



Institute for European
Environmental Policy

Measuring and Pricing Public Goods

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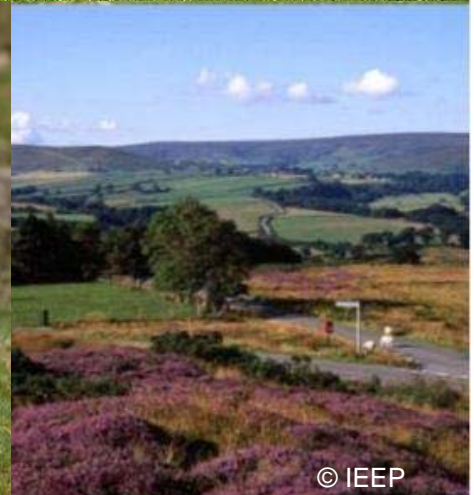
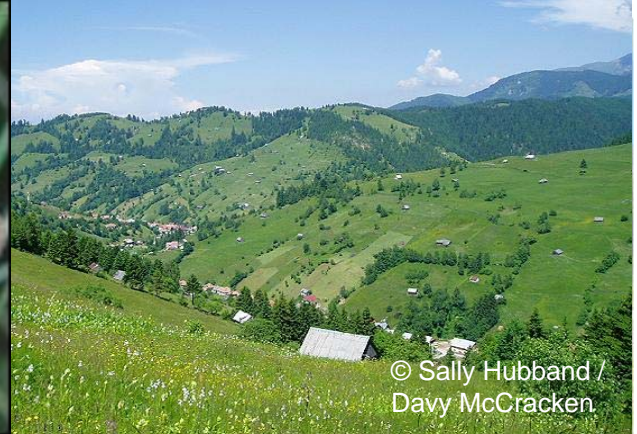
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- What is it that requires measuring and pricing and why?
- Issues and challenges relating to measuring public goods.
- Issues and challenges relating to pricing public goods.
- Research and policy needs for the future.

Public Goods



Why measure and price public goods?



- The characteristics of public goods means that it is not possible to determine a market price for the goods as markets do not function in the coordination of supply and demand;
- In the absence of a market price, society needs to find a way of setting a price to make the provision of public goods a viable economic activity;
- To do this we need to know:
 - How much do we want to deliver; and
 - What the costs of delivery are.

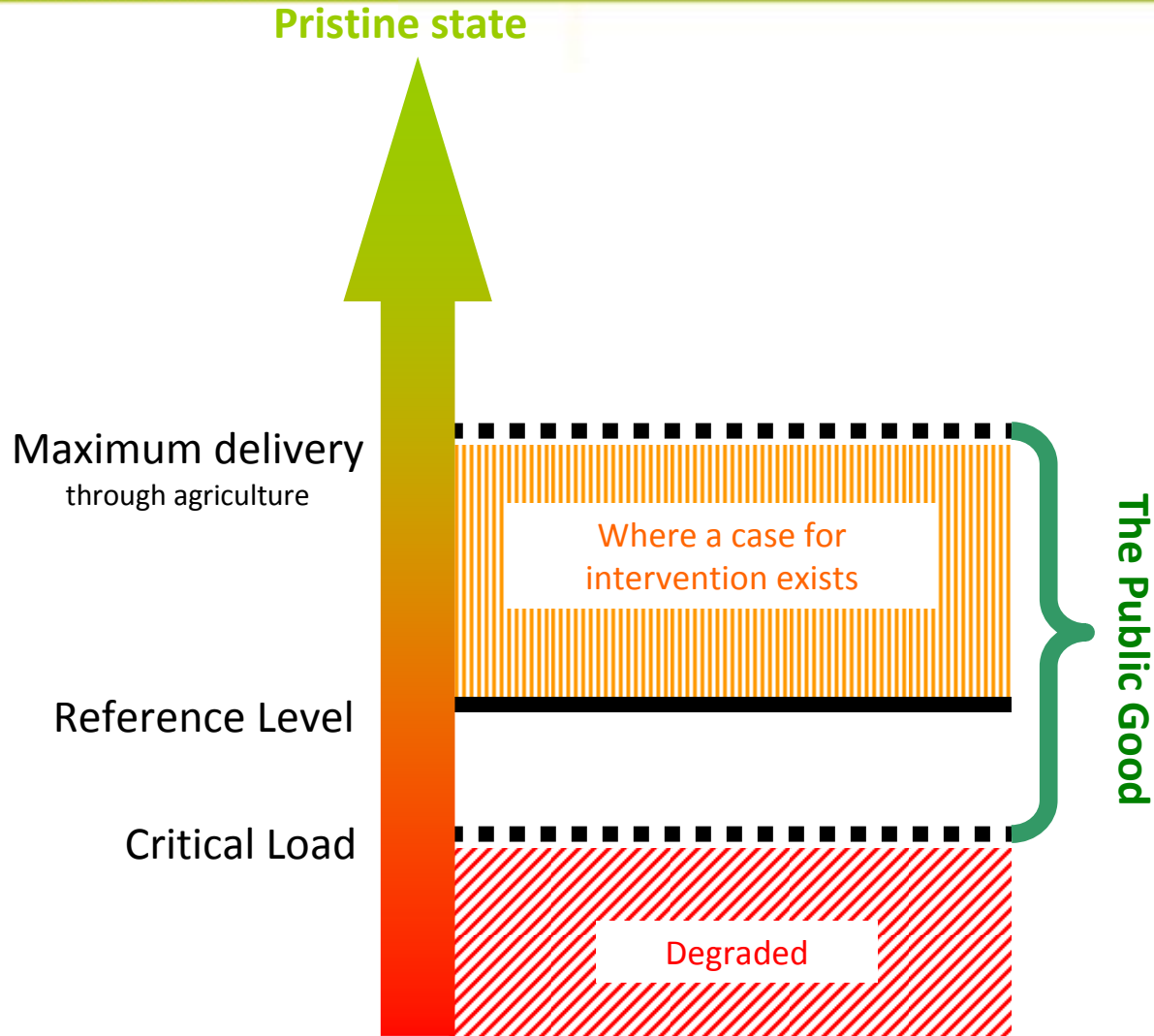
Measuring Public Goods



- What is the current stock and condition of these public goods?
 - Where are they located geographically?
 - In which systems are they being provided?
 - What are the threats facing them?
 - The use of indicators
 - Issues of data availability

- How much of the public good needs to be provided and where? How much does society want?
 - Often expressed in terms of global, EU, national, regional, local targets although targets are not available for all public goods.

What needs measuring and pricing?



Irreversibly damaged state

Pricing Public Goods

Purpose of pricing public goods



- Absence of a market price due to characteristics
⇒ need for society to determine what is paid;
- Scarce nature of public resources ⇒ competing priorities for the use of public money;
- Need to seek the most efficient and cost-effective means of achieving the desired outcome;
- This is not necessarily the same as the value of the desired outcome to society.



What do we need to pay for?



- Actions that require a reallocation of privately owned factors of production beyond mandatory requirements require some form of financial incentive.

The price society pays will depend on:

- What is the aim of the intervention?
 - Maintenance; restoration; re-creation?
- What are the targets for provision – i.e. how much do we want?
- How much will it cost to deliver – income foregone plus actual costs?
- What is it that needs to be priced?
 - The management practices needed to achieve the desired outcome?
 - The continuation of a particular farming systems that are strongly associated with the delivery of these public goods?
 - The outcome itself?

Costs to farmers and to society



Costs to the farmer

- Opportunity costs involved in not pursuing alternative productive land management;
- Management costs – specific management required for the delivery of public goods;
- Establishment costs of a particular feature or habitat;
- The administrative / transaction costs in understanding requirements, deciding on appropriate responses, and demonstrating compliance.

Costs to society

- Public administration costs
 - Total cost of the incentive
 - Advice
 - Communication materials
 - Administration
 - Enforcement
 - Monitoring and evaluation

NB:

- Opportunity costs likely to rise in future
- Implications of reducing Pillar 1 payments?
- How constraining are WTO green box requirements?

Costs of hedgerow management



- Capital costs of hedgerow planting (1999/2000)
 - €4.5 - €5.8 / m – France
 - €4.8 / m – Italy
 - €6.8- €7.1 / m – UK
 - €10.8 / m – Germany
- Annual management costs per km in UK and France:
 - €15 - €75 – flailing
 - €33 - €242 – coppicing
 - €150 - €450 – traditional pollarding
 - €300 - €750 – hedgelaying

Reif and Schmutz, 2001

Costs of maintaining terraces



- The costs of meeting GAEC standard for terrace maintenance in Italy are estimated as:
 - Capital costs of terrace maintenance – 400 m³ of terrace wall per ha at a cost of €200 per m³, with 1.5% maintained/restored each year – average cost of 1200 euro per hectare.
 - Annual maintenance costs – 30 hours work per hectare at labour cost of €18 per hour – average cost of €540/ha.
 - Area affected = 30% of terraced surfaces = 32,000 ha.
 - Annual cost of terrace maintenance in Italy = €55,680,000. Source: de Roest, 2007



- Many challenges remain:
 - Determining the extent, distribution and condition of the public benefits identified as requiring support;
 - Clarifying the type of management needed to produce the public benefits required;
 - Identifying public demand in order to establish what should be supported and where; and
 - Quantifying the value of the goods and services and the cost of their delivery.

Where next?



- There is a clear rationale for using public money for the provision of public goods which is gaining greater legitimacy;
- We have the building blocks in place to achieve this in current policies and we know where the data gaps are;
- Now need to invest resources in filling the data and research gaps to ensure that public goods and the services that flow from them can become the cornerstone of public support to the agricultural sector to the benefit of society.





Thank you

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