



Natural Capital Entanglements

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https://commons.wikimedia.org/wiki/File:Tangled_%28860582154%29.jpg



The James
Hutton
Institute

The researchers



- ~300 scientists (of which ~50 social scientists)
- Interdisciplinary team science
- Less teaching – but more engagement
- Normative mission for informing and supporting sustainability
- Mix of research funders



‘Good’ researcher profile

- Publications
- Income generation
- Institute citizen
- Stakeholder engagement



Natural Capital (NC)

- What 'is' NC? (Ozdemiroglu, 2019)

“the world’s stocks of natural assets which include geology, soil, air, water and all living things.”... [from which] humans derive a wide range of services, often called ecosystem services, which make human life possible”

<https://naturalcapitalforum.com/about/>

- Why NC?
 - To tackle worsening Nature and Climate Crises
 - By ‘mainstreaming’ nature in decision-making, especially private sector actors (Daily et al 2011)



NC hopes and fears

- Expected to help society – especially business and governments - to appreciate value – and risks – arising from natural capital
 - Purposeful assetization (Birch & Muniesa, 2020) - associated with categorisation, quantification, monetary valuation
 - Highly contentious – negatively associated with ‘marketisation’ of nature (Spash, 2022)
- Will it transform society to safeguard nature, or vice versa?

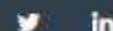


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6th March 2018

WHAT IS NATURAL CAPITAL?



GUEST BLOG

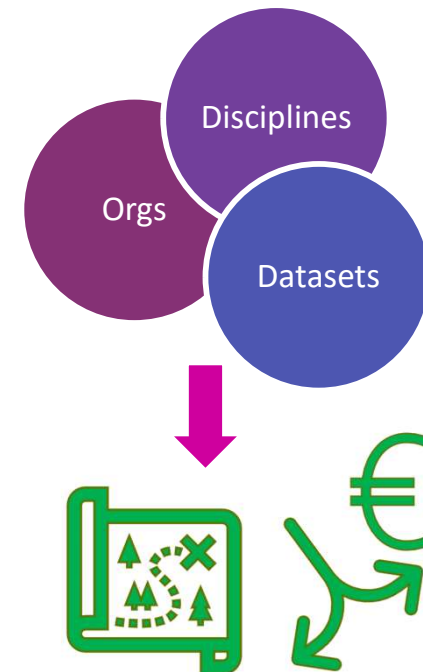
To measure (natural capital) is to know. If you cannot measure it, you cannot improve it.

TWITTER



NC – our research

- Scottish Government funded
- Collectively £1m+ pa, 2022-27.
- 6 projects, 2 organisations
- Over 20 staff, disciplines from anthropology to economics to data science to ecology
- Expect varied outputs – from place-specific values, to qualitative interpretive narratives, and large databases, interactive maps and models



NC – our research

Funder objectives for the research

- Improve valuation methods & data
- Connect & analyse existing datasets to understand NC
- Identify how NC can be used in plans & decisions

Expected uses (Nutley et al. 2007).

- Instrumental ✓ ✓ Help inform & improve decisions
- Conceptual ✓ Shaping ideas & debate around NC
- Strategic use ? (True for Ecosystem Services.. Waylen & Young, 2014)



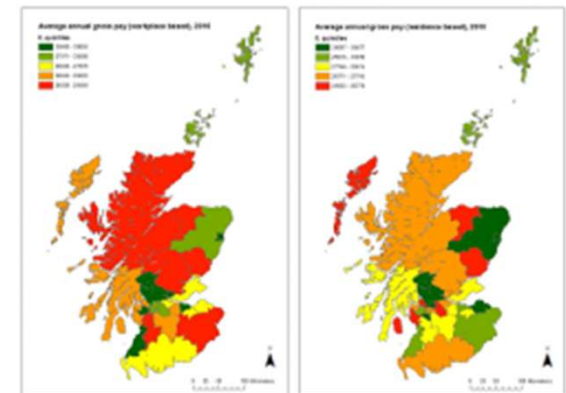
What is NC knowledge ‘Good for’?

- Cited in the Scottish Government’s approach to post-COVID economic recovery;
 - to help achieve “*sustainable, inclusive economy... a stronger, more resilient economy*” and wider policy commitments on climate change and biodiversity.
www.gov.scot/publications/economic-recovery-implementation-plan-scottish-government-response-to-the-advisory-group-on-economic-recovery/documents/
- Expected to help improve decisions
 - Government– motivated by own accounts – e.g. NC Asset Index – feeds into National Performance Framework
 - Private actors – own decisions e.g. to protect supply chain, investments of Financial services in nature



Plurality of ‘Good’ NC knowledges

- For whom / whose decisions? Multiple potential intended targets (e.g. society, investors, agri-businesses)
- Varied scales & levels – national maps, landscape plans, local participatory values
- Varied types of data and knowledge desired/expected: national maps, quantified models and values, local-specific relationships, generalisable recommendations





NC knowledges

- Multiple and high expectations
- Some potential inconsistencies
 - e.g. national datasets derived from pre-existing biophysical datasets may not reflect understandings and priorities identified by local-level deliberations
- Some insights asked for, but may get lost?
 - Strong focus on assessments, accounts and counting (at least, by Government). Narrative descriptions of relationships with place – lost within initiatives such as the Natural Capital Asset Index (NCAI)?

NC Researcher responses

Invest in relationships

- Build cross-project relationships, cross-team connections, cross-discipline appreciation
- Spend time linking to policy and other non-academic initiatives, for our understanding & eventual targeting

Acknowledge pluralism, tensions or inconsistencies

- Acknowledge plurality, other (complicating) perspectives when communicating insights
- Join together for some events and outputs



NC Researcher responses

Other potential tensions or inconsistencies

- e.g. Greater private sector role may be in tension with government goals and research focused on improving community inclusion?
- Colleagues emphatically opposed to NC

Lean in to entanglements

- Significant (hidden) efforts – some redolent of ‘emotional labour’ (Bergman Blix & Wettergren, 2014)



'Good' researchers – whose view

Institute criteria

- Engagement & impact
- Institute citizenship
- Papers
- Funding

NC funders & stakeholders



Academic peers
& employability

Institute criteria reflects & rewards some of the work
But more problematic for early career researchers?



NC Entanglements

- Good NC knowledges
- Good NC researchers



Neither perfectly
aligned nor
completely
conflicting



NC Entanglements

- Echoes of challenges reported for ‘applied research’ (Hall et al. 2018) and transdisciplinarity (Lawrence et al. 2022)
 - Complicated by multiple expectations and potential inconsistencies linked to NC
 - Not just one ‘thing’ – context & rationality shape implications (Leibenath, 2017)
- NC Research may help assetize nature for policy & business, though not necessarily easily, including for researchers



Thank you!

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www.hutton.ac.uk/research/projects/galvanising-change-natural-capital



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