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Pricing the non-market benefits of land management transition: can we do better?

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The Challenge

- Government moving from **a 'catch-all' package** of decoupled income support plus aids for market failure and public benefits (BPS, greening, AECM, ANCs), to
- Approaches more **explicitly seeking environmental (E) and social (W) benefits: ELM and SFS**

How should the buyer, on behalf of society, set / agree prices for the outcomes sought?

- Considerations:
  - Income forgone (WTO rules)
  - Negotiations with 'sellers'
  - 'value' of benefits delivered
  - Prioritisation of desired outcomes (time limited?; share/type of land managers required to deliver?)

Business-as-usual pricing method

- WTO green box '**income forgone**' works from the premise that:
  - to generate environmental benefits, farms have to reduce or restrain their economic/financial returns
  - it is legitimate (+ minimally trade-distorting) to use public funds to cover ONLY the financial loss incurred by taking this action on behalf of society, compensating the farm;
  - where management required also involves specific additional costs, by comparison with normal farming practice (OECD 'reference level'), it is also legitimate to pay these costs *(includes Transaction Costs, in some versions)*

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When income forgone doesn't seem just, or sufficient

- Where pricing is counter-intuitive with notions of relative value *(paying more per hectare for less 'special' habitat, paying less when farmgate prices decrease, coping with agricultural market volatility / shocks)*
- Where agriculture makes no net surplus *(income is at least offset by costs, on a frequent basis – has been the case for a significant proportion of UK farm enterprises)*
- There is no simple trade-off between an economic versus environmental optimum, but a range of options with more or less 'jointness': how to reflect this? *Since decoupling, many semi-natural habitats are under-managed, with insufficient / poor practices*
- Pricing focus is on management – to compensate, you consider how management has to change. Does a 'trade off' perspective incentivise farm disengagement / send a negative message (*i.e. highest payments for doing near-nothing: why do more*)?

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Some Alternatives	Stated preference	Revealed preference	Examples / reviews
Ecosystem services	WTP surveys, deliberative methods (citizen juries)	Hedonic pricing, travel costs, - 'indirect' markets	Bateman et al, Science, 2013 Huber and Finger, JAE, 2019 Hanley and Barbier, 2009*
Natural and cultural capital / assets		NK accounting methods – partial markets	Naturescot, 2023 Faccioli et al, 2019 (SWEEP)
Experimental economics	DCE studies – can consider via producer perspective	n/a	Schulze et al, JAE, 2024
Auctions	'Black box' – actors make assumptions, anticipate costs, often borrow from proxy / previous pricings		Nguyen et al., LUP, 2022; Schilizi & Latacz-Lohmann,

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- More theoretical studies than proven empirical examples
- Non-replicable/robust values; reductionist, atomistic assumptions;
- Unbalanced results - more ready metrics for some benefits (C, air quality) than others (biodiv + landscape)
- Resource-hungry methods / risk of perverse outcomes
- Do not reflect complex multi-functional production (bundled benefits, economies of scope, site-specifics)
- **Lack credibility with the public, and in policy circles** (except ref. forestry, in the past)

Hanley & Roberts, People & nature 2019 also cite 'production function' – a jointness approach

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Social Return on Investment as a policy evaluation tool

- An ‘outcomes’ based deliberative approach to capture effects of policy intervention
- Identifies outcomes over time with stakeholder groups
- Quantifies magnitude and significance of outcomes with indicators
- Monetises outcomes using imputed market prices
- Provides a means for exploring how and where outcomes occur, the scale of benefit streams, and distributional effects

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SROI – Basic Model

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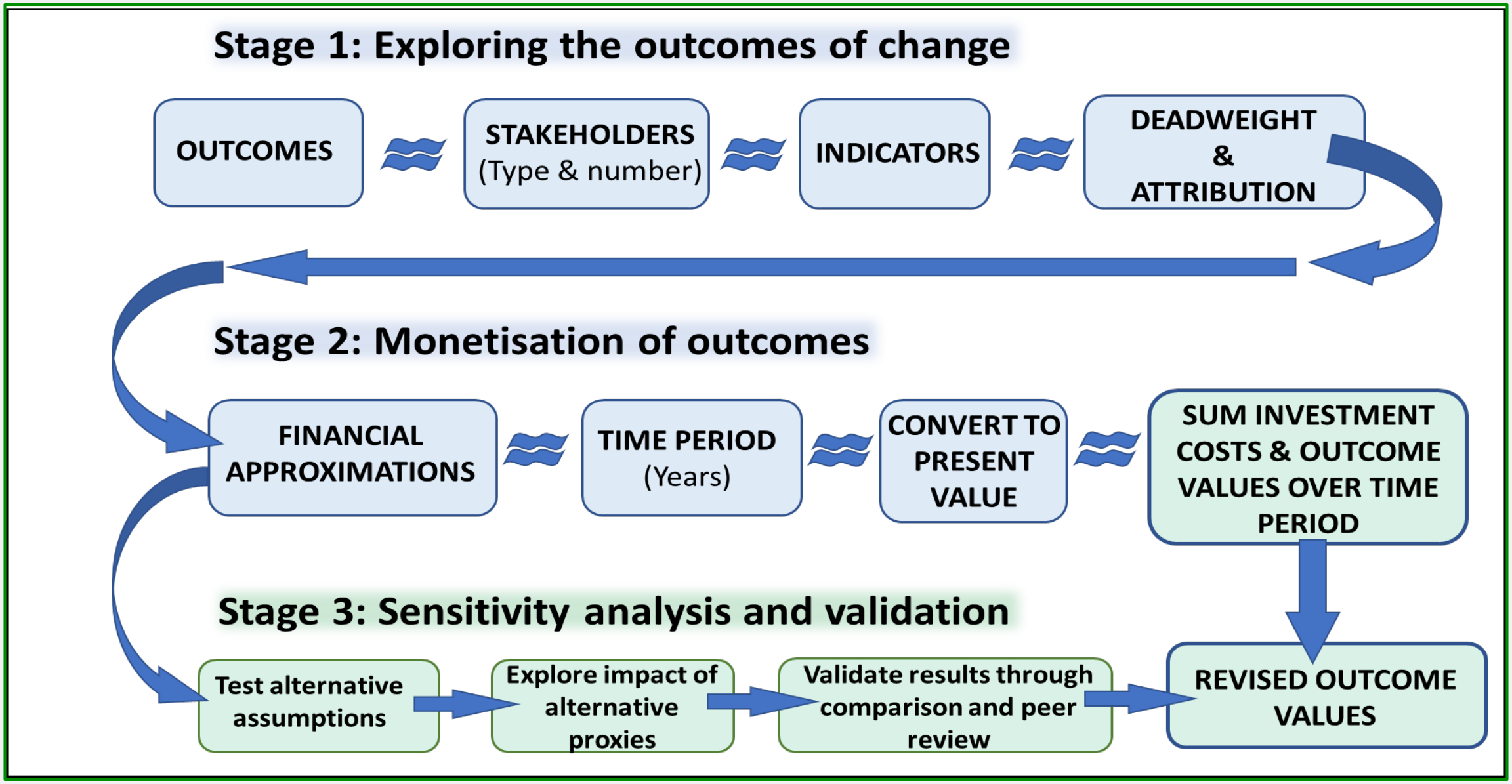

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SROI examples – local to national

Gloucestershire Case Study: Community benefits of ILD 2022-26

Investment (2022-26)	Benefits (2022-26)	Risk Benefit-Investment Ratio*
£413,923	£7,543,500	£18.22:1

Integrated Local Delivery as a framework for facilitating locally led socio-economic and environmental resilience

Benefits generated from (ILD) :

Farmer awareness, collaboration, innovation over 3 yrs

Flooding costs avoided (7 communities) over 5 yrs

Social benefits (7 communities) over 3 yrs

**Based on flooding costs avoided, frequency and severity*

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SROI examples – local to national

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Traditional farm building (TFB) restoration in 5 National Parks

Time period	Investment (million)	Benefits (million)	ROI Ratio
5 yrs	£3.33	£13.16	£3.94:1
10 yrs	£3.33	£17.53	£5.25:1

Average / project, 15 Case Studies over 5 yrs:

Investment = £0.222 million

Benefits = £0.877 million

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SROI examples – local to national

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Cultural Ecosystem Service benefits from SHINE* assets - Lake District NP

Area	Total Present value (million) (over 10 yrs)	Density of heritage assets / km²
Eskdale	£100.44	2.8
Haweswater	£223.77	5.2
Langdale	£361.57	7.7
Upper Derwent area	£363.81	2.75

* SHINE = Selected Heritage Inventory for Natural England

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SROI examples – local to national

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Quantifying social value delivered through activities of CLA* members

- Theory of Change
- National (England and Wales) member survey on social value – *n*=327
- Case Studies (*n*=4 land owners*4 =16 SROI models) – broadly chosen to represent survey respondents

Next step:
Aggregation of 16 Benefit-to-Investment Ratios (BIR) to national level, using weighted survey responses, investment and beneficiary numbers corresponding to 8 social value 'sub-domains'

*Country Land and Business Association

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CLA Social Value – High level Theory of Change

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Domains		Impact Pathways				
High level Social Value Domain	**Sub-Domain**	**Health + wellbeing**	**Balanced + sustainable communities**	**Education, Interpretation + Skills**	**Social enterprise + inclusion**	**Culture + Identity**
Environmental management (EM), interpretation + access	**Access to green space + permissive access**	**Primary**	**Primary**	Secondary	Secondary	Secondary
	Education + interpretation	Secondary	Secondary	**Primary**	Secondary	Secondary
	EM (inc. climate change + nature recovery), forestry, heritage + landscape	Secondary	Secondary	**Primary**		**Primary**
Community Participation, health + identity	**Community Participation + provision**	Secondary	**Primary**	Secondary	Secondary	Secondary
	Community health + social prescribing	**Primary**	Secondary	Secondary	**Primary**	Secondary
Social economy, inclusion, housing + employment	**Housing + development**	Secondary	**Primary**		Secondary	Secondary
	Employment opportunities for socio-economically excluded	Secondary	Secondary	**Primary**	**Primary**	
	Community renewable energy + Broadband	Secondary	Secondary		**Primary**	

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CLA SROI: Indicative (draft) *'hot off the press' results:* 1 case study 4 models

Sub Domain	Member's Investment (5 years)	Present Value (5 years)	Benefit-to-Investment Ratio (BIR)	Proportion of total PV (%)
Education and Interpretation	£271,630	£741,139	2.73	27%
Environmental management	£119,520	£152,098	1.27	6%
Community participation and Provision	£278,267	£757,463	2.72	27%
Community health and social prescribing	£310,574	£1,109,073	3.57	40%

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Implications – pros and cons

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Positive Aspects

- Uses stakeholder-identified & assessed outcomes and benefit streams
- Enables valuing of multiple outcomes within an ecosystems services framework
- Monetary measures based on market-priced surrogates – ‘indicators of value’
- Fits development of ONS natural capital accounts using market prices to assess value
- Takes into account *changing condition* of capital stock
- Engages a community in exploration (and co-ownership?) of benefit generation & distribution – transparent and accessible

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Implications – pros and cons

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Challenging Aspects

- Resource-intensive / bespoke, deliberative approach, requires triangulation with stakeholders and secondary sources
- Data issues:
  - Limited data creates uncertainties in benefit measures
  - Aggregation/scaling-up challenges
- Focus is on benefits to people
- Needs sensitivity testing and validation / **agreement on 'proxies', underlying assumptions, estimation of risks and probabilities**

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Issues for further discussion

- Does SROI approach offer a more mature / realistic approach to benefits from land? –
- A ‘crafts’ approach to pricing, in contrast to a commodity approach?
- Potential learning for ELMS:
  - Generating a positive management ethic
  - Fostering co-ownership of outcomes
- Does the approach provide a potential means to set / agree agri-environment contracts?
  - Bespoke deals; combined packages….
- Does it create potential for improved scheme design and delivery? – developing partnerships?

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THANK YOU!

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