



Mobilising private finance for Environmental Land Management

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Outline

- **Assessing the land management objectives of the 25 Year Environment Plan**
- **Estimating expenditure required to deliver those objectives**
- **Estimating the net benefits that expenditure would deliver**
- **Identifying potential sources of private finance**
- **Discussing the policy requirements to unlock that private finance**
- **Institutional mechanisms to maximise benefits to society**

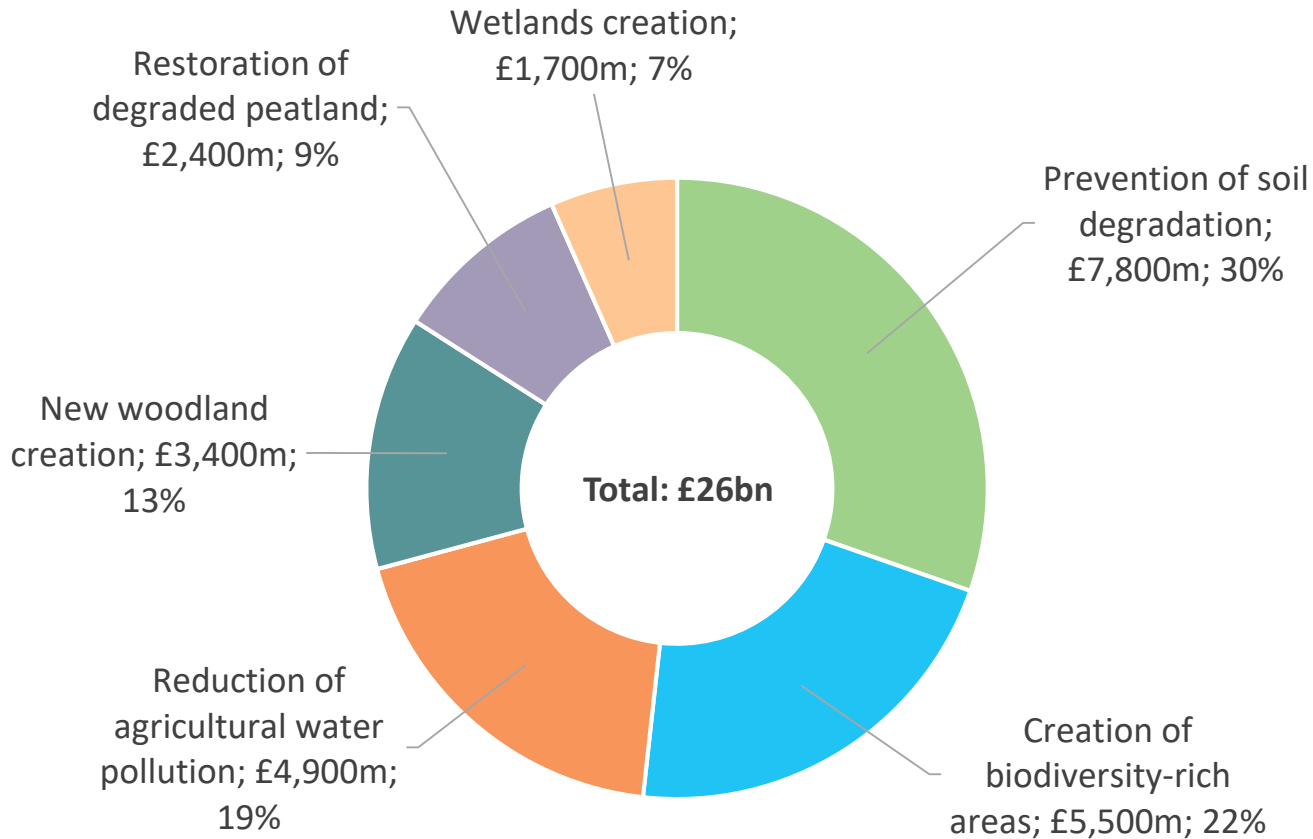


Land management objectives of the 25 Year Environment Plan

25YEP objectives	25YEP target	WWF target
Increase woodland by 180,000 ha	180,000 ha	
Restore vulnerable peatlands	-	Restoration of all drained or vulnerable peatlands in England
Reduce flood risk by natural flood management	-	Creation of 100,000 ha of wetlands
Create or restore 500,000 ha of wildlife-rich habitat	500,000 ha of wildlife-rich habitat	Creation/restoration of 400,000 hectares excl. woodland and wetlands
Ensuring that by 2030 all farming soils are managed sustainably to prevent erosion	-	Prevention of soil degradation and compaction on 4 million hectares at risk
Reduce water pollution	-	Reduction of agricultural water pollution from ~1.5 million hectares



Provisional Findings: £25 billion expenditure achieves 25 YEP land management objectives



Notes: Costs discounted at a 3.5% rate. The figures span the 25YEP targets and additional targets (from WWF). The estimates above assume that all investments take place now. All projects are assumed to have a 25 year lifetime, except new woodland creation (50 years)



Provisional Findings:

Net benefits of servicing the 25 YEP amount to £30 billion

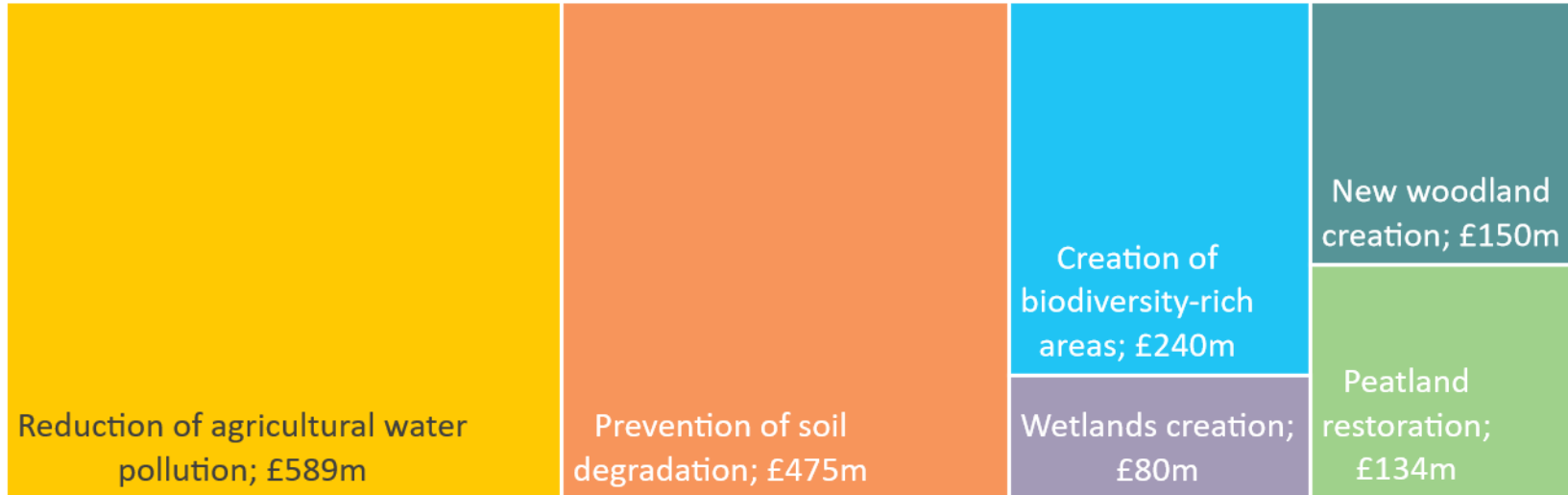
Benefit-cost ratios range between 1.0 and 12.7

	Benefit-cost ratios	Net benefits
Peatland (actively eroding)	12.7	£9,500m
Wetlands (coastal)	5.8	£4,100m
New woodland creation	3.4	£7,900m
Peatland (drained)	1.9	£1,500m
Reduction of agricultural water pollution	1.9	£4,400
Prevention of soil degradation	1.3	£2,400
Wetlands (inland)	1.0	-
Creation of biodiversity-rich areas	Assume ≥ 1	-
Total		£30 billion

Notes: Net benefits are net of costs. Figures only include monetisable benefits. Costs and benefits taken over 25 years (50 years for woodland)



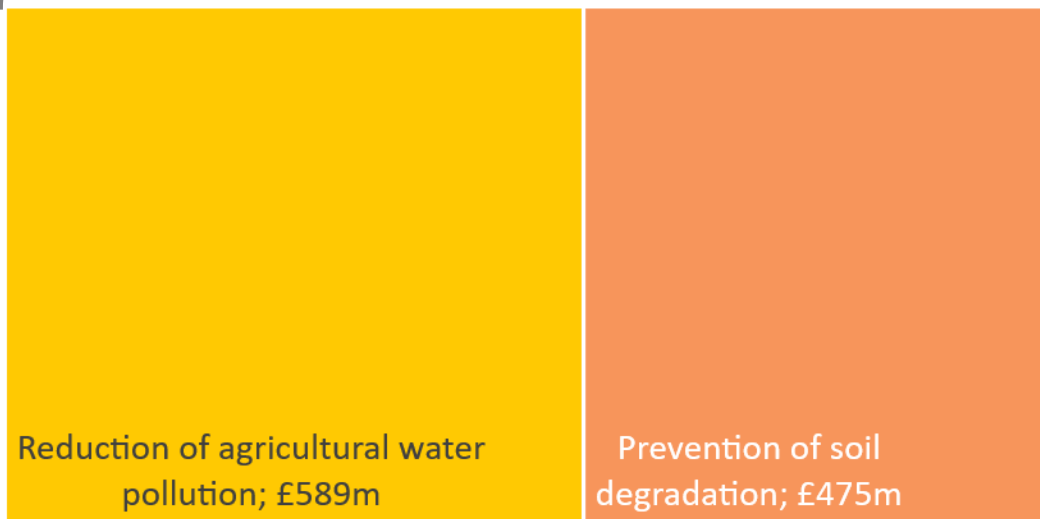
Provisional Findings: £1.7 billion annualised costs of servicing the 25 YEP





The services addressing negative externalities and public goods demand differential funding arrangements

Negative externalities



Externality to aquatic biodiversity.
Externality to drinking water.

Private good to farmers.
External cost to water quality.
Public good in sustainable agriculture sector.

Public good (biodiversity)

Public goods



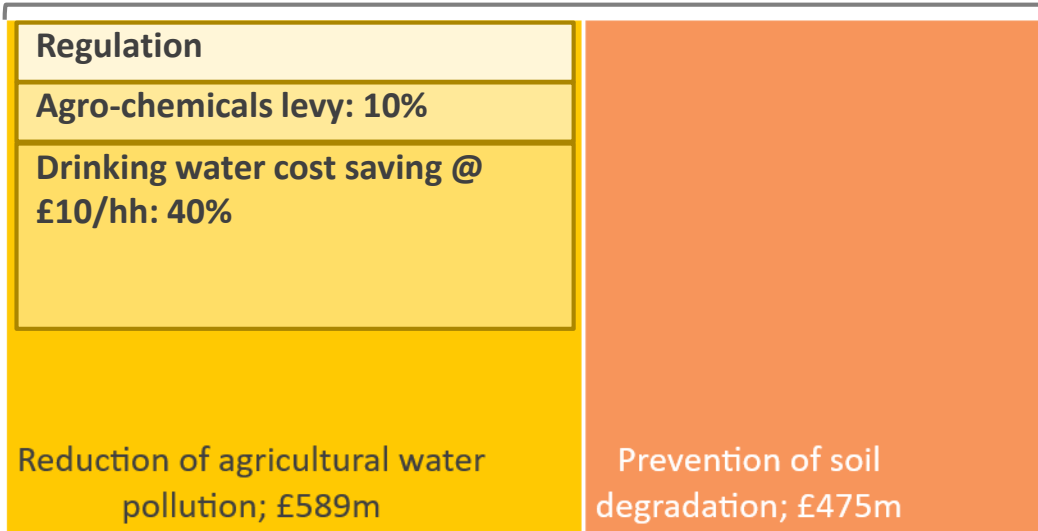
Public good (flood mitigation) and private good (bio-remediation)

Public good (CO₂ reduction)



The services addressing negative externalities and public goods demand differential funding arrangements

Negative externalities

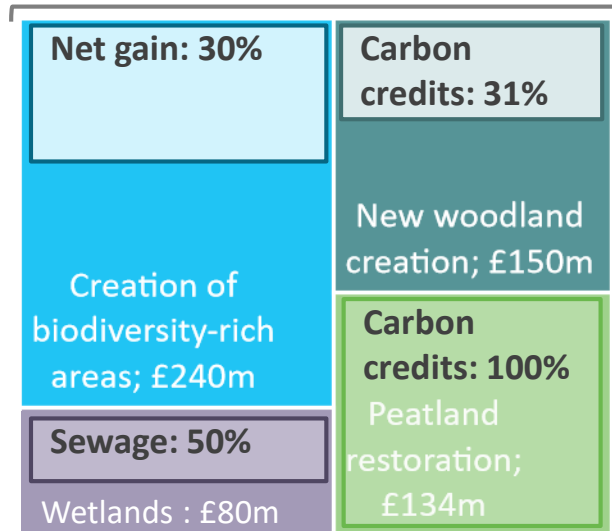


Baseline regulation.
Water company contracts.
Agrochemicals levy.

Farmer own investment.
Technical assistance from public purse.
Top-up from public purse.

Public goods

Public purse and net gain developer contributions



Water company investment. Blended public purse and developer flood investment.

Public good (CO₂ reduction) from energy supply sector

Notes: Value of carbon credits based on the assumption of a £20/tCO₂ carbon price



Provisional Findings: Private contributions could represent 35% of annualised costs

	Annualised cost	Private contributions	Policies
New woodland creation	£150m	31%	Carbon price policy \geq £20/tCO ₂
Peatland restoration	£134m	100%	Carbon price policy \geq £20/tCO ₂
Wetlands creation	£80m	50%	Allowing water companies to create wetlands as end-of-pipe solutions
Reduction of agricultural water pollution	£589m	50%	£10/yr on household water bills Agro-chemicals levy (5%)
Creation of biodiversity-rich areas	£240m	30%	10% biodiversity net gain on housing development
Prevention of soil degradation	£475m	Minimal	
Total	£1,700m	35%	



Summary of provisional findings

A commitment of £25bn is needed to deliver the 25 YEP over 25 years.

That spending may generate benefits of £55bn over 25 years = £30bn net surplus.

35% of this £25bn commitment could be privately funded if policy is put in place.

The policies required would be:

- Carbon pricing
- Mandatory biodiversity net gain for developers
- Supportive regulatory framework for water companies
- Wetlands a permitted solution for sewage treatment
- tighter agricultural water pollution regulation
- agrochemicals levy
- Stronger regulatory baseline and enforcement

Stronger policy would unlock private money and reduce public money needed



Institutional mechanisms to maximise benefits to society

Importance of targeting expenditure to generate maximum value to society – not just leaving it to market forces.

There is a need for a holistic assessment of alternative investment opportunities incl:

- location-specific aspects of value,
- the potential multi-functionality of different assets,
- local level prioritisation of investment,
- coordination between different players involved,
- integration with other local level planning processes,
- negotiation over competing interests.

Different models being discussed:

- Systems operator
- Market intermediaries / brokers
- Multi-stakeholder processes



The benefits of multi-stakeholder processes

Helps us to assess the value to society of competing investment opportunities

Can involve 'unusual suspect' stakeholders in the decision process who may be willing to invest themselves

Developing a shared vision and plan of action can help ensure different players deliver on their side of the bargain

Can help to reduce enforcement costs, by creating alternative incentives for 'compliance'



Thank you

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