

Galvanising Change via Natural Capital

Newsletter

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The James
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Institute



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Welcome

Kerry Waylen

Hello, and welcome to our first newsletter, marking 6 months of work in the project ‘Galvanising Change via Natural Capital’. This newsletter features a mix of information and ideas from across the project, to give you a sense of how we explore the challenges and consequences of working with Natural Capital.

In case you are not already familiar with our project, you can download a [1-page summary](#), visit our webpage at <https://www.hutton.ac.uk/research/projects/galvanising-change-natural-capital> or just contact me to find out more: Kerry.Waylen@hutton.ac.uk

Our project runs for 5 years and we plan to send out a newsletter every 6 months: please do feel free to forward this newsletter to any colleagues or contacts that you think may be interested. They can subscribe directly by following [this link](#).

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Meet a team member

Every newsletter we introduce a different member of our research team. We collectively encompass a diverse mix of expertises and disciplinary approaches, so it was hard to choose who goes first, but we decided to pick Simone as he lives and breathes Natural Capital!

Simone Martino is Senior Researcher in Natural Capital Valuation at the James Hutton Institute. He is an environmental economist who deals with social and economic aspects of natural resources and ecosystems management. Simone's research addresses both ecological and natural aspects of resource valuation by coupling ecological and economic models. He aspires to help to discover trade-offs between uses and emphasise any win-win solutions, to deliberate and reduce conflicts. He is interested in how economic valuations can help manage resources through the implementation of market mechanisms to protect natural capital and facilitate generation of public goods provided by ecosystems such as saltmarshes and peatlands.

Simone is currently working on a portfolio of projects funded by the EU H2020 and the Scottish Government RESAS Strategic Research Programme (SRP) 2022-27 investigating integration of capitals in different contexts, with particular emphasis on profiling natural capital at landscape scale in the agricultural and woodland context. Within this project Simone's role includes the review of international cases, and in making the link to datasets, tools and initiatives being developed or studied in other projects.

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Natural Capital in Scotland – what’s happening?

Kerry Waylen

The UK and especially Scotland are leaders in promoting and developing the concept of Natural Capital (NC). In Scotland, NC is now cited in many policy-related documents, such as the Forestry Strategy, River Basin Management Plans, and Scotland’s Land Use Strategy. A [Natural Capital Asset Index](#) also forms one of the indicators in Scotland’s [National Performance Framework](#).

A key reason why NC is supported is the hope that it can help with ‘mainstreaming’. In other words, NC is expected to motivate and enable all sectors of society to recognise, value and protect nature in their decision-making. This logic implies that NC should become something widely cited and used, not just a term cited by environmental policy-makers. However, what happens in practice does not always match initial ideas and aspirations, so it is important to check how NC is actually seen by non-environmentalists. Accordingly, one key part of our research will explore if and how NC concepts, data or framings are actually accessible to different policy processes, and the potential changes that could result from working with it.

There are already some signs that NC is something accessible outside of environmental policy-making. For example, NatureScot has commissioned a programme of work called ‘[Farming with Nature](#)’ exploring how farmers can assess and manage their own land-holding in terms of natural capital; this is expected to inform future post-CAP agricultural policy. NatureScot is also developing a tool to enable collective planning at a larger landscape scale. Part of our project’s later work will explore the progress and consequences of some such ‘nature-based’ initiatives.

Many of these initiatives are led by national policy and agencies, even though they may involve others – for example, Scotland’s Regional Land Use Partnerships have also been asked to take a [Natural Capital Approach](#). A big question is how far other sectors are leading their own work with natural capital, and what results from this. We do see some large companies acting and planning differently; particularly, the development of strategic planning approaches that incorporates natural and other capitals by water services providers in Scotland and England, or large agri-business directly engaging with its suppliers (e.g. [via LENS](#)) to ensure long-term sustainability of their organisation’s interests. However, a [study of early business pilots](#) suggests that working with NC is not always easy and does not necessarily produce immediate change in business operations.

All these examples of working with NC demonstrate that NC has many ‘versions’ – many points and ways in which it can be represented. NC may or may not be part of a discussion about different types of capital and systems thinking; it may or may not be described in scientific datasets; it may or may not be represented in maps; it may or may not entail monetary valuation. It is important to understand what ‘versions’ of NC are used in different settings. It is also important to explore the consequences of doing so, since there are fears these may not always be entirely good for people or nature. For example, recognition of the ‘value’ of NC, when translated into new markets, can risk new problems – as reflected by the Scottish Government’s recent publication of “[Interim Principles for Responsible Investment in Natural Capital](#)”.

We hope this project will contribute insights on all these issues, though of course full understanding will require many studies and analytic perspectives beyond what one project can resource. It is an urgent challenge to identify what situations and approaches to working with NC are priorities for helping to galvanise decision-making to better support sustainability.



First insights emerging from scoping natural capital initiatives in public policies

Simone Martino

We know that [Scotland and the UK are pioneering use of the Natural Capital\(NC\)](#) concept, but there is likely to be lots we can learn from other ideas and initiatives in other countries. Therefore, one major task for our project is to find out what is happening around the world, in terms of using NC in policy-making.

Our initial scoping work already suggests some interesting insights about where and how NC is being considered. Specific initiatives for working with NC, have been spreading in the last 10 years at international scale, some encouraged by international programmes like WAVES promoted by the World Bank - <https://www.wavespartnership.org/>. These initiatives often focus on testing accounts for nature following, among others, guidelines prepared by the United Nation (System of Environmental – Economic Accounting - <https://seea.un.org/ecosystem-accounting>). Our scoping shows that all continents (except Antarctica!) host accounting or assessment initiatives, with at least five countries per continent incorporating natural capital approaches in public policies.

An explorative search of reports produced by international organizations (including the World Bank, OECD, IPBES, PBL Netherland Environmental Assessment Agency, WWF, Europe-Environment, Green Growth Knowledge Platform, Capitals Coalitions, International Development Bank, The Nature Conservancy, to mention a few) identifies initiatives for NC assessments across national and regional public policies. There is a preponderance in policy domains like land use management, agriculture and forestry, urban planning, water and biodiversity conservation. In many cases, these new accounting practices supported new policies intended to reduce conflict over the use of resources (like water management, in Botswana and Rwanda). In a few circumstances (e.g. Belize) NC or ecosystem services assessments have supported implementation of coastal zone management approaches, with the goal of producing an integrated spatial plans. We will look more closely at these and other examples, once we have produced a long-list of cases from our searches. We hope a direct investigation of the most cases that we can access, accompanied by academic analyses, will give some interesting and useful insights about how natural capital is – and is not - being considered as part of policy processes across the world.

There is also a sibling task looking at the use of Natural Capital in finance: look out for more information on that task as well an update on this, in later versions of this newsletter.

A range of groups could be affected by ecosystem markets in Scotland

Mark Reed

Markets for woodland and peatland carbon have been scaling up rapidly in recent months, and new markets are emerging for agricultural soils and other ecosystems. This has raised concerns about their impacts on the viability of local communities, who rarely see any direct benefit. However until now, little has been known about the range of groups that might be affected, either positively or negatively, by the emergence of these new markets.

A stakeholder analysis carried out for this project sheds light on the wide range of community and other groups that might stand to lose out, unless markets are designed with their needs in mind. It also shows the wide range of groups that stand to gain from ecosystem markets, and those with power to regulate and shape how these markets develop in other ways.

The research identified over 200 organisations and groups across 11 categories, the most numerous of which were:

- Nature-based solutions project developers and offset/inset providers;
- Environmental/sustainability NGOs, thinktanks and representative organisations; and
- Landowner/manager NGOs, thinktanks and representative organisations.

These new markets would create winners and losers amongst these groups. While landowners stand to gain from rising land values and opportunities to engage in new markets, tenants and other rights owners are less likely to benefit, unless they can negotiate benefit sharing agreements with landowners who enter into contracts to deliver ecosystem services. The increasing rental values (due to rising land values) are also a concern for tenants.

The research also identified a number of community organisations who are concerned about potential negative unintended consequences of ecosystem markets and keen to ensure communities receive direct benefits. Some recreationalists are likely to share these concerns as landscapes change in response to ecosystem markets.

Alongside this, a range of other groups are likely to benefit from the emergence of new ecosystem markets, including:

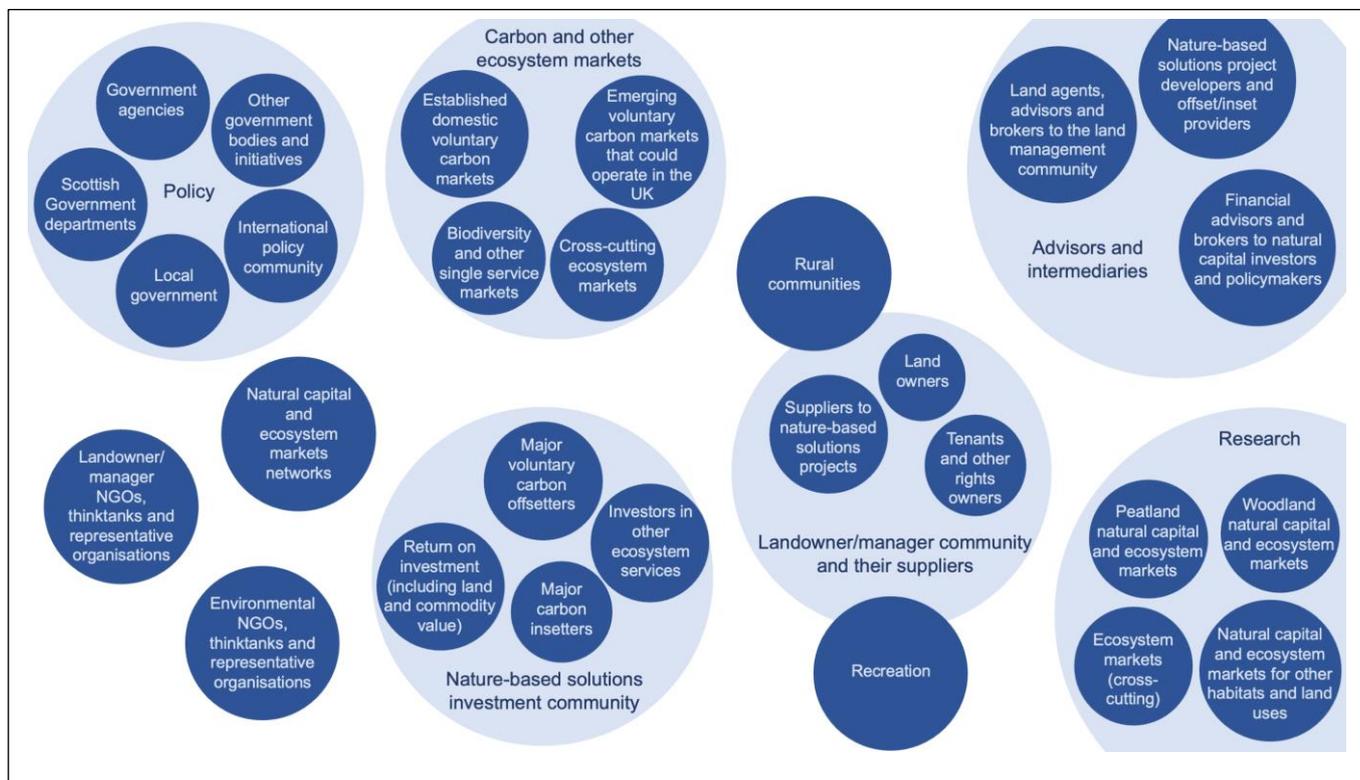
- Market providers and assurance mechanisms, such as the Peatland Code and companies like Highlands Rewilding Limited;
- The nature-based solutions investment community, including voluntary carbon

- Advisors and intermediaries, including Land agents, advisors and brokers to the land management community, nature-based solutions project developers and offset/inset providers, and financial advisors and brokers to natural capital investors and policymakers.

New ecosystem markets have potential to stimulate the Scottish economy and reorientate it in support of sustainability: it is hoped they can help fill the estimated £15-27 billion finance gap between available public funding and the funds needed to tackle climate change and biodiversity loss. However, if care is not taken, they have the potential to lead to negative unintended consequences for many important groups in society.

It is important that in our rush to harness these markets, we don't leave local communities, tenants and other important groups behind. We hope our stakeholder analysis and subsequent work will provide crucial information for Scottish Government as it seeks to develop policy and governance frameworks for the development of "high-integrity markets" that deliver community and wider public benefits.

[Read the full report here.](#)



'Lenses' for understanding Natural Capital – Transformations

Kerry Waylen and Esther Carmen

One of the first steps in any research process is to check how existing conversations and concepts can help understand the subject and direct analysis. To understand if and how natural capital (NC) influences decision-making for sustainability, there are many potential conceptual framings or 'lenses' that could help us, many of which have no specific or explicit focus on NC.

In this newsletter, we highlight 'transformations towards sustainability' as a conversation relevant to NC. The hyperlinked references below provide links to some open access papers on this topic if you are interested to read more.

The language of "transformations" – and related terms like transitions – has become increasingly common in research and policy over recent years (e.g. [Fedele et al 2019](#)). Achieving many sustainability challenges is seen as entailing quite radical change from business as usual – and the scale and scope of change required across socio-ecological systems is referred to as transformative (e.g. [Hajer et al, 2015](#)). The growing work on transformation parallels the growing popularity of natural capital, whose proponents hope it will help decision-makers better recognise and respond to the values of nature. In other words, NC can be seen as a device for transformation, though hopes that it will act in this way need to be examined.

Achieving change is, of course, not rendered simple or straightforward simply by using a transformations label, but it can help us think about the many types of change that we need to achieve, and also the underlying issues and reasons why change is challenging. Two general insights are possible. Firstly, there are rarely any 'silver bullet' solutions to complex sustainability challenges, and thus no single tool or intervention will resolve all problems and instantly achieve transformation (e.g. [Dorst et al 2022](#)). Our expectations of natural capital thus need to be moderated and appraised in terms of other changes and context. Secondly, the transformation literature highlights how challenges are rarely 'just' technical challenges that can be quickly resolved through more information or a new technology – instead we need to attend to politics, institutions and decision-making (governance) ([Patterson et al. 2017](#)). Understanding decision-making processes – and how to intervene in them - thus becomes key. We can all relate to our personal decisions being shaped by a myriad of factors; and sometimes being taken out of hands; the same is true for decision-making that purposively – or otherwise - affects the environment. Thus, to understand the role of natural capital - whether introduced as framing or more specific tools – we need to understand all the factors influencing and constraining evolving decision-making processes by individuals and institutions.

The complexity and intractability of sustainability challenges may feel daunting but recent scholarship on transformations has constructively proposed how transformative change may be achieved. [Chan et al \(2020\)](#) suggested that for different types of problems, there are eight ‘leverage points’ – priority points for intervention – and five types of ‘levers’ – interventions – that are key to achieving societal transformation. Related to that, a very recent paper by [Pascual et al \(2022\)](#), has suggested that transformative governance requires the following emphases (i) focusing on multifunctional interventions; (ii) integrating and innovating across scales; (iii) creating coalitions of support; (iv) ensuring equitable approaches and (v) building social tipping points. One question we are currently considering is if and how these types of principles could be used to appraise NC’s role in decision-making processes.



Events and resources

Here are a couple of things we are keeping an eye on, that might interest some of you too!

- October and November 2022 see the “Natural Capital Finance & Investment Conference” by the UK’s Ecosystems Knowledge Network. It explores and encourages financial sector interest and investment in more sustainable practices and nature-based solutions. <https://ecosystemsknowledge.idloom.events/natural-capital-finance-investment-conference>
- We have recently been reading the Island Press book ‘*Green growth that works*’ edited by Mandle et al (2019). This arises from the Natural Capital Project and presents a range of examples of transactions and interactions intended to make managing natural capital economically viable. We are not convinced that the implications for both these cases and other situations are fully explored – let alone whether green growth is feasible as a result - but we liked its consistent way of presenting a diversity of cases from across the world. <https://islandpress.org/books/green-growth-works>



For more information contact Kerry.waylen@hutton.ac.uk or visit the project website <https://www.hutton.ac.uk/research/projects/galvanising-change-natural-capital>.

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