Is the valuation of health and wellbeing impacts valuable?

Ruth Waters
Natural England

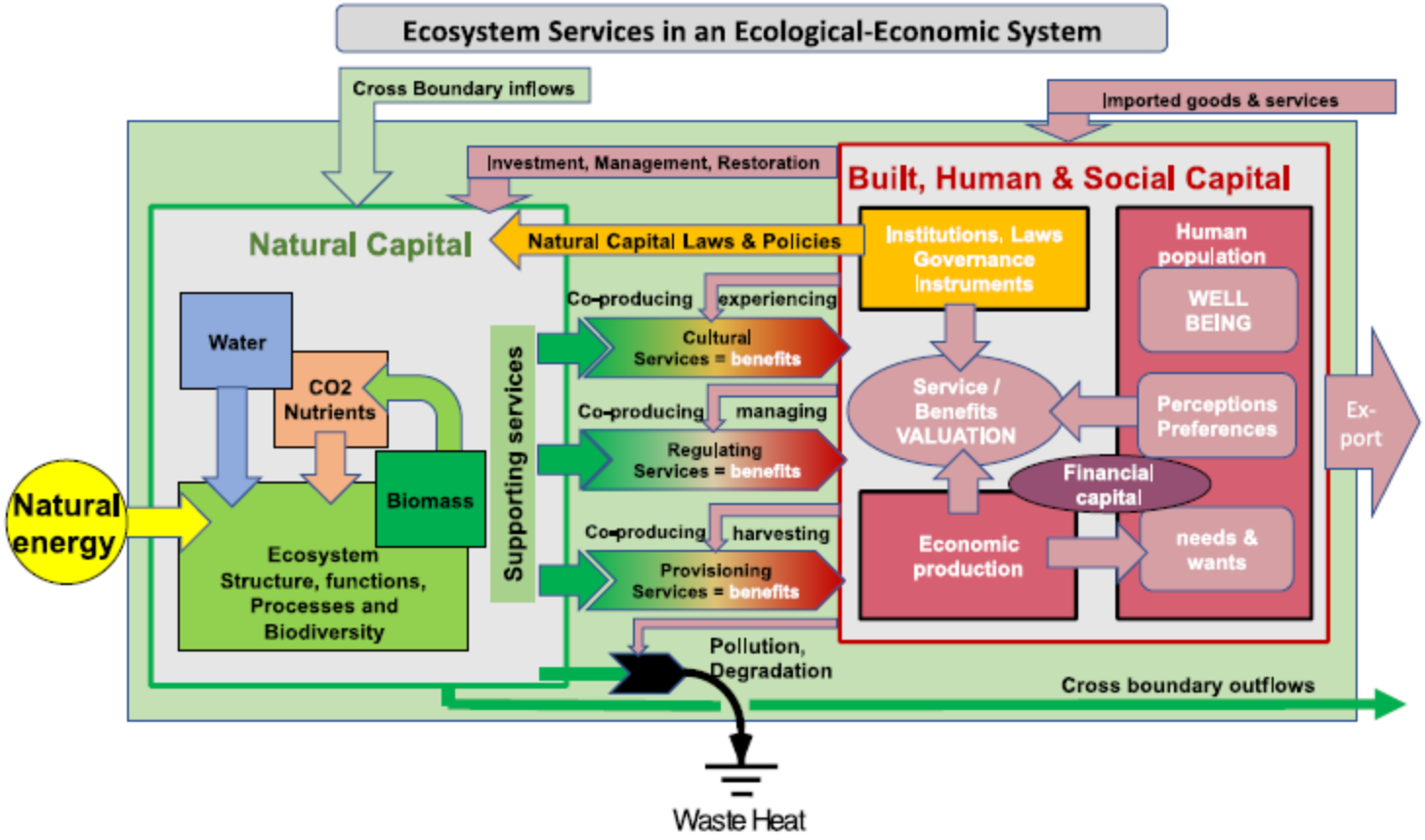
Determinants of Health

Dealing with complex socio-ecological systems

Determinants of Health (Barton & Grant, 2006)

Dealing with complex Ecological-Economic systems

R. Costanza et al./Ecosystem Services 28 (2017) 1–16



Don’t forget it’s a metaphor

- Norgaard reminds us that this started out as an eye catching metaphor
- Complexity of nature doesn’t fit neatly into a stock-flows model
- That we are in danger of not taking a wider view of environmental sustainability and need a more pluralistic approach

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Ecosystem services: From eye-opening metaphor to complexity blinder

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ABSTRACT

What started as a humble metaphor to help us think about our relation to nature has become integral to how

In an effort to communicate the delusion of econo
the essence of environmental sustainability, ecolog
helped advance the metaphor of nature as a fixed stoc
can sustain a limited flow of ecosystem services (Cos
1992; Jansson et al., 1994; Prugh et al., 1999). Conserv
joining with environmental economists, also saw this
way to help describe our relation to nature and bu
conservation (Daily, 1997; Daily et al., 2000). There wa
that, however revolting for those who intrinsically valu
of market metaphors was necessary to awaken a
embedded in a global economy and distant from na
The eye-opening metaphor, however, soon rose to be
framework for scientifically assessing ecosystem chan
Ecosystem Assessment, 2003, 2005). The Millennium
turn, led to calls for ecologists to direct their research to
stronger theory and empirical documentation of how th
delivers flows of services (Carpenter et al., 2006; A
2007).

The transition from metaphor to scientific framew
plemented by the search for innovative approac
environmental degradation in developing countries. Ec
became a paradigm for thinking about development a
and for designing environmental management progra
2004; Ranganthan et al., 2008; UNEP, 2008; Worl
Simultaneously, with the belief in market solutions hea
national and international politics, plans for capping g

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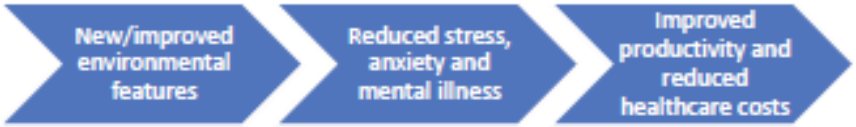
Theories of Change

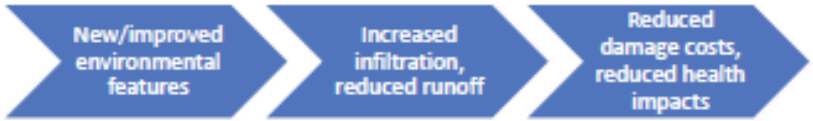
Mental health

Theory of change



Freshwater flood risk management

Theory of change



Air quality

Theory of change

Natural England Research Report NERR057

Microeconomic Evidence for the Benefits of Investment in the Environment 2 (MEBIE2)

www.naturalengland.org.uk

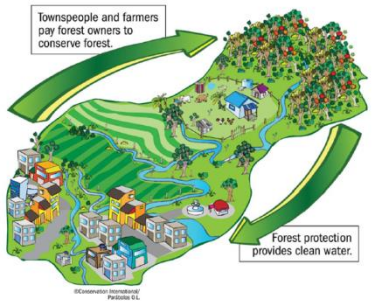
Using valuation to aid decision making

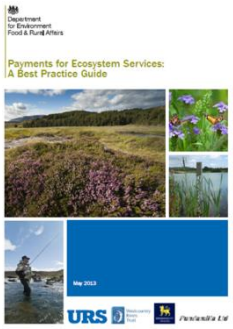
1. Recognising value

2. Demonstrating value

3. Capturing value

An expression of value





Some examples of ‘demonstrating’ monetary values concerning health …

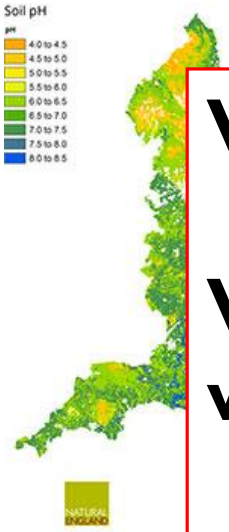
- £2.1 billion would be saved annually through averted health costs if everyone in England had equal ‘good perceived and/or actual access to green space’ (Natural England, 2009)
- Reducing the sedentary population by just 1 per cent could reduce UK morbidity and mortality rates valued at £1.44 billion (Pretty *et al*. 2011)
- Active visits to the natural environment where folks meet recommended activity levels are worth £2.18 billion in QALYs (Quality Adjusted Life Years) – (White *et al*. 2016)
- The health benefits of NFM and Greenspace creation commissioned by the Environment Agency found QALY based per trip value range is £0.82 (any person visit) - £4.10 (active person visit) and the average annual value across nine study sites using the preferred methods is £39.9k - £102.3k. (eftec 2017).

How do we best use these?

- The natural environment clearly has a value to us in terms of its contribution to health and well being
- But how do we best ‘value’ it given the inherent complexity in teasing out the pathways to impact and the attribution of different determinants of health?
- Not only that, but given that many of the benefits for mental health we derive through cultural services, or other health benefits are derived from flood alleviation for example, should we be thinking about valuing a bundle of benefits that are difficult to tease apart?
- Where do we best focus monetary valuation effort and why?

What do we want these values for and for who?

Mapping *e.g. Natural England natural capital maps*



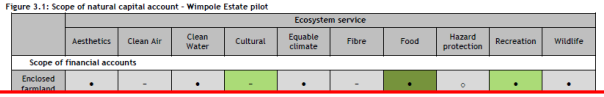


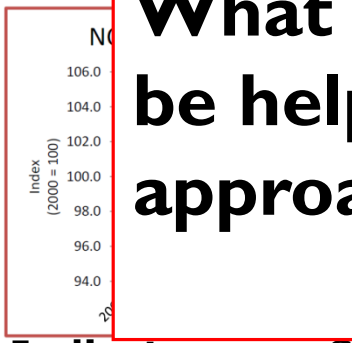
Figure 3.1: Scope of natural capital account - Wimpole Estate pilot

	Ecosystem service									
	Aesthetics	Clean Air	Clean Water	Cultural	Equable climate	Fibre	Food	Hazard protection	Recreation	Wildlife
Scope of financial accounts										
Enclosed farmland	•	-	•	-	•	-	•	○	•	•

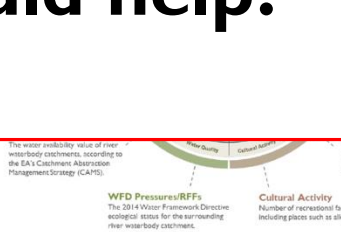
What decisions are we seeking to inform?

What level of certainty and complexity of valuation is required? Is it required at all?

What other evidence around values might be helpful? What other pluralistic approaches could help?



Indicators *e.g. Scotland's Natural capital asset index*



Local Action Project