the landowner can also change form of inspection from year to year. If the grazier is not aware of applicable conditions, it is difficult to adapt their management of the area to the applicable requirements (Chapter 9).

Long-term operation

- Agree with the landowners what their future wishes are in relation to contact with the municipality and advisers. If they are interested in an

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annual field walk, an annual coffee meeting (perhaps with a predefined topic), or something else? How and how much they would like to be informed of different topics concerning nature conservation and livestock (Chapter 15)?

- Try to make the landowners interested in forming local networks which can provide a link to the municipality and advisers. Involved landowners are a good driving force for the future management and new projects (Chapter 9 and 15).

Results

This project and the methods they have described has received a lot of interest in Denmark. They have gathered information into a handbook and given it a format that is easily available and useable. Whilst the information presented is not new, it is consolidated from experiences at the two pilot areas in the LIFE project as well as on experiences gathered from other municipalities.

The LIFE project has interacted with at least 10 other municipalities during the implementation to gather their experiences and to receive feedback on the methods developed.

The material produced, the models developed and described, and the active dissemination of the LIFE project gives a very good basis for the implementation of N2000 plans on private land on voluntary basis.

Potential for transfer

The achievements described in the main deliverables are easily transferable to any privately owned N2000 site in Denmark. The stakeholders are the same but the approach chosen by the municipality can be different. The landowners are different in each case which increases the challenge but different methods to tackle situations are well described in the material produced.

Scoring

Transferability *(please click "1" if not transferable, and "5" if very transferable)*

1 2 3 4 5

Impact and effectiveness *(please click "1" if not effective and "5" if very effective)*

1 2 3 4 5

Sustainability *(please click "1" if not sustainable, and "5" if very sustainable)*

1 2 3 4 5

Task 9b - Case studies

Summary

The project was a continuation of LIFE 99/NAT/E/6336, pioneer in the conservation of threatened species in private estates of the Natura 2000 network in the Mediterranean. The aim with this project was to propose and support a new type of habitat management in Natura 2000 sites, proving that it is possible to combine threatened species conservation with traditional and profitable estate management.

This project covered an extensive area (circa 60,000 ha.) and aimed at protecting three protected birds in Spain (imperial eagle, black vulture and black stork). The project was run by a private Foundation (CBD) and sought the collaboration and partnership of private landowners. The selected estates hosted relevant locations for these bird species which meant a significant percentage of the total world population (12%). As administrations cannot undertake active management within these estates, this Foundation took the active role of gaining this land for effective conservation in a very successful scheme.

Private owners were encouraged to join in partnership and find suitable financing schemes that would help them to maintain their threatened bird populations. Basic implementation actions involved suitable habitat management, measures to increase rabbit populations, close surveillance of target birds (with supplementary feeding when needed) and other measures oriented to better protect them. To this end, the project provided suitable documents that defined precise costs for conservation measures at private estates. Relevant work was also completed regarding the feeding of scavenger birds (the project was part of the task force that managed to change the European legislation in this regard) and the modification of dangerous power lines (the project also helped relevant parties conform to the Spanish regulations in this regard).

Finally, the project encouraged private owners to unite their efforts as owners of a significant proportion of Natura 2000 areas with priority species. The aim was to create a common strategy. This should allow them to find funds that would help them ensure a suitable and nature oriented management of their estates. This work was fundamental to the establishment of an association named 'Amigos del Aguila Imperial' (Friends of the Imperial Eagle). Very shortly after, this association became part of the Foundation of Friends of the Imperial Eagle and the Iberian Lynx, which unites 140 private owners that are willing to support these two priority species that live within their estates.

Project information

LIFE03 NAT/E/000050 CBD 2003. Conserve the Spanish Imperial Eagle, Black Vulture, Black Stork.

Background

The project was implemented from 01/09/2003 to 01/09/2007.

The coordinating beneficiary was Foundation CBD Habitat, a private foundation devoted to the conservation of endangered species in Spain.

Associated beneficiaries were:

- Spanish Ministry for the Environment.
- All the private estates collaborating in the project (a total of 14).

The project sought to preserve imperial eagle (*Aquila adalberti*), black vulture (*Aegypius monachus*) and black stork (*Ciconia nigra*) populations in privately owned estates of Spain's Mediterranean forests. The whole conservation strategy was based on involving private landowners in the conservation of threatened species present on their land. An outline strategy had already been established in a former LIFE project (LIFE 99 NAT ES 6336), but this project covered a wider area and was more ambitious in the involvement of private landowners. Therefore, land stewardship was envisaged as key for a suitable long-term solution to nature protection.

Management measures focused on the protection of the three target species in order to help stabilise and increase their populations. To this end, management plans were drawn up and put into action on 21 private estates (out of 22 foreseen). Population monitoring and individually tailored feeding and nest management programs were established with direct participation of landowners. All of them were partners of the project. Their commitment was to assign specific surveillance tasks to the wardens in their estates. A few owners went far beyond this involvement and financed habitat improvement measures (one of them invested 0.5 M €). Apart from measures focused on habitat improvement and promotion of rabbit populations, the project made other significant contributions to legislation regarding these species (power lines and disposal of dead livestock) and took part working against any activity that would be detrimental to them (e.g. allegations to the construction of a highway, railway, etc.).

Public awareness and training campaigns targeted relevant stakeholders and sought for solutions that would prove win-win-win and convince all parties. Valuable documents were produced by the end of the project, some of which held significant interest for land stewardship (i.e. a guide defining specific conservation

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costs on private estates. It also describes the available funding mechanisms available in the regions of the project at the time for each of the measures identified).

Environmental problems addressed by the project

The imperial eagle (*Aquila adalberti*), the black vulture (*Aegypius monachus*) and the black stork (*Ciconia nigra*) are three EU-priority listed species that breed mainly in Spain's Mediterranean forests. Many of the best-preserved Mediterranean landscapes are located on private land which has maintained its natural value due to diverse management systems. This contrasts with the often stated conflict between landowners and conservationists. In reality, conflict was largely due to the absence of a conservation policy for private land, which hindered implementation of adequate management practices for a large share of the wild populations of key species. Owners and managers only perceived real or potential restrictions in respects to nature conservation. This project aimed at bridging this gap, looking for ways in which nature was cared for whilst involving minor adjustments to human activities. The land stewardship scheme was important in completing this objective.

Land Stewardship methods applied in the project

Stakeholders directly involved in the land stewardship approach

The scheme for land stewardship agreements is quite simple in this project as it just involves a private Foundation with private landowners. All the landowners included were partners of the project, participating in the implementation of the actions in their estates (habitat improvement, warding) and contributing to finance them.

The Spanish Ministry of the Environment was also a partner, but it did not have an active role in these agreements.

Some of the stewardship agreements have continued and/or evolved after the project with Foundation CBD within the LIFE project Priorimancha (LIFE 10 NAT ES 742).

Methods, motivation mechanisms

The project team had a selection of the best estates regarding their nature conservation values (i.e. presence of nesting areas, good habitat conditions, etc.). With this selection, the project team visited the relevant landowners and explained the project objectives and possible means of collaborating. Some of them were

engaged before the project began, whilst others were included afterwards with a supplementary agreement.

Then, the exploitation of the estate and its natural values were studied in depth and a preliminary action plan was devised. The management actions proposed were then explained to the owners. They would make some suggestions or requests, which were then negotiated between both parties. Therefore, a final set of measures would be set by consensus.

Most estates collaborated financially with the project devoting additional time and the dedication of the warden or game-keepers in surveillance tasks of critical areas defined by CBD or areas where management actions were being implemented. This collaboration proved essential to respond quickly to specific incidences (e.g. recovery of fallen chicks, poisoned animals, etc.) and to avoid human disturbances. At the same time, the beneficiary was very active promoting a shift of traditional management in those aspects that could be negatively affecting the targeted species (e.g. forestry works, hunting days, etc.). In this sense, the action had a long lasting awareness-raising effect, as wardens have gradually changed their management procedures and will continue with these updated measures at no cost to themselves, as most of them do not require financing.

Some estates contributed additionally with specific management actions. This was especially relevant in the case of Villamagna (owned by an English Lord) with a contribution of more than € 500.000 to the project.

One of the things that was agreed between both parties was the commitment to respect a minimum threshold of rabbit density that should not be diminished. This threshold would be established by CBD according to the threatened species that bred or fed in each estate. Therefore, rabbit hunting was in fact not banned in most estates. It was allowed as long as the density of rabbits needed to support target species was respected. This scheme prompted the will of all parties to keep rabbit densities high, as higher densities would allow the coexistence and compatibility of hunting and nature conservation. Hunters do appreciate the presence of vultures and eagles, especially if this does not interfere with their hunting. Therefore, if all parties contribute to high densities, everybody wins. The project demonstrated that not only this is feasible, but that it also encourages landowners to get more involved and more sympathetic to nature conservation. In fact, this prompted the will of owners to continue participating in conservation projects through the association of 'Friends of the Imperial Eagle'.

The project also monitored several actions that were deemed as beneficial for the targeted species and then studied which were the most effective ones. Some of them continue to be applied today by landowners. All of these measures were

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suitably compiled in very detailed management plans for 10 estates, as a demonstrative documentation of how suitable management should be done. This work was the basis for defining good practices in Natura 2000 private estates (document produced with the project).

The implication of a private Foundation in this kind of agreement was important at the time, as landowners were usually reluctant to collaborate with the administration; this provided an easier working relationship for them. This has changed at present, but this type of project meant a turning point in the participation of private property with nature conservation initiatives. This was very important at the time, since 75% of N2000 territory in Spain is in private hands. Though administrations have also become involved in these schemes as a strategy to protect threatened species, we can say that Foundation CBD paved the way to these types of collaborations in many areas of Spain (mainly Castile-La Mancha, Extremadura, Madrid and Andalusia).

These stewardship schemes started to make these conservation initiatives a normal procedure that has subsequently been followed in many areas of Spain. We cannot say that this was a pioneer initiative, but it did bring some structure and provided the necessary guidelines to make it a 'usual' procedure.

Private owner or manager?	Surface concerned	Type of agreement	Duration of agreement	Restrictions agreed
Private owner	53,000 ha	Written 1) management support agreement,	Project period	-Rabbit hunting if the population densities are below the threshold determined (established as a minimum optimum for the targeted species). -Respect of nesting areas during critical periods (no game hunting or agricultural work in the surrounding to avoid disturbances).

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Management agreed	Fiscal benefits	Other material benefits	Immaterial benefits	Land trust or other body
<ul style="list-style-type: none"> - Specific actions aimed at boosting the rabbit populations (sowing crops, constructing refuges, etc.). -Detailed monitoring of target species 	--	--	<ul style="list-style-type: none"> -Technical assistance to landowners or estate managers -Habitat improvement of their estates 	

The impact and effectiveness can be considered as high. Management actions helped to increase breeding pairs in the estates of the project. In raw figures: 28.6% for the Imperial Eagle, 31.8% for the Black Vulture and 57.1% for the Black Stork.

A relevant gain of knowledge was done with this project regarding the three targeted species and the management measures needed to protect them. These were compiled in relevant publications. The project also passed on this information to the regional administration and the Spanish Ministry. As part of the staff had collaborated in the working groups for these species, the information gained with the project was included in the recovery plan for the Imperial Eagle in Spain, the habitat conservation plan for the Black Vulture in Extremadura, the recovery plan for the Imperial Eagle in Madrid and in the Management plan for the habitat of rabbits in Castile-La Mancha.

The project helped to define precise conservation costs on private estates, studying possible funding mechanisms in Natura 2000. This could allow the transfer of funding from the red/yellow box to the green box in policy planning at the relevant administrations of the regions affected. A specific booklet was drafted in this regard with precise conservation costs and possible funding mechanisms. It was the first time in Spain that such work was done (and other examples are relatively unknown).

The project also grounded the basis for sustainable management in the estates. The manual for drafting management plans in private estates and the catalogue of good practices in Natura 2000 private estates were good tools developed for this. Both were passed on to decision making bodies. Without the access to these estates and the thorough monitoring done, much of this information would not be available.

Sustainability was a weak point in the project design as there was no provision for continuation envisaged. However, the Commission stressed during the project that this was an important aspect of the project. The beneficiary reacted suitably and

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lobbied both with owners and with the administrations involved to ensure that financing was available for sustainable habitat management. In parallel, they designed tools to enhance this:

- Guidelines of good practices in Mediterranean estates included in Natura 2000.
- Catalogue of good practices for habitat management of the Mediterranean forests in Natura 2000.
- Methodological guidelines for elaboration of management plans for private estates.
- Establishment of indicators for the conservation status of the three targeted species.
- Guidelines of the management of the habitat and the Black Vulture in Spain.
- Guidelines for habitat management for the Iberian Lynx (*Lynx pardinus*) and its prey, the wild rabbit (*Oryctolagus cuniculus*). This last publication was produced with LIFE 02 NAT/E/8617 but experience gained with this project was also included.

The documents produced can be considered an effective 'toolbox' for nature conservation in private estates of the Mediterranean forest in Natura 2000. Most of these documents are available at the website of the beneficiary: www.cbd-habitat.com

The work with owners resulted in an initiative to establish an association of 'Friends of the Imperial Eagle'. As previously stated, within a short period this association became part of the Foundation of Friends of the Imperial Eagle and the Iberian Lynx that unites 140 private owners willing to partake in conservation efforts for these two priority species that live in their estates.

Working with administrations was not so straightforward, though the provisions prepared in the different recovery/management plans helped establish some funding mechanisms through ERDF funds.

According to a recent telephone conversation with the project manager, some of these collaborating estates are currently under stewardship agreements within the project Priorimancha. However, her opinion is that the collaborating estates have all changed their mindset concerning management that benefits threatened species and that they have continued to perform management actions since the project's conclusion.

Results

Results have already been mentioned in the preceding chapter.

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Overall, the methodology followed has proved that direct management is effective for reverting negative impacts upon threatened species and, most importantly, that traditional management in private estates is compatible with nature conservation.

During the implementation of the project, the beneficiary received many offers of new estates willing to collaborate. This shows the positive social perception of actions carried out with these goals and the will of local parties to collaborate with nature conservation organisations. This change of awareness was very favourable and is attributable to landowners recognising the potential to contribute to conservation projects with minimal changes to their existing management practices and zero detrimental effect on their profits.. This was a key step in garnering a collaborative attitude towards N2000.

Potential for transfer

Transferability is scored as high, as the project made a big effort in both systematising information and providing useful tools for anyone potentially considering taking part in such stewardship schemes. Though the project closed in 2007, the information derived from the project is still considered of high value.

Scoring

Transferability *(please click "1" if not transferable, and "5" if very transferable)*

1 2 3 4 5

Impact and effectiveness *(please click "1" if not effective and "5" if very effective)*

1 2 3 4 5

Sustainability *(please click "1" if not sustainable, and "5" if very sustainable)*

1 2 3 4 5

Flagship project *(please click YES, if scoring in each of the above sections are "4" and more)*

Yes No

Flagship project

This project paved the way to reconciling human activities with Natura 2000 conservation and providing mutually advantageous (win-win) situations. Results were excellent and all the information was suitably compiled in manuals and best practice documents. The project worked hand by hand with owners but also made an excellent lobby job with administrations. In all, we consider that this project had a remarkable demonstration value and that it can still be highlighted as an excellent LIFE project.

Task 9b - Case studies UK Cass

Summary

The project used different management models in an effort to improve the river systems that support the highest densities of wild Atlantic salmon in Scotland. The management systems are complex because there is a high diversity of land owners, whom may range from large, affluent estates to tenant farmers with limited incomes. Although the land owners/land users are responsible for the riparian habitats and the impacts that the land based activities have on the water courses, they do not necessarily have rights over the water course adjacent to their land. This complicates the management models and means that there often needs to be two separate management prescriptions for each river stretch. Clearly the costs incurred by one land owner/land user to improve a stretch of river for salmon that another proprietor will benefit from may not provide incentive for action.

The River Trusts, together with the River Boards, play a vital role in bringing together the different communities to work towards a common goal under the guidance of the competent authority and using financing from a number of sources including the private sector.

There are two management models. The first is for the in-stream works, this is a voluntary management transfer agreement where the river proprietors, under direction from the River Board, agree to a series of management actions carried out by, or on behalf of, the River Trust. The actions are funded by the Trust and all subsequent management is carried out by the Trust. The proprietor clearly benefits and they make a contribution to the River Trust in line with the scale of the works carried out. The second is for the riparian work, this is a voluntary management support model and focuses on work being carried out and financed by the project but all subsequent management actions for maintenance are carried out by the landowner under an agreement with the competent authority and secured by an annual payment. The agreements last for 10 years but can be renewed thereafter provided they are still valid.

Project information

Project title: Conserving Atlantic salmon in Scotland

Acronym: Cass

Project no. LIFE04 NAT/UK/000250

Background

The Conservation of Atlantic Salmon in Scotland (CASS) project was, at the time, the single most significant salmon conservation project ever undertaken in Scotland, with the aim of significantly improving the natural freshwater habitat for Atlantic salmon on eight of the key salmon river Special Areas of Conservation (SACs) in Scotland. These rivers constitute approximately 38% of the Atlantic salmon resource in Scotland. The project was designed to conserve the abundance and diversity of salmon through a significant improvement of freshwater habitats, the development of management guidelines, and the promotion and demonstration of best practice in the removal of key threats through joint efforts and partnership.

This four and a half year project finished in 2008 and was implemented by a number of River Trusts and other stakeholders (17 partners in all) under the auspices of Scottish Natural Heritage (the regulator). The wider stakeholders included the licensed (recreational) fishermen, landowners, estate managers and tenant farmers. Land stewardship on these river systems is complex.

Although the Atlantic salmon was the main target of the project, the freshwater pearl mussel also benefitted by the measures undertaken during the project. The success is currently being replicated in the SNH Pearls in Peril project which brings together many of the same beneficiaries and aims to bring further habitat improvements to the same rivers.

The project won a Best of the Best award in 2010. The project website is still active and information, downloads (Layman's Report), photos and videos can be accessed from: <http://www.snh.org.uk/salmonlifeproject/index.asp>. The project still features on the relevant page of the SNH website <http://www.snh.gov.uk/about-scotlands-nature/species/fish/freshwater-fish/salmon/>

Environmental problems addressed by the project

The species is subject to many pressures in Europe, including pollution, the introduction of non-native salmon stocks, physical barriers to migration, exploitation from netting and angling, disease, physical degradation of spawning and nursery habitat, increased marine mortality and climate change. The UK Salmon populations have been in the past, and still are, subject to many of these pressures. This has led to Atlantic salmon having an unfavourable-inadequate status within the UK (JNCC, 2007), showing the species is still at risk and therefore an excellent candidate for conservation management. The most recent Article 17 reporting shows that the situation has not improved. Furthermore, the beneficiaries reported that during the last 2 years there has been a significant reduction in salmon returning to the rivers.

The project purchased netting rights to halt commercial salmon netting on two rivers, improved and restored access to rivers through the removal of 25 obstacles and undertook in-stream habitat improvement works to restore spawning and juvenile habitat. The problems of siltation along eroded river banks were addressed through fencing and stabilising structures. In some rivers, fish were introduced to newly restored sections. Fish counters were used to provide more information on the status of salmon in several pSCIs.

Land Stewardship methods applied in the project

Stakeholders directly involved in the land stewardship approach

1. **The Landowners and Land-users:** There is a wide variety of landowners and users involved in this project. It is relevant to take the case of one river, the Dee, which is an SAC throughout the entire watercourse and so is representative of all the other rivers in one way or another. The landowners on this river range from the exceptionally rich (including the British Royalty) to the more modest farmers with small holdings. The wealthier estate owners also have tenant farmers who have the lowest incomes of all the landowners/users. The large land owners manage the land in a number of different ways and for a number of different purposes – the purpose has some relevance in determining the land stewardship model that is adopted. In addition there are forestry interests and fishery interests. The recreational fishermen are a most important land user in this context because they pay considerable fees in order to be able to fish a particular stretch of the river for sporting purposes.
2. **Enablers:** The coordinating beneficiary was Scottish Natural Heritage (SNH). SNH has the mandate to grant permits and permissions and to provide advice concerning management requirements. By having an overview of all the SACs they could also provide a level of technical coordination between the 17 partners. The Scottish Executive was also involved as a project partner and was concerned with implementing policy. The Fisheries Research Services Freshwater Laboratory provided technical support to the main project implementers.
3. **Facilitators:** The main facilitators in this project were the Salmon Fishery Boards and Trusts (one for each river) which were brought together by the Association of Salmon Fishery Boards. These organizations have an intimate vision of the needs of the river, not just for salmon, but with increasing awareness of the overall ecosystem services benefits. The Salmon Fishery Boards implemented the various project actions and liaised with the landowners and land users at the grass roots level.

4. **Public:** The general public was not directly involved in this project but there were a number of awareness raising exercises targeted at showing people of all age groups the cultural heritage of the salmon.
5. **Funding Institutions:** This project attracted significant private investment from an energy company, an aluminum smelting company, an enterprise initiative and concerned individuals. This funding was generally devoted to the larger scale actions like removing obstacles. In addition SNH, through the Management Agreements, provided an important (non-European) stream of funding targeted towards the farming community for the riparian works. The River Boards and River Trusts also provided funding for the in-stream works.

Methods, motivation mechanisms

In this case, the ownership and the management of the land and the rivers are quite different and they have different stewardship systems so these two 'habitat types' have been considered separately. On the River Dee alone there are 95 private owners who own the land and the river. Fishing rights to a stretch of river are superimposed on the land ownership pattern and there can sometimes be a different land owner for the riparian zone adjacent to the fishing rights proprietor.

1. The River System

Proprietors vary in their expectations of the river. Some retain the fishing rights entirely to themselves, for their own enjoyment and that of their family and friends. The banks may become an extension of their own garden, whether or not they live nearby, and they develop a very personal attachment to their stretch of water and seek privacy in their enjoyment of it. Others may need to take a more commercial view, offering the fishing to paying clients, and feeling under pressure to manage the area intensively with a view to providing them with the very best experience in a competitive world.

On the whole, proprietors annually spend considerable sums in managing the river for the benefit of the fishing, but not necessarily for the other wildlife or for the ecosystem services that the river might provide. They employ staff, provide tracks, fishing huts and bankside management. The income involved is significant, and may represent the main source of income for an estate, employing staff directly, and contributing to the viability of other enterprises.

Each River has its own Board which is a statutory body tasked with protecting and enhancing stocks of salmon and sea trout across the district. The various proprietors on the river contribute to the upkeep of the Board. In addition there are a series of River Trusts who work side by side with the Boards. Their work is

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guided by the principle of how they can better understand and improve the River to protect it for future generations. They are self-funding bodies and the work done under the CASS LIFE project allowed some of these Trusts to extend and have a greater influence over the management initiatives both in-stream and in the riparian zone. For example the Dee River Trust has removed a total of 27 obstacles to salmon and sea trout passage since 2007 having initially removed only seven under the LIFE project. One of these, the largest obstacle on the Dee, was funded by two entrepreneurial businessmen. The River Trust also improved 70,000m² of juvenile habitat through in-stream works during the LIFE project.

Note that the role of the statutory River Boards is currently under review by the Scottish Executive and there are likely to be some significant changes in the future.

Private owner or manager?	Surface concerned	Type of agreement	Duration of agreement	Restrictions agreed
A series of private owners. Managed by statutory body – River Board Implemented by River Trust	70,137m ² in-stream works 3 obstacles removed	Statutory requirement (therefore written) for management transfer agreement	Not specified and may change when the review of the statutory boards is completed	The river must be managed for the welfare of the salmon and trout
Management agreed	Fiscal benefits	Other material benefits	Immaterial benefits	Land trust or other body
The maintenance of any structures (fish passes) and in-stream works is the responsibility of the River Trust	The River proprietors benefit because (in theory) there should be more salmon for recreational fishing which is the key financial incentive for maintaining the river	Maintaining the river for salmon also brings benefits for other species (e.g. Fresh water pearl mussel) and general eco-system services benefits	River is used by a number of other stakeholders (outside the project) e.g. walkers, canoeists etc. they will benefit from more attractive surroundings	Dee River Trust

2. The Land System

It was recognized that the adjacent lands required works to be carried out in order to maintain the improvements brought about by in-stream works. The landowners

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were not necessarily the ones that benefited from the river improvements. Some larger landowners were willing to make direct financial contributions and use their own finances to underwrite the management plans as they are investing in their children's heritage. Smaller landowners or tenant farmers required financial benefits in order to secure the scheme.

Private owner or manager?	Surface concerned	Type of agreement	Duration of agreement	Restrictions agreed
Private owners	80 km of riparian fencing and associated watering and gates to produce buffer strip	37 land management agreements with various landowners and tenant farmers agreed with SNH. Example of a management support agreement ,	10 years but with option for SNH to renew providing that the management requirements are carried out	None
Management agreed	Fiscal benefits	Other material benefits	Immaterial benefits	Land trust or other body
Maintenance of buffer strip Monitored by River Trust	Agreed annual payment from SNH varies depending on the length of buffer strip	All works carried out on the buffer strip paid for by the project	None	River trust

This project was selected for the land stewardship mission because the TMO was certain that the main organizations were still in place and because many of the beneficiaries were now involved in a second LIFE project implementing many of the activities that were first brought in via the CASS project. Two River Trusts (the Dee and the South Esk) were interviewed and they had a different approach to how works could be maintained and extended.

The fact that there is a second LIFE project – this time featuring the Fresh Water Pearl Mussel, suggests that the models originally set up in the CASS project were both effective and sustainable. The in-stream works were still in place and being monitored and maintained as necessary by the River Trusts either using their own man-power or through contract work. A range of new obstacles had been removed and there was a general move towards restoring heavily modified channels, which had been altered by dredging and straightening, to their original course. This work is being paid for by the Scottish Environment Protection Agency under their WFD fund and by some of the private land owners. This approach also benefits other wildlife, improves the fishing habitat and has a positive impact on flood defenses further downstream.

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On the River Dee, the land based works (creation of buffer strips and riparian planting) were still viable and were being maintained by the River Trust. However, there had been a significant shift from a dependence on SNH management agreements to assisting farmers to enter the agri-environment schemes. The Trust had built up its own capability to provide assistance in this respect.

On the River Esk, the situation was quite different in that the Esk Trust did not provide any assistance to landowners to enter agri-environment schemes and preferred to work closely with the large landowners to bring about change and to find funding for schemes from the private sector and other government sources. This works well at the level of the large landowner but is not sustainable in terms of the smaller fragmented farm systems where diffuse pollution and siltation are the main problems.

In all cases the impact and effectiveness of the methods is high and those methods put in place through the project are sustainable in the long term even if the Scottish government changes the mandate and composition of the Fishery Boards (which currently operate as charities). These methods could prove to be more sustainable in the long term than the agri-environment schemes that have replaced the SNH management schemes because once the current LIFE project is no longer running the support mechanism for the farmers will be lost.

Results

The project significantly improved the natural freshwater habitat for salmon on eight of the key salmon river pSCIs in Scotland and provided a major vehicle for raising awareness of the needs of the species, both to managers and to a wider audience. It produced a range of management demonstration products, which fed into wider conservation strategies for the species, and guidance for application throughout Scotland. In particular, the project established a voluntary management system with two different sets of stakeholders covering the river habitat and the adjacent riparian habitats.

1. The river habitat management system was based on management transfer agreements between the river proprietors, the River Boards and the River Trusts.

Over the years, man's influence on Scottish rivers has been significant with the creation of weirs, culverts, bridge engineering, fords and dams which restricted upstream access to areas of salmon spawning and juvenile habitat. The project removed or bypassed 25 obstacles on six rivers to open up 150 km of previously restricted habitat. Six fish counters were installed to monitor changes in salmon passage coupled with electro-

fishing and smolt traps to monitor the effectiveness of the removal process. Salmon have returned to parts of the river that have not supported salmon for over 250 years. The Dee River Trust has continued this work and found funding for another 20 more schemes since the CASS project closed.

Areas of gravel bed suitable for spawning and boulder beds which provide habitat for juvenile salmon were degraded with reduced flow and cover for salmon from the deposition of silt, bank erosion and poor drainage on two rivers. In-stream works were carried out to re-create 70,137 m² of juvenile habitat with the addition of boulder mats and channel deflectors to uniform channels. Monitoring results showed new spawning in areas of re-created habitat.

These interventions and the associated monitoring are continuing to be maintained by the River Trust.

2. Land management systems were based on management support agreements between the landowner/user and the competent authority SNH with additional technical support and facilitation by the River Trusts.

The unrestricted grazing of stream-sides contributes to a degraded riparian habitat and siltation of salmon (and FWPM) from eroding river banks. The project erected 80 km of riparian fencing and associated watering and gates on three rivers and negotiated 37 land management agreements valid for a period of 10 years covering nearly 40 ha of land on the River Dee. Within one season some of the eroded banks were already beginning to re-vegetate.

The land management agreements also included coppicing of riparian woodland to provide dappled shade to areas of river. Coppicing was shown to be one of the most cost-effective measures in increasing numbers of salmon parr.

Potential for transfer

The main driver in this project is salmon and the profits derived from salmon fishing. However, there is increasing awareness amongst the stakeholders that it is the river system that delivers ecosystem services which support the salmon – so managing the river system is as important as managing the stocks. As a consequence, the land stewardship methods are equally applicable on rivers that are not predominantly salmon rivers and so have a high potential for replication and transfer.

The management models rely on delivery by the River Trusts and Salmon Boards and so are transferable to any river where these (or similar) structures have been

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established. The Scottish rivers all have the same institutional structures (at least until the system is reformed) and so the land stewardship methods could, in theory, be transferred to any Scottish river.

In theory the management models could be applied to other river systems in the UK as the system of river trusts exists and they are very active in undertaking river restoration projects. However, the focus is unlikely to be salmon. Given that there are few other important salmon rivers in other member states, then the transferability may be limited.

Scoring

Transferability *(please click "1" if not transferable, and "5" if very transferable)*

1 2 3 4 5

Impact and effectiveness *(please click "1" if not effective and "5" if very effective)*

1 2 3 4 5

Sustainability *(please click "1" if not sustainable, and "5" if very sustainable)*

1 2 3 4 5

Flagship project *(please click YES, if scoring in each of the above sections are "4" and more)*

Yes No

Flagship project

The unusual and complex system of land ownership and land use meant that the project had to find more than one solution to address the unfavorable status of the Atlantic salmon in the Scottish rivers. There needed to be one management system for the river and one for the adjacent land because the land owner and adjacent river owner (proprietor) were often not the same entity. The two types of management solution developed through the project had a high impact, were sustainable and could be replicated at least within the UK. The project actions have been replicated on a wider scale within the catchments since the project closed.



Re-creation of juvenile habitats on Dee tributaries through the installation of rubble mats before (upper photo) and after (lower photo)

Task 9b - Case studies UK – ISAC

Summary

The project was originally selected because of the success of the collaborative scheme to address acidification and hydrology issues in the upper catchment of the river Irfon. Originally the project sought to purchase or lease land as they considered that this was the only way to bring about the changes needed to protect first the waterway and secondly the upland mires. Instead of purchase or lease, the project developed a different approach building a successful partnership between NGOs and statutory agencies.

The project has made a significant contribution to the recognition by the forestry sector that the planting and management of forests on upland deep peats can affect the quantity and quality of water entering first order streams. At the start of the project the forestry sector did not generally support the relevance of this issue but as evidence was provided, first the public sector and then the private sector accepted the damage that forest practice was causing to river life. This led to a constructive and collaborative approach to prioritising areas to be felled and restored as hydrological sources.

Although there is now a political move away from expansion of forestry on blanket bogs in favour of supporting restoration, the Wye catchment will continue to be affected by existing forestry. WUF has an agreement with NRW that the drain blocking will continue on hydrological source areas and it will continue to seek funds to carry out similar work on areas of private forestry. The project influenced the green paper (the Environment Bill) currently progressing through the Welsh Assembly, due to come into force in 2016, which will afford greater protection to these important hydrological sources.

Project information

Project title: Irfon Special Area of Conservation Project

Acronym: ISAC

Project no. LIFE08 NAT/UK/000201

Background

The Irfon catchment covers an area of 293 km² and along with the Ithon, is one of two major tributaries of the upper Wye. The river is highly protected under European law, with both SAC and SSSI designations. It is an important spawning

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area for Atlantic salmon; sea, river and brook lamprey are present in the main river and also spawn in the tributaries; bullhead are abundant in most areas and twaite shad spawn in the lowest 4 km. Brown trout are widely distributed and are believed to exhibit considerable genetic diversity. The Irfon is revered by anglers as one of the best grayling rivers in the UK.

In addition to fish, the river is host to an array of rare flora and fauna including otters, white claw crayfish, freshwater pearl mussels, sandpipers, dippers, kingfishers, sand martins and various types of *Ranunculus*. The catchment is predominately farmed for livestock (74%) although much of the upper reaches are afforested with commercial plantations of conifers.

The project actions of interest to the land stewardship approach were:

- Restoring water pH by liming: annual introduction of limestone sand direct into the upper reaches of the river to increase the pH and reduce the impact of acid water flushes in the parts of the river which support salmon.
- Restoring the hydrology in areas that were once wetland sources in commercial forestry areas through drain blocking using peat dams and tree removal.

The project website (covering both LIFE projects) is still available at:

<http://www.newforestlife.org.uk/life3/life3index.htm>

Environmental problems addressed by the project

Despite the diversity of flora and fauna, the Irfon faces a number of threats. In addition to climate change and acidification, threats also arise from intensification of land use and the inappropriate management of the riparian zone. Key issues addressed by the project were:

- **Acidity:** pH levels in the upper Irfon commonly fell below 4.5 after rainfall during the autumn and winter. The lowest pH recorded was 2.6.
- **Damage to streams by livestock:** sheep numbers in the upper Wye catchment have doubled twice since the introduction of the CAP in 1970s resulting in overgrazing of unprotected streams.
- **Over-shading:** up until the late 1950s, streams in the Irfon had their riparian alder rotationally coppiced for firewood, charcoal and clog making. This tree management stopped abruptly and resulted in multi-stem coppice re-growth which created dense shading, reducing in-channel production and leaving the banks bare and prone to erosion.
- **Siltation:** silt levels have more than doubled since the early 1970s due to the increased intensity of land use practices grazing and forestry.

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- **Pesticides:** Synthetic Pyrethroid is still widely used in forestry during the early stages of tree establishment. Organophosphates are still approved for use on livestock. They enter the water course either by deliberate or accidental introduction.
- **Invasive Species:** American signal crayfish out-compete the native white clawed crayfish and carry plague to which the native species is susceptible. Invasive weeds damage bank integrity.

The issue which was addressed by the land stewardship approach in this project was the acidity problem in the upper catchment (mitigating the effects of commercial forestry). This issue required the cooperation of the public and private landowners, without which the conservation goals could not have been met. The other issues identified above also benefitted indirectly from the approach but more conventional land stewardship methods were adopted for the delivery of the other elements. The project made recommendations for the enlargement of the River Wye SAC and for the addition of freshwater pearl mussel as a qualifying feature. In addition, because the SAC was designated for salmon, many of the upper reaches which were strong holds for the native white clawed crayfish were not included in the SAC.

The project was implemented by The Wye and Usk Foundation with the Environment Agency Wales, National Museums Wales and the Rivers Trust. The project lasted for four years between 2010 and 2013. Further information on the project can be found on the website including the Layman's report and some interesting video clips:

www.wyeuskfoundation.org/isac

Land Stewardship methods applied in the project

Stakeholders directly involved in the land stewardship approach

1. **Landowners/Land users:** predominant land use in the headwaters of the Irfon has been coniferous forests, both publically (Natural Resources Wales) and privately owned.
2. **Facilitators:** The main beneficiary was The Wye and Usk Foundation (WUF) which is a charity concerned with the habitat, water quality and fisheries of the rivers Wye and Usk. The Foundation was established in 1997 and has been involved in several partnership projects to restore habitats, improve water quality and remove barriers to fish movement. They were the main land stewards and signed agreements for future management with the land owners.

3. **Enablers:** The National Museum of Wales and the Rivers Trust provided technical support to the project throughout.
4. **Civil Society:** The general public did not really feature in this project.
5. **Funding Institutions:** The highest proportion of funding came from WUF (20%) with a further 28% from NRW. Future funding would be secured from similar sources.

Methods, motivation mechanisms

In the application, according to the coordinating beneficiary "the change of land use required to restore water quality can only be achieved through change in control" (i.e. land purchase). Originally the beneficiary intended to lease land from the Forestry Commission (6 sources) and to buy from private owners (4 sources). The project thus aimed to acquire about 50 ha across 10 areas to achieve the objective of safeguarding the hydrological sources (the 'sponges' which are the source of the river system).

Rather than purchase and lease land to bring about the change in control, the project addressed the problem with a new approach. The key breakthrough was acceptance from both public and private forestry interests that their current approach to upland planting is unnecessarily damaging to river systems. The project therefore sought changes to forest practices to ameliorate the impact on the water quality of the upper river system. The project had a considerable influence on this change in attitude with additional weight given to its argument by the classification of the upper Irfon as failing good ecological status under the Water Framework Directive for pH.

The sections of forests targeted by the project were partly in public and partly in private ownership.

Public forest

For the publicly owned forest the initial position was that the Forestry Commission Wales (FCW) would not cede management rights but they accepted the impact they were having on the SAC and were prepared to incorporate the findings of the survey into their 30 year management plan. The public forest would be harvested between 2008 and 2018. FCW accepted that it will carry out the necessary restoration measures (restoration of natural hydrology and acidity amelioration) after harvesting timber in the areas identified as hydrological sources.

Agreement was reached for the restoration work in 2011 and a MoA was signed in August 2011 (initially to 30/07/13 and extended to 15/12/13). Work began in September 2011 with drains to be blocked following felling. By this approach the project was able to recover the function of 10 upland deep peat areas covering 23 ha for an estimated cost of £18,000. A further commitment was secured in January

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The changes in attitude had a number of benefits for the project:

- The project could achieve its aims without incurring the costs or liabilities of land purchase/long lease.
- The correct management would now be embedded into the forestry cycle (35-40 years), longer than the 15 year leases proposed in the application, and within this timescale it is hoped that there will be a natural recovery of the pH of water leaving the upland areas

Private owner or manager?	Surface concerned	Type of agreement	Duration of agreement	Restrictions agreed
Private land owners	Not specified (2 coupes)	Written work plan to deliver management transfer agreement Additional sites will be cleared and managed in rotation to meet requirements of the Welsh Government's new Environment Bill (due to come into force in 2016) which calls for the removal of trees on blanket bogs	2 years – lifetime of project	No further planting of trees following harvesting on sites identified by project as critical hydrological sources
Management agreed	Fiscal benefits	Other material benefits	Immaterial benefits	Land trust or other body
Restoration of natural hydrology and amelioration of acidity	Sale of wood	River to recover to good status for pH under WFD Water quality improves for salmonids	None	None

In the FR the beneficiary makes the following statement: "*The project was conceived at a time when forestry interests were extremely reluctant to accept that there was any negative impact of their operations on the aquatic environment. This would have necessitated taking forests out of their control to enable restoration actions to proceed and recover the SAC. During the project there was a change of attitude within forestry interests and from the Welsh Government from a position of intransigence/denial to an increasing acceptance of their impacts on*

rivers and a willingness to find a solution. This movement was accelerated by the pressure of this project as a readily made solution and by the compilation and presentation of the increasing weight of evidence of the impacts and the likely benefits of restoring upland hydrology."

The quote above is an excellent example of the way in which a LIFE project can demonstrate and communicate the need for change. Whilst at the start of the project WUF may have felt that it was a 'lone voice' by the end of the project it had government policy supporting its position. In 2013 the Welsh Government published a green paper which is intended to become the Environment Bill by 2016. A central tenet of the paper was the inclusion of the consideration of the ecosystem approach and the value of ecosystem services. The removal of all trees from blanket bog was cited as an example of this. The project was therefore extremely effective and demonstrated maximum impact.

Furthermore sustainability is built into the system with the acceptance of the public forestry sector to remove trees and block drains on the remaining forestry blocks that have been identified as important hydrological sources and the assurance that the trees removed will not be replaced. In the private sector the change in legislation will provide long term protection for the hydrological source areas and the WUF is committed to seeking funding to carry out the restoration works required on areas of private forestry.

Results

After ten months of survey work followed by eighteen months of negotiations, a written agreement with the Forestry Commission committed them to remove coniferous trees and block the forestry drainage within areas that were once wetland sources, reducing the "flashy" nature of forestry run-off as well as preventing sudden drops in pH. These were areas where forestry was making a loss anyway. Despite the drainage, tree growth is stunted on the wet, deep peat soils.

Over the course of the project an average of 97 tonnes of lime was spread across the 33 sites. There was one treatment in the spring of each year and another in the autumn of 2012 after the heavy flows of that summer. The resultant changes in the pH of the streams appear to be proportional to the amount of sand lime applied and the distribution of sites within the sub-catchment. This means the technique is able to be adapted to take into account the results of the project's monitoring. In all these cases, the pH recovered rapidly as the acidity was buffered by tributaries that had been limed, rather than the previous slow recovery as the flush moved downstream.

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By 2013, Natural Resources Wales had restored 10 bogs. In addition, an agreement was reached with NRW that the bogs within remaining forestry would have their drains blocked and would be not replanted after subsequent clearances over the next 4 years. This agreement has been enshrined within the forest design plans.

The evaluation of project implementation confirms a significant recovery in salmon numbers as a result of liming of acidified headwaters and habitat restoration. The results estimate an additional 66,000 salmon parr (1-4 year old fish) in the upper reaches of the river (compared to a project target of 13,000). Bullhead, however, failed to colonise the upper reaches (15,000 were expected) and this is probably due to natural barriers and slower colonisation. There is evidence that the project work will support an increase in the population of Brown Trout (*Salmo trutta*) and macro-invertebrates in the upper catchment. Otters also re-colonised the upper reaches as the salmon numbers increased.

Potential for transfer

The activities undertaken in the project are transferable to almost any river situation, indeed some of the actions have been previously tried in other LIFE projects. Techniques for drain blocking using peat dams and the removal of trees on bog areas are well documented as are the ecological benefits or rewetting these upland mires. Similarly, introducing lime as a way of reducing acidity in rivers is not a new technique. The project successfully proved the benefit of catchment based NGO and governmental agencies partnerships in delivering the Habitats and Water Framework Directives. Similar models are being explored in the UK for delivering the new round of River Basin Management Plans under the WFD. Because the project has only recently closed it is only possible to predict the potential for transfer and replication. At the present time there is certainly a good deal of potential to replicate this model at least in the UK.

Forestry Commission Wales / Natural Resources Wales has also identified sites within the Irfon catchment for restoration of afforested deep peat: this would add value to the work already completed through the project (see <http://www.forestry.gov.uk/forestry/INFD-8YYJSU>).

Scoring

Transferability *(please click "1" if not transferable, and "5" if very transferable)*

1 2 3 4 5

Impact and effectiveness *(please click "1" if not effective and "5" if very effective)*

1 2 3 4 5

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Sustainability *(please click "1" if not sustainable, and "5" if very sustainable)*

1 2 3 4 5

Flagship project *(please click YES, if scoring in each of the above sections are "4" and more)*

Yes No

Flagship project

The project was a successful partnership between NGOs and statutory agencies, bringing about management agreements that could bring about lasting change benefitting both the river system and the associated upland bogs. The project was influential in changing attitudes in the forestry sector to help reduce the problems of acidification of upland streams and flash flushing of pH and nutrients into the main river stem. The statutory agencies have agreed to continue the project activities and these are now embedded in the 30 year forest management plans.



Task 9b - Case studies – LIFE Bourgas Lakes

Summary

The project “Life for the Burgas Lakes” is dedicated to conservation and enhanced management of a unique complex of coastal wetlands and saline lagoons around the city of Burgas, on the Black sea Bulgarian coast, with a total area of 12,275 ha. The project achieved its general objectives. At “Mandra-Poda” and “Atanasovsko Lake” SPAs, 25 ha of habitats were enhanced through deepening of the lakes, while 18 ha of habitats were subjected to reed management, or a total of 43 ha improved. These had immediate positive effects on the priority species by increasing the available suitable habitats during wintering, migration, or staging of at least 6–12 great bitterns, 12–50 pygmy cormorants, and 20–38 ferruginous ducks, plus potential breeding of at least 1–2 great bitterns and 3 pairs of ferruginous ducks.

The project established safe roosting grounds by constructing 8 artificial islands and 10 roosts covering 332 m². The deployment of a specially designed protocol to monitor and prevent poaching at the project target SPAs resulted in reducing the number of registered poaching attempts by 55%. Public understanding of and support for conservation of the priority bird species, their habitats, and the wider NATURA 2000 sites was achieved through a programme of educational activities; a suite of educational materials to raise awareness in young audiences; awareness raising workshops with priority stakeholder groups; and organisation of annual student training camps aimed to increase the professional capacity of students in direct conservation techniques.

Additionally, the project managed to establish an innovative and successful model for cooperation of state agencies, NGOs, companies, and local people in the effective enforcement of the nature conservation legislation via establishment of local project support groups and an association. The above results (i.e. habitat improvement and poaching prevention) would most likely not be possible without the win-win scheme applied by the local salt industry and the voluntary organisations (association and local support groups) established within the project. For this reason, the project was selected by the TMO as having strong land stewardship elements, best practice example from Bulgaria.

Project information

LIFE08 NAT/BG/000277 Ensuring Conservation of Priority Bird Species and Coastal Habitats at the Bourgas Natura 2000 Wetland Sites (LIFE FOR THE BOURGAS LAKE)

Background

The Burgas Lakes complex features important habitats for a significant number of bird species which use the area for breeding, wintering, and stopover during migration (the complex is an important migration stopover point for hundreds of thousands of birds on the major Eastern European migratory route "Via Pontica". The project's implementation period was 01/10/2010 – 31/12/2014. The Final report was submitted on 10/04/2015.

Project objectives:

1. Strengthen the strategic planning framework to secure the long-term conservation of NATURA 2000 priority bird species and sustainable management of their habitats;
2. Maintain and enhance feeding, breeding, and roosting habitats for 5 priority bird species through repair of the dyke system at the Atanasovsko Lake coastal lagoon in order to ensure favourable conditions for the priority species;
3. Reduce the impact of direct and indirect threats on the 5 priority bird species through development of response plans, measures, infrastructure, and control systems;
4. Ensure mainstreaming of best practices in the conservation of the 5 priority bird species into NATURA 2000 site management through introduction of a suitable monitoring system; and
5. Enhance public understanding of and support for the conservation of priority bird species, their habitats, and the wider NATURA 2000 sites that are crucial for their long-term protection through development and implementation of a Project Communication Strategy & Action Plans.

Expected results:

Stabilisation of the 5 target species in the project area, or at least a reduction in the rates of decline of these species due to different factors. In the longer term, habitat improvement and other beneficial changes towards increasing the populations of the 5 target species.

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Particularly important was the creation of a second secure Bulgarian location for Dalmatian pelicans and the other 4 target species, which are currently only safe at the Srebarna reserve. Atanasovsko Lake is the single most bird-rich water body in Bulgaria, and the project is a vital contribution towards securing the future of this crucially important site.

Finally, it was expected that the project will result in the creation of a public/private partnership that is unique in Bulgaria (between BSPB and the Black sea Salinas) and will therefore act as an excellent model for subsequent partnerships elsewhere in the country and as an important catalyst for future conservation projects.

Main stakeholders: Black sea Salinas (sea salt industry); NGOs; local people (including farmers & farmer organisations, hunters, fishermen); the Regional Office of the Department of Agriculture (RODA); and the Regional Directorate of the Executive Agency of Aqua-culture(Links: www.burgaslakes.org/en/)

Environmental problems addressed by the project

The coastal wetlands of the Burgas Lakes complex are situated in a very close proximity to the city of Burgas (0.5M inhabitants) and parts of the wetlands are situated in inner-city areas. Burgas is a major port on the southern Black sea coast, and is also a major tourist destination in the summer season, therefore the disturbance caused to the species and habitats is quite high. There were many conservation problems to be solved in order to safeguard the long-term survival of the ecosystems. The coastal wetlands are the most significant breeding, wintering, and staging sites in Bulgaria and Europe for 4 globally endangered bird species: pygmy cormorant (*Phalacrocorax pygmeus*); dalmatian pelican (*Pelecanus crispus*); white-headed duck (*Oxyura leucocephala*); and ferruginous duck (*Aythya niroca*), as well as the bittern (*Botaurus stellaris*) whose population in Europe is classified as depleted.

Despite the fact that the wetlands are classified as Natura 2000 sites (and some of them as strictly protected sites as per the national legislation), they are subject to major threats such as habitat change, disturbance, the presence of power lines, illegal killing, accidental net catching, risk of industrial accidents, etc. The project positively changed the situation in these sites through habitat improvement and poaching prevention. This was achieved using (but not only) a mutually beneficial scheme applied by the local salt industry, and voluntary organisations (association and "local support groups") established within the project. Without them, the project results (and their sustainability and post-LIFE perspectives) would be much

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less significant. Therefore, the land stewardship elements applied by the project significantly improved its overall performance.

Land Stewardship methods applied in the project

Stakeholders directly involved in the land stewardship approach

Coordinating beneficiary: The Bulgarian Society for the Protection of Birds (BSPB) is the biggest NGO in Bulgaria dedicated to the biodiversity conservation. It was founded on 03/06/1988. BSPB is the Bulgarian Partner of BirdLife International, and is a legally registered charity, a civil non--profit nature conservation organisation. BSPB is one of the few NGOs in Bulgaria with a real membership and local structures throughout the whole country. Most of the BSPB activities are done on a voluntary basis, but with high standards of professionalism.

Associated beneficiaries:

The Royal Society for the Protection of Birds (RSPB) is UK's Birdlife partner. The Bulgarian Biodiversity Foundation is an NGO working for the nature conservation in a broader scope (i.e. unlike BSPB, not tightly focused on birds). The Municipality of Burgas is the local government authority of the city of Burgas, on the southern Black sea coast of Bulgaria, where the project site is located. Chernomorski Solnici (Black sea Salinas) JSC is the company exploiting the sea salt-pan fields near Burgas, based on the seawater of the Burgas lagoon-type lakes – Burgasko, Atanasovsko, and Mandra-Poda – the latter two being SPAs as well.

Stakeholders: the sea salt industry, farmers & farmer organisations, hunters, fishermen, NGOs, RIEW, RDEAA, and RODA (see full titles at the end of section 2.1).

Methods, motivation mechanisms

a. Traditional management through written agreement

Private owner or manager	Surface concerned	Type of agreement	Duration of agreement	Restrictions agreed
Private owners, rights owners, and state institutions: Black sea Salinas (sea salt industry), NGOs, local people (including farmers & farmer organisations,	12,275 ha	Written: 1) Management transfer agreement (during the project), and 2) Management support agreement (after the project). This is to be done through	The duration of the project, plus non-specified number of years after the project's end.	The area is managed traditionally during the project, and for non-specified number of years after the

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hunters, fishermen), the Regional Office of the Department of Agriculture (RODA), the Regional Directorate of the Executive Agency of Aquaculture (RDEAA), and the Regional Inspectorate of Environment and Water (RIEW) in Burgas.		Association of environmental organisations, hunting and fishing associations & fishing sport clubs in Burgas (AEOHAUFSCB). Part of the Association are local project support groups (the so called "caretaker groups").		project's end.
Management agreed	Fiscal benefits	Other material benefits	Immaterial benefits	Land trust or other body
Yes, through an Association of environmental organisations, hunting and fishing associations & fishing sport clubs in Burgas (AEOHAUFSCB).	Indirect only: better management of the wetlands will increase the ecosystem services provided.	None.	Expert consultations and assistance. The project helped farmers to submit applications for the agri-environmental scheme; organised meetings; performed training courses.	Yes. Association of environmental organisations, hunting and fishing associations & fishing sport clubs in Burgas (AEOHAUFSCB).

b. Traditional management through informal/oral agreement

Private owner or manager	Surface concerned	Type of agreement	Duration of agreement	Restrictions agreed
Private owner and rights user: Chernomorski Solnici (Black sea Salinas) JSC: the company exploiting the sea salt-pan fields near Burgas, based on the seawater of the Burgas lagoon-type lakes – Burgasko, Atanasovsko, and Mandra-Poda.	43 ha	Oral: 1) Management transfer agreement (during the project), and 2) Management support agreement (after the project). This is to be done through a win-win scheme.	The duration of the project, plus non-specified number of years after the project's end.	The area is managed traditionally during the project, and for non-specified number of years after the project's end.

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Management agreed	Fiscal benefits	Other material benefits	Immaterial benefits	Land trust or other body
Yes, through a win-win scheme.	The pro-nature practices within the obligations set by the Management Plans (especially repairing the dike systems) is helping the salt company to keep the lakes in better status and increase its own profits.	No.	Expert consultations and assistance provided by the project.	No.

The impact of the above two mechanisms seems to be effective, based on the available monitoring information (regular reports, payment approvals, missions). The stakeholders (farmers, hunters, fishermen, local NGOs, salt company) were involved in a land stewardship scheme thanks to this project for the first time. Whilst their primary objective is to increase their income, they started to understand that nature protection and Natura 2000 will play a very important role in their economic stability and success. The Project sustainability is however not entirely clear, as there is no specification for how many years the obligations undertaken by the parties involved will be valid.

The major bottleneck in involving this type of stakeholder in Bulgaria is their very low (or nearly absent) understanding of the importance and influence of biodiversity for their own living. For this reason the project has put a lot of time and effort into developing training, seminars, meetings, personal consultations, and also into the creation of an association of various stakeholders (described in detail in section 3.3. below). In addition, support was provided from the project to the stakeholders to help them apply later on for RDP green (agri-environmental) payments. The project organised a series of workshops for priority stakeholders such as fishers and hunters. This way the project managed to increase the geographical scope of the territories that are eligible for subsidies for overwintering geese and, respectively, the number of local farmers that could benefit by including their arable lands near the Burgas lakes in the scheme. The project's active involvement led to quick dissemination of information among the local farmers. The process was carried out in cooperation with local farmers, farmer organisations, and the Burgas Regional Office of the Department of Agriculture.

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The main stoppers for both mechanisms is the lack of land stewardship traditions and the overall shortage of such a way of thinking in Bulgaria, which is further increased by the legal bureaucracy preventing fiscal incentives in return for voluntary nature protection. There are no specific hindrances to the introduction of the scheme from LIFE. On the contrary: without LIFE, these initiatives might not have happened at all.

Results

Active landowner and user involvement in the management of the project sites is applied by the Coordinating beneficiary (BSPB) for all actions related to management of the Poda protected site located within the SPA Mandra-Poda. These actions include:

- Advocating for appropriate management prescriptions for priority species to be incorporated into SPA management plans;
- Deepening the target lagoons of Poda-Mandra and Atanasovsko Lake to maintain their favourable conservation status; reed cutting to ensure favourable conservation status of the Bittern and the Ferruginous duck;
- Creating a number of roosting sites for pelicans and cormorants;
- Developing and testing mitigation measures to reduce disturbance and direct killing of priority species by illegal fishing and hunting (poaching) activities; and
- Implementing measures to mitigate key types of pollution in nesting/feeding habitats of priority species.

In the TMO's opinion, many of these results, especially the habitat improvement and poaching prevention, would not be reached to the same extent without some land stewardship mechanisms. All the above actions are related to the management responsibilities deriving from the protected sites' Management Plans, and are implemented because of the BSPB's stewardship of the area. BSPB achieved an important voluntary agreement with landowners and rights users for land management in the project. Over 1,600 members of the local hunting and angling associations (almost 100%) were involved in the project's information campaign.

In relation to the above, an **Association** of environmental organisations, hunting and fishing associations & fishing sport clubs in Burgas (AEOHAUFSCB) was established and is currently operational. The Association is a unique model of successful partnership between various organisations/groups within Bulgaria. Here,

initially or seemingly conflicting interests have been aligned for the benefit of nature conservation and for promoting sustainable pro-nature business models. A framework agreement between BSPB and the Association of Hunters and Anglers in Burgas was signed concerning the common activities against poaching. In addition, an agreement was signed between BSPB and 6 local NGOs to support the state institutions with anti-poaching activities. A synchronised system to report the observed illegal fishing and poaching activities to responsible authorities was developed. BSPB organised regular checkups in Mandra and Vaya lakes.

Furthermore, BSPB established a cooperation with the RDEAA (chapter 2.1), which plays a leading role in controlling the anti-poaching activities. Since the project's start, more than 257 checks were reported, 74 attempts for poaching reported and in 31 cases fishing gear and nets were confiscated. As a result of the good cooperation with the local hunters and fishermen, 48 articles were published in 3 specialised magazines on hunting and fishing.

A Specialised Guide for hunters was designed jointly with the help of two other BSPB-lead projects, and was disseminated. 9 information boards were prepared and installed in the project sites. 20,000 copies of a 12 page condensed leaflet were printed and distributed. Among the future tasks of the Association is obtaining the sustainable use rights for the resources in and around the Burgas lakes, e.g. the fish stock, which will include anti-poaching patrols, restocking, awareness rising, etc.

The project also established the so called **"caretaker groups" (local support groups)** which represent a relatively innovative practice for Bulgaria. The local support groups are organised by proximity to each of the 3 focal NATURA 2000 sites. Each support group has a core of 3 to 5 volunteers who are not only enthusiastic to contribute to the protection of the 5 project target species, but are also significant or prominent stakeholders in their local communities (farmers, hunters, fishermen, teachers, government officials, public opinion leaders, or artists. The local support groups are voluntary, non-formal structures, the members of which are part of the Association described above, and commit to ensure the favourable conservation status of sites important for the target bird species. A workshop was organised on 25/11/2011 with the participation of experts from the RIEW in Burgas, as well as the leaders of all 56 hunting associations in the project region representing over 1000 members. The organisations that signed the agreement formed voluntary groups to patrol the lakes.

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In parallel, a mutually beneficial win-win scheme is applied with the partner Chernomorski Solnici (Black sea Salinas) JSC. The scheme involves the company in free maintenance of the lakes and pro-nature practices within the obligations set by the Management Plans. This includes repairing the dyke systems and establishing a predator control system in the Atanasovsko Lake coastal lagoon in order to ensure favourable conditions for the project's priority species. This has already been implemented, and is a quantifiable/measurable result of the project. Moreover, keeping the lakes in better status in the future will help the salt company to increase its own profits, therefore the company intends to continue doing this in the years to come.

Potential for transfer

The motivation mechanisms and methods that were used in the project have a good potential for transfer within Bulgaria and countries with the same under-developed land stewardship culture. They are relatively simple to realise in a framework of a similar project; the main consideration would be only the willingness of partners to apply them. However, a major problem on national level is the unsuitable legal basis: for example, the Bulgarian legislation is not flexible regarding properties in exclusive state property lands, e.g. in nature reserves such as the Atanasovsko Lake, so almost any land stewardship action would lead to a procedure that would be classified as a "concession" and has to be approved by the Council of Ministers, which is a pure and large bureaucracy. No specific major problems can be seen on EU legislation level.

Scoring

Transferability *(please click "1" if not transferable, and "5" if very transferable)*

1 2 3 4 5

Impact and effectiveness *(please click "1" if not effective and "5" if very effective)*

1 2 3 4 5

Sustainability *(please click "1" if not sustainable, and "5" if very sustainable)*

1 2 3 4 5

Flagship project *(please click YES, if scoring in each of the above sections are "4" and more)*

Yes No

Flagship project

The project has an excellent added value and, particularly for Bulgaria where the land stewardship approach is still very under-developed, it features the pilot character of applied stewardship methods, especially the Association and the local support groups described above. The establishment of a successful model for cooperation of state agencies, NGOs, companies, and local people in the effective enforcement of the nature conservation legislation via establishment and operation of local support groups and an Association is new to Bulgaria. Nevertheless, in the TMO's opinion, the project's major value stands in traditional nature conservation. Considering the present study's purposes, the project cannot receive the maximum score and, therefore, cannot be judged a flagship project in the specific context of land stewardship.

Task 9b - Case studies - LANDLIFE

Summary

LANDLIFE is an information project that developed a methodology and tools to implement Land Stewardship among the EU, aiming to maximize flexibility to facilitate adaptation and response to various local and regional contexts. Numerous and successful dissemination activities have been carried out to spread out the Land Stewardship tools created. The project areas of implementation have been Lombardia, Languedoc-Roussillon and Catalonia, as well as Europe in general.

As a result of the project actions at least 133 new Land Stewardship agreements have been signed in Italy and France, covering an area of 8,303.4 ha.

In Italy, 60 new agreements were signed covering 1,161 ha. 8% of them are on Natura 2000 sites and 30% in areas without any protection figure.

In France, 73 new agreements were signed concerning an area of 7,141 ha. 75% of them are on Natura 2000 sites and 23% in areas without any protection figure.

The number of new agreements in Spain was not attributed to the project as the concept is already widely used in this country.

Project information

LIFE10 INF/ES/540 - LANDLIFE - Boosting Land Stewardship as a Conservation Tool in the Western Mediterranean Arch: a Communication and Training Scheme.

Background

The project started up with an initial study on the development and implementation of land stewardship in the different participating regions as the first step for the design of the strategy to implement all foreseen actions. This study was followed by the preparation and publication of the European Manual on Land Stewardship. This was one of the major tools used in dissemination of Land Stewardship concepts, uses and goals.

The main dissemination events carried out were the regional workshops, the European Land Stewardship Week and the final Congress. Additionally, in order to provide more knowledge on the subject the beneficiaries have developed a help-desk tool available online at the project website and an online course.

The final output of the project was the signature of the "Barcelona Declaration" and the willingness to create the European Network on Land Stewardship. These are the two pillars for the project continuation.

Environmental problems addressed by the project

LandLIFE fostered the use of the Land Stewardship (LS) approach in the nature and biodiversity conservation strategies considered in the EU policy areas. Land stewardship can play a significant role in those areas where the land is owned by private landowners and in these areas that do not have a specific nature conservation figure.

The type of agreements and approaches depend on the ownership structure of the region and in the legal framework of the country. Specifically, in the LandLIFE project each region had different environmental problems:

The land stewardship model has served in Catalonia to tackle the difficulties of an area that is scattered among small pieces of land mainly privately owned. These small owners do not necessarily have the skills, time and resources to carry out the appropriate management. Note that as LS was already well implemented in Catalonia, the LandLIFE project served to provide more guarantees and long-lasting agreements, i.e. to foster the quality assurance of LS agreements. According to the technicians of the XCT, future efforts should be made to improve the effectiveness of these agreements: on the one hand, the agreements should include a higher level of commitment and on the other hand an increase should be made in the effectiveness of nature conservation , by giving priority to sites in Natura 2000 for example.

In Languedoc-Roussillon, the land stewardship has served to better define the contractual relationship among NGOs and public administrations for the management of the natural heritage.

In Lombardia, the main environmental problem is the alarming decrease of non-urbanised land and consequently the lack of unsealed soil. Land stewardship was seen as a strategy to help to preserve non-urbanised pieces of land..

Land Stewardship methods applied in the project

Stakeholders directly involved in the land stewardship approach

The project has disseminated Land Stewardship knowledge amongst all the stakeholders: landowners, land users, administration, land stewardship organizations, the public in general, NGO, funding companies and the other land stewardship networks in Spain.

The role of each one of the beneficiaries in the LandLIFE project was:

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The coordinating beneficiary XCT is a Land Stewardship Network. It is one of the 8 regional LS networks in Spain and the first one created in Spain. These organisations work together in the platform called “Plataforma de Custodia del Territorio” created by the Fundación Biodiversidad” (from the Environmental Ministry of Spain).

The associated beneficiaries Legambiente-Lombardia and Conservatoire des Espaces Naturelles Languedoc-Roussillon have become Land Stewardship Organisations.

Methods, motivation mechanisms

Thanks to the LandLIFE project, 133 new agreements have been signed. Tables detailing these agreements can be found in the annex.

In **France**, the agreements signed are mainly on public land (87%) and on Natura 2000 in the region of Languedoc-Roussillon. Most of the agreements are for management advice: the owner is accompanied by CEN L-R to find financial means, to establish and implement the management plan in collaboration with the owner, to find financial means to implement the management plan, to implement fauna and flora monitoring, and to organize awareness activities. There are some other agreements with “offset measures” due to the works for the TGV line.

From the list of agreements one of them has been selected (Pitot agreement) as an example:

Private owner or manager?	Surface concerned	Type of agreement		Duration of agreement	Restrictions agreed
Privately owned	157.46 ha on Natura 2000	Written. Management support agreement		5 years with tacit renewal	--
Management agreed	Fiscal benefits	Other material benefits	Immaterial benefits		Land trust or other body
The agreement aim is to preserve the natural heritage which is remarkable and demonstrative of predominant management issues in the Mediterranean region. This was achieved by	--	--	The owners are committed to the CEN L-R mainly for altruistic reasons. Owners show willingness to learn more about the natural heritage of their property and to be accompanied in the management of this heritage. They are interested in redeploying pastoralism on their property. They expect the partnership to be operative in this redeployment and done in a manner consistent		CEN-LR

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<p>establishing a management plan and implementing it in collaboration with the owners and all users.</p> <p>Additionally the CEN-LR organizes awareness activities for the protection of natural heritage.</p>			<p>with the preservation of natural heritage.</p>	
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In Italy, the agreements signed are mainly with private owners (69%) and only two of them on Natura 2000 sites. A significant number of agreements are on urban areas which intend to be examples for signing future LS agreements focussing on nature conservation. Practically all of the agreements are for management support: the owner maintains the property and the management and he/she can receive a support from Legambiente or other local associations.

One agreement has been selected (Rognano – Villarasca (Pavia Province)) as an example:

Private owner or manager?	Surface concerned	Type of agreement		Duration of agreement	Restrictions agreed
Private owner	6.72 ha on Natura 2000	Written agreement for management support		10	
Management agreed	Fiscal benefits	Other material benefits	Immaterial benefits	Land trust or other body	
To give the owner support on how to manage the forest			The motivation of the owner to sign the agreement is philanthropic and based on their passion for nature, conservation and protection	Legambiente Lombardia	

In Spain, the land stewardship mechanism is well known and established in the country. There are 1,990 agreements signed covering an area of 660,240.93 ha from 188 LS organizations.

From the new agreements signed during the time of the LandLIFE project, one of them has been selected as example as it has been the first time in Spain that a

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private owner provides land for nature conservation. A video featuring this area can be viewed at <https://www.youtube.com/watch?v=6eckgFoD3kc>:

Private owner or manager?	Surface concerned	Type of agreement	Duration of agreement	Restrictions agreed
Private owner	10 ha	An agreement was signed in 2007 with the NGO GEPEC-EdC. In 2012 the owner donated the land to the NGO	perpetual	
Management agreed	Fiscal benefits	Other material benefits	Immaterial benefits	Land trust or other body
To manage the forest in order to foster the recovery the natural value after the forest fires; to decrease the risk of fires; environmental education; recovery of traditional production. To preserve the habitat of: <i>Pyrrhocorax pyrrhocorax</i> and <i>Aquila chrysaetos</i> that nest nearby and <i>Aquila fasciata</i> .			A family decided to give a property to GEPEC – EdC in order to be managed by a institution they trust and who will preserve and improve the benefit of nature for future generations. Additional reasons influencing the decision included the family's inability to ensure maintainance of the property in future generations . Donating it was a good solution for the management of their assets according to their personal values.	GEPEC-EdC

Results

The direct results from the project were:

In Italy, 60 new agreements were signed covering 1,161 ha. 8% of them are on Natura 2000 sites and 30% in areas without any protection figure. Some of the agreements signed cannot be considered for nature protection, but they are good to start the relationship with the landowners. The associated beneficiary Legambiente has established Land Stewardship as one of their principal tools to be used for soil protection. Despite the project opening in the Lombardia region, it has spread across the country thanks to the Legambiente network.

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In France, 73 new agreements were signed in an area of 7,141 ha. 75% of them are on Natura 2000 sites and 23% in areas without any protection. The associated beneficiary Conservatoire has adapted and used the methodology to their needs as their main aim is to value the natural heritage of their region. After a long adaptation period, they have spread their experiences to the network of Conservatoires in France.

In Spain, the methodology and tools were used to further disseminate the concept of LS and it was focused in the improvement of the quality of the agreements signed.

At European level, 60 people have been trained in the on-line course so that they have the needed skills to further implement the LS in their countries. On the other hand, the citizenship has been involved in nature conservation, reaching more than 31.500 people.

Potential for transfer

The transfer of the project is very high because achieving transferability was its main aim.

The LandLIFE project was focused on the creation of the tools and methodologies to transfer the experience gained in Catalonia and Spain to other regions in Europe. The approach was to involve two other regions in the project: Lombardia in Italy and Languedoc-Roussillon in France. This has served to provide a wider view of different methodologies and approaches utilised in various countries throughout the EU. This has helped to develop a methodology and toolset flexible enough to be adapted to different contexts, further enhancing the transfer potential of the project. Note that Legambiente has a network of offices in all country regions and the CEN-RL also belongs to the network of CEN in all France. The project has had a positive effect before closing and has led to the signing of new agreements in these countries. It is significant that prior to implementation of this project there were no LS agreements signed in Italy, but by the culmination of the project there were 60 agreements in place; all of them under the umbrella of Legambiente.

The dissemination activities also involved other countries in Europe, as 22 countries participated in the European Land Stewardship Week, and the final Congress had participants from over 20 countries.

The main obstacles to the transferability of land stewardship are the diversity of each of the European regions, with its cultural and administrative idiosyncrasies and unique features; the lack of incentives that encourage the use of land stewardship, such as legal development and tax incentives and direct economic aid; and finally, collaboration between companies and stewardship organisations proves

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difficult. Despite this, one of the advantages of LS is that it is a flexible strategy offering different tools that are easily adaptable to various local and regional contexts.

Scoring

Transferability *(please click "1" if not transferable, and "5" if very transferable)*

1 2 3 4 5

Impact and effectiveness *(please click "1" if not effective and "5" if very effective)*

1 2 3 4 5

Sustainability *(please click "1" if not sustainable, and "5" if very sustainable)*

1 2 3 4 5

Flagship project *(please click YES, if scoring in each of the above sections are "4" and more)*

Yes No

Flagship project

This is a LIFE Information project that developed a strategy to foster the use of Land Stewardship all over the EU. The impact of the project is not directly on the land or the nature conservation but in the application of the agreements.

The number of agreements signed is significant in number but may not have a significant impact because any type of agreement is accounted. The importance given in this project was to introduce the concept and further continuation should provide the confidence of all parts to provide sustainable and effective projects/agreements.

Task 9b - Case studies

Summary

The sustainable management of the whole project area is based on the establishment of a Landowner Association which will manage the grazing of the Natura 2000 (N2000) sites both during and after the LIFE project. Even though the mechanism includes a tenancy paid to the landowner, the basis of the management approach is a voluntary agreement from the landowner to participate in the association.

The island setting makes the Project particularly interesting as this provides a feeling of community but also may be subject to the other aspects of being situated in a small community including issues relating to rights of land, access and ability to sustain livelihoods.

Not all issues related to the activity being an action in a LIFE project have been solved yet and therefore the final outcome of the action as well as the eligibility of the costs are not yet secured.

Project information

LIFE11NAT/DK/893 LIFE LÆSØ

Background

The project deals with restoring and developing a sustainable management of the N2000 areas at the island of Læsø. The implementation period is from 01/10/2012 – 30/09/2017.

The main objectives of the project are to:

- Establish a sustainable management system securing grazing of the area;
- Establish favourable conditions in the designated habitat types;
- Establish favourable conservation status/conditions for the designated breeding bird species;

Establish control over invasive alien plant species;

These objectives will be reached by:

- Securing sustainable grazing management by establishing an organization. (A1 and C12);
- Clearing of trees. (C1, C2, C3 and C8);
- Control of invasive plant species. (C3, C4, C5 and C8);

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- Establishing grazing, by fencing and the establishment of livestock herds. (C6, C7);
- Establishing predator control (crow, mink and fox) (C10);
- Improving natural hydrology. (A3, C11);
- Improving local awareness of N2000 habitats and species. (D-actions);

The coordinating beneficiary is the Nature Agency (working under the supervision of the Ministry of Environment). The municipality of Læsø is the associated beneficiary. The main stakeholders are the landowners on the island of Læsø.

Project website: <http://naturstyrelsen.dk/naturbeskyttelse/naturprojekter/life-laesoe/>.

Environmental problems addressed by the project

The main problem to be solved is the long-term management of the areas restored in the LIFE project. 59 % of the targeted area is owned by 335 individuals, with several owning more than one plot, often randomly located throughout the Project area. From a management aspect this creates a complex starting point. Although the remaining 41 % of the area targeted is owned by the Nature Agency, these areas as also tend to be difficult to manage due to their unconnected locations. The total number of individual plots in the project area is 1,758.

To solve this problem the project establishes a Landowner association, with the aim to manage the whole project area as one entity being able to apply for subsidies and generating income.

Land Stewardship methods applied in the project

Stakeholders directly involved in the land stewardship approach

The main stakeholders in the project are the coordinating beneficiary, the associated beneficiary, and the private landowners on the island of Læsø where the project area is located. Some of the landowners are farmers and living on the island and others just own land on the island without any actual activities on the land.

The LIFE project/the EU as a funding instrument is a significant stakeholder in the project. Through the LIFE project the future management of the project areas is secured by purchase of cattle and sheep. The restoration of areas to be able to apply for subsidies is also taken care of by the LIFE project.

The CB and the AB function mostly as facilitators for the organisation of the Landowner association, for the purchase of cattle within the LIFE project, and for

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the restoration of project areas. The CB and the AB will have a role in the future within the Landowner association but with no greater authority than any other landowner in the association. During the start-up of the association the role of the CB has been significant and the role has continued with quite a heavy work load during the first years of the Landowner association.

Prior to the LIFE project the interaction between the main stakeholders was very active and the project manager has met personally with all landowners since the start of the project. Whilst time consuming, this work was crucial for the implementation of the activity and to receive support and trust from the landowners.

Two forms are provided for the landowners on the LIFE website, one on which the landowner can express their willingness to start a discussion on taking part in the landowner association and an application form to become an active member in the association.

Methods, motivation mechanisms

The important element behind the main idea of the Landowner association is the transfer of farming and environmental "rights to claim" from all joining individuals to the association. This enables the Landowners association to claim these rights as a tenant of the areas.

The LIFE project contributes to the associations objectives with:

- Restoration of the N2000 areas (clearing, burning, clearing of non-native species);
- Purchase of cattle, with the owner being the Landowner association;
- Fencing of areas to be restored;
- Needed infra-structure;
- Personnel resources for the creation of the Landowner association;and
- Biological monitoring.

It is voluntary for those landowners whom have areas included in the LIFE project to become members of the Landowners association. The benefits for the landowners are:

- They receive a tenancy for the land;
- They do not have to apply for subsidies as that is taken care of by the Landowner association for all areas included;
- Their area is managed/grazed by animals belonging to the tenant or owned by themselves or somebody else but managed by the Landowner Association;

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- New fencing, repair of old fencing etc. is taken care of by the Landowner association.

Private owner or manager?	Surface concerned	Type of agreement	Duration of agreement	Restrictions agreed
TBC	In ha 1470 ha at present but 3271 ha foreseen.	Written tenancy agreement	In years: TBC	TBC
Management agreed	Fiscal benefits	Other material benefits	Immaterial benefits	Land trust or other body
TBC	TBC	TBC	TBC	TBC

The missing information was not available to the TMO at the time of publication.

Assessment:

For this specific area (a relatively independent island) this approach to management has been very suitable and effective. The island of Læsø is the smallest municipality in Denmark and as such very aware of their status as an independent island.

There is a strong feeling for the identity and independence of the island as well as personal freedom in regards to decision-making. Landowners are very content with the association as it gives them the independence they appreciate as well as an effective way to manage an area of great personal significance. Still, by the time of the MtR (end of November 2014) only 45% of all landowners had become members in the association. The CB expects that more landowners will become members during 2015.

A tenancy is paid to each landowner (no information on exact amount) by the landowner association. Aside from this stipend there is no monetary advantage from being a member of the landowner association.

This method of securing the proper and sustainable management of N2000 –areas can prove to be very appropriate. Landowners of small areas become members in a big and functioning scheme and the work load for each landowner becomes smaller. In a small community the benefits can be considerable and far reaching.

The idea to take a greater active role in branding the island as a clean and natural food production entity is very active. The island already has some in-demand goods, however these exports can be developed even further.

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One of the barriers can be the captiousness of people. A small community has many strengths but can also be vulnerable when it comes to each individual's concern for their own livelihood and the strong interface with social and financial issues. Furthermore, local history plays a major role when engaged in development projects in small communities.

Results

The process with the landowner association is still ongoing but the results until now are very promising.

However, the Landowner Association is not functioning fully independently yet and a substantial amount of work is required on the part of the project manager in assisting the association. As the project was not foreseen to be so resource intensive for the project manager at the proposal stage, this has turned out to present an additional challenging for the implementation of the rest of the actions in the LIFE project.

All issues connected with the purchase of the cattle to the LIFE project and then transferring the ownership to the Landowner Association are not solved. The procedure is well described in the Grant Agreement but there might come some unforeseen challenges which have to be handled prior to the final acceptance of the procedure by the Commission.

Potential for transfer

The activity is very transferrable and replicable. The method is also not new but has been used in several other areas where there are a big number of landowners to secure the proper management of the areas. The Nature Agency (CB in this project) has a long experience of such smaller areas being managed through a landowner association. What is unique in this case is the geographical scope of the activity.

Scoring

Transferability *(please click "1" if not transferable, and "5" if very transferable)*

1 2 3 4 5

Impact and effectiveness *(please click "1" if not effective and "5" if very effective)*

1 2 3 4 5

Sustainability *(please click "1" if not sustainable, and "5" if very sustainable)*

1 2 3 4 5

A NNEX 4. References

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Annex 5. List of LIFE projects analysed in the scope of this study, and land stewardship mechanisms identified in them

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Country and project number	Project acronym	Participatory approach, stakeholder involvement - restoration actions financed by LIFE	Cooperation with owners/farmers in management of the nature areas	Establishing joint management body	Payments for ecosystem services	Business activities combined with nature management	Land Stewardship agreements			Preparing the land for rural development subsidies, assisting with obtaining subsidies
							Management support	Management transfer	Property transfer	
AUSTRIA										
LIFE07 NAT/A/000010	Mostviertel-Wachau	1				1				
BELGIUM										
LIFE11 NAT/BE/001060	Herbages						1			
LIFE11 NAT/BE/001061	Most-Keiheuvel						1			
LIFE08 NAT/B/000036	3WatEr						1			
LIFE12 NAT/BE/001098	ToGetHer							1		
BULGARIA										
LIFE07 NAT/BG/000068	BSPB LIFE+ SAVE THE RAPTORS	1					1	1	1	1
LIFE08 NAT/BG/000277	LIFE FOR THE BOURGAS LAKE	1		1		1	1	1		1
LIFE08 NAT/BG/000278	VULTURES' RETURN		1				1			1
LIFE12 NAT/BG/000572	LIFE for Safe Grid	1					1			

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CYPRUS										
no suitable projects identified										
CROATIA										
no suitable projects identified										
CZECH REPUBLIC										
LIFE09 NAT/CZ/000363	Lounské Středohoří Steppe	1					1	1	1	1
DENMARK										
LIFE11 NAT/DK/000893	LIFE LÆSØ	1		1						1
LIFE11 INF/DK/000891	SMART Natura									
ESTONIA										
no suitable projects identified										
FINLAND										
LIFE12 NAT/FI/000367	LIFE Saimaa Seal	1							1	
FRANCE										
LIFE12 INF/FR/000735	MIL'OUV						1			1
LIFE04 NAT/FR/000087	LIFE Marais						1	1	1	

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GERMANY										
LIFE07 NAT/D/000236	Vogelschutz im Albvorland	1	1			1	1			1
GREECE										
LIFE09 INF/GR/000319	PROM.SUS.FIS.PR.PRESPA		1	1						
LIFE10 NAT/GR/000637	ANDROSSPA	1					1	1		
LIFE11 NAT/GR/001011	Lesser Kestrel Thessaly		1				1			
LIFE12 NAT/GR/000275	LIFE Stymfalia		1	1			1			
HUNGARY										
LIFE13 NAT/HU/000081	ROLLER LIFE+	1					1			1
LIFE13 NAT/HU/000183	RAPTORSPREYLIFE	1					1			1
IRELAND										
LIFE09 NAT/IE/000220	BLACKWATER SAMOK	1		1			1			1
ITALY										
LIFE11 ENV/IT/000168	MAKING GOOD NATURA				1					
LIFE12 NAT/IT/000818	LIFE Xero-grazing	1	1	1						
LIFE07 NAT/IT/000450	CENTOLIMED	1	1	1						1
LUXEMBOURG										
LIFE11 NAT/LU/000857	Resto-unio	1					1			

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LATVIA									
no suitable projects identified									
LITHUANIA									
no suitable projects identified									
MALTA									
no suitable projects identified									
NETHERLANDS									
no suitable projects identified									
POLAND									
LIFE08 NAT/PL/000510	LIFEAQUILA	1							
LIFE08 NAT/PL/000513	XericGrasslandsPL	1					1		1
LIFE11 NAT/PL/000422	Górna Biebrza			1			1		
LIFE11 NAT/PL/000436	LIFEGALLINAGO		1						
LIFE12 NAT/PL/000053	LIFE + Kserotermy PL	1							
LIFE12 NAT/PL/000060	LIFE PODKOWIEC+	1					1	1	

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PORTUGAL										
LIFE09 NAT/PT/000040	Habitats Conservation	1				1	1			
ROMANIA										
LIFE09 NAT/RO/000618	STIPA		1				1		1	1
SLOVAKIA										
no suitable projects identified										
SLOVENIA										
LIFE09 NAT/SI/000376	MANSALT					1				
SPAIN										
LIFE02 NAT/E/008609	Lince Andalucía	1	1				1			1
LIFE02 NAT/E/008617	Lince Toledo	1	1				1			1
LIFE03 NAT/E/000050	CBD 2003	1		1			1			
LIFE07 NAT/E/000735	Corredores oso						1		1	
LIFE11 NAT/ES/000711	TAXUS						1	1		
LIFE12 NAT/ES/000192	LIFE Bear defragmentation									
LIFE12 NAT/ES/000595	LIFE OESTE IBERICO		1				1	1		
LIFE11/BIO/ES/000727	CONSERVASTRATRAGALUS-MU	1					1			

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LIFE13/BIO/ES/000094	LIFE MONTSERRAT		1				1			
LIFE12/ENV/ES/001140	SEGURA RIVERLINK			1			1			
LIFE10 INF/ES/540	LandLIFE	1	1				1	1	1	
LIFE09 NAT/ES/000513	UROGALLO CANTABRICO						1			
SWEDEN										
LIFE12 NAT/SE/001139	ELMIAS	1		1						
UNITED KINGDOM										
LIFE00 NAT/UK/007071	Salisbury Plain		1							
LIFE00 NAT/UK/007074	Core forest sites	1						1		
LIFE02 NAT/UK/008527	Bittern		1					1	1	
LIFE02 NAT/UK/008541	Capercaillie	1					1			
LIFE02 NAT/UK/008544	New Forest	1		1				1	1	
LIFE04 NAT/GB/000250	CASS	1	1	1			1	1		1
LIFE06 NAT/UK/000134	Active blanket bog in Wales	1								1
LIFE08 NAT/UK/000199	Alde-Ore		1				1	1	1	
LIFE08 NAT/UK/000201	ISAC 08	1					1	1		
LIFE11 NAT/UK/000385	N2K Wales									
LIFE12 NAT/UK/001068	LIFE Connect Carpathians		1							

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LIFE13 NAT/UK/000258	LIFE hen harriers	1					1			
LIFE08 INF/UK/000214	Birds Directive		1				1			1
LIFE00 ENV/UK/000894	Ythan	1	1					1		1
LIFE05 ENV/UK/000127	Quercus	1								

Cells in green indicate LIFE projects featured in the study, in chapter 5.