



Farm Payments for Ecology and Agricultural Transitions

Farming with nature in the midland raised bog landscape

Counting Carbon – Science and Practice Teagasc Conference

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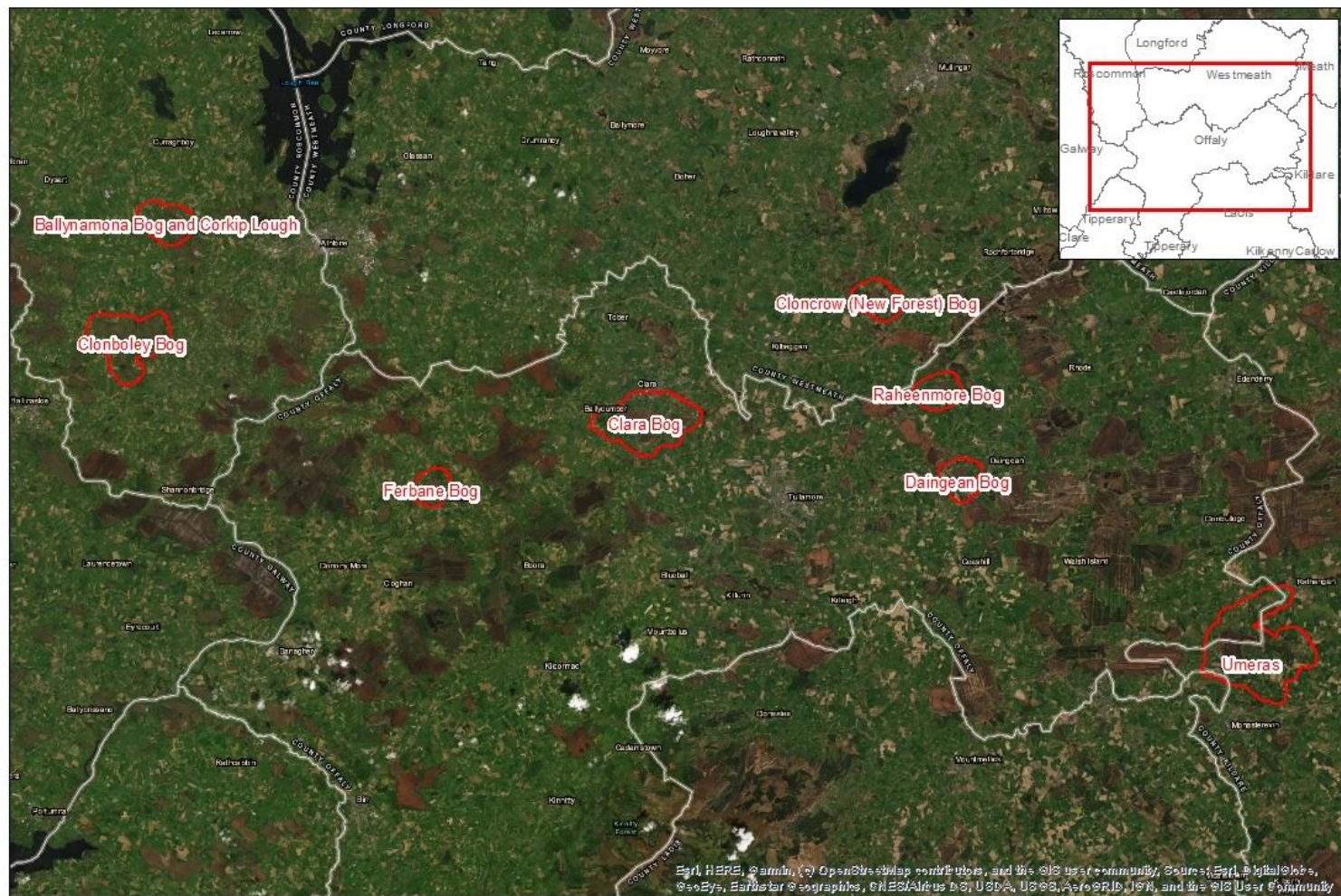
www.farmpeat.ie



Project Aims

- To work with farmers to design and trial a locally adapted results-based scheme for the Irish Midland Landscape
 - Design a scheme that will incentivise improved management of habitats on peat soils, benefitting climate, biodiversity and water
 - Reward farmers for maintaining and improving the local environment
- Increase awareness of the importance of raised bog habitats and the sustainable use of peatland soils in these areas.





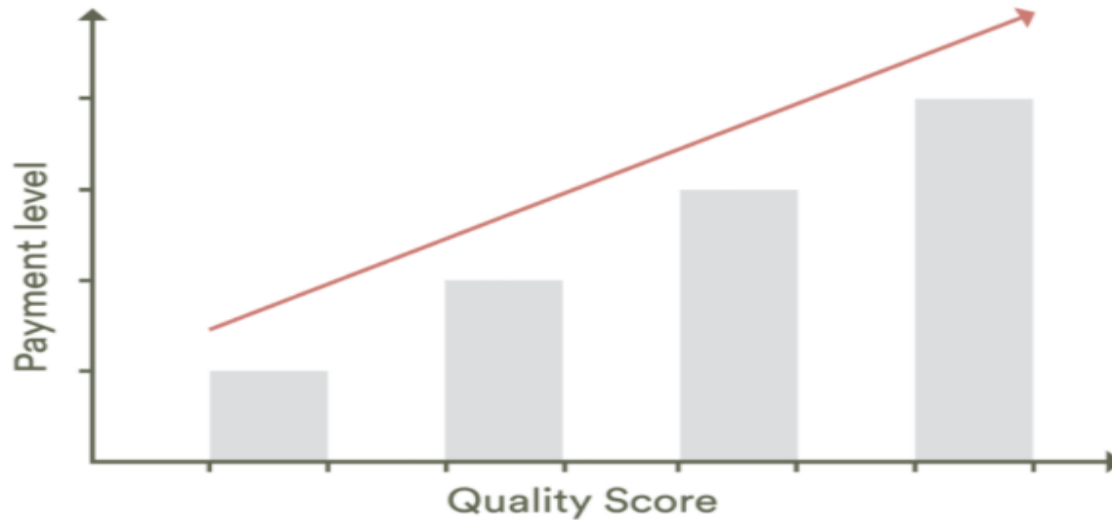
 Project Sites

0 5 10 20 km



Esri, HERE, Garmin,  OpenStreetMap contributors, and the GIS user community, Source: Esri, DigitalGlobe, GeoEye, Earthstar  Imagery, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Results-Based Approach



Payments are linked to the nature quality of your farm. **Higher Nature Quality = Higher Payment Level.** Each plot (Field) is scored out of 10 using a scorecard that captures high and low quality which reflect past and current management.

Scoring



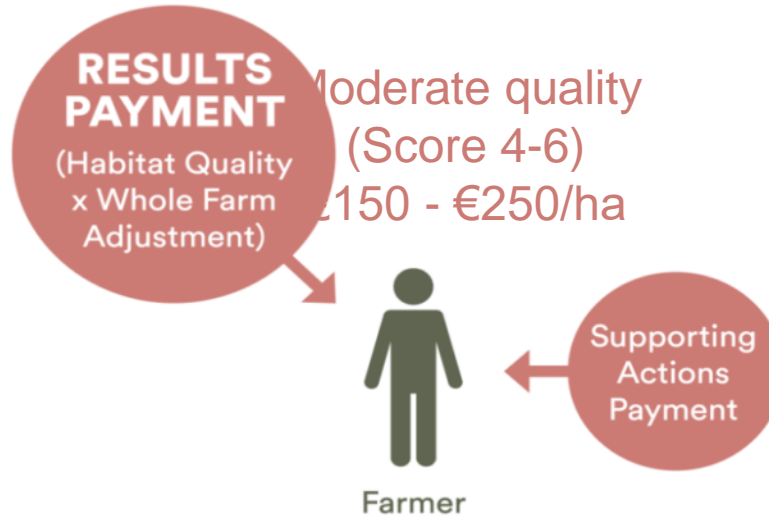
Low quality
(Score 0-3)
€0 - €75/ha



Moderate quality
(Score 4-6)
€150 - €250/ha



High quality
(Score 7-10)
€300 - €450 /ha



Score cards

The FarmPEAT Project | Habitat Scorecard

Peat/ Wet Grassland

FP Farmer ID: _____ Date: ____/____/____ Total Score: ____ / 100
(A+B+C)

Plot Number: _____ Surveyor: _____

(to be used on all grasslands on, or partly on, peat soils (even if they are not wet) and also on wet grasslands on non-peat soils) *Circle the correct score. Eg: 15*

In Turlough: Yes ☐ No ☐

Dominant Soil Type: Peat ☐ Mineral ☐

Dominant Habitat Type: Marsh ☐ Fen ☐ Wet Grassland ☐ Improved Agricultural Grassland ☐

A. Ecological Integrity Score: ____ / 40

Tick the positive indicators that occur.

1. Bedstraws (small) and Stitchworts <input type="radio"/>	12. *Marsh Cinquefoil <input type="radio"/>	23. Selfheal or Bugle <input type="radio"/>
2. Birdfoot Trefoil (Common & Greater) <input type="radio"/>	13. *Marsh Marigold <input type="radio"/>	24. *Sphagnum or Branched mosses <input type="radio"/>
3. *Devilbit Scabious <input type="radio"/>	14. *Marsh Pennywort <input type="radio"/>	25. Sorrel (Sheep or Common) <input type="radio"/>
4. Eyebrights (all) <input type="radio"/>	15. *Marsh Thistle or Meadow Thistle <input type="radio"/>	26. Tormentil (Common & English) <input type="radio"/>
5. *Forget-me-nots (all) <input type="radio"/>	16. *Meadowsweet <input type="radio"/>	27. *Umbels large (Angelica, Valerian, Hogweed) <input type="radio"/>
6. Heathers (all), total cover in grassland habitat < 25% <input type="radio"/>	17. *Mints (all) or Purple Loosestrife <input type="radio"/>	28. Umbels small (Pignut, Yarrow & Wild carrot) <input type="radio"/>
7. *Knockweeds (Common & Greater) <input type="radio"/>	18. Orchids (all) <input type="radio"/>	29. Vetches/vetchlings <input type="radio"/>
8. Lady's Mantle <input type="radio"/>	19. Ox-eye daisy <input type="radio"/>	30. Violets (all), Harebell <input type="radio"/>
9. *Lady's Smock <input type="radio"/>	20. *Ragged robin <input type="radio"/>	31. *Yellow Flag (Iris) <input type="radio"/>
10. *Lesser Spearwort <input type="radio"/>	21. Rushes small (woodrush, spike rush, heath rush) <input type="radio"/>	32. Yellow-rattle <input type="radio"/>
11. *Louseworts (Common & Marsh) <input type="radio"/>	22. *Sedges (all) <input type="radio"/>	33. Yellow composites (Cats Ears, Hawkweeds, Hawkbits, Goat-beard) not dandelion. <input type="radio"/>

A.1
How many positive indicators present in the plot?

low 0 - 4	medium 5 - 8	high 9 - 12	very high >12
0	3	5	10

A.2
What is the combined cover of positive species throughout the plot?

Low: Positive indicators not very visible and hard to find.	Moderate: Positive indicators every few steps.	High: Positive indicator every step.	Very high: a number of positive indicators every step.
0	3	5	10

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- Section A – Ecological Integrity**
 - Number and % cover of positive indicator species
 - % cover of negative indicator species
 - Quality of vegetation structure
- Section B – Hydrology**
 - Presence of wetland indicator species
 - Functionality of drainage features
 - Water level in drains
- Section C – Damaging Activities**
 - E.g. burning, bare soil and erosion, turf cutting

Payments to Farmers

RESULTS-BASED PAYMENT RATES

3 years

- Max. payment: €9,100
- Min. payment: €39 (€800)
- Average annual payment: €1,927

TOTAL PAYMENTS

3 years

- Max. payment: €11,686
- Min. payment: €39 (€800)
- Average payment: €2,442



Case Study A



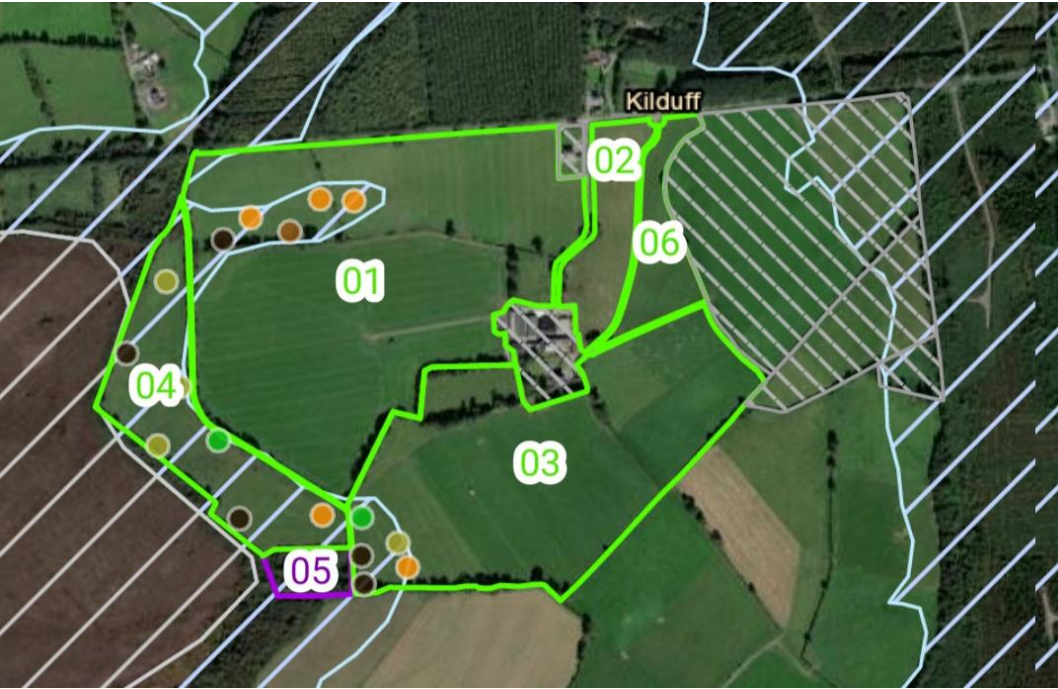
2 weeks later



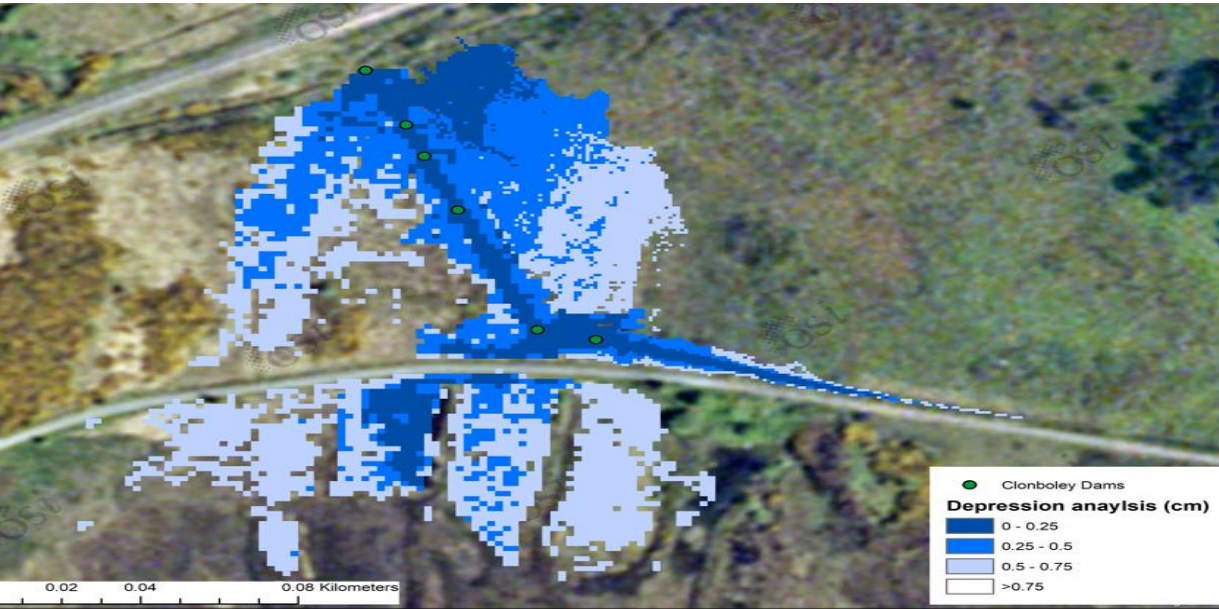
2 weeks later



Case Study B



Estimating Area Rewet



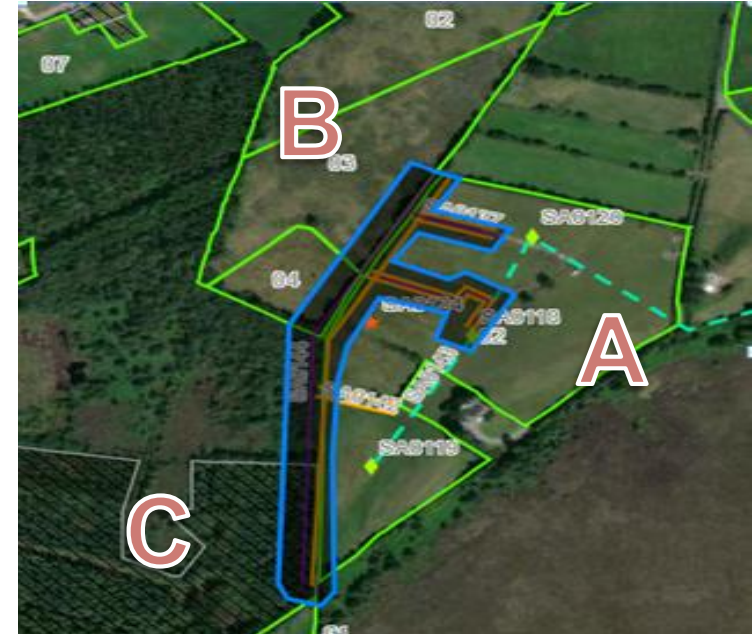
RPS Depression Model indicates 0.8ha will be rewetted

FarmPEAT Team estimate indicates 1.2ha will be rewetted

Based on 7 farmers undertaking drain management, FarmPEAT Team estimates a total of 7ha rewet.

Payments to Farmers

PEAT RESTORATION TRAINING PAYMENT



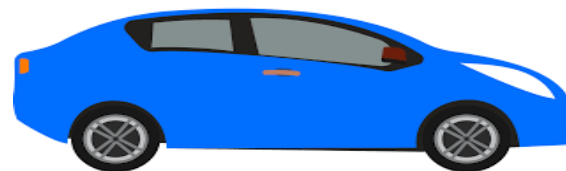
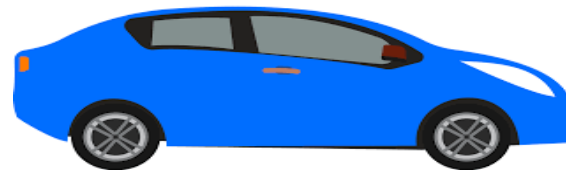
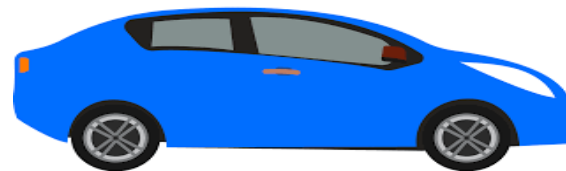
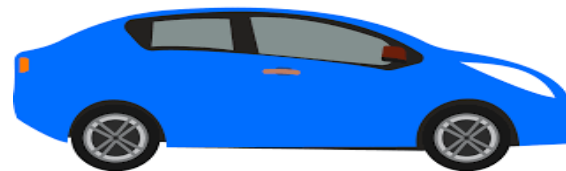
Farmer A = 1.20ha = €900

Farmer B = 0.24ha = €400

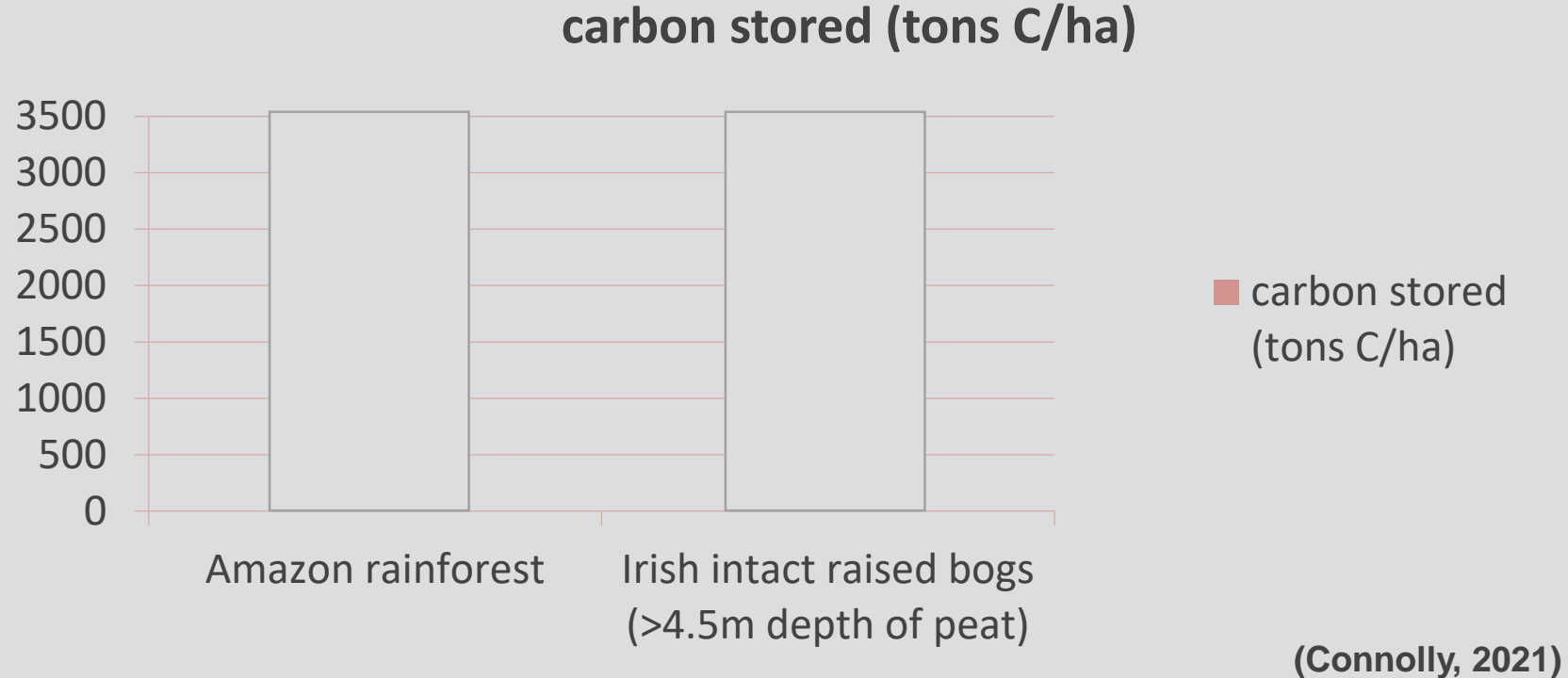
Farmer C = 0.21ha = €400



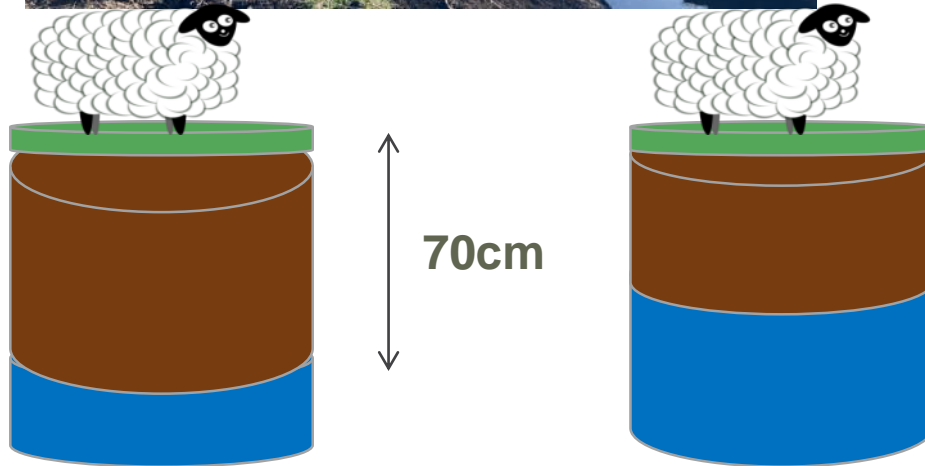
Knowledge Exchange – Key Messages



Carbon Storage in Intact Raised Bogs with >4.5m depth of peat vs the Amazon Rainforest

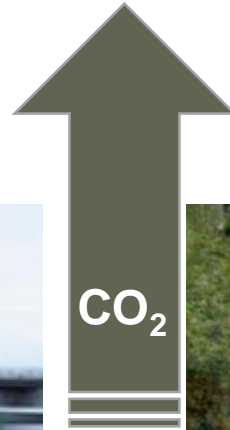


Knowledge Exchange – Key Messages



Every 20cm increase in the watertable on peat soils reduces emissions by 6 tons CO₂ eq/ha/yr

Monument at Portlaoise Junction of M7, Co. Laois, Ireland



1997 - 2020



Exposed to the oxygen in the air, the carbon-rich turf dried out and decomposed, eventually disappearing from view, having been converted to gases and water.

Feedback from Farmers

- Flexibility
- Personal interaction and relationships
- Learning from each other and from FarmPEAT
- Voluntary actions
- Sufficiently incentivised
- Long term commitment



The Future...?

- What is the baseline?
- Where is the money going to come from for these farmers?
- Carbon Credit? – needs to be strongly linked with biodiversity and water quality
- Commitment needs to be longer term – 20yrs
- Price – high enough but not too high.
- Verification needs to be of the highest standard



If results-based is part of the future....

- Scorecard needs to be refined
- Thorough training to scorers to ensure consistency across farms and across years
- Research to determine distance from drain where water-table is impacted and the magnitude of such impacts



Thank You!

<https://www.youtube.com/@FarmPEATproject>

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Linkedin:

<https://www.linkedin.com/company/farmpeat-project/>



An Roinn Talmhaíochta,
Bia agus Mara
Department of Agriculture,
Food and the Marine



European Union
European Structural
and Investment Funds



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