



European Forum on
Nature Conservation
and Pastoralism

A Draft High Nature Value Programme for the Aran Islands based on the Burren Farming and Conservation Programme



A Report to the Heritage Council

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Status of the Report

This report has been prepared for the Heritage Council by the European Forum for Nature Conservation and Pastoralism (EFNCP). Please note that this report does not necessarily constitute the views of the Heritage Council, but will be considered by the Heritage Council as it develops its work on High Nature Value farming and may inform future Heritage Council Policy on this and other related matters.

Introduction

Extensive farming practices have sustained island communities and maintained the island landscape for generations. However, a recent report commissioned by the Heritage Council (Smith *et al.* 2010) has found that these extensive farming practices are increasingly under threat from changes in farm practice and land abandonment. This is the result of low economic returns from extensive farming systems and a lack of manpower to carry out labour intensive tasks. The Aran Islands have been identified among the potential High Nature Value farmland areas of Europe. EU member states have pledged to maintain and support High Nature Value farming in these areas. The Burren, a very similar landscape to the Aran Islands, is leading the way in Ireland in securing support for the continuation of High Nature Value farming systems. This report investigates whether the BurrenLIFE method, which was used to develop the Burren Farming for Conservation Programme (BFCP), is applicable to the Aran Islands.

The BurrenLIFE method

A full description and appraisal of the BurrenLIFE method is beyond the scope of this study. However, it is important to summarise some key aspects of the method which lead to the development of the BFCP. The BurrenLIFE project was a partnership between the National Parks and Wildlife Service, Teagasc, the Burren IFA and other stakeholders (75% funded by the EU LIFE Nature Fund, <http://ec.europa.eu/environment/life/>). It ran from September 2004 to January 2010 with the aim of creating a blueprint for the agricultural management of priority habitats designated under the EU Habitats Directive (see <http://www.burrenlife.com/> for further details). This blueprint has become known as the Burren Farming for Conservation. Its success has been rewarded through the extension of the blueprint beyond the pilot phase to over 100 farmers in the region under article 68 of EU Regulation 73/2009. This Regulation establishes common rules for direct support schemes for farmers under the Common Agricultural Policy and establishes certain support schemes for farmers. Under Article 68 support can be paid by the member state to specific types of farming which are important for the protection of the environment. This is an example of environmental payments to farmers to conserve High Nature Value farmland and its associated ecosystem services.

BurrenLIFE is one of the finest examples in Europe of a community partnership and targeted approach to agri-environmental management. A similar approach was previously adopted on the Baltic Island of Öland in Southern Sweden (Emanuelsson, 2004). The Öland method, as championed by Urban Emanuelsson, also dealt with the agri-environmental management of semi-natural pasture in a limestone landscape, the Stora Alvaret. Prerequisites for the success of these projects included targeted environmental subsidies and an atmosphere of understanding and respect, built up between groups of dedicated people. In both areas there had been conflict between conservationists and agriculturalists arising from a top down approach to conservation of threatened habitats and species of European importance. EU Life funding allowed the authorities to work in partnership with local communities to trial, research and monitor a number of possible solutions for the sustainable management of the areas. The process resulted in greater understanding of each other's aspirations and objectives for the areas.

In the Burren, a variety of management options for grazing, feeding and scrub control were trialled. This combined with extensive research, monitoring, education and awareness raising programmes resulted in successful measures being expanded to the wider farming community. The result is that out of conflict has arisen greater appreciation and understanding, leading to the acceptance of cultural and natural heritage as valuable assets to the local community. Species-rich grasslands are now

being viewed as the new product of a revitalised multifunctional agricultural sector. Community groups, state agencies, local authorities and government departments can now work together in the region with common goals. An essential component of the approach is continued dynamic development (reflecting the dynamic nature of ecosystems), where High Nature Value regions are not fossilised but realise improved opportunities for the sustainable development of the related industries of agriculture and tourism. Farmers producing food, biodiversity and cultural values and an added value tourism experience. A more holistic understanding of the social, economic and environmental realities of the areas could not be achieved without the hard work of dedicated groups of individuals, extensive meetings, research and monitoring, managed in an atmosphere of partnership and constructive dialogue. Realising farmers “new mission” in a multifunctional model of agriculture reflective of the EU CAP objectives requires expansion of the BurrenLIFE and Öland method.

The Aran Islands

Lying in the mouth of Galway Bay, slabs of Carboniferous limestone make up the three islands of Aran, Inis Mór (Inish Mor), Inis Meáin (Inishmaan) and Inis Oírr (Inisheer). The Islands are a geological extension of the karstic limestone region of the Burren in north and west Co. Clare. Despite their remote location, the islands have a long history of settlement. Dotted throughout the islands are Bronze Age monuments including the famous stone forts such as Dún Aengus, a semi-circular fort on a cliff top site. There are also many Early Christian remains, including the oratory of Temple Benen and Tighlath Eany. The island population has been in decline since the famine, the population in 2006 was recorded as 824 on Inis Mór, 247 on Inis Oírr and 154 on Inis Meáin (CSO, 2010).

The islands are unique in many ways, their relative isolation has preserved a more traditional way of life. Irish is the first language of the people, making the islands a strong Gaeltacht area and the type of agricultural practised has created a High Nature Value system containing a mixture of rare Irish and European habitat types. Thousands of kilometres of dry-stonewalling enclose a mosaic of tiny fields. The walls served the purpose of removing loose stone from farmland and now protect the soil of the treeless islands from wind erosion and offer shelter for livestock from the harsh Atlantic winds. Most of the soil present on the land has been made by past farmers placing alternative layers of sand and seaweed on the bare limestone. Agriculture is still an important income source for the islanders along with fishing and tourism. Tourism and agriculture are closely linked as many of the farming features such as stonewalls, field structure, boreens, historic monuments and species-rich grasslands form the main tourist attractions of the islands.

The principal farming enterprises on the Aran Islands are single suckling production and sheep. Most of the cattle are sold to farmers on the mainland for finishing through cattle dealers (jobbers). In 2000, the area farmed was recorded as 3,025ha across 224 farmers on the three islands, indicating an average size of approximately 13.5ha, significantly below the national average of 31.4ha. There were 1,659 cattle and 285 sheep recorded in 2000, which amounts to less than 0.5 LU/ha (CSO, 2000). A more detailed analysis was carried out by Kelly (2008) for the farmers participating in the REPS scheme. At the time of the survey, 88% of the farmers on the three islands had a REPS plan, so these figures are a good reflection of the general farming structure. Whilst the average farm size in REPS was 17ha, 29% were less than 10ha and only 5% of the farms exceeded 40ha. 79% of the farms were less than 20ha. Stocking rates were also low with 60% of the farmers having a stocking rate of less than 0.6LU/ha. A sample farm in the report of Smith *et al.* (2010) consisted of 7.3ha spread over 12 separate plots of land. The total livestock on the farm included 2 suckler cows, 2 calves and one yearling. This is thought to be typical of many farms on the islands. Whilst the three islands operate a similar agricultural system,

agricultural intensity is lowest on Inis Meáin, compared with the other two islands (NPWS, 1997). On Inis Mór the importance of tourism has led to the abandonment of farming in parts of the island resulting in an increase of scrub and particularly bramble (*Rubus fruticosus*) thickets (NPWS 2003). Inis Oírr would appear to have higher levels of agriculturally improved land and is the island most at threat from agricultural improvement.

This extensive farming system has produced a number of semi-natural habitats, many of which are of European conservation interest and are listed in the EU Habitats Directive. Research papers have been published on the habitats found on the Aran Islands, including the coastal grassland type known as machair (Gaynor, 2006), karstic freshwater habitats (Reynolds, 1985) and the littoral flora (O'Connell *et al.*, 1999). Many of these habitats are maintained through the farming practices on the islands and include habitats such as dry (calcareous) heath, lowland hay meadows and orchid-rich grassland. The islands also contain a number of rare plant species, with 18 plant species listed on the Red Data list (Curtis and McGough, 1988), three on the Flora Protection Order (1999) and another 12 species proposed for inclusion in a revised Red Data list (Kingston, 2005).

The Aran Islands support an interesting and important bird community with a species assemblage of coastal and inland bird species (Lysaght, 2002). Overall the bird life of the islands is considered to be of international significance, due to the presence of significant numbers of bird species of European conservation importance listed under Annex I of the EU Birds Directive. These include the Artic Tern, Little Tern, Sandwich Tern, Peregrine Falcon and the Chough. Of these birds the Chough's survival is particularly dependent on the continuation of the farming system. Chough is considered to be a common bird on the Aran Islands, but is on the Amber list of birds of conservation concern in Ireland (Lynas *et al.*, 2007). On Inis Mór in 1995 at least four breeding pairs and a non-breeding flock of 12 birds were identified. A single pair was confirmed on Inis Meáin in 1994, and at least five breeding pairs were recorded from Inis Oírr in 1994 (Lysaght, 2002). A total of 19 breeding pairs were recorded on the islands in 2002 (Gray *et al.*, 2003). Other bird species include Merlin, Kestrel, Sparrowhawk, Linnets, Goldfinch, Pied Wagtail, Stonechat, Curlew, Lapwing and Wheatear amongst other passerine bird species typically associated with farmland habitats. Lysaght (2002) listed 60 different breeding species of birds on the islands. More details on the natural history of the Aran Islands can be found in Webb (1980), O'Rourke (2006), Nelson (2008) and an overview of the flora and fauna of the Aran Islands in Smith *et al.* (2010).

As a result of this high level of semi-natural habitat over 75% of the total land area is designated as a Special Area of Conservation (SAC) under the EU Habitats Directive. Figure 1 shows a map of the three islands highlighting the area of land designated for nature conservation under European legislation.

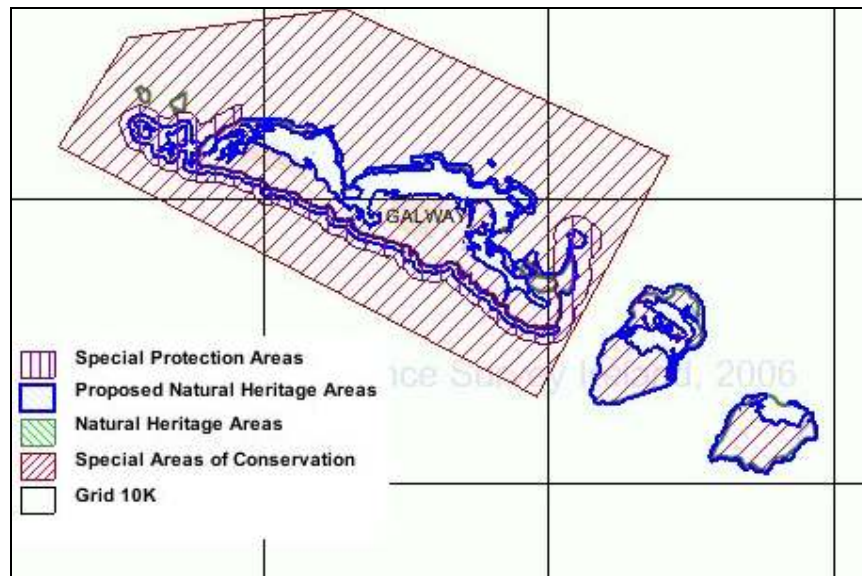


Figure 1: A map of the Aran Islands highlighting the designated areas. (Source: National Parks and Wildlife Service- NPWS)

Maintaining agriculture on the Islands

The financial returns from farming are low, which is resulting in a decline in the agriculture industry on the islands. As many of the important High Nature Value habitats depend on a continuation of the existing system, under grazing and to a lesser extent intensification is leading to decline in the quality of these habitats. According to the recent NPWS site synopsis for the islands “Maintenance of traditional farming practices, which include winter grazing, absence of fertilisers and the cultivation of rye for thatching, is vital, to preserve the species-richness and high diversity of the Island flora”. Smith *et al.* (2010) through a series of public meetings identified the major challenges on the islands as

- the level of rules and regulations governing farming
- management of briars and scrub on the islands
- the lack of young people taking up farming

Farmers on the islands are in receipt of agricultural subsidies through the Single Payment Scheme (SPS) and Rural Environment Protection Scheme (REPS). Additional finance is available through the National Parks and Wildlife Service Farm Plan Scheme on designated land where a farmer is not participating in REPS. Kelly (2008) found in a survey that the main benefits from REPS included increased income, tidiness of the farm, stonewall maintenance and improved access to fields through the provision of gates. However it did not tackle the main problem of scrub encroachment and abandonment of important habitats. The scrubbing up of many fields is not only affecting the habitat but also associated species, for example, the corncrake once a common summer visitor from central Africa is currently absent from the Aran Islands since the late 1980’s, possibly due to the decline in hay meadows. A fall in the Chough population on Inis Mór is considered to be linked to reduced grazing pressure on their feeding grounds (Gray 2003). In addition, according to the recent NPWS review of the status of Habitats Directive habitats and species, the overall conservation status of calcareous grasslands is “unfavourable – bad” due to abandonment of extensive livestock grazing and agricultural intensification (NPWS, 2008). This reflects the result of survey work by Smith *et al.* (2010) where farmers indicated that “briars” (i.e. bramble and blackthorn) were becoming a major problem. According to the farmers, briars were not being controlled as they were previously and were encroaching more onto farmland. Their main concern, however, was briar encroachment along the roads and in particular the boreens. Boreens are becoming

blocked and farmers are unable to get livestock to some fields leading to undergrazing on different areas of the island.

Funding of agri-environment schemes such as REPS comes under Pillar 2 of the CAP and involves match funding by the member state. The result of this is that in times of economic difficulty such funding is insecure. This problem has occurred with REPS and the new agri-environment scheme AEOS. In addition, due to the present financial situation funding for the National Parks and Wildlife Service Farm Plan Scheme is unavailable. This has a major affect on the more marginal High Nature Value areas such as the Aran Islands. The present agri-environment schemes are not specific enough for individual areas as they take a whole country approach and the result is that the full potential of such schemes are not maximized. An area such as the Aran Islands, much of which has been designated as priority habitat for conservation under the EU habitats Directive, needs a specific agri-environment scheme to solve the problems encountered. The small nature of the farms makes many basic tasks uneconomic. Replacing a broken down water catcher is uneconomic based on present agricultural returns, as a result the field is abandoned often leading to intensification of other fields.

To maximize biodiversity on the Aran Islands, improve and maintain the condition score of designated land and to maintain farmers in the area, a targeted scheme is required that meets the specific needs of the area such as BurrenLIFE and the Burren Farming for Conservation Program (BFCP). Much of this knowledge can be transferred to the Aran Islands, with some changes to reflect the differences in the two areas.

Extension of the BurrenLIFE method to The Aran Islands

This study was not the start of the process of raising awareness about the potential of the HNV farmland concept on the Aran Islands. Previous visits had taken place by the BurrenLIFE project team and developments in the Burren have been raised at agri-environmental training courses organised by Teagasc on the islands. A number of Aran farmers also took part in a study tour to the BurrenLIFE project in 2008. The Aran Islands were also included as a case study area in a recent Heritage Council Study on High Nature Value farmland in Ireland (Smith *et al.* 2010), part of which included a series of public consultation meetings.





The investigation began with a series of stakeholder workshops and meetings with community groups (Island co-ops and Comhdháil Oileáin na hÉireann (LEADER group)) held on each of the three Aran Islands (Inis Mór, Inis Meáin and Inis Oírr) in August 2010. These workshops (details in Appendix 1) explored the HNV concept and aimed to initiate community participation. The BFCP was discussed, identifying areas where it may be directly transferable or where possible adaptations were required. At the workshops the possibility of setting up a HNV farmer representative group on the islands was discussed. Participants were asked to volunteer their interest in being contact points within the community for the project.






Outcomes of the workshops (August 2010)

A total of 48 islanders attended the workshops held over the three days from the 11th to 13th of August 2010, with 17 people volunteering as contact points to assist with the future developments with the project. The general feeling among participants at the workshops was that there were a lot of similarities with the Burren but there was also substantial difference. One of the main differences highlighted was in farm structure with much smaller farm sizes and fragmented holdings on the islands. Overall the local community saw merit in exploring the BurrenLIFE model in further detail. As a result it was decided that further information on the issues surrounding farming and conservation together with possible solutions, should be drawn up by

James Moran and Patrick McGurn in consultation with contact volunteers. The local community was also advised that they should set up a HNV farmland representative group in order to progress the work to the next stage.

From the workshops the project team in consultation with local farmers drew up a list of issues and proposed solutions and initial costings. A proposed Aran Farming for Conservation Programme based on the BFCP model is outlined below. This arose as a result of positive feedback from workshop participants and their wish to see how a programme similar to the BFCP may work on Aran. This should act as a discussion document for the next steps in the development of HNV farming on the Aran Islands.

Issues	Proposed Solutions
 <p>1. Grazing: Stock numbers decreasing. Some areas abandoned and grazing management intensified on areas close to the farmhouse.</p>	 <p>Targeted grazing: Avoid the main flowering season on areas highlighted for flower rich production (i.e. traditional late summer and winter grazed areas as under BFCP). Grazing targets also determined for important bird and insect areas.</p>
 <p>2. Water availability: Influences when grazing takes place. Some traditional rain water collection tanks falling into disrepair leading to cessation of grazing.</p>	 <p>Improve water facilities using rainwater collection tanks, nose pumps etc. including the possibility of bore wells on the island.</p>

Issues	Proposed Solutions
 <p data-bbox="289 493 800 596">3. Animal health: Mineral problems detected in animals grazing semi-natural pastures</p>	 <p data-bbox="820 493 1331 596">Supplements required. Investigate complementary feeding, mineral supplementation options.</p>
 <p data-bbox="289 966 800 1163">4. Rye, small scale- tillage Traditional cropping and associated biodiversity in decline.</p>	 <p data-bbox="820 966 1331 1163">Target traditional rye production on existing and past plots. Created a market for the rye through grant availability for traditional thatch farm building maintenance. Encourage small-scale vegetable plots on farms.</p>
 <p data-bbox="289 1543 800 1675">5. Hay making Due to high labour inputs and weather dependency hay production has declined leading to a loss in lowland hay meadows.</p>	 <p data-bbox="820 1543 1331 1675">Encourage maintenance of existing hay meadows and recreation on plots where haymaking has taken place in past.</p>

Issues	Proposed Solutions
 <p data-bbox="289 873 800 1003">6. Briars and bracken Changes in grazing systems has resulting in increased covers of briars and bracken on grasslands.</p>	 <p data-bbox="821 793 1328 961">Mechanical control of bracken and bramble by cutting and brashing. Targeted herbicide use to be investigated using weed wipers where mechanical control not possible.</p>
 <p data-bbox="289 1377 800 1514">7. Maintain access between fields and farms. Farm roadways and boreens are falling into disrepair and becoming blocked with scrub.</p>	 <p data-bbox="821 1377 1328 1514">Repair and maintain farm access. This will involved regular cutting of briars and may involve surface dressing with locally sourced material.</p>

Issues	Proposed Solutions
 <p data-bbox="289 989 800 1150">8. Stonewalls and other cultural features. Many of the stonewalls on the island are in need of repair and historic monuments need management to protect them.</p>	 <p data-bbox="820 989 1315 1188">Repair and maintenance of stonewalls and cultural features to be continued. Provision of stiles and gates to improve access to historic monuments, cliff access. Individual management plans for historic monuments.</p>

To ensure full participation of the farming community a further series of meetings were held in late September 2010 to present the combined results from the August meetings and collect any additional information or other views. These meetings took place in conjunction with REPS training courses and involved a wider range of the islands' farmers. The meetings also offered an opportunity to highlight the importance of the islands for nature conservation and the importance of agriculture in maintaining these areas. From these meetings, farmers requested an additional study tour to the BFCP, which took place in late November 2010.

A proposed Aran Farming for Conservation Programme

As a discussion document the remaining sections of this report outline what a farming for conservation programme based on the BFCP template might look like. Within the BFCP there are 3 main measures. Measure 1: Production of species-rich limestone grassland; Measure 2: Site Enhancement Works (including scrub removal); Measure 3: Protection of designated land and other areas of Annex I habitat (Anon, 2010). Two additional measures are proposed for the Aran Islands. Measure 4 recognises the high labour costs associated with the maintenance of stonewalls that gives the islands their unique appearance and Measure 5 allows specific management for particular habitats and species. Examples would include, the recreation of traditional hay meadows, ryegrass and small-scale tillage to help maintain the associated weed flora and grazing options

for bird species such as the Chough. Relevant costings for these are ongoing and will require further research.

Objectives of Proposed Aran Farming for Conservation Programme

The primary objectives of the proposed Programme are as follows:

- **To ensure the sustainable agricultural management of High Nature Value farmland on the Aran Islands.**
- **To contribute to the positive management of the landscape and the cultural heritage of the islands.**
- **To maximise the contribution of agriculture to auxiliary industries on the island particularly tourism.**

Measure 1: The Production of species-rich limestone grasslands and grazed habitats

Species-rich limestone grasslands and associated habitats are some of the rare and most endangered habitats remaining in Europe. They are also one of the most important habitats on the Aran Islands, as they are home to most of the region’s flowers and insects. In most cases, these habitats require careful management through low-input winter (and in some cases late summer) grazing. In the case of meadows, late-summer cutting for hay with no chemical fertiliser or slurry applications is advocated. Without this type of management these grasslands are very susceptible to species-loss and in some cases scrub encroachment.

As with the BFCP, this measure should be designed “to reward those who have managed their land well in the past, but also to incentivise those who may not have done so, in order that they will strive in future to improve habitat quality with resulting environmental benefits”. The conservation status of the grassland in each field is scored on a scale (e.g. 1-10) and payments are related to this ecological score. For further details see terms and conditions of BFCP.

To encourage the appropriate management this measure should be costed on a full cost basis i.e. full costs of farming for conservation grazing actions (includes labour costs) plus incentive payment (includes transaction costs + additional off shore island payment) minus market performance. Full costs for proposed measure 1 on an average Aran farm of 13.5ha (Kelly 2008) are outlined in Table 1. This would equate to a maximum payment per ha of approximately €340. However, this does not take into account the single farm payment, which includes compensation for market losses, and so needs to be subtracted from this figure.

Table 1: Grazing costs for average Aran farm.

Grazing Costs €⁽²⁾	Year 1	Year 2	Year 3	Year 4	Year 5	Totals
¹ Market loss	800	800	800	800	800	4000
² Labour/herding cost per farm	2737.5	2737.5	2737.5	2737.5	2737.5	13687.5
³ Incentive+offshore island expense payment @30%	1061.25	1061.25	1061.25	1061.25	1061.25	5306.25
Total	4598.75	4598.75	4598.75	4598.75	4598.75	22993.75

¹ Take average loss per LU as €200 for calculation purposes (Source: Teagasc National Farm Survey 2009). Average LU per farm = 4 (Kelly 2008).

² Herding per day is assumed to be 0.5 hour includes travel between parcels (>10 parcels on average farm, herded every second day), costed @ €15/hr

³ Incentive =10% + additional offshore island expense = 30

If it is assumed that the maximum payment per ha on a grassland/grazed habitat with maximum ecological score is €300, then a possible payment structure as used in the BFCP for the Aran islands would be similar to that outlined in Table 2.

Table 2: Payment structure under proposed measure 1 for Aran Islands.

Ecological score	Payment								
	10	9	8	7	6	5	4	3	<3
0-20	€300	€270	€240	€210	€160	€110	€60	€30	0
20.1-40	€150	€135	€120	€105	€80	€65	€30	€15	0
40.1-80	€75	€70	€60	€50	€40	€30	€15	€10	0
80.1-120	€25	€23	€20	€18	€15	€13	€10	€8	0

Measure 2: Site Enhancement Works



To achieve the objectives of the scheme a range of support works will be necessary. Such works include:

Improved water facilities (pipes, pumps, rainwater harvesters, bore wells)**Animal health measures****Briars and bracken control****Stonewall restoration and management of cultural items****Improved field access (gates and stiles, clearance of boreens)****Habitat restoration measures****Additional environmental projects**

The works are targeted at improving the management of areas of Annex I habitat and thereby enhancing the conservation status of these habitats. Where appropriate, costs are based on figures piloted under the BurrenLIFE Project with a 30% factor allowed for the extra cost associated with island farming. Additional research will be required to determine more specific items.

Improve water facilities	Circular trough 1600litre	442	221
	Circular trough 1200litre	325	163
	Circular trough 900litre	260	130
	Small rectangular trough 400litre	143	72
	Pasture pumps	390	195
	Piping 13mm –150m normal gauge	52	26
	Construction of traditional rain catcher: No Current costs known		
Possibility of small-bore wells on farms for local water supplies to be investigated, if possible then the cost will be on actual expenditure.			
Animal health	Supply of feed licks based on veterinary recommendations Costed at approximately 10cents/head/day.		
Briars and bracken control	No available costs for clearing briars and bracken on the islands presently available. The cost in N. Ireland for knapsack spaying of Bracken is £305 per hectare using the fern spray Asulam (Asulox). Work in England for brushing and spraying is costed at around £220/ha. The fern Adderstongue (<i>Ophioglossum vulgatum</i>) has been recorded on the islands and Maidenhair fern (<i>Adiantum capillus-veneris</i>) is locally abundant so spraying for bracken is an unacceptable practise, so control by cutting will be required. Two wheel tractor implements can have flail and cutter attachments for removing heavier vegetation. Costs to be confirmed following further trial work		

Stonewall restoration and management of cultural heritage	<p>Stonewall rebuilding</p> <table border="0"> <thead> <tr> <th></th> <th>Gross (€)</th> <th>Net(€)</th> </tr> </thead> <tbody> <tr> <td>Rebuilding stonewalls (per metre)</td> <td>4.57</td> <td>3.43</td> </tr> </tbody> </table> <p>As this is a labour cost, the cost is as per BFCP.</p> <p>Cultural Items</p> <p>This will cover costs associated with the maintenance of historic monuments and other cultural items such as the existing cenotaphs. Due to the sensitive nature of such repairs further advice will be required from archaeologists.</p>		Gross (€)	Net(€)	Rebuilding stonewalls (per metre)	4.57	3.43									
	Gross (€)	Net(€)														
Rebuilding stonewalls (per metre)	4.57	3.43														
Improved field access to aid grazing management	<table border="0"> <thead> <tr> <th></th> <th>Gross (€)</th> <th>Net(€)</th> </tr> </thead> <tbody> <tr> <td>Small gate (<2.44m)</td> <td>60</td> <td>30</td> </tr> <tr> <td>Large gate (>2.44m)</td> <td>70</td> <td>35</td> </tr> <tr> <td>Gate posts (1 set)</td> <td>114</td> <td>57</td> </tr> <tr> <td>Labour to hang gate with piers/post</td> <td>125</td> <td>63</td> </tr> </tbody> </table> <p>Rebuild existing openings</p> <p>The additional work involved in closing up bearnai means that farmers can no longer spend time doing this as a result they tend to be closed using pallets, oil drums (Plate 1). A payment structure could be worked based on 15 minutes to rebuild multiplied by the number built per year. The farmers would highlight which fields they area willing to operate this on so it can be monitored. This would cost €4 per build.</p> <div data-bbox="592 892 1266 1150" data-label="Image"> </div> <p>Plate 1: The traditional bearnai being replaced with an oil drum.</p> <p>Construction of stone stiles</p> <p>Based on figures from Pat McAfee, authority on stone-wall building, it would take one day to demolish an area of wall and rebuild containing a stile. Extra labour would be required to lift heavier stone. Therefore the cost would be approximately €200 per stone style (Plate 2).</p> <div data-bbox="613 1428 1247 1900" data-label="Image"> </div> <p>Plate 2: Traditional stone style built into a wall which will aid access to fields, historic monuments and look out points on the island.</p>		Gross (€)	Net(€)	Small gate (<2.44m)	60	30	Large gate (>2.44m)	70	35	Gate posts (1 set)	114	57	Labour to hang gate with piers/post	125	63
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<p>Habitat Restoration.</p>	<p>Habitat restoration will vary for individual farms, other projects can be based on an actual cost basis. Projects would include removal of eyesores or scrub removal (Plate 3).</p>  <p>Plate 3: Hazel, although not as problematic as in the Burren is beginning to colonise some sites</p>
<p>Additional Environmental Projects.</p>	<p>Optional projects for individual farms, based on an actual cost basis. Projects could include capital works such as the rebuilding of traditional buildings and re-thatching (Plate 4) or other specific agreed environmental works. Further work and appropriate costings will be required.</p>  <p>Plate 4: An old traditional building in decline. Under the scheme aid would be available to thatch the building with rye grown on the island.</p>

Measure 3: Payment for the protection of designated habitats



Under the BFCP, there is an additional payment to cover the protection of designated land and other areas of Annex 1 habitat. This both recognises the importance of these habitats but also off sets the costs of associated restrictions in their use. Due to smaller farm sizes on the Islands, the equivalent rates under the BFCP are not suitable. Payment would reflect the present payment under the AEOS scheme at €75/ha.

Measure 4: Maintenance of stonewalls

The Aran Islands are made up of thousands of small irregular shaped fields through a vast network of stonewalls. Maintaining this field structure requires a high level of input by the farming community. The maintenance of external boundaries is a requirement under the present Single Payment Scheme, but this does not include the maintenance of internal walls. A payment of €0.50/m of existing internal walls is proposed which will insure the survival of this unique landscape characteristic.

Measure5: Payment for management of specific habitats

This measure is to encourage farmers to continue or renew agricultural practises that are necessary for preservation of particular habitat types. The continued management of hay meadow and the growing Rye and small-scale tillage are the two main types as identified at the stakeholder workshops but the proposal would be to include measures for specific species including the Chough, Curlew and some insect species. No equivalent measure exists for the BFCP and therefore associated costs are presently unavailable. The next stage of the project is to calculate acceptable costs based on trial work.

<p>Hay Meadow Recreation</p> 	<p>The new AEOS agri-environment scheme has a payment of €314/ha for traditional hay meadows. Mechanised hay production will be limited on the islands, except with the use of two wheel tractor implements; these can fit mowers, tedders and small round balers. Any costing will have to assume that they are present on the island. Payments could be based on actual hay produced and not an adherence to strict cutting dates which can be detrimental.</p> <p>Costs to be confirmed following further trial work</p>
<p>Rye and small-scale tillage</p> 	<p>A similar option exists under AEOS paid at €869/ha This cost is based for work on arable farms with suitable machinery. Costs will be higher in Aran due to site selection and smaller areas than 0.25ha (minimum under AEOS). Payment should be costed per square metre basis due to small areas involved. Need to be restricted to where crops had been grown before or grassland of low ecological interest.</p> <p>Payment of €10/m² (More information required)</p>

An example of the different payments on a typical Aran island farm within the proposed scheme is shown in Appendix II.

Capital Costs associated with the scheme

Restoration of hay meadows, rye and small-scale tillage, briar and bracken control require a high labour input and as a result there has been a decline in these traditional activities. The small nature of the fields and the delicate nature of the habitats involved means it is impossible and undesirable to bring in heavy machinery to carry out such work. In addition the problems of transporting petrol to the islands means other control mechanism, such as strimming is not an option. Alternative technology should be considered to reduce labour inputs.

One possible solution is the use of two wheel tractors with a range of attachments. Two wheel tractors consist of an engine and transmission running a gearbox that drives two wheels (Plate 5). The diesel power unit, which comes in various sizes, can take different implements. This type of machinery is widely used on farms on the

continent and on nature reserves by RSPB and other environmental organisations in England and Ireland.



Plate 5: Two wheeled tractor with mower head



Plate 6: A rotovator suitable for small-scale tillage.

Other attachments include:

Rotovators: Suitable for small-scale tillage (Plate 6), reducing the labour input of manual digging. Seed drills and weed cultivators can also be attached

Grass Cutters The finger bar mower (Plate 5) is widely used in small gardens and steep alpine meadows replacing the hand scythe. It may help encourage the recreation of small species-rich lowland hay meadows, a scarce resource in Ireland, on the islands. Other attachments include hay tedders and mini-round balers, which would greatly reduce the labour inputs associated with traditional haymaking.

Scrub Cutters Fingerless cutting bars and flail mowers can all be attached which can be used for cutting thistles, bracken, light gorse and woody material such as young saplings. This would help in controlling a lot of the light scrub encroaching on the much of the grasslands

The approximate cost of the machinery is outlined below. These are based on figures supplied by Alpine tractors based in England and are just used as a guide. A more local supplier may be available.

Two wheeled diesel tractor with mower	€3500
Rotary tiller	€ 590
Flail Mower	€1060
Scrub cutter	€ 780
Tedder	€1290
Mini Round baler	€8600
Total	€15820

With an average farm size of 13.50ha purchasing suitable equipment for an individual farm is uneconomic. However the objectives of the proposed scheme are dependent on the work outlined being carried out. Therefore there is a need to test this technology for its suitability and to determine whether the farmers on the island consider it to be an acceptable method. If the machinery was fit for purpose consideration should be given to purchasing the required equipment for each island. One option is to pursue funding through a LEADER group to purchase the equipment, which could then be hired to farmers to complete their program of work. This

proposed model is similar to machinery rings already funded in other areas through LEADER funding. The existing community groups on the islands (Island co-ops and Comhdháil Oileáin na hÉireann (LEADER group)) could play a role in the application and management of the proposed model. If this was successful it may lead to private purchases by contractors on the island. This will also stimulate some extra employment.

Funding

Until a full costed schedule is complete for the island, it is difficult to predict the overall cost of the scheme. Based on the survey by Kelly (2008) the annual cost of agri-environment schemes (REPS) was €745,779. Due to additional capital works the proposed scheme would need in the region of €1,000,000 per year over 5 years. The capital cost for the purchase of machinery should be considered under a LEADER program, administered by the island's existing development groups. Funding for a similar scheme in the Burren is under Article 68.1 (a) (i) of Council Regulation (EC) 73/2009 that makes provision for the use of unused Single Payment Programme funds for specific types of farming which are important for the protection or enhancement of the environment. The Common Agricultural Policy (CAP) is due to be reformed by 2013, but based on the European Commission (2010) central to reform of the CAP will be to protect the environment and biodiversity, conserve the countryside and sustain the rural economy. The islands are a very importance part of Ireland's Gaeltacht area, which should be considered in funding as the proposed scheme helps achieve the governments objectives in promoting the social, physical and economic development of the area

Future work

The proposed scheme is still in a development stage and additional work will be required in the future to produce a final programme. The basis of the procedure is working in partnership with the farming community on the island in development and programme design. Therefore constant dialogue is essential through group meetings, email and phone contact to representatives during the complete process. The following work will be required in the next year prior to finalising an agreed scheme:

- Relay the proposed scheme to the farming representative groups in order to obtain feedback and any other contributions.
- Establish an advisory group of interested parties who can input into the project, members will include representatives from NPWS, IFA, Local Authorities, Teagasc and the Department of Agriculture.
- Identify sites on the islands that could be used for trial work to establish costs, such as bracken and briar control on land and walls.
- Arrange for trials of suggested technology with manufacturers to see the suitability of machinery for the work and the views from the farming community on the likely take up of such work.
- If successful complete the costings for Measures 2 and 5 as previously outlined.
- Carry out an initial audit on a range of farms to determine the workability of the proposed scheme and the projected average cost per farm.
- Develop a potential monitoring scheme for the scheme so the benefits can be fully documented. Develop ecological scoring system as part of this monitoring scheme to be incorporated into measure 1 payment structure.

- Identify appropriate grazing management practices to produce grassland with high ecological score
- Work with the BCNP to ensure that limestone pavement is considered a landscape feature and part of the farmed area in any future CAP proposals.
- Produce a final costed project proposal and identify sources of finance.
- Work with the farming community in applying for funding to implement the scheme.

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**High Nature Value Farmland Workshops 11th to 13th August 2010:
Exploring the relevance of the Burren farming for conservation programme to
Aran farming**

Traditional extensive farming practices have sustained island communities and maintained the island landscape for generations. However, a recent report commissioned by the Heritage Council has found that these extensive farming practices are increasingly under threat from changes in farm practice and land abandonment. This is the result of low economic returns from extensive farming systems and a lack of manpower to carry out labour intensive tasks. The Aran Islands have been identified among the High Nature Value farmland areas of Europe and EU member states have pledged to maintain and support High Nature Value farming in these areas. The Burren is leading the way in Ireland in securing support for the continuation of High Nature Value farming systems, as a similar landscape can the Aran Islands follow the lead of the Burren? These workshops are being held for the farmers of the Aran Islands to help them map out a future for farming on the islands, which will sustain a vibrant island community and a High Nature Value farmed landscape.

Key questions to be addressed during the evening workshops are:

1. What supports do Aran farmers require to maintain farming on the islands which has maintained and sustained the communities and the Aran landscape over the centuries?
2. How suitable is the Burren farming for conservation programme to the Aran Islands?
3. Can it be adapted to work on the Aran Islands?

Workshop programme

7:30pm	Overview of work to date on High Nature Value farming on the Aran Islands (Heritage Council Commissioned Report)
7:50pm	Introduction to Burren Farming for Conservation Programme (BFCP)
8:10	Exploring the relevance and adapting the BFCP to Aran Islands
9:10	Set up of High Nature Value Farm Representative Groups on the Aran Islands
9:40	Next Steps
10:00	Finish

Workshop presentations

Aran Farming Workshops

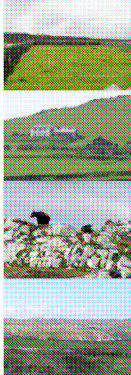
Exploring High Nature Value Farming

11th – 13th August 2010



Evening Work Programme

- Overview of Aran's work to date
- Burren farming for conservation programme (€3million over 3 years)
- A Burren type programme on the Aran Islands?
- Island farm representative group
- Next steps



High Nature Value Farming

- HNV farming = type of extensive farming practiced on Aran islands and similar areas across Europe
- Increasingly under threat from land abandonment and intensification
- EU member states have pledged to support HNV farming
- What can be done on Aran Islands to support this type of farming?

Work to date on HNV on Aran Islands

Date	Description
Sept. 2008	BurrenLIFE and Teagasc information meetings on Aran Islands, followed by farm visits to Burren
2009	Report commissioned by Heritage Council on case studies of HNV farming on Aran Islands and north Connemara. Series of public meetings on Islands in April and November/December
April 2010	Heritage Council Report completed
Today	EFNCP funded workshops on Islands

Case Studies on HNV

- Maintaining our heritage relies on maintaining the extensive farming that created it
- Farming under threat



Case Studies on HNV: Findings

- Aran Islands: Beef production (mainland finishing), vegetables-home use.
- Traditional farm practices in decline: vegetable growing and stone wall building
- In danger of being lost: working Connemara ponies, rye production for thatching
- Scrub encroachment not severe overall but some walls encroached
- Evidence of abandonment on some farms e.g. spread of bracken and brambles
- Farmers proud of their natural and cultural landscapes and conscious of role in maintaining the landscape.

Case Studies on HNV: Challenges

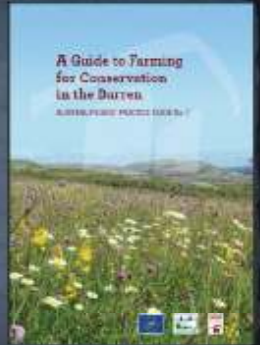
- Difficulty of earning a living: dependent on direct payments (REPS and AEOS closed) and off farm income
- Farming increasingly part time, low product prices, increasing bureaucracy and paperwork.
- Ageing farm population

Case Studies on HNV: Solutions

- **Communication and better relationships:** farmers involved in developing policy
- **Agri-environment schemes:** tailored to areas, farmers involved in design, simple and flexible, focused on conservation
- **Research:** sustainable grazing; conservation and management of rare arable flowers; controlling scrub and bramble
- **Marketing:** produce from HNV areas
- **Traditional farm skills:** research and support
- **Tourism:** supporting HNV farmland encouraged

Burren Farming for Conservation Programme:

Producing quality food and a quality environment



Principles

- Central Role of farmer
- Partnership
- Importance of farm planning
- Being practical and innovative
- Being flexible
- An honest days work for an honest days pay
- Creating real benefits
- Importance of monitoring

On the ground

- Understanding what we want
- Getting grazing right
- Complementary feeding systems
- Scrub control

Benefits to farmer

- Our heritage, our legacy
- Creating employment
- Meeting our obligations
- Creating new opportunities
- Investing in our community
- Benefits for society
- Leading the way

Appendix II: Estimated payment to the average farm on the islands.

Measure 1: The Production of species-rich limestone grasslands and grazed habitats (13.5ha farm)	Area (ha)	Score	Payment rate	Total	Max. feasible score	Max. payment	Max. total
Commonage area ha	0.69	5	€110	€76	10	€300	€207
Non-commonage designated area ha	10.06	7	€210	€2,113	10	€300	€3,018
Non designated land ha	2.55	3	€30	€77	5	€110	€281
Vegetable/rye plot ha	0.2	0	€0	€0	0	€0	€0
Total M1 Payment				€2,265			€3,506
Measure 2: Capital works							
Stonewall building	120m		€3.43	€412			
Stone styles	4		€200	€800			
Total M2 Payment				€1,212			
Measure 3: Payment for the protection of designated habitats							
Non-commonage designated area ha	10.06		€75	€755			
Total M3 Payment				€755			
Measure 4: Maintenance of stone walls							
Length of internal walls	2200		0.50	€1100			
Measure 5: Payment for management of specific habitats							
Recreation of hay meadows							
Rye and small scale tillage							
Total M4 Payment							
Total Payment (M1+M2+M3+M4+M5)				€5,332			

Assumptions:

Presently no suitable cost structure for Measure 4.

Based on a typical Aran Island farm with a total area of 13.5ha.

Designated land gets a higher score, with non-designated land receiving a low score 3 or less as it is improved agricultural grassland.

For maximum rate all designated areas are in most favourable conservation status and improved lands have moved to semi improved but still have to be grazed during sensitive ecological periods to maintain animals on holding.

If paid on UAA rates the payment level may fall by 25-50% depending on farm situation.

Payments under Measure 2 will depend on the amount of capital works carried out on the farm up to a maximum total payment per farm. Further work require to complete costings.