

Simon Musial

From: Hannah Hamilton <[redacted]@naturalcapitalireland.com>
Sent: 23 January 2019 14:32
To: RSES
Cc: Jane Stout; Carroll Andrea
Subject: Submission on draft EMRA RSES
Attachments: IFNC Submission on Draft RSES for EMRA.docx

To whom it may concern,

Please find attached a submission on the draft EMRA RSES for your consideration.

Kind regards,

Hannah Hamilton

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Hannah Hamilton
Executive Coordinator

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23rd January 2019

Consultation on Draft Regional Spatial and Economic Strategy

Thank you for the opportunity to make a submission on the draft Regional Spatial and Economic Strategy. Please find below some brief observations from the Irish Forum on Natural Capital. Due to our limited resources, we are unfortunately not in a position to develop a more comprehensive response but hope nonetheless that our submission may inform your thinking on this very important initiative, and would welcome the opportunity to meet with you to discuss the relevance of natural capital approaches to supporting the achievement of the ambitions outlined in the draft documents.

Our submission is structured as follows:

1. About Natural Capital
2. About the Irish Forum on Natural Capital
3. Observations on the draft RSES
4. Recommendations for the draft RSES
Incl. illustrative example of how Natural Capital Accounting works in practice
5. Supporting information on Natural Capital Accounting

Yours faithfully,

Hannah Hamilton
Executive Coordinator, Irish Forum on Natural Capital

1. About Natural Capital

- **Natural Capital** is the stock of living and non-living resources that combine to yield a flow of ecosystem services that provide benefits to people.
- **The Natural Capital Approach** is inherently asset based. It involves measuring, valuing (in qualitative, biophysical and/or monetary terms) natural capital assets, and using those values in assessments and/or accounts to reveal the flows of benefit that they provide to society and the economy and support more sustainable decision-making.
- **Natural Capital Assessment** describes a variety of methodologies that use natural capital and ecosystem service valuations in order to inform decision-making.
- **Natural Capital Accounting** is a standardised and internationally comparable system for organising information on natural capital assets and ecosystem services in order to help decision-makers understand how the environment interacts with the economy. It can be applied at national, regional, organisational or spatial scales.

2. About the Irish Forum on Natural Capital:

The Irish Forum on Natural Capital (IFNC) brings together a diverse range of organisations and individuals from public, private, academic and NGO sectors who are interested in the development and application of the [natural capital agenda](#) in Ireland in order to support the harmonisation of sustainable environmental management with economic strategy. **Our vision** is for an Ireland in which natural capital and ecosystem goods and services are valued, protected and restored. **Our mission** is, through the collaboration and leadership of our diverse members, to help to value, protect and restore Ireland's natural capital and ecosystem services. We will do this by supporting the adoption of natural capital concepts in public policy and corporate strategy, promoting informed public and private sector decision-making and assisting in the establishment of a national natural capital accounting standard.

3. Observations on the draft RSES:

3.1: The IFNC strongly welcomes the references to natural capital in the draft RSES. We note its inclusion under Climate Action, where the role of natural capital and ecosystem services in achieving climate resilience and the transition to a low-carbon economy is acknowledged.

- We agree entirely with this statement.
- We would recommend expanding it to recognise that the natural capital approach (i.e. measuring, valuing and accounting for natural capital assets and the ecosystem services

they provide to people) can support the achievement of climate resilience and the transition to a low-carbon economy.

- We would also recommend noting the potential of the natural capital approach to support the RSES's other key principles: healthy placemaking, economic opportunity; as well as the full suite of Regional Strategic Outcomes.
- We would also suggest acknowledging that achieving climate resilience and transitioning to a low-carbon economy has the potential to enhance the East Midlands Region's natural capital.
- We further suggest acknowledging that natural capital can be seen as a solution to climate change, i.e. natural capital and specific services can be used to mitigate (e.g. carbon sequestration) and adapt to (e.g. flood defences) climate change.

3.2: We note its inclusion in a table on P9 of the Executive Summary, where it is briefly defined as 'environmental sensitivities and assets'.

- We would disagree with this definition.
- Instead, we would suggest: "The stock of living and non-living resources that combine to yield a flow of benefits to people."

3.3: We note its inclusion in references to an 'Asset-based Approach' to the Strategy on P25 of the main document.

- We agree that the inclusion of natural capital alongside social and economic capital is appropriate here.
- As above, we disagree with the definition in the table on P26.
- We also suggest that the mechanisms noted for the criteria under 'Settlement Strategy' be expanded to include Natural Capital Accounts (NCA) for the east-midlands region itself, alongside SEA/AA/RFRA.
- Furthermore, NCAs could potentially support an evidence-based assessment of the resource potential of the renewable energy, circular economy and green/blue economy, as noted under 'Economic Strategy'.
- The rationale for developing NCA for the east-midlands region is expanded upon below under 'Recommendations'.
- NCAs are currently being developed by Bord na Mona, the Central Statistics Office and the EPA INCASE research project, a collaboration between Trinity College Dublin, Universtiy College Dublin, NUI Galway, University of Limerick, IDEEA Group and the Irish Forum on Natural Capital. See below for detailed information on this approach.

3.4: We also note the definition expanded on in the opening paragraph on P115.

- We believe that this definition could be improved by clarifying the distinctions between stocks, services and benefits, as follows:
- The Region's natural capital can be defined as our stock of renewable and non-renewable resources (e.g. plants, animals, air, water, soils, minerals) that combine to yield a flow of ecosystem services that provide benefits to people. These benefits

include clean air and water, a stable climate, protection from floods, food to eat, the resources we use for fuel, building materials, clothes and medicines, recreation and a sense of peace and wonder, as well as habitat for wildlife. Managing natural capital so that it can continue to deliver the ecosystem services that give us these benefits is important in order to ensure sustainable development. Unmanaged natural capital risks the continued degradation and depletion of these assets, and in turn, of their capacity to provide the economy and society with the ecosystem benefits that they depend on.

3.5: We note the reference to 'strategic natural assets' in 'Regional Strategic Outcome 10: Enhanced Green Infrastructure': *"Identify, protect and enhance Green Infrastructure and ecosystem services in the Region and promote the sustainable management of strategic natural assets such as our coastlines, farmlands, peatlands, uplands woodlands and wetlands (NSO 8, 9)."*

- We agree with the use of the terminology of 'strategic natural assets' in this RSO.
- We note that a Natural Capital Approach could underpin this and other RSOs, including: 1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 12, 15 and 16.
- We suggest that the Natural Capital Approach (specifically Natural Capital Accounting) be embedded in the Monitoring and Evaluation aspect of the RSES in order to support the delivery of the aforementioned RSOs. See below for detailed information.

4. Recommendations for the draft RSES:

4.1: We recommend that the RSES include a commitment to develop Ecosystem Accounts (a type of Natural Capital Account) for the East Midlands Region, using the UN standard System of Environmental Economic Accounting's (SEEA) Experimental Ecosystem Accounts (EEA) methodology.

4.2: Natural Capital Accounting reveal benefits and costs of economic activity that are very often hidden in conventional accounting methods. This enables us to significantly improve the accuracy of planning and policy decisions. While conventional accounting will often only reveal single beneficial resource value in a particular landscape, and will therefore inadvertently hide many of the costs of extracting that resource. For example:

- To account for a forest solely as timber is to miss many other benefits a woodland provides us with, and fail to account for the cost of losing the loss of ecosystem services when the forest is clear-felled. These services include: air purification, water filtration, flood mitigation (saving costs of damage to local homes/businesses/farms), pollination (benefitting local agriculture), income directly derived from recreation (if the woodland attracts tourists to the area), and carbon sequestration (especially important for mitigating climate change).

- Other benefits, very important but sometimes less easily quantifiable in financial terms, are also missed by considering the woodlands' value solely as timber: health benefits, physical and mental, to local communities who use the woodland for exercise and recreation; aesthetic values; habitat for biodiversity.

5. Supporting information on NCA:

- **About Natural Capital Accounting**

Natural Capital Accounting (NCA) is a tool to measure the changes in the stock of natural capital at a variety of scales and to integrate the value of ecosystem services into accounting and reporting systems at a variety of levels. Accounting for natural capital is seen as an important step in ensuring integrated economic and political decision-making, supporting inclusive development and improving economic management. It adds value to macro-economic policy and the development of macro-indicators alongside GDP, sectoral policies, responsible business practices and a globally consistent approach to accounting for ecosystems and their value.

- **About SEEA**

The System of Environmental-Economic Accounting (SEEA) is the international standard for Natural Capital Accounting (NCA). It uses concepts, definitions, classifications and accounting rules that are consistent with Systems of National Accounts, so its results are comparable across national, regional, organisational and, for Ecosystem Accounts, spatial scales. The benefit of this approach is that, once developed, the accounts can be used to project environmental-economic and ecosystem information for a range of end users (see Fig 1 below).

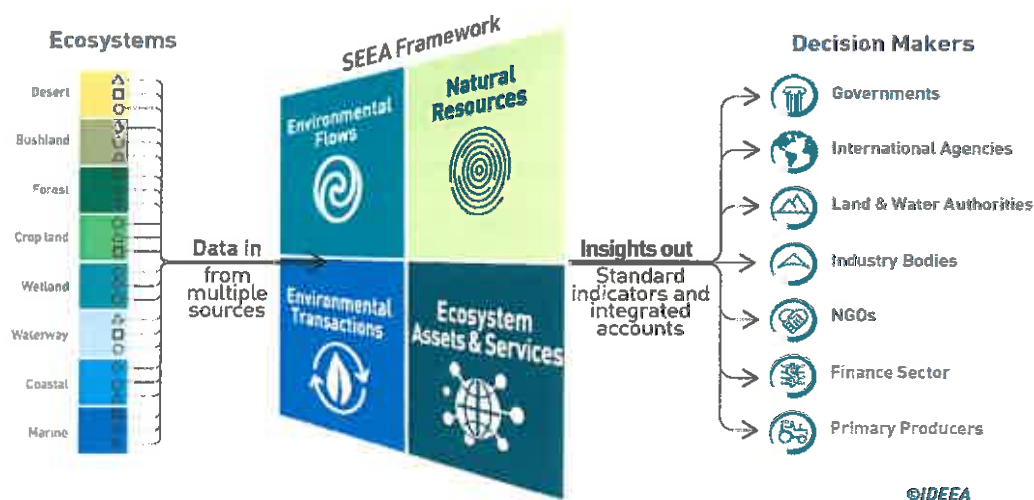


Fig 1 shows how ecosystem data can inform decision-making through accounting systems.

SEEA methodologies are currently in use around the world, including in Ireland. The Central Statistics Office is gathering national-level information on environmental-economic interactions using the three types of accounts under the SEEA's Central Framework (SEEA-CF). Meanwhile, the Experimental Ecosystem Accounting methodology is being used by major corporate landowners in Ireland such as Bord na Mona and is likely to be used by a new EPA-funded project, INCASE (Irish Natural Capital Accounting for Sustainable Environments), which looks at NCA in river catchment systems.

- **How SEEA works**

The SEEA defines “environmental assets” as living and non-living components of the Earth, which may provide benefits to humanity. It enables effective and internationally comparable NCA by offering an organising framework for information that falls outside the production boundary of the economy. Typically, such information consists of environmental goods and services that are not traded in markets. SEEA captures the flows of ecosystem goods and benefits (i.e. ecosystem services) entering the economy, the residuals coming out, as well as residuals that may stay within the economy (for instance through recycling), and in doing so, supports a conceptualisation of the economy as a system within the environmental system, as opposed to outside it (see Fig 2 below).

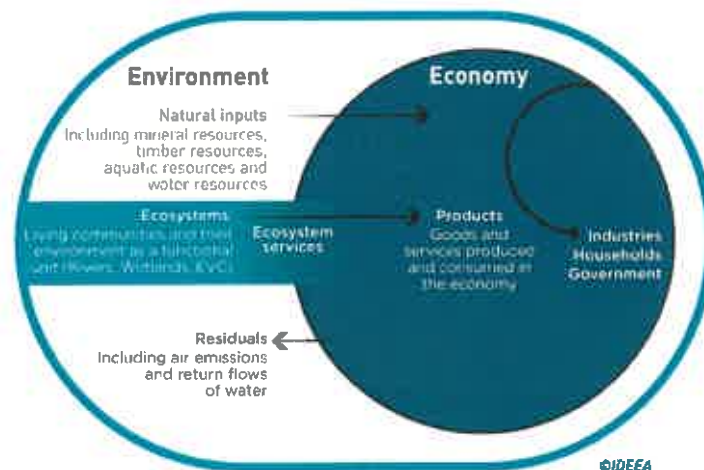


Fig 2 shows how flows are represented in the SEEA.

- **About Ecosystem Accounting**

Ecosystem Accounts focus on ecosystem assets and services to integrate biophysical data and track changes in their stocks and flows, and link them to economic activity. The asset, for example a forest, is measured in terms of its health (condition) and size (extent), which informs understanding of the state of the asset, how that state changes over time, which flows of services we get from which assets, the extent of their contribution to the economy and society, as well as the groups that benefit from those flows. Such information can support the analysis of

competing policy outcomes and inform management decisions on investment in and/or exploitation of the asset.

Ecosystem Accounts are done at a spatial level and can therefore be applied to a country, a county, a catchment, or a land parcel. Within each area, there will potentially be a number of types of ecosystem asset (stocks) delivering different sets of services (flows) that can be mapped and valued. This can be done using biophysical data and/or financial metrics: accounting for any type of stock and flow is essentially a quantitative description of relationships that emerge through transactions between economic units. Traditionally, these economic units have included businesses, households and Governments, etc. By creating a new set of economic units based on ecosystem assets, it is possible to map the transactions between them and existing economic units. How these relationships are defined (i.e. monetarily or biophysically) is a choice that depends on the type of decision that the analysis seeks to inform.

Ecosystem Accounts are part of a suite of four main types of Environmental Economic Accounts (see Fig 3 below). The other three are typically compiled at national level, and include the following:

1. **Environmental Flow Accounts** for physical assets like water, energy, waste and GHG emissions, which record information and link it to economic activity, allowing - for instance - resource use to be mapped through economic supply chains.
2. **Natural Resource Accounts** that assess stocks and use of ecosystem goods that have market value, such as timber, fish or minerals. These assets can be valued in either biophysical units, or in monetary units using the Net Present Value of individual resources.
3. **Environmental Transaction Accounts**, which comprise information on resource management expenditure, environmental taxes, subsidies and environmental protection expenditures. These transactions are already recorded in standard economic accounts but this account separates them out and facilitates connection to areas such as green jobs and green economy.



Fig 3: The SEEA Framework comprises three Environmental-Economic Accounts and one Ecosystem Account (lower bottom right).

