Review of Rural Development measures that target hedges and/or stonewalls: design of measures and establishment of baseline situation

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Review of Rural Development measures that target hedges and/or stonewalls: design of measures and establishment of baseline situation

Final report

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List of abbreviations

AECM	Agri-environment-climate measures
AS	Advisory Service
CAP	Common Agricultural Policy of the European Union
CAENP	Croatian Agency for Environment and Nature Protection
EC	European Commission
EU	European Union
EFA	Ecological Focus Areas
EAFRD	European Agricultural Fund for Rural Development
IBRD	Bank for Reconstruction and Development
GAEC	Good Agricultural and Environmental Condition
GLAS	Green, Low-Carbon, Agri-Environment Scheme (of Ireland)
ha	Hectare
LPIS	Land Parcel Identification System (in Croatian: ARKOD)
MoA	Ministry of Agriculture
MENP	Ministry of Environment and Nature Protection
MS	Member State of the European Union
NATURA 2000	Ecological Network of the European Union
NIP	NATURA 2000 Integration Project
NVZ	Nitrate Vulnerable Zone
PAAFRD	Paying Agency for Agriculture, Fisheries and Rural Development
RDP	Rural Development Programme

1. Background information on the assignment

The Ministry of Environmental and Nature Protection (MENP) of the Republic of Croatia coordinates implementation of an IBRD-financed (Bank for Reconstruction and Development) project NIP (NATURA 2000 Integration Project). The overall project objective is to support Park and County Public Institutions to implement NATURA 2000 objectives in investment programs; strengthen capacity for EU-compliant reporting and biodiversity monitoring; and introduce programmes that involve a wide group of stakeholders in NATURA 2000 network management. An important element of NIP is a project titled "Consulting services for Support to Agri-Environment Scheme". Besides MENP, this project involves also other relevant public institutions dealing with nature protection and agriculture, including the Ministry of Agriculture (MoA), Croatian Agency for Environment and Nature Protection (CAENP), Paying Agency for Agriculture, Fisheries and Rural Development (PAAFRD) and Advisory Service (AA).

One of the project objectives is to assist in mainstreaming the project experiences and results into national agricultural and environmental policies, which is done under project Activity 4. An important element of Activity 4 is preparation of two Policy Reports (Sub-Activity 4.1). In this Policy Report, following a MENP's request, Consultant[1] has provided a review of rural development measures that target hedges and/or stonewalls, with special emphasis on the design of measures and establishment of the baseline situation. This information will assist the Croatian administration responsible for designing and controlling implementation of rural development measures aiming at nature protection in designing measures both for stonewall/hedge establishment (Sub-Measure 4.4.) and maintenance (Measure 10). Croatia has not yet implemented any rural development measure for stonewalls and hedges, and currently does not have any sound inventory of stonewalls and hedges. Thus, besides requirements for stonewall/hedge establishment and maintenance, the administration's particular interest is to learn more about how other MS dealt with the establishment of the baseline situation for these landscape features.

2. EU context

Several aspects of the CAP Pillars 1 and 2 are relevant, as summarised below.

2.1 GAEC

Cross-compliance, as set out in Article 93 and Annex II of REGULATION (EU) No 1306/2013 requires Member States to implement rules for Good Agricultural and Environmental Condition (GAEC) to be met by recipients of CAP support. These rules should include, under GAEC7 (bold added):

Retention of landscape features, including where appropriate, hedges, ponds, ditches, trees in line, in group or isolated, field margins and terraces, and including a ban on cutting hedges and trees during the bird breeding and rearing season and, as an option, measures for avoiding invasive plant species

[1] A Consortium composed of Avalon (NL), Austrian Council for Agricultural Engineering and Rural Development (A) and Ecologica (HR), and their associate partners: European Forum on Nature Conservation and Pastoralism (UK) and Institute for European Environmental Policy (UK).

This is part of the so-called “baseline” that also includes rules on minimum activity, and minimum pesticides and fertilizer requirements (where applicable). Payments such as agri-environment-climate (AECM) must be only for commitments that go beyond this baseline.

Several points can be made with respect to GAEC requirements:

- GAEC requires the “retention” of landscape features, i.e. they should not be removed. It does not require them to be maintained in good condition as part of the baseline, this can be rewarded through AECM.
- Stonewalls are not cited explicitly, although field boundaries often include stonewalls, and terraces almost always do.
- The list of features is not definitive; it is up to Member States to choose which ones are “appropriate” to their circumstances.
- CAP beneficiaries operating under the Pillar 1 small-farmers regime are not subject to GAEC requirements in relation to their Pillar 1 payments, but if they participate in AECM or other RDP measures, then the cross-compliance baseline still applies. In Croatia GAEC requirements are obligatory for small farmers also, but there are no penalties for breaching.

In this study we will report on the implementation at Member State level of GAEC7 in relation to hedges, field margins and terraces.

2.2 LPIS

The LPIS Guidance produced by the European Commission expects landscape features covered by GAEC7 (or counting as EFAs) to be identified on LPIS:

Those elements, when stable in time, should be specifically identified in the LPIS, in such a way as to make possible the control of their maintenance (cf. the respect of the cross compliance obligations) and their distinction with the non-eligible features. However, in relation to EFA, if some elements of GAEC or SMR are used as potential EFAs in a MS, they should be recorded in the EFA-layer following the relevant guidelines (DSCG/2014/31 -FINAL).

In this study we will report on whether and how hedges, stonewalls and terraces are identified on LPIS at Member State level.

2.3 Rural development measures

In this report we looked for examples of three rural development measures provided for under REGULATION (EU) No 1305/2013 of 17 December 2013 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD), specifically in relation to the maintenance, restoration or establishment of stonewalls and/or hedges:

2.3.1 Agri-environment-climate measure (AECM)

The AECM is established under Article 28 of Regulation 1305/2013.

According to this Regulation the purpose of the measure is to preserve, and promote the necessary changes to, agricultural practices that make a positive contribution to the environment and climate.

AECM payments shall be granted to farmers, groups of farmers or groups of farmers and other land-managers who undertake, on a voluntary basis, to carry out operations consisting of one or more agri-environment-climate commitments on agricultural land to be defined by Member States, including but not limited to the agricultural area defined under Article 2 of Regulation 1305/2013. Where duly justified to achieve environmental objectives, AECM payments may be granted to other land-managers or groups of other land-managers.

Payments shall be granted annually and shall compensate beneficiaries for all or part of the additional costs and income foregone resulting from the commitments made. Where necessary, they may also cover transaction costs up to a value of 20% of the premium paid for the agri-environment-climate commitments. Where commitments are undertaken by groups of farmers or groups of farmers and other land managers, the maximum level shall be 30%.

AECM payments cover only those commitments going beyond the relevant mandatory standards (cross-compliance) established pursuant to Chapter I of Title VI of Regulation (EU) No 1306/2013, the relevant criteria and minimum activities as established pursuant to points (c)(ii) and (c)(iii) of Article 4(1) of Regulation (EU) No 1307/2013, and relevant minimum requirements for fertiliser and plant protection products use as well as other relevant mandatory requirements established by national law.

When calculating support under this measure, Member States shall deduct the amount necessary in order to exclude double funding of the practices referred to in Article 43 of Regulation (EU) No 1307/2013.

In a study in 2011[2], IEEP examined the content of entry-level agri-environment schemes across the EU27 for the 2007-13 period, examining more than 80 RDPs in total. The study found that actions aimed specifically at the protection and maintenance of landscape features occurred in more than half (47) of all continental EU RDPs. Those which focus on stonewalls, hedgerows, or isolated trees were found in 45 RDPs.

In this study we will report on the implementation of AECM for hedges and/or stonewalls (including terraces) in selected Member States and regions.

2.3.2 Natura 2000 and Water Framework Directive (WFD) payments

The Natura 2000 and WFD payments measure is established under Article 30 of Regulation 1305/2013.

The purpose of the measure is to compensate beneficiaries for additional costs and income foregone resulting from disadvantages in the areas concerned, related to the implementation of Directives 92/43/EEC (Habitats Directive) and Directive 2009/147/EC (Birds Directive) and the Water Framework Directive.

Support shall be granted to farmers and to private forest holders and associations of private forest holders. In duly justified cases it may also be granted to other land managers.

Support under this measure shall be granted annually per hectare of agricultural area or per hectare of forest in relation to disadvantages resulting from Natura 2000 or WFD requirements that go beyond the good agricultural and environmental condition provided for in Article 94 and Annex II of Council Regulation (EU) No 1306/2013 and the relevant criteria and minimum activities established pursuant to points (c)(ii) and (c)(iii) of Article 4(1) of point (c) of Article 4(1) of Regulation (EU) No 1307/2013.

[2] Not publically available.

When calculating support under this measure, Member States shall deduct the amount necessary in order to exclude double funding of the practices referred to in Article 43 of Regulation (EU) No 1307/2013.

In this study we will report on the implementation at Member State level of Natura 2000 payments in relation to hedges and/or stonewalls (including terraces).

2.3.3 Non-productive investments

This measure is established under Article 17 of Regulation 1305/2013.

It provides support for investments in physical assets, including non-productive investments linked to the achievement of agri-environment-climate objectives as pursued under this regulation, including biodiversity conservation status of species and habitat as well as enhancing the public amenity value of a Natura 2000 area or other high nature value systems to be defined in the programme.

Payments may cover up to 100% of the cost of the action.

In this study we will report on the implementation at Member State level of Non-productive investments in relation to the creation and/or restoration of hedges and stonewalls (including terraces).

3. Overview of countries/regions studied

We studied the following countries/regions and measures:

UK – England:

- Non-productive investments for stonewalls and hedges (can be applied for separately from AECM or integrated with AECM)
- AECM for stonewalls and hedges

France – National Framework:

- AECM for maintenance and restoration of hedges

Estonia:

- Non-productive investments for stonewall restoration

Ireland:

- Non-productive investments integrated with AECM to support hedge planting, hedge coppicing and hedge laying
- AECM supports maintenance of traditional stonewalls

Italy - Friuli Venezia Giulia:

- Non-productive investments for establishing and renovating hedges, and for restoration of stonewalls and terraces
- AECM for ecological infrastructure, including hedges

Spain – Baleares:

- Non-productive investments for restoration of stonewalls and terrace walls

Portugal:

- AECM and Natura 2000 measures provide payments (in different areas) for keeping walls in a good conservation condition
- Non-productive investments for restoration of terrace walls

Bulgaria:

- Non-productive investments for field boundary and hedgerow restoration (not yet implemented)

4. UK - England

Each of the 4 countries in the UK has its own RDP. Each RDP is different, and has different measures. We selected England as an example.

Under the new RDP 2014-20, AECM and non-productive investment measures have been changed considerably compared with the previous RDP, as a result of changes to national policy, with a restructuring of agri-environment and a greater emphasis on narrow targeting of schemes. These measures are overlapping, in the sense that aid for non-productive investments can be received within the AECM package, or it can be applied for outside the AECM package, as a standalone grant.

4.1 Measure 4.4 for non-productive investments

The **Hedgerows and Boundaries Capital Grant** offers funding up to a maximum of £5,000 (approx. 6,500€) per applicant. Applicants can claim only for the capital items shown in the table below. These capital items are the same as those already available for AECM Mid Tier and Higher Tier Countryside Stewardship agreements. Note that these standalone capital grants also come under the name Countryside Stewardship.

The standalone grants will mainly be for small-scale restoration of boundary features, like hedgerows and stone walls. Major restoration projects would be funded under the Higher Tier.

This grant is not geographically targeted.

Code	Capital Item	£ Payment Rate
BN5	Hedgerow laying	9.4/m
BN6	Hedgerow coppicing	4.0/m
BN7	Hedgerow gapping-up	9.5/m
BN8	Hedgerow Supplement – Casting up	3.0/m
BN10	Hedgerow supplement – top binding & staking	3.4/m
TE1	Planting standard hedgerow	8.8 per tree
BN4	Earth bank restoration	7.0/m
BN1	Stone-faced bank repair	31.0/m
BN2	Stone-faced bank restoration	86.0/m
BN12	Stone wall restoration	25.0/m
BN13	Stone wall supplement – top wiring	3.6/m
BN14	Stone wall supplement – stone from quarry	44.0/m

Agreement Holders using own labour for construction of work
Agreement Holders can use their own labour for the construction of their works. They will need to prepare time sheets showing:

- the hourly rate for their labour or farm employee's labour;
- the number of hours worked;
- what work has been undertaken;
- the date the work was undertaken;
- where applicable, signed by the employee and employer.

These records must be kept and produced on request. They do not need to be submitted with a claim.

4.2 AECM

The new AECM is called Countryside Stewardship. It has three main elements:

- Higher tier (similar to the previous Higher Level Stewardship)
- Middle tier (which replaces the previous Entry Level Stewardship)
- A lower tier of capital grants (the term used in the UK for non-productive investments), including the Hedgerows and Boundaries Capital Grants (see above).

The **Higher Tier** is for the most environmentally important sites and woodlands. These will usually be in places that need complex management (such as habitat restoration, woodland creation or tailored measures for priority species).

The **Middle Tier** aims to address widespread environmental issues, such as reducing diffuse water pollution or improving the farmed environment for farmland birds and pollinators. Scheme targeting and scoring will encourage applicants to choose options that help achieve the environmental priorities that are important in their wider area. This means that environmental benefits will not just be on individual holdings but more widespread.

Countryside Stewardship is open to all and, to enable this to happen, a new 'national targeting framework' has been set up. This framework provides a picture of Countryside Stewardship priorities across England. Entry to all levels of the new scheme is competitive, using a points system, and all applications are submitted through a new online system. Applications for Countryside Stewardship are assessed and the number of points is calculated. To assess applications, Natural England uses:

- The priorities highlighted in the national targeting framework
- The land management options applicants have chosen on land parcels

Applicants to Countryside Stewardship can choose from a very long list of land management options. Those relating to stonewalls and hedges are shown below. Some of these can be funded as standalone actions under non-productive investments (see table and code numbers in the following section).

Management of hedgerows	BE3
Hedgerow supplement - top binding and staking	BN10
Stone wall supplement - Top wiring	BN13
Stone wall supplement - stone from quarry	BN14
Earth bank creation	BN3
Hedgerow supplement - substantial pre-work	BN9

Stone-faced bank repair	BN1
Stone wall restoration	BN12
Stone wall supplement - difficult sites	BN15
Stone-faced bank restoration	BN2
Earth bank restoration	BN4
Hedgerow laying	BN5
Hedgerow coppicing	BN6
Hedgerow gapping-up	BN7
Hedgerow supplement - casting up	BN8

4.3 GAEC

Under new GAEC 7 (from 2015), rules for landscape features have changed. Changes to rules include: boundary features such as hedgerows and stone walls will be covered under GAEC 7a. There will also be new rules for the protection of stone banks and earth banks.

Hedgerows
The rules on hedgerows apply to any hedge growing in, or adjacent to, any land which forms

part of your holding and which has:

- a continuous length of at least 20 metres, or is part of any such length, or
- a continuous length of less than 20 metres where it meets (at an intersection or junction) another hedgerow at each end.

Any gap of 20 metres or less and any gap resulting from a breach of the Hedgerows Regulations 1997 will be treated as part of the hedgerow.

The farmer must:

- take all reasonable steps to keep a green cover on land within 2 metres of the centre of a hedgerow.

And must not:

- cultivate or apply fertilisers or pesticides to land within 2 metres of the centre of a hedgerow.

Fertilisers include: inorganic and organic fertiliser, organic manures, lime, slurry, sewage sludge, slag, trace elements, calcified seaweed and human waste (not an exhaustive list).
Pesticides mean anything used for destroying pests and include herbicides, fungicides, insecticides and other biocides.
The farmer is not breaking these rules if he/she used pesticides for spot application, or cultivated land for one of these reasons:

  - to establish a green cover where one doesn't exist and the land is part of a field which is being newly created (whether by merger or division)
  - to establish a green cover where one doesn't exist and the land was previously outside the scope of cross compliance.

These rules do not apply:

- to land either side of a hedgerow which is less than 5 years old (you'll need to keep documentary evidence to prove this)
- to land forming part of a parcel of 2 hectares or less, as measured within permanent boundary features
- to land on the side of any hedgerow which is facing away from a dwelling where the hedgerow marks a boundary of the curtilage of the dwelling
- to the casting up of a traditional hedgebank between 1 September and the last day of February (inclusive).

Cutting, trimming and removal
The farmer must not cut or trim a hedgerow between 1 March and 31 August (inclusive) unless:

- the hedgerow overhangs a highway, road or footpath over which there is a public or private right of way and the overhanging hedgerow obstructs the passage of, or is a danger to, vehicles, pedestrians or horse riders
- the hedgerow is dead, diseased, damaged or insecurely rooted and because of its condition, it or part of it, is likely to cause danger by falling on to a highway, road or footpath; or obstructs the view of drivers or the light from a public lamp
- it is to carry out hedge-laying or coppicing during the period 1 March to 30 April (inclusive)
- it is to trim a newly laid hedgerow by hand, within 6 months of it being laid

- he/she has received written permission from the Secretary of State for the Environment to cut or trim during the month of August for the purposes of sowing oil seed rape or temporary grassland during the same August.

The farmer must not remove all or part of a hedgerow unless he/she has told the local authority (or National Park Authority in a National Park) in writing of the proposal, and has:
- received written permission to carry out the removal; or
- has received no reply from the authority within 42 days of your notification.

The removal must be carried out in accordance with the proposal specified in the hedgerow removal notice and the hedgerow must be removed within the period of 2 years from the date on the hedgerow removal notice.

The cutting, trimming and removal rules do not apply:
- to hedgerows within the curtilage of a dwelling-house
- to the side of any hedgerow facing a dwelling-house when the hedgerow marks the boundary of the curtilage of the dwelling-house.

Stone Walls, Earth Banks and Stone Banks

Rules for stone walls, earth banks and stone banks apply if:
- it has a continuous length of at least 10 metres; or
- it has a continuous length of less than 10 metres which meets another boundary at each end; or
- it has a continuous length of less than 10 metres which forms an enclosure

An earth bank is a mound without a hedgerow, distinct from the surrounding land form.
A stone bank is an earth bank faced with natural stone.
The farmer must not:
- remove existing stone walls, earth banks and stone banks
- remove earth or stone from an existing stone wall, stone bank or earth bank.

The rules in section B do not apply if the farmer:
- widens an existing gateway in a stone wall, earth bank or stone bank to allow machinery or livestock access. The gateway should be no wider than 10 metres and the newly created ends finished to a vertical face
- repairs another stone wall, earth bank or stone bank on your holding which is in a better condition than the one you remove the stone or earth from
- has written permission from the Secretary of State to do so, in order to enhance the environment, improve public or agricultural access, or for reasons relating to livestock or crop production.

4.4 Establishment of the baseline situation

4.4.1 Requirements for applicants

Applicants for the Hedgerows and Boundaries Capital Grant must provide:

- any relevant consents, permissions, exemptions or any written advice;

- the application map
- A dated photograph of the boundary feature where works will take place. This should establish the 'baseline condition' before work is started.

In order to claim the payment, the Agreement Holder should take a photograph after the works have been completed and send it with the payment claim. This should show the 'works completed condition'. The 'baseline' and 'works completed' photographs should be taken from the same position. In some cases, photographs taken during the works will also be required. Agreement Holders should follow individual capital item guidance.

The photographs should identify the hedge/wall and provide sufficient evidence that the works have been delivered to the required standard. Paper or digital photographs are acceptable. Printed photographs must be submitted on photographic paper and be no smaller than 15 cm x 10 cm.

On the reverse side the applicant should write the Ordnance Survey (national cartographic system) map sheet reference and National Grid reference for the field parcel, the implemented capital item code, date and Agreement Holder name. Digital images should not be smaller than 600 x 400 pixels and ideally the image file size no larger than 400 KB. Images submitted by email should be supplied as JPEG files.

4.4.2 LPIS – treatment of hedges and stonewalls

Currently landscape features are not shown on LPIS in England. However, the advent of EFA, and the fact that non-productive features can contribute to a farmer's EFA, means that they are being added to LPIS on an *ad hoc* basis where a farmer includes them as EFA in their CAP application. Separately work is being started to produce a national dataset of landscape features for future inclusion in the LPIS.

4.4.3 Inventories and cartographies

There is no England or UK national inventory or cartography of hedgerows or of stonewalls. Although the Countryside Survey does include a sample survey of the condition of field boundaries, this is not used as part of the implementation of RDP measures.

The authorities (Defra) have grant-aided several local hedgerow surveys since 2003, nearly all in England. In 2009 a review was carried out of all those of Defra-sponsored surveys carried out in 2006, 2007 and 2008. A total of 4,207 hedgerows were sampled, covering 787 km. The combined area surveyed was 7,360km2, 5.5% of the area of England. The 20 surveys were distributed across all Government Office regions. The review concludes that local surveys are effective in helping to deliver local hedgerow Biodiversity Action Plan targets, leading to direct conservation action. They stimulate provision of management advice to farmers and other landowners, and influence policy and resource allocation.

Local surveys are also effective at raising awareness and understanding of hedgerows among local communities, and at increasing public participation in their conservation. They also have a valuable role to play in improving understanding about the state of hedgerows across the nation, and about countrywide priorities for action. Local surveys support, challenge and complement the information provided by Countryside Survey.

5. France

France has a quite complex structure of RDPs and measures. Each region has its own separate RDP (22 in total). There is a National Framework establishing the types of priorities, measures, etc., that regional RDPs should include. There is also a National Programme.

The National Framework includes AECM for maintenance and restoration of hedges Framework, and these AECM are transferred directly to regional RDPs.

5.1 AECM

There are many different types of AECM in the French programmes. To summarise, the main categories set out in the National Framework are:

- AECM designed for broad farming systems, such as mixed farming, extensive livestock farming, large-scale arable farming, etc.
- AECM designed to address specific issues, such as water quality, conservation of particular species, use of agrochemicals etc. These schemes are known as “unitary engagements” (French acronym “EU”)
- AECM for the preservation of genetic resources.

The most relevant AECM category for the present study is the EU named “LINEA” (concerned with linear features) and specifically measure EU_01 for Maintenance of Hedges in Pertinent Locations.

The objective of the measure is the maintenance of hedges in locations that are favourable for the environmental challenge defined and targeted by the programme in question, and compatible with the presence of a rich wild fauna.

The maintenance should be appropriate to the type of hedge in order to ensure its renovation and permanence.

The National Framework summarises the environmental benefits of hedges, including:

- Providing a physical barrier that slows runoff, thus limiting the movement of solid particles, fertilisers and other active materials, thus contributing to the objective to fight soil erosion and improve water quality.
- The dense, deep root network of the woody plants serves to pump mineral elements from the soil (water protection objective) and favour the infiltration of excess water and stabilise the soil (control of natural risks and of soil erosion).
- Hedges are also an ecosystem in their own right, providing habitat and shelter for many animal and plant species associated with this type of environment (biodiversity objective, green infrastructure objective).
- Hedges also contribute to the storage of carbon.

5.1.1 Requirements

Selection of management plan corresponding to the type of hedge

- The appropriate management plans are defined by the managing authority for the territory for each type of hedge. Plans should be designed on the basis of a territorial assessment and, where relevant, the on the basis of the Regional Plan for Ecological Coherence (schéma régional de cohérence écologique SRCE – plans specifically for green and blue infrastructure) and Natura 2000 management plans (documents d'objectifs DoCob).
- The hedge management plan will set out the methods of maintenance, or, where relevant, of restoration, to be applied.

The National Framework provides the following examples:

- The type of cutting: e.g. plant by plant, manual or mechanical, how many sides of the hedge;
- The number and periodicity of cuts: minimum one every 5 years, with at least one cut during the first 3 years and maximum one cut per year
- Complementary actions: keeping some sections with no intervention in order to reduce pressure on biodiversity; where appropriate, define sections to be replanted with local species to ensure continuity of the hedge;
- The period of intervention: in Autumn and/or Winter between 1st October and 1st March and preferably between 1st December and mid-February. The period should be defined according to the needs of nesting birds and the presence of flowers/fruits in the hedge;
- Requirements for keeping deadwood and the preservation of remarkable trees, old pollarded trees, hollow trees, for their landscape and biodiversity functions.
- Lists of materials and tools authorised for cutting, according to the type of hedge (low, high, etc.).

5.1.2 Eligibility

Each territory must define the types of hedge that are eligible for support from this measure, with respect to where they are located in accordance with the ecological and landscape assessment of the territory, with reference to their species composition and size (high or low hedges), and according to the targeted goals for the territory.

For territories where the goal is biodiversity, only hedges composed of local species can be eligible. A list of species will be defined when the measure is established, based on the forest inventory of the zone in question.

For territories where the goals are water-related, it is recommended that only hedges composed of local species are eligible.

5.1.3 Payment rates

Maximum payment is 0.90 €/m linear/year.

5.2 GAEC for hedges

No cutting from 1st April to 31st July; for beneficiaries of the AECM these dates are extended to 1st March to 30th September, although there is no financial compensation for this particular rule.

5.3 Establishment of the baseline situation

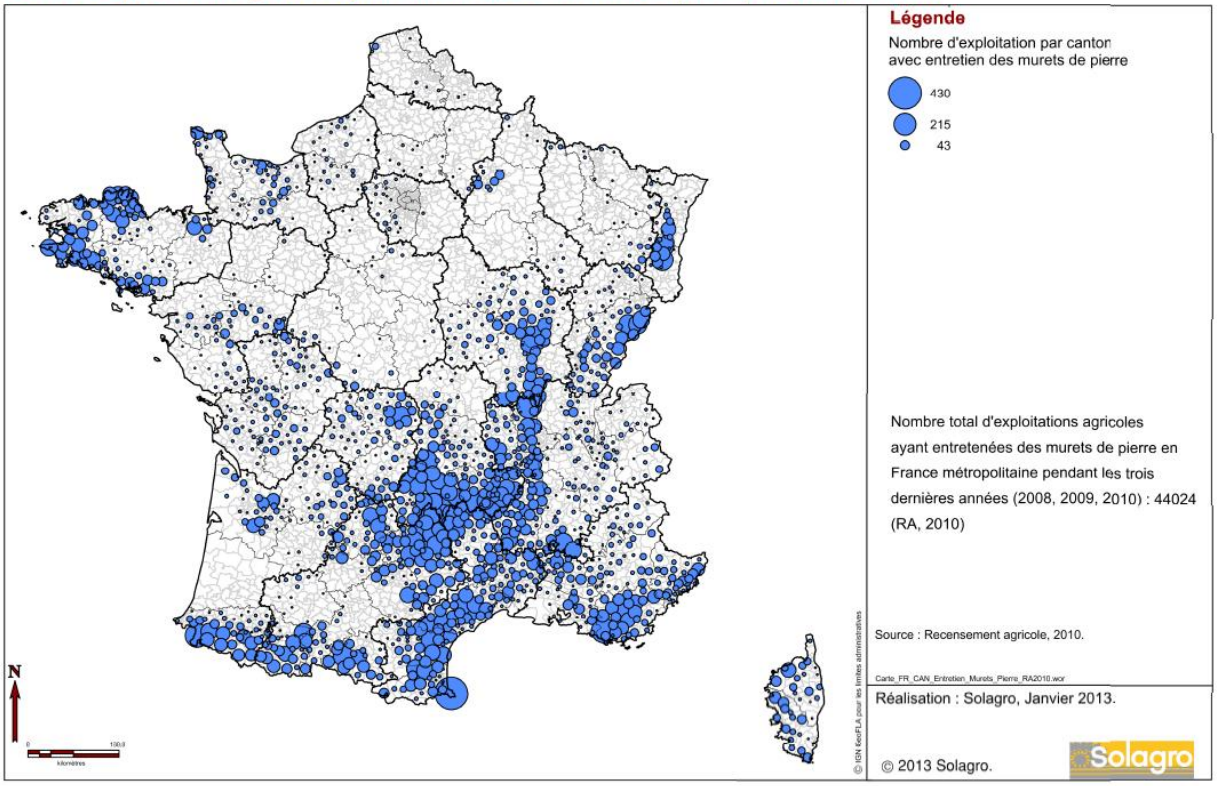
5.3.1 Requirements for applicants

Applicants must choose an appropriate management plan from those defined by the managing authority for the territory for each type of hedge. Plans should be designed on the basis of a territorial assessment, including Regional Plans for Ecological Coherence (schéma régional de cohérence écologique SRCE), that are designed specifically for “green” and “blue” infrastructure.

5.3.2 Inventories and cartographies

There is no national inventory of stonewalls or hedges. There is map showing the number of holdings per canton that has maintained stonewalls in the period 2008-2010, using data from the national agricultural census. See following map (the size of the blue blob represents the number of holdings maintaining stonewalls per canton):

Carte 5 : Exploitations agricoles ayant entretenées des murets de pierre par canton en 2010



6. Estonia

The Estonia RDP 2014-20 includes a measure to support stonewall restoration. Since the first implementation in 2001 the measure has been slightly revised in every programming period to meet its specific objectives.

6.1 Measure 4.4 for non-productive investments

This measure is support for stonewall restoration.

The objective of the action is to contribute to the restoration of stonewalls as traditional elements of agricultural landscapes, having high historic, cultural and landscape value, in order to maintain and improve the aesthetic value of landscapes; the specific goals are to create habitats and increase biological and landscape diversity and to preserve the historic and cultural value of landscape.

Stonewalls offer growing place for many vascular plants, lichens and mosses as well as habitats for small mammals, reptiles and insects. Lithophytes prefer to grow on stonewalls. For example, the common polypody (*Polypodium vulgare*) is one of the most common settlers of stonewall. Stonewall has been noted as being one possible habitat of nationally protected fern species (II category) – maidenhair spleenwort (*Asplenium trichomanes*). From mammals, garden dormouse (*Eliomys quercinus*), one of the mammals entered into the II category of protected spaces in Estonia, prefers closeness of a stonewall or stone heap. Many reptiles can occur in stonewalls, including, for example, common lizard (*Lacerta vivipara*) that is among protected species (II category). These landscape elements also provide shade for amphibians. Birds can find appropriate nesting places, feeding grounds and hiding spots in the form of stonewalls with trees and bushes.

In addition to the direct positive impact for habitats, the traditional field barriers can also contribute to biological diversity in an indirect way. Stonewalls with trees and bushes in agricultural landscapes as other semi-natural line elements (bush-lines, road borders etc.) can function as corridors for animals enabling them to cross fields that otherwise would be unsuitable for this kind of activity in order to reach from one suitable habitat or feeding place to the other.

6.1.1 Requirements

A new stonewall may only be established at a place where the former location of the stonewall is visually identifiable. (See below for more details on control of the baseline situation.)

The height of stonewall must be at least 60 cm, depending on the region, and its width shall be characteristic to the region. Taking into account the regional differences, the Heritage Board is specifying the general type of the each stonewall, the height, width, the type of the stones to be used, the trees to be left there etc.

It is forbidden to take stones from objects under the protection of law or from valuable landscape elements. It is allowed to take one third of the stones from a stone heap in the case the heap is formed not later than 5 years ago.

The applicant must ensure the preservation of stonewall for 5 years at least, starting from the last support payment.

The support is available for the restoration of a minimum of 5 metres of stonewalls per applicant.

If there are any hedges against or on top of the stonewall it is the duty of controlling body to decide whether the hedges should be cut down by applicants or not. Sometimes they only need to do for small part of hedges or trees because these are also important for several bird and other species. The idea also is that after the stonewalls are restored it is important for the applicant that the stonewall can be recognised and seen from a distance. It should not be fully covered with trees and bushes.

6.1.2 Eligibility

The support for restoration of stonewalls can only be applied for in rural area where stonewalls have been traditionally represented. The restoration of stonewalls on purely forest land is not eligible.

At least 80% of the stonewall has to be part of, or to border with, the utilised agricultural area.

6.1.3 Prioritisation of applicants

In case of the lack of resources necessary for the approval of all applications successfully passing the control on compliance with requirements, preference through the ranking system will be given to applicants as following:

- 4 points for the stonewall bordering with an on-going commitment for the maintenance of semi-natural habitats;
- 3 points for the stonewall bordering with an on-going commitment for the organic farming;
- 2 points for the stonewall bordering with an on-going commitment for the other agri-environmental area-based measure;
- 1 point for the applicants not having received support for the establishment and/or restoration of stonewalls earlier.

6.1.4 Payments

The support for stonewall restoration is paid according to the height (and also to width because of the stability) of a stonewall in two groups:

- For the restoration of a stonewall with the height of 60–90 cm – 16 EUR/m;
- For the restoration of a stonewall with the height of over 90 cm – 25 EUR/m.

6.2 GAEC

GAEC7 with respect to landscape elements in Estonia includes the following:

- On all agricultural land, coppices of 0.01 ha to 0.5 ha with bushes or trees and possible bushes, groves, stones or other natural plant cover must be maintained and the area must be clearly distinct from the surrounding arable land.
- On all agricultural land, forest strips with a minimum length of 20 m and with a maximum width of 30 m must be maintained and they must be clearly distinct from the surrounding arable land. In exceptional cases, forest strips may touch the field parcel boundary within the range of maximum 30 m.
- On the edge of all agricultural land and in the area adjacent to it, clearly distinct forest strips with a minimum area of 0.01 ha and with a length of 20 m and with at least three trees on every 10 m must be maintained.
- On the edge of all agricultural land and in the area adjacent to it, clearly distinct hedges with trees or shrubs with a minimum area of 0.01 ha and with a minimum length of 20 m and with a maximum width of 10 m must be maintained.

- On arable land only, all the forest strips and hedges indicated above which are present in the arable area must be maintained.
- On all agricultural land and in the area adjacent to it, the artificial water recipients with the catchment area of less than 10 km² and the drainage ditches located in the area of a land improvement system must be maintained.
- On all agricultural land and in the area adjacent to it, stonewalls restored or being restored under the support for the restoration of stonewalls established in the RDP 2007–2013 and the RDP 2014–2020 and stonewalls mapped as cultural heritage sites must be maintained.
- On all agricultural land, protected natural objects, such as single trees, stones (incl. boulders or stone piles) and springs must be maintained.
- On all agricultural land, the immovable monuments provided in §3 (2) of the Heritage Conservation Act, such as burial grounds, ancient fields, cup-marked stones, places of worship, roads and bridges must be maintained.
- On all agricultural land, memorial stones, heritage related wellsprings, trees, stone bridges, stone culverts, cobblestone roads and village lanes mapped as objects of cultural heritage must be maintained.
- Pruning, cutting or pollarding of forest strips, hedges or single trees is prohibited during the bird breeding and nesting season and is allowed from 15 July.

6.3 Establishment of the baseline situation

6.3.1 Requirements for applicants

Support is only for so-called historical stonewalls which have been there for some time, although no exact minimum time period is specified. The applicant can only be supported for restoring a stonewall where the base of the stonewall is visible. When the control body comes to the spot to judge the situation and whether the stonewall restoration should be supported or not, they should see the base of the stonewall. If the base of stonewall is underneath the ground surface it is the duty of applicant to dig it out and make it visible for the controlling body.

The authorities considered the possibility of photographic evidence but decided not to include this in the legislation, as it is difficult to prove that the photograph is of the exact stonewall if there are no concrete landmarks on the spot. Maps also cannot be used as not all historic walls are shown on maps (see below).

To be sure that the applicant will restore on an existing base, he/she has to wait until after they have handed in the application for the controlling body to come and evaluate the situation in the field. The controlling body looks the base, gives specific guidelines (type, the way to restore, height etc.) for the applicant. Then the applicant can start with the renovation of the stonewalls and they have two years to do that. After they have finished they have to hand in the document and it will be checked again so that everything is done according the guidelines and rules before the controlling body makes a decision about the payment.

6.3.2 LPIS – treatment of hedges and stonewalls

Stonewalls and hedges are among other features identified on LPIS in the landscape elements layer. However, they are not identified separately as stonewalls or hedges, just as landscape elements.

In addition, stonewalls are mostly (but not all) identified in other layers as heritage objects.

6.3.3 Inventories and cartographies

Stonewalls are more or less nationally identified through different international mapping projects and are visible in the Estonian National Geoportal which is also connected to the LPIS. In addition, stonewalls restored through the RDP 2007-2013/2014-2020 are also added to the LPIS as landscape elements.

However, the length of stonewalls is not available as on some occasions stonewalls are identified as a point, rather than a linear feature.

7. Ireland

The Republic of Ireland has a single RDP 2014-20. It includes support for hedge planting, hedge coppicing and hedge laying under the non-productive investment measure combined with AECM, and support for maintenance of traditional stonewalls exclusively under AECM.

7.1 Measure 4.4 for non-productive investments

This sub-measure incorporates support for a number of non-productive investments linked to the achievement of agri-environment-climate objectives as pursued under AECM.

For the applicant, these non-productive investments will form part of the AECM scheme GLAS (Green, Low-Carbon, Agri-Environment Scheme, see below), and thus they will form part of GLAS applications.

The non-productive investments as set out in the GLAS Tier 3 (see below) list of actions include a package for Landscape Features. These are integrated actions with both a capital and agri-environment elements such as the control of vegetation, which ensure delivery of the required environmental dividend:

- Planting new hedgerows
- Traditional orchards
- Planting a grove of native trees
- Laying Hedgerows
- Coppicing Hedgerows

The selection criteria will be those applying to GLAS applications.

7.1.1 Requirements

See below under AECM

7.1.2 Payments

See below under AECM

7.2 AECM

The relevant AECM is named GLAS. It has a three tier hierarchy, with Tier 1 receiving priority over Tier 2, and Tier 2 over Tier 3.

Tier 1 is the most important Tier, targeting vulnerable landscapes, species at risk and protection of high-status watercourses. Tier 1 also identifies a series of Priority Environmental Actions for intensive farmers, targeting climate change mitigation and farmland birds. It is envisaged that at least 60% of all participants in GLAS will be drawn from Tier 1 as whole, and that 80-90% of the available funds will be targeted here as well.

Tier 2 is the next most important tier and focuses in Tier 2(a) on water-quality, through protection of predetermined vulnerable water-courses, while also accepting proposals under Tier 2(b) from other farmers who are prepared to take on predetermined actions again targeting climate change mitigation and supporting farmland birds**.**

Tier 3 is largely a menu of complementary environmental actions for applicants approved into Tiers 1 and 2. It consists of actions such as the protection of traditional hay meadows, species-rich pastures, important landscape features like archaeological monuments, hedgerows and stonewalls, as well as provision of bird, bat and bee nesting facilities and the planting of small groves of native trees. In some cases, farmers may be able to enter GLAS through Tier 3 alone, but generally this Tier is intended to support complementary actions for farmers entering Tiers 1 and 2.

The actions proposed under GLAS include 'integrated' actions which incorporate the non-productive investments as set out in M4.4 (above). These include planting new hedgerows, traditional orchards, planting a grove of native trees, laying or coppicing hedgerows. Building stonewalls is not included as a non-productive investment, but maintenance of these features is covered under Tier 3.

7.2.1 Requirements

Under GLAS, all applications must be submitted by a qualified agricultural advisor, and these advisors will be trained in advance on what is required.

Planting new hedgerows

The payment is based on income foregone and the cost of establishing an additional new hedgerow on the farm. All newly planted hedgerows must be protected from livestock, from the time the hedge is planted. Grass and weeds must be controlled and plants must be managed to ensure a dense hedgerow establishes.

Where an existing hedgerow landscape feature is removed and replaced elsewhere on the holding the replacement hedgerow forms part of the baseline requirement and will not be eligible for support under GLAS. Failed or dead plants must be replaced at the earliest possible opportunity.

Hedgerow coppicing

The payment is based on the additional cost of rejuvenating hedgerows by means of coppicing. Coppicing must be carried out by cutting the stem to less than 15cm from the ground level. Infilling of gaps must be undertaken. All newly coppiced hedges must be protected from livestock, from the time the hedge is coppiced.

Specific requirements:

- Coppice all selected hedgerows by 30th September 2017 by cutting stems to less than 15cm from ground level
- The minimum linear length that must be coppiced is 10 metres and this must be in a single continuous length
- The maximum linear length for payment that can be coppiced on a holding is 750 metres
- The location and length (metres) to be coppiced must be identified on the selected LPIS parcels and marked on the map submitted

Hedgerow laying

The payment is based on the additional cost of rejuvenating hedgerows by means of laying. Laying cannot be carried out using heavy machinery and infilling must be carried out if gaps are present in the hedgerow that will not be filled by re-growth from the laid hedgerow. Infilling of gaps must be undertaken. All newly laid hedges must be protected from livestock, from the time the hedge is laid.

Specific requirements:

- Lay all selected hedgerows by 30th September 2017.
- The minimum linear length that must be laid is 10 metres and this must be in a single continuous length.
- The maximum linear length for payment on a holding is 1,000 metres
- The location and length (metres) to be laid must be identified on the selected LPIS parcels and marked on the map submitted.

Traditional dry stonewall maintenance

The payment is based on the additional cost of maintaining traditional freestanding dry stone walls. All walls entered for this action must be maintained from the commencement of the contract to the end of the contract.

Drystone walls are defined as walls built using stones that sit comfortably without the use of mortar and constructed in a style traditional to the locality. Walls built with mortar are not eligible for the action.

Stone walls entered for this action must be accessible and visible for maintenance. Walls with scrub on or against them are not eligible for payment.

External farm stone walls entered for this action are payable at half rate except for external stone walls that front onto a public roadway, private laneway or waterbody where the farmer has control over both sides of the wall for maintenance. The minimum continuous length of stone wall that must be entered for each stonewall action i.e. internal stonewall and boundary stonewall is 10m. Internal wall lengths can only be counted once and must be maintained on both sides.

A stone wall that bounds a farmyard is eligible for payment at the full rate provided the participant has control of both sides of the wall for maintenance.

Specific requirements:

- Maintain traditional freestanding dry stone walls by replacing stones that may have fallen off the top of the wall or repair walls if/where stones have fallen down.
- Walls that have fallen or partly collapsed must be rebuilt in the same style as other walls in the locality.

- The location and length (metres) must be identified on the LPIS plot(s) and marked on the map submitted.
- The minimum amount of stone wall for maintenance is 10 metres and this must be in a single continuous length and the maximum payable is 4,000 metres.
- All walls entered for this action must be maintained from the commencement of the contract to the end of the GLAS contract.

7.2.2 Selection criteria

The Tiers are based on a consideration of priority of the various environmental assets and actions. Where required, selection of beneficiaries will be based on a scoring matrix, based on achieving best environmental return. The principles to be followed will include:

- Inherent environmental value of the actions chosen
- Relative environmental value of the actions to any notified themes
- Complementarity of the actions with each other
- Targeting existing environmental needs/potential of the farm
- Achieving regional balance, taking account of existing intake
- Achieving balance in holding size, taking account of existing intake
- Achieving balance in operational direction of participating holdings
- Previous engagement in delivery of AECMs (limited to situations where it clearly adds value in achieving environment-climate objectives).

Selection criteria will always be applied to candidates seeking to join GLAS via Tier 3 (where the support for landscape features is found), and may also be applied to candidates in Tier 1(b), and Tier 2.

7.2.3 Payments

The breakdown between M4.4 and AECM costs is shown below. The support rate is 100% of independently verified standard costs, with exception of Planting New Hedgerow action where the rate is 60% overall.

- Coppicing hedgerows 2.20 € (of which M4.4 = 1.32 €) per metre per year

- Laying hedgerows 3.70 € (of which M4.4 = 1.32 €) per metre per year

- Planting new hedgerows 5.00 € (of which M4.4 =1.05 €) per metre per year

- Traditional stonewall maintenance 0.70 € per metre per year

7.3 GAEC

GAEC 7: The requirement in Ireland is to retain landscape features, specifically defined as hedgerows and field drains. Stonewalls are not mentioned.

7.4 Establishment of the baseline situation

7.4.1 Requirements for applicants

The applicant must submit a map showing the location and length of the stonewalls or hedges for which support is requested, in relation to the relevant LPIS parcels. This information must be prepared with the support of a qualified farm advisor.

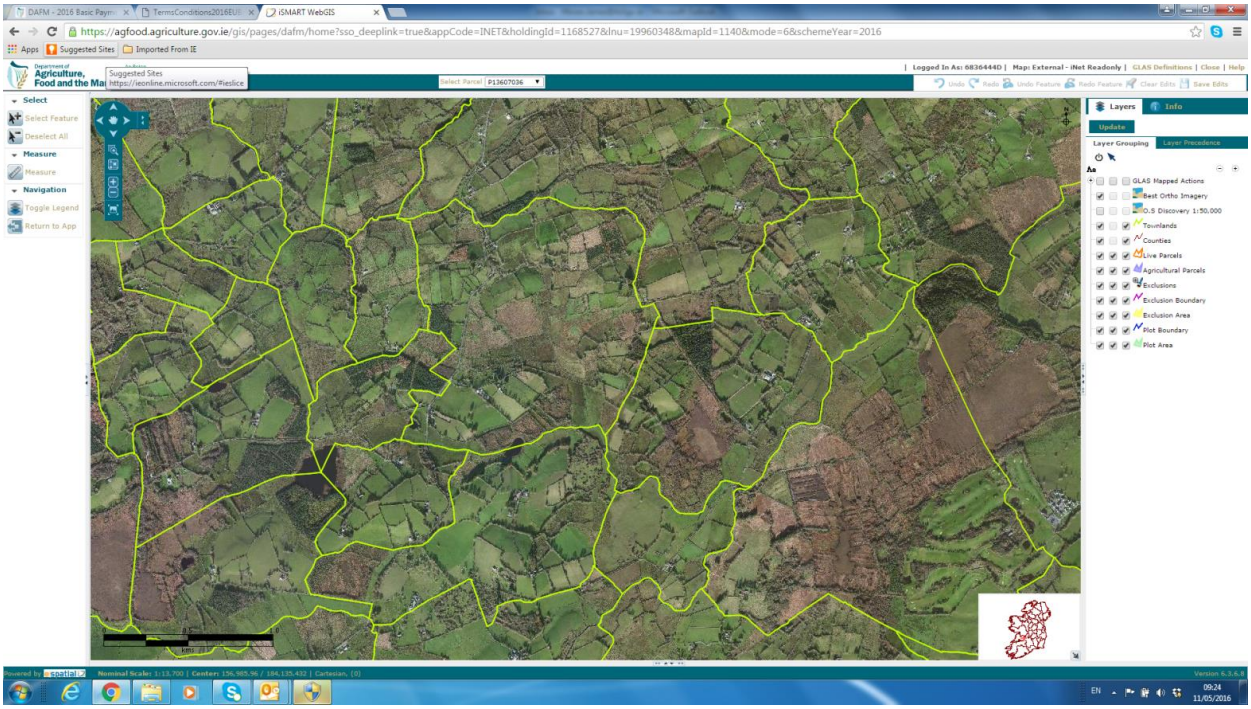
All hedgerows and stonewalls (location and length) supported by GLAS measures are recorded on a GLAS mapping system, which can be seen online by applicants.

Applications, including the baseline situation in terms of length and location of the hedge or wall, are checked by the authorities using the online GLAS mapping system. Only a proportion of applications are subject to a site visit.

7.4.2 LPIS – treatment of hedges and stonewalls

There is no separate layer on LPIS in Ireland for hedges or stonewalls. However, hedges are clearly visible on the system (see example below).

Screenshot example from Ireland LPIS with hedges clearly visible



7.4.3 Inventories and cartographies

There is a national inventory/cartography of hedgerows produced by Teagasc (the national agriculture and food development authority and research organisation) using remote sensing based on 2005 orthophotos of the whole country. The accuracy of the inventory is estimated at 80%. It indicates that approximately 6% of farmland in Ireland is under hedgerows. However, this inventory is not used for the implementation of GLAS measures.

8. Italy – Friuli Venezia Giulia

Italy has more than 20 regional RDPs. Here we have chosen the region of Friuli Venezia Giulia because the RDP includes both Non-productive investments and AECM for "ecological infrastructure".

8.1 Measure 4.4 for non-productive investments

The aim of the measure in the RDP is to recreate habitats (including habitats of Community interest) and ideal conditions for wildlife. Specifically under Intervention 1, the actions to be financed are the restoration and creation of natural and semi-natural elements of the agro-ecosystem. Intervention 2 is intended for restoration of habitats and habitats of particularly sensitive species and those in decline at regional level.

Intervention 1 – specific actions to be financed:

1. Establishment or restoration of field boundaries of trees or shrubs with the function of ecological corridors or windbreaks, with the most appropriate species.
2. Establishment of mixed habitats, scrub-clearance, re-establishment of ecotones.
3. Construction of water holes and ponds, with temporary buffer zones and drinking points for conservation of birds and other animal species of Community interest.
4. Reconstruction of dry-stone walls and dry-stone walls supporting terraces. Eligible activities involve the restoration of existing stone walls demarcating agricultural land or retaining walls to existing terraces, without alteration of design, and no outward change in appearance of the original wall.
5. Systems for prevention of damage caused by fauna including large carnivores such as lynx, wolf and bear.
6. Re-establishment of pastures in a state of abandonment, for the purposes of biodiversity conservation.
7. Creating clearings of limited size in order to attract the animals which cause damage to agricultural crops and to grassland habitats[3].

Actions 1, 2 and 3 can be combined with measure 10, intervention 1.7 "conservation of natural and semi-natural spaces within the agrarian landscape" in the year following the non-productive intervention.

8.1.1 Selection criteria

Projects will be selected on the basis of an evaluation points system, evaluating coherence and priorities in terms of:

• locality, for interventions that fall mainly within areas with specific natural or environmental constraints, such as mountain areas, Natura 2000 areas or protected natural areas (parks and nature reserves), areas which present environmental problems, such as NVZ;

[3] This action is not really related to the issue of walls and hedges and provision of more information about it is out of the scope of this report.

• the advantage of the interventions evaluated in terms of the environment and combating climate change considerations in relation to the type and size of the action;

• age of the applicant, with priority to those made by young farmers of first installation;

• the type of beneficiary, to the interventions made by management agencies of protected natural areas and Natura 2000 areas, from agricultural enterprises and other public beneficiaries

8.1.2 Payments

Establishment or restoration of field boundaries of trees or shrubs	3.75€/m^2
- Creation of buffer strips	0.20€/m^2

Reconstruction of dry-stone walls and dry-stone walls supporting terraces:

- Reconstruction of effectively degraded/collapsed sections	150.00€/m^2
- Smaller repairs and removal of vegetation	17.00€/m^2

8.2 AECM

Measure 10.1.7 is for the conservation of natural and semi-natural spaces within the agrarian landscape. Three sub-measure are specified, providing support for the presence of the following elements:

Sub-measure 1: Agro-ecological infrastructure

General justification: Lines of trees/shrubs (hedges, windbreaks, buffer strips and wooded strips) constitute important ecological corridors, as well as providing microclimate protection, soil protection, water regulation, providing a barrier to pesticide drift etc.

Sub-measure 2: Wood-shrub-grassland mosaics

Sub-measure 3: Water bodies

8.2.1 Requirements

Amongst other standard requirements for AECM, the sub-measures described above are intended for the maintenance of elements established with support from the Non-productive investments measure.

8.2.2 Prioritisation of applications

Priority is given to applications:

- Within NVZ (Nitrate Vulnerable Zone)
- Within Natura 2000
- Which include the largest area of land under AECM commitments

8.2.3 Payments

For all three sub-measures, the payment foreseen in the RDP is 450.00 € per hectare per year.

The payment level is calculated on the income-foregone basis, using standard economic data for the production in the region of maize, wheat and soyabeans.

8.3 GAEC

GAEC7 as cited in the RDP is a direct translation of the EU regulation.

8.4 Establishment of the baseline situation

8.4.1 Requirements for applicants

Applicants are required to provide photographic evidence of the baseline situation and condition of stonewalls for which support is requested. Before applications can be approved, there is always a site visit from the authorities to confirm the baseline situation.

8.4.2 LPIS – treatment of hedges and stonewalls

The authorities in charge of LPIS in Italy are beginning work to include a layer for Ecological Focus Areas, but landscape elements generally are not shown on LPIS at present.

8.4.3 Inventories and cartographies

There is no national inventory of hedges or stonewalls. Some regions (Trento, Puglia, Veneto) have partial inventories of stonewalls.

9. Spain-Balearic islands

Each region in Spain has its own RDP. Each RDP is different, and has different measures. We therefore selected Baleares, a region of Mediterranean islands that are distinctive for their landscapes of stone walls, as this seems particularly relevant for Croatia.

The measure is for non-productive investments, presented as “in support of agri-environment-climate measures” (AECM). Note that there are no AECM specifically for maintaining stonewalls and hedges in the region, although there are AECM for Integrated Production and there is the support measure for organic production.

9.1 Measure 4.4 for non-productive investments

Measure 4.4 as presented in the RDP 2014-20 is intended for:

- Restoration of stone terraces and walls to maintain the traditional landscape, native flora and fauna and on slopes to prevent environmental risks from soil erosion caused by water run-off.
- Constructing traditional fencing for livestock (in the present report we do not provide more details for this action)
- Planting of hedges as a barrier to the drift of biocides, to improve biological pest control and to provide habitat for beneficial predatory and parasitic fauna.

The regional RDP document emphasises the important relationship between terraced land and Natura 2000 sites, and also the fact that maintained terraces are less vulnerable to wildfires.

The RDP reports that the measures are a continuation of those in the period 2007-2013, which involved an expenditure of almost 5 million €, were taken up by 1680 beneficiaries and made possible the restoration of approximately 150,000 m2 of stonewalls and terraces.

The measure itself (2014-20 period) was published on 17th November 2015. The actions that can be supported include:

- Restoration and repair of stonewalls supporting terraces with the aim of preventing erosion and permitting the cultivation of the terraces
- Restoration and repair of dry-stone walls
- New planting of hedges with agricultural objectives

9.1.1 Requirements

The basic requirements are as follows:

- The terraces and stonewalls that receive aid must exist already
- Restoration and repairs must follow traditional practices, namely using dry stone (without mortar) and without using concrete blocks. Mortar is permitted where necessary in certain specified situations.
- Investments are only supported where the use is agricultural; uses such as housing, gardens, swimming pools, carparks, cannot be supported.
- Supported investments must not have been started before the application is made and the site has been visited by the paying authority.
- Hedges must be a maximum of 5m wide and consist of a combination of tree, shrub and herbaceous species (a long indicative list of preferred species is provided) as follows: minimum density of trees 15/100m; minimum density of shrubs 28/100m; minimum density of herbaceous plants 50/100m.

9.1.2 Payments

Aids will be 60% of the amounts set out in the RDP, which are:

- Terraces: 73.00€/m^2
- Dry-stone walls: 65.00€/m^2
- Hedges: 7.00€/m linear

The calculation of m2 in the case of terraces and walls will be made by multiplying the length by the height (up to a maximum of 1m in the case of dry-stone walls.

The maximum aid that can be received by a single beneficiary will be 20,000 EUR per call; and 60,000 EUR for the RDP period.

9.2 AECM

No AECM in Balearic Islands addresses stonewalls or hedges.

9.3 GAEC

In Spain, the State-level GAEC7 requirements are established in Real Decreto 1078/2014. The elements covered by GAEC7 are described as:

- Hedges

- Isolated trees, trees in lines and in groups
- Field margins
- Ponds and natural livestock drinking points
- Patches of natural vegetation or rock
- Retaining terraces
- At the discretion of the regional authorities: heaps of stones, small structures such as dry-stone walls, dovecots, and other elements of traditional architecture that can harbour wildlife

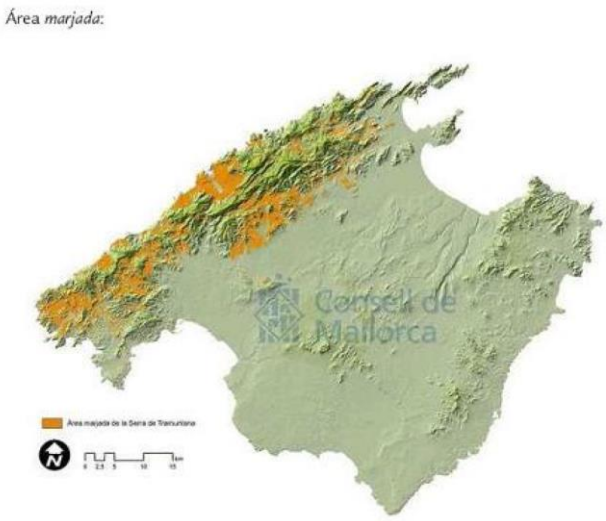
9.4 Establishment of the baseline situation

9.4.1 Requirements for applicants

The baseline situation and ex-post situation for applications are verified by a site visit from the authorities.

9.4.2 LPIS – treatment of hedges and stonewalls

A new LPIS layer has been established in Spain for “landscape elements”, which is intended to include all of the elements covered by GAEC7 (see above). This layer is very new and from a quick inspection it is clearly not complete. Some landscape elements are delimited on the system, but many are not. The intention is to continue to up-date the system, using orthophotos. The LPIS layer will not distinguish between different types of landscape element.



Map of Mallorca showing the main concentration of terraces with stonewalls, in ochre.

9.4.3 Inventories and cartographies

There is no national or regional inventory or cartography of hedges or of stonewalls. Stonewalls and terraces are found throughout the Balearic Islands, but probably the biggest concentration is in the Serra de Tramuntana in Mallorca. In this protected area, there have been cartographies and studies of the stonewalls and terraces, producing maps such as the one reproduced above.

These studies have shown that in some municipalities over 40% of the land area is under terraces with stonewalls. These cartographies are used for designing conservation strategies but not for implementation of the RDP measures.

10. Portugal

There are three relevant measures in the Portugal RDP 2014-20. The AECM and Natura 2000 measures provide payments (in different areas) for keeping the walls in a good conservation condition and the non-productive investment is a payment for restoration of terrace walls. The measures are targeted on specific regions that have outstanding landscapes of terraces supported by dry-stone walls.

10.1 Measure 4.4 for non-productive investments

This measure aims to reinforce the AECM objectives for biodiversity and preventing soil erosion (in the case of dry-stone terraces). Although the aim is not to increase the economic viability of the holdings, the measure may have this indirect effect.

The measure supports the following actions:

- Establishment and recovery of riverine woodland
- Eradication of invasive woody species
- Restoration of dry-stone walls

10.1.1 Requirements

For restoration of dry-stone walls, basic requirements are:

- Majority of the holding located within the geographical area of the AECM Traditional Permanent Crops Douro Vineyards or Natura 2000 Payments Zone Peneda-Gerês.
- Presentation of a restoration plan for the walls in question, approved by the nature conservation authorities.

10.2 AECM

Traditional permanent crops of the Douro vineyard region

The objective of this measure is to help maintain the traditional permanent crop systems of the Douro region, by providing aid for the maintenance of the dry-stone walls (supporting terraces) to preserve the positive effect they have on biodiversity (refuge for wild fauna) and the landscape typical of the Douro region.

10.2.1 Requirements

The basic requirements are as follows:

- Holding must be within the Douro vineyards region.
- Minimum area is 0.1 hectares of parcels with dry-stone terraces (wholly or in part).
- Landcover can be any of the following:
    - Traditional vines or pre-phylloxera vine system

- Citric fruits
- Cereals
- Typical native shrubland (mortórios)
- Dryland olives or almonds (all eligible parcels must be included in the application).

10.2.2 Commitments of the beneficiary:

- 5 year commitment, extendable to 7 years at authority's discretion
- Commitments must be met each year
- Baseline cross-compliance requirements must be complied with
- Maintain the walls supporting terraces in good conservation condition

The eligible area is the area of land supported by dry-stone terraces.

10.2.3 Payments

The payment is calculated by multiplying the eligible area (hectares) by the length of stone terraces (metres) x 1.25€.

10.3 Natura 2000 payments

Under this measure, annual payments per hectare (on a degressive basis) are provided for non-irrigated farmland under a range of agricultural uses including fallow within specific Natura 2000 zones that are subject to particular land-use restrictions[4].

10.3.1 Requirements

The requirements for receiving these payments are presented in the RDP for each Natura 2000 zone. In the zone named Peneda-Gerês, these include maintenance of extensive grazing on common land and maintenance of terraces and traditional irrigation systems.

Basic conditions include:

- Preparation of a management plan for the land for which payments are applied, including a pasture management component.
- Include in the application all parcels on the holding that have terraces
- For the maintenance of terraces option, the minimum size is 0.2ha.

10.3.2 Payments

240€/ha

[4] The payments are not linked directly to the restrictions of the Natura 2000 site, the payments are linked to the requirement to maintain extensive grazing, terraces and irrigation systems. Reporting on all the restrictions in the management plan of this national park is beyond the scope of this report.

10.4 GAEC

GAEC7 rules in Portugal prohibit the removal of the following landscape elements:

- riverine woodlands
- copses and trees of public interest

11. Bulgaria[5]

The RDP 2014-20 does not include AECM specifically for maintaining stonewalls or hedges.

The measure for non-productive investments provides support for hedgerow planting and restoration.

11.1 Measure 4.4 for non-productive investments

The relevant measure is called Support for restoration and maintenance of high nature value grasslands. It provides support to:

- Create and restore groups of trees and wood strips, located in the arable land or semi-mountainous pastures and meadows, field boundaries and hedgerows restoration, restoration of riparian habitats, etc.

This measure has not been fully developed or implemented yet.

12. Overall conclusion

We looked at the RDPs of 8 countries/regions. One of these (Bulgaria) was not studied in detail because the measures have not been implemented yet. The issue of baseline situation was examined in 6 of the 8 countries region (Portugal was not examined due to lack of information available to the Consultant).

Four of the countries/regions have a mix of Non-productive investments and AECM for hedges and stonewalls. In some cases (e.g. England, Ireland) the Non-productive investments and AECM are integrated for the applicant (single application). The other four countries/regions have either AECM or Non-productive investments for these landscape features, but not both measures.

The countries we studied do not establish a baseline situation nationally or regionally for stonewalls and hedges, in terms of extent or condition of these features, before implementing RDP measures for their maintenance or restoration. Rather, the baseline situation is assessed for individual applications, on a case-by-case basis. In most countries, the authorities check the baseline situation with a site visit. In England they use photographs provided by the applicant, and in Ireland they use an on-line mapping system specifically developed for AECM implementation. In Friuli Venezia Giulia (Italy) they use photos and a site visit.

[5] For Bulgaria, only basic information is provided. The Consultant committed to having an initial look at several countries, including Bulgaria, and then to focus in more detail on a smaller number of countries. So Bulgaria is one that the Consultant decided not to look at in more detail, as the measure has not yet been developed. All the other countries from the initial list in fact have been studied in more detail (only for Portugal the baseline question has not been examined).

Very few of the studied countries have any sort of inventories of hedges/stonewalls. Ireland has a complete inventory of hedges, based on remote sensing, estimated at 80% accuracy; stonewalls are not included. All hedges and walls subject to AECM support are recorded on a special mapping system. Estonia also has national inventories, but these are not entirely complete. Stonewalls are more or less nationally identified and are visible in the Estonian National Geoportal which is also connected to the LPIS. In addition, stonewalls restored through the RDP 2007-2013/2014-2020 are added to the LPIS as landscape elements. However, in Estonia the length of stonewalls is not available as on some occasions stonewalls are identified as a point, rather than a linear feature.

Some countries have local or regional inventories, e.g. of hedges in England, of terraces with stonewalls in Balearic Islands and of stonewalls in some Italian regions (Trento, Puglia, Veneto).

However, the countries with inventories do not use them as part of a standard implementation approach for RDP measures. The inventories are a separate thing, developed as research projects (Ireland) and used for conservation and heritage policies (England, Baleares), but not linked to RDP implementation or the establishment of the baseline situation.

Most of the countries studied do not have hedges and stonewalls identified on LPIS at present, even where the element is protected by GAEC7. In Ireland hedges are clearly visible, but are not identified in a separate layer. Spain is in the process of putting all landscape elements protected under GAEC7 on LPIS in a separate layer, but this process is far from complete. This will be a general layer for landscape elements, and will not differentiate types of element, such as stonewalls, hedges, etc. Work is reported to be underway in most countries to incorporate Ecological Focus Areas (EFA) as required for “greening” implementation, and this will be a first step towards incorporating landscape elements.