

**Dr. Brendan Dunford**

*EDPA Roundtable Session 2: Water management and protected areas*

## Talk Overview

- *The Burren EDPA (awarded 2013)*
- *Farming for water*
- *Scaling impact*

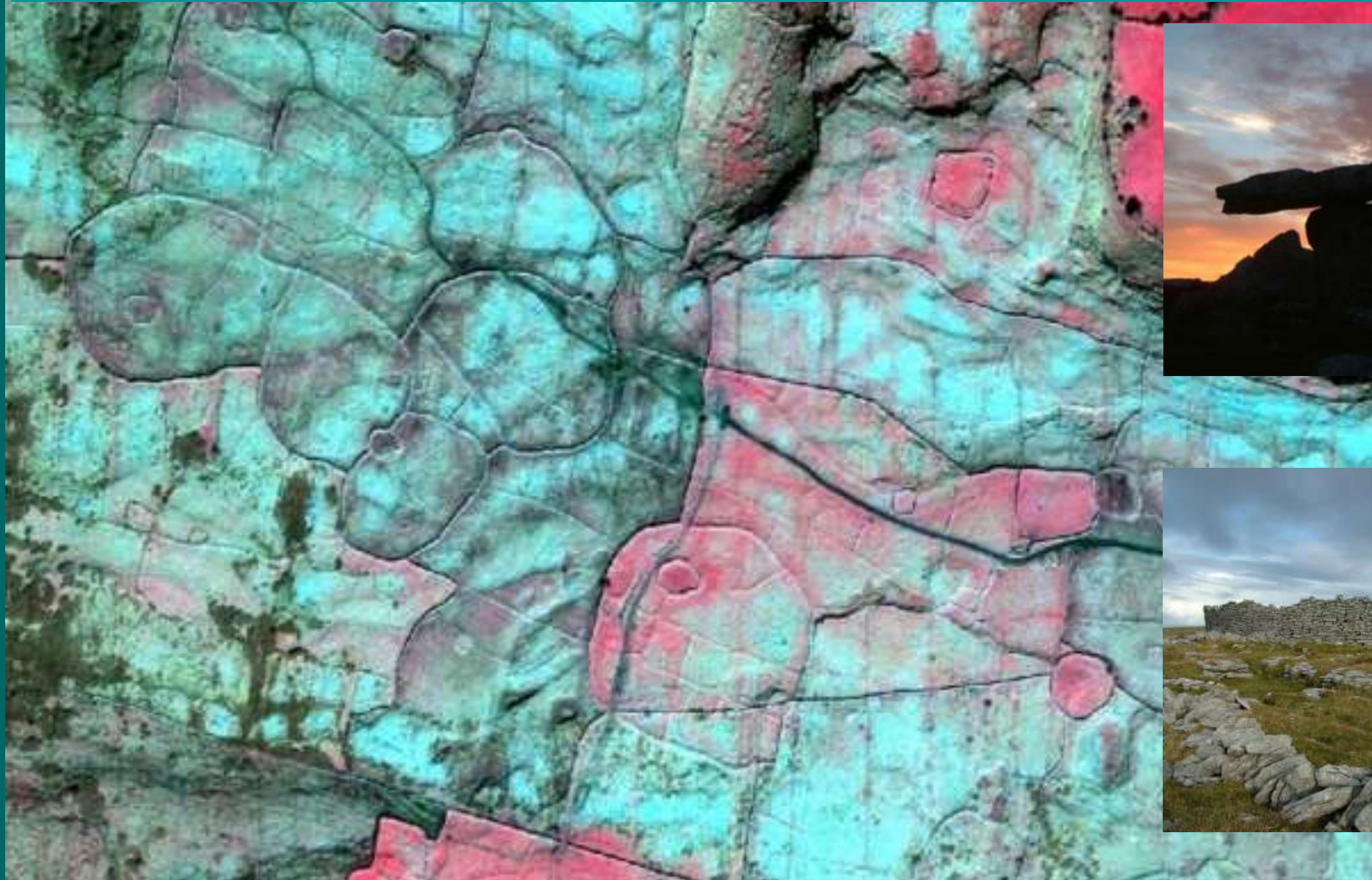


**The Burren** c.720km<sup>2</sup> (72,000ha). Mostly privately owned farmland. Small National Park (c.5% of area). Glaciated karst landscape. Largely subterranean hydrology. UNESCO Global Geopark.

**Ludlow (1651)** *‘not water enough to drown a man, wood enough to hang one, nor earth enough to bury them ... and yet their cattle are very fat’*



Cultural heritage: innumerable monuments (mostly stone) capturing 6,000 years of human activity...



*Fulacht Fiadh (c. 3,000 years old)*



# Water and cultural heritage



**Biodiversity: Hosts over 70% of Ireland's native plant species**

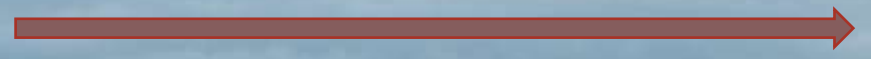
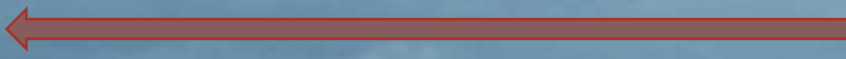


A farmed landscape – with a unique ‘reverse transumance’ practice of winter grazing of the Burren uplands



© Eamon Ward Photography

Farming intensity



Optimal!

To sustain the Burren's habitats and heritage, we need the farming. We see farmers as a 'conservation resource'.



The challenge is, how do we 'mobilise' them to deliver more Ecosystem Services for society?



Our approach can be summarised as:



**Pocket:** Pay farmers to *deliver* clearly defined Ecosystem Services.



**Head:** Support farmers on *how* best to deliver Ecosystem Services.



**Heart:** Persuade farmers that this is really *worth doing*, it's their legacy.

**Pocket:** Create incentives for positive outcomes. Dis-incentivise negative ones.



**Funding Source:** Public funds (*Common Agricultural Policy*)

**Funding Strategy:** Typically, farmers are paid for environmental actions. In the Burren we pay for *results and actions*.

Overstocked, 0/10 no payment



Incentivise improvement



Undergrazed, 4/10, no payment



Incentivise improvement



Well managed, 10/10 (€315/ha)



Reward for delivering



Farm: \_\_\_\_\_ Field: \_\_\_\_\_ Surveyor: \_\_\_\_\_ Date: \_\_\_\_\_

Current Grazing Practice (circle as appropriate)				Feeding Management (circle as appropriate)	
Winter Only	Winter & Light Summer	Year Round	Other	Silage/hay: Not fed or Some fed loose, scattered Fed on: Round bales (ring feeder or not) or In/on Trailer	Concentrates: *where known Not Fed** or Fed in trough(s) or Fed on ground**

**SCORING** (circle appropriate value)

A1. What is the grazing level?					Comments
Notifiable	Below optimum	Optimum	Above optimum	V. High	
-35	-25 -5	0 9	15	8 -6	-36

A2. What is the litter level? (% cover)				
Low <10%	10-25%	>25-50%	>50-75%	High >75
20	1	6	2	0

A3. Is there damage around feed sites and/or water troughs?				
Low	Low-Med	Medium	Med-High	High
15	11	7	2	-7

A4. Is there damage around natural water sources? (Note if no natural water present)				
Low	Low-Med	Medium	Med-High	High
15	11	7	2	-7

A5. Is there bare soil and erosion?				
Low	Low-Med	Medium	Med-High	High
5	1	-3	-10	-17

B1. What is the level of immature, removable scrub? (Use N in brackets if seedlings commonly seen or cover is borderline)				
<2%	2-5%	5-10%	10-20%	>20%
15 (13)	9 (7)	3 (1)	-7 (-9)	-18

B2. What is the impact of / threat from, Bracken?				
Low	Low-Med	Medium	Med-High	High
5	1	-3	-10	-17

B3. What is the impact of / threat from, Purple Moor-grass (Molinia)?				
Low	Low-Med	Medium	Med-High	High
5	1	-3	-10	-17

B4. What is the extent of 'weeds' &/or agriculturally-favoured species present due to management practices?				
Low	Low-Med	Medium	Med-High	High
10	6	2	-3	-12

C1. Does the field retain its ecological integrity (in terms of plant communities present)?				
Vegetation Typical	Vegetation slightly modified	Vegetation moderately modified	Vegetation significantly modified	
5	0	-6	-17	-28

Have any of the habitats or archaeology present been damaged by unauthorised or careless activities during past year?  
 Note type & extent of damage and contact Burren Team asap for advice on whether and how to adjust the field score.

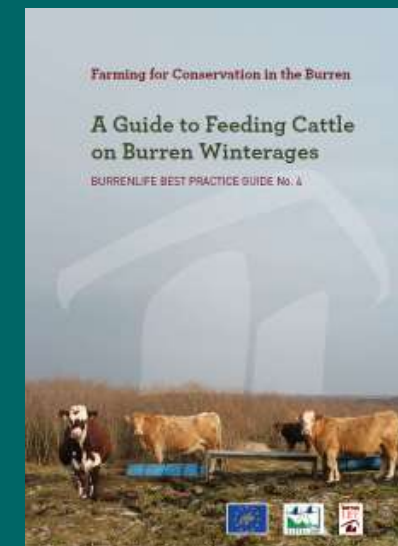
Comments (e.g. actions needed & priority, quality of work done, habitat type and pasture strength):



Silage feeding = automatic 'fail' (score 0, no payment)



Incentive to adopt less damaging feeding systems



**Low scores? – Action needed!** Farmer is allocated an allowance within which (s)he can nominate (and co-fund 25-75% of the cost of) tasks to increase score. All water tasks funded at 50%.

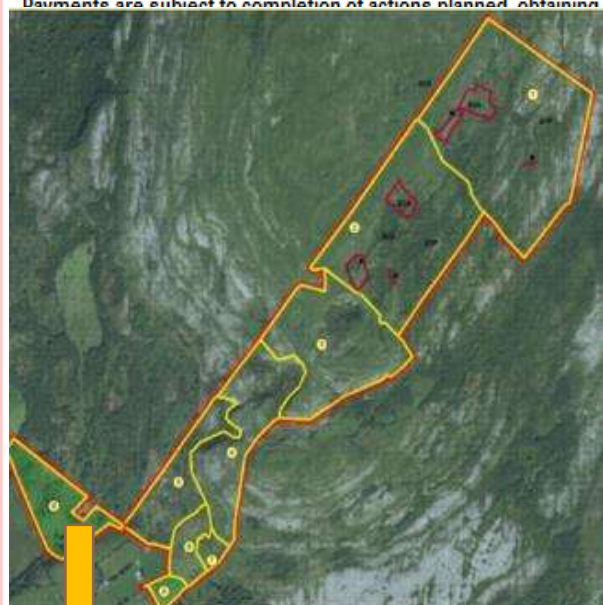
Payment for Actions (M2)

Payments are subject to completion of actions planned, obtaining all necessary permissions and complying with any conditions attached

Maximum allowance €7,000.00

Please tick all tasks farmers agrees to do

Description	Funding rate (%)	Paid per unit (€)	€ Farmer receives	Agree to do?
Following scrub tasks (S1A): Cut using chainsaws and immediately treat stumps with herbicide. Feb or Sept-Dec (outside the bird nesting season). Costings include piling, treating, herbicide & disposal.				
Following herbicides: Roundup Biactive and Barclay Gallup Biograde are the only herbicides permitted for use. Make sure you read and follow the directions on the product label. The Basic Payment Scheme requires that you cut and treat all briars, blackthorn, hazel and other scrub within and around the enclosure, and do not cut the wall with the mothair but leave the mature scrub marked on the map. All cut scrub must be removed from the enclosure and either piled in a suitable location for rotting or removal by tractor to a place where it can be burned. Labour estimate of 4 days for 2 people, which includes additional time to allow for removing debris from the enclosure.	75%	n/a	909.72	<input type="checkbox"/>
Repair and around a Recorded Monument the work was notified to NMS and permission received on 16/05/2017. Repair the northern boundary wall to its original high standard using fallen and scattered stones. Do not take stones from other built structures.	50%	2.29	490.06	<input type="checkbox"/>
Repair the northern boundary wall to its original high standard using fallen and scattered stones. Do not take stones from other built structures.	50%	2.29	561.05	<input type="checkbox"/>
Green line labelled E-F on map. Repair internal wall to its original high standard using fallen and loose scattered stones. Do not take stones from other built structures.	75%	3.43	627.69	<input type="checkbox"/>
Cut bracken (ferns) in lower part of field 9 and throughout field 10. Cut in mid-June and again 6 weeks later using a scythe or bladed strimmer. Labour estimate of 10 days for 1 person.	75%	90.00	900.00	<input type="checkbox"/>
Cut bracken (ferns). Cut in mid-June and again 6 weeks later using a scythe or bladed strimmer. Wipe the regrowth of briars. Labour estimate of 5 days for 1 person.	75%	90.00	450.00	<input type="checkbox"/>
Purchase and hang a traditional, Burren-style gate at the location indicated on the map. Costing includes a set of hinges, a lock and a handle. Labour estimate of 1 day for 1 person.	63%	260.00	260.00	<input type="checkbox"/>
Purchase and install a 350 gallon plastic water trough at the location indicated on the map. Costing includes fittings. Please ensure the trough sits on a solid level base (limestone chip is ideal).	50%	240.00	240.00	<input type="checkbox"/>
Total for agreed Actions € 4,128.53				
Total for agreed Actions € _____				



General comments on Actions completed: Standard of M2 work completed continues to be exceptional. --

# Protecting Natural Water Sources



# Providing and storing alternative (renewable) sources



# Pumping water to where its needed



# Providing clean water to livestock



350 new drinking points



**Head:** Local Office and helpdesk

**Head:** Provide training on-farm, peer to peer, demonstrate impact



**Head:** Minimise bureaucracy...2-page plan, help with planning...



Payment for Results (1-1)										Maximum payment (if all fields score 10/10):		€5,547.40
Field no.	Field name	Pasture type (H-S strength)	Grazing		Management recommendations	Digitised area (ha)	Assessable 1-1 area (ha)	Payment rate (€/ha) (see table below) (E)	BFCP 2015 score (5-10)	BP Year 1 score (2-10) - Baseline	Payment (€) (A x E)	
			Winter	Summer								
<b>Meadows</b>												
7	7th Field	Meadow-like*	Yes	Yes	Delay grazing until late summer (late July onwards) then graze out well while taking care to avoid poaching. Do not apply any fertilizer. Control weeds.	0.50 ha	0.34 ha	€0	3	3	€0.00	
9	Pump Field	Meadow-like*	Yes	Yes	Delay grazing until late summer (July onwards) if possible, then graze out as well as ground conditions allow (avoid excessive poaching). Control scrub, especially along fringes of rocky outcrops. Control weeds and improve water supply to prevent damage at water points.	3.00 ha	2.10 ha	€168	7	7	€352.80	
<b>Wintertime</b>												
5	5th Field	Midding	Yes	Yes	Grazing system has improved, increasing field score. Graze well in late summer (August onwards) and early winter. Continue work to control encroaching scrub, as well as the high level of bracken and weeds found across the site.	3.40 ha	0.49 ha	€72	4	6	€35.28	
6	6th Field	Strong	Yes	Yes	Reduce level of summer grazing - graze in late summer (August onwards) and early winter. Avoid poaching. Control weeds.	3.40 ha	1.07 ha	€72	5	6	€77.04	
1	1st Field	Midding	Yes	Optional	Reasonably well grazed over winter, occasional light summer graze (August onwards) will help top-off stronger sections. Also, improve water facilities - this will help improve grazing and reduce pressure on water point. Treat regrowth from previous scrub work - failure to fully address regrowth has reduced score.	13.95 ha	11.16 ha	€84	8	7	€937.44	
2	2nd Field	Midding	Yes	Optional	Graze out well in winter. A light, late summer graze (August onwards) will help top-off stronger growth. Requires better water facilities for livestock, continued scrub removal (and regrowth) work, weed control and wall repair.	10.63 ha	0.30 ha	€96	8	8	€796.80	
4	4th Field	Midding	Yes	Yes	Increase grazing in winter and also graze the valley area in late summer (late July onwards). Control encroaching scrub (mainly low blackthorn), bracken and weeds (by entrance gate).	5.25 ha	4.05 ha	€96	8	8	€445.60	
3	3rd Field	Midding	Yes	Optional	Graze out well in winter. A light, late summer graze (August onwards) will help top-off stronger growth. Fix water trough overflow, control encroaching scrub and also control patches of weeds and bracken.	7.20 ha	6.79 ha	€135	8	9	€956.65	
<b>Total:</b>						45.35 ha	35.10 ha		Baseline average (by area):		7.58	
											<b>Total 1-1 Payment Due: €3,581.61</b>	

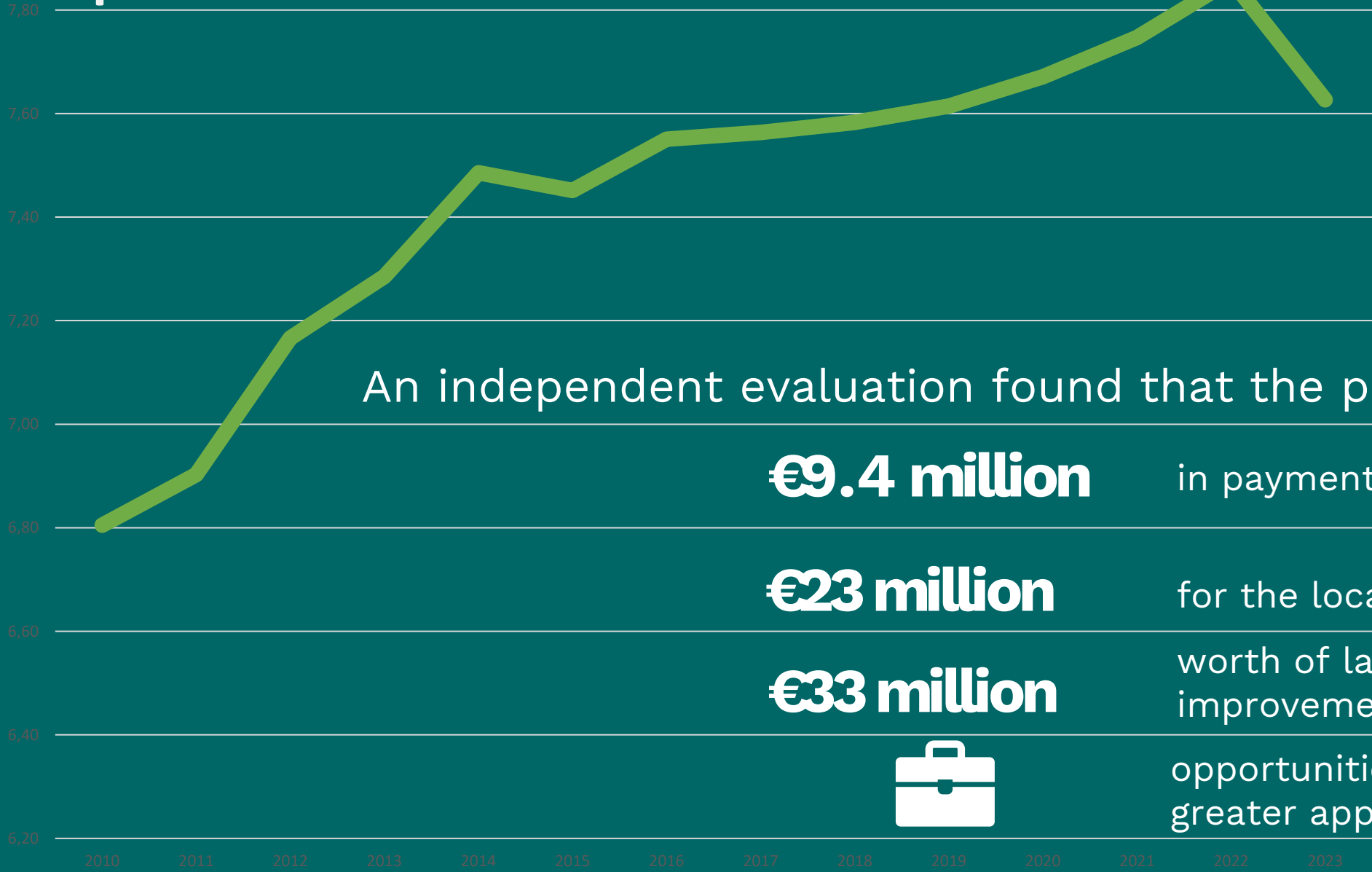


**Heart:** Celebrate rather than criticise





# Impact? Burren Field Scores 2010-23



An independent evaluation found that the program delivered:

**€9.4 million** in payments to local farmers

**€23 million** for the local economy

**€33 million** worth of landscape and biodiversity improvements since 2010



opportunities for agritourism and greater appeal as a visitor destination

# Scaling: from 20 local farmers to 20,000 farmers across Ireland



**2005-10 €2.5m**  
(21 farmers)



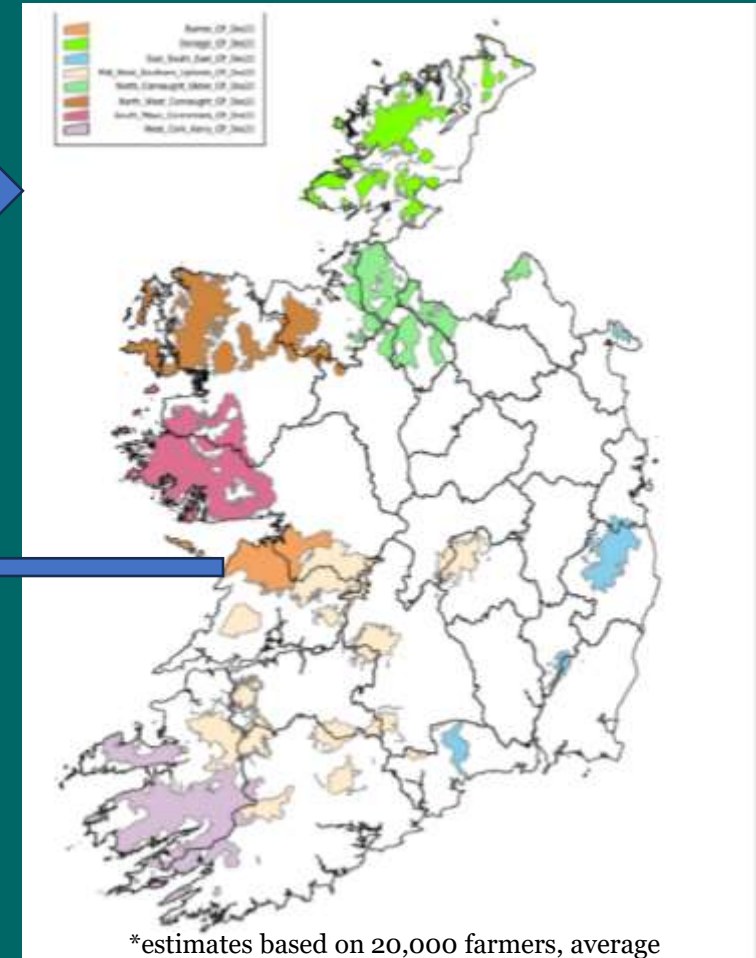
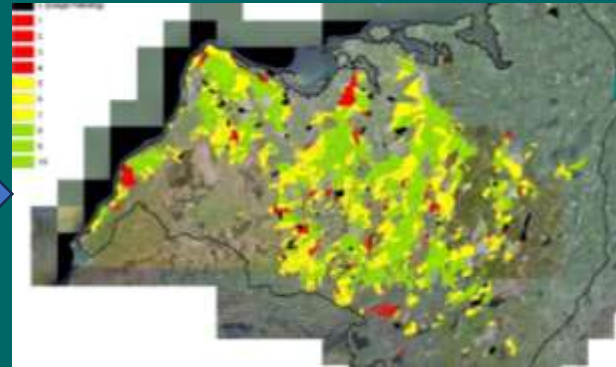
**2010-15 €6m**  
(160 farmers)



**2016-22 €10m** (328 farmers)  
(+ €70m EIPS c.2,000 farmers)



**2023-28 €50m\*** (1,300 Burren/Aran farmers)  
**(National: €750m\* CPs, 20,000 Irish farmers)**



**Key aspects:** Result Based Payments  
Local Support Team  
Fostering local ownership

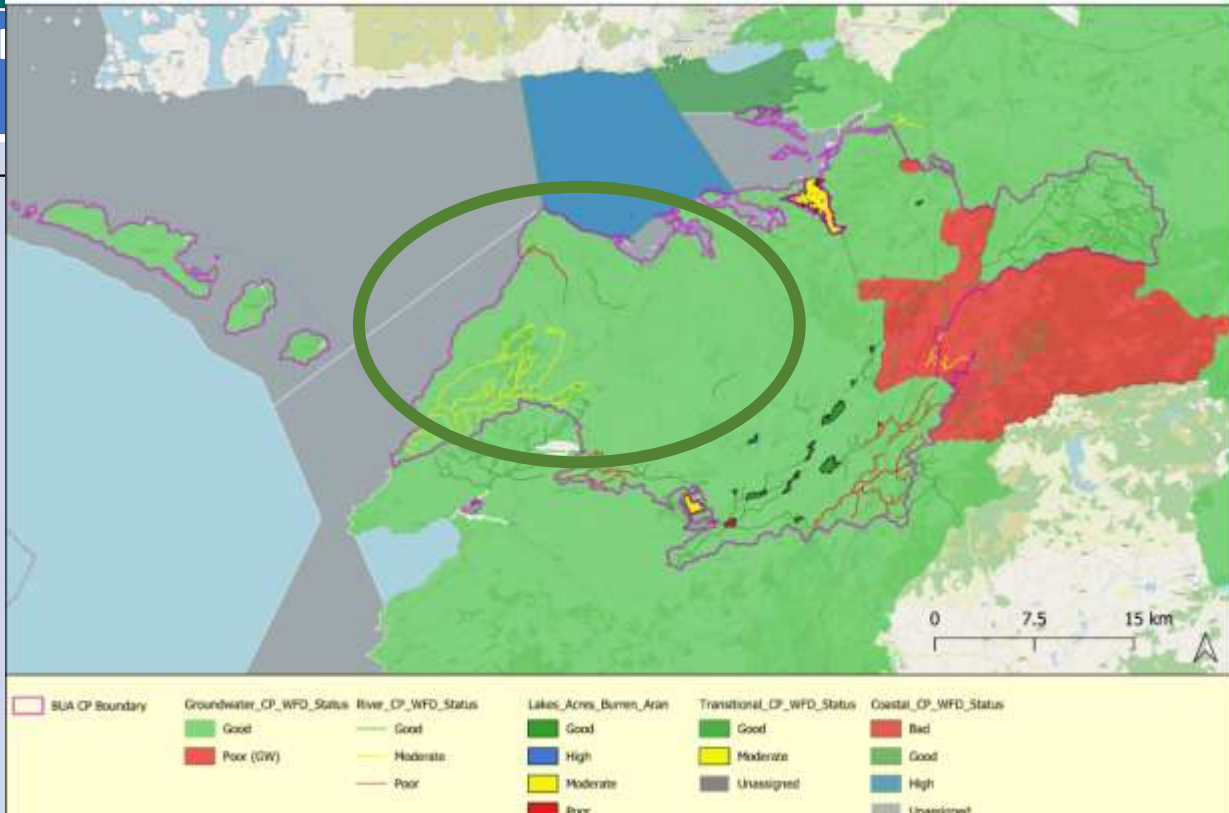
ACRES Burren Aran  
Agri-environmental scheme



\*estimates based on 20,000 farmers, average annual payment of €7,500 over 5 years)

## ACRES Burren: Main Conservation Measures

- Avoid/limit silage feeding and fertiliser application (especially on wintorage fields).
- Avoid/limit livestock access to natural waterbodies.
- Installation of feeding/drinking troughs in suitable locations.
- Fence/maintain marginal/buffer zones in proximity of waterbodies.
- Drain management.
- Restore/protect habitats and...



**Map: Groundwater Bodies and Main Rivers and Lakes Status within the ACRES BUA CP region**

## Landscape Actions

- Training Hydromorphology.
- Erosion Control.
- Sediment Capture Ponds.
- Wildlife Ponds.
- Ditch/Peat Reprofilng.
- Sediment Capture Ponds.
- Water Retention Structure in a karst Landscape.

Aggregated Aran Type Tasks	Burren	Total tasks	Approved Tasks	Total Approval %	Total tasks	Approved Tasks	Total Approval %
Rainwater Catchers		40	37	92.50%	65	56	86.15%
Water Troughs		428	424	99.07%	471	457	97.03%

**Table: Actions Approved thus far for farmers under ACRES in the region**



# Reimagining farming - sharing a more positive, practical, inclusive narrative around farming & nature



## The Farming for Nature Ambassadors Programme

Meet our network of farmers  
INNOVATORS IN SUSTAINABILITY

Looking for more information?  
The Farming for Nature team at 01246 818181 or [info@farmingfornature.co.uk](mailto:info@farmingfornature.co.uk)

Region	County	Ambassador Name
North East	County Durham	John & Sarah
	North Yorkshire	John & Sarah
	North Yorkshire	John & Sarah
	North Yorkshire	John & Sarah
	North Yorkshire	John & Sarah
	North Yorkshire	John & Sarah
	North Yorkshire	John & Sarah
	North Yorkshire	John & Sarah
	North Yorkshire	John & Sarah
	North Yorkshire	John & Sarah
North West	Cheshire	John & Sarah
	Greater Manchester	John & Sarah
	Greater Manchester	John & Sarah
	Greater Manchester	John & Sarah
	Greater Manchester	John & Sarah
	Greater Manchester	John & Sarah
	Greater Manchester	John & Sarah
	Greater Manchester	John & Sarah
	Greater Manchester	John & Sarah
	Greater Manchester	John & Sarah
East of England	Essex	John & Sarah
	Essex	John & Sarah
	Essex	John & Sarah
	Essex	John & Sarah
	Essex	John & Sarah
	Essex	John & Sarah
	Essex	John & Sarah
	Essex	John & Sarah
	Essex	John & Sarah
	Essex	John & Sarah
West Midlands	Staffordshire	John & Sarah
	Staffordshire	John & Sarah
	Staffordshire	John & Sarah
	Staffordshire	John & Sarah
	Staffordshire	John & Sarah
	Staffordshire	John & Sarah
	Staffordshire	John & Sarah
	Staffordshire	John & Sarah
	Staffordshire	John & Sarah
	Staffordshire	John & Sarah
East Midlands	Leicestershire	John & Sarah
	Leicestershire	John & Sarah
	Leicestershire	John & Sarah
	Leicestershire	John & Sarah
	Leicestershire	John & Sarah
	Leicestershire	John & Sarah
	Leicestershire	John & Sarah
	Leicestershire	John & Sarah
	Leicestershire	John & Sarah
	Leicestershire	John & Sarah
South East	East Sussex	John & Sarah
	East Sussex	John & Sarah
	East Sussex	John & Sarah
	East Sussex	John & Sarah
	East Sussex	John & Sarah
	East Sussex	John & Sarah
	East Sussex	John & Sarah
	East Sussex	John & Sarah
	East Sussex	John & Sarah
	East Sussex	John & Sarah
South West	Devon	John & Sarah
	Devon	John & Sarah
	Devon	John & Sarah
	Devon	John & Sarah
	Devon	John & Sarah
	Devon	John & Sarah
	Devon	John & Sarah
	Devon	John & Sarah
	Devon	John & Sarah
	Devon	John & Sarah
West Midlands	Staffordshire	John & Sarah
	Staffordshire	John & Sarah
	Staffordshire	John & Sarah
	Staffordshire	John & Sarah
	Staffordshire	John & Sarah
	Staffordshire	John & Sarah
	Staffordshire	John & Sarah
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	Staffordshire	John & Sarah



Increasing interest from private sector as well as public-sector funding...



*Making farming for nature a sound investment for businesses and for farmers*



Payments to farmers to create ponds, plus annual dividend to encourage best practice for pond creation and management





Minimum Pond size 25 m<sup>2</sup>  
Average Pond size 110m<sup>2</sup>



# Thank you! For more info:

<https://www.npws.ie/farmers-and-landowners/farming-for-nature/book-results-based-payments>

[www.acresburrenaran.ie](http://www.acresburrenaran.ie)



[www.burrenprogramme.com](http://www.burrenprogramme.com)



[www.burrenbeo.com](http://www.burrenbeo.com)



[www.farmingfornature.ie](http://www.farmingfornature.ie)



[www.burrenwinterage.com](http://www.burrenwinterage.com)



[www.refarm.ie](http://www.refarm.ie)

