Natural capital accounting

Policy applications for the North Sea and North East Atlantic Ocean

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Importance of marine ecosystems

State of marine environment has been deteriorating over the past decades, also the case for the North Sea and North-East Atlantic.

Human pressures: pollution, overfishing and climate change.

Marine ecosystems benefit human well-being through the services provide.

But value often underestimated/ignored in national accounts.
The need for an integrated statistical economic-environmental framework

- Countries are currently facing issues that provide social, economic and environmental challenges
- Problems and stakeholders are often interconnected over multiple levels of scale
- The complex integrated policy context requires integrated statistics and data!
- Natural capital accounting (NCA), System of Environmental-Economic Accounting – Ecosystem Accounting (SEEA-EA)
Interest in Natural capital accounting (NCA)

› SEEA-EA accepted as international accounting standard during the 52nd session of the UN statistical division in March, 2021

› 11th of July 2022 a proposal was made for mandatory provision of natural capital accounts by, EU member states

› Interest of OSPAR (North East Atlantic) strategic objective of North-East Atlantic Environment Strategy¹:

S7.03 By 2025 OSPAR will start accounting for ecosystem services and natural capital by making maximum use of existing frameworks in order to recognise, assess and consistently account for human activities and their consequences in the implementation of ecosystem-based management.

Source: https://www.ospar.org/documents?v=46337
Many international projects:

- **MAIA**: Mapping and Assessment for Integrated ecosystem Accounting, SEEA-EA being implemented in 11 (EU) countries

- **GOAP**: Global Ocean Accounts Partnership, Ocean accounting

- **MAREA** project: Marine Ecosystem Accounting project, Baltic sea area

- **NCAVES**: Natural Capital Accounting and Valuation of Ecosystem Services Project (NCAVES), EU funded
Natural capital accounts for the North Sea

• First draft Dutch part of the North Sea by Central bureau of statistics (CBS) & Ministry of Infrastructure & Water Management (2019)

• As seen before, 2\textsuperscript{nd} version in development!

• How can we actually use this information?
Natural capital accounting & Policy

• Currently the accounts are mainly supply driven

• Information from the accounts can be complex to use for policy makers

• How can we apply NCA for decision-making for the North Sea (and North East Atlantic)?

• What kind of tools do policy makers need?
NCA & the policy cycle

- Hard to directly couple evidence and a policy decision
- Especially with relatively new and incomplete framework such as NCA
- Currently, NCA mainly used for problem identification or monitoring
- What is needed to integrate it throughout the policy cycle?

Source: Ruijs et al., (2019)
Issue identification and monitoring the state of the marine environment

Establish insights on trade-offs and interactions between marine ecosystems and economy

Provide communication tool for policy makers to establish the importance of the marine environment and blue economy

Support multidisciplinary communication and cooperation between various stakeholders within (and outside) the government

Combine with other methods such as scenario analysis to provide integrated insight in cost and benefits for environmental decisions

Serve as data input for other statistical methods that include economic-environmental evaluation
Policy applications of NCA for the North Sea

• How can we use NCA for The European Marine Strategy Framework Directive (MSFD) & Various North Sea Projects?

• Consists of 3 parts:
  • Part 1: A description of the current state of the environment, environmental objectives and indicators for the North Sea
  • Part 2: Monitoring program
  • Part 3: The Program of Measures to ensure the sustainable use of the North Sea: 11 elements

• NCA can monitor state of the marine environment of the North Sea

• Evaluate policy responses of MSFD
The Netherlands want to measure welfare beyond GDP: *Wellbeing Economy*

- Natural capital data can serve as **data input** for North Sea

- NCA does not include social capital and “future generations”
Challenges

› Data

› How to keep policy makers engaged while accounts are being improved?

› Need for more case study examples to show the possibilities of NCA

› Make the accounts more demand driven
Discussion
Questions:

- What types of (marine) decision-making can natural capital accounting (NCA) support?

- What are some of the main challenges to be able to use NCA for marine policy?

- What is needed to keep policy-makers engaged while the accounts are being developed?

- What areas are NCA and SEEA-Ecosystem accounting lacking to be able to use them for (marine) policy?
Thank you for your attention!

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Extra questions:

› What kind of (visualization) tools or examples would be needed from Natural Capital Accounting (NCA)?

› What is the advantage of placing existing data into a framework like Ecosystem Accounting of the SEEA?

› How can NCA address issues that the North Sea and North-East Atlantic ocean are currently struggling with (Marine litter, eutrophication etc.)?

› How can NCA support Marine Spatial Planning?
Extra slides: SEEA-EA
Extra slide: Using NCA in policy making
The SEEA supports the SDGs

The SEEA provides information for 40 indicators for 9 SDGs

GOAL 2: Zero Hunger
GOAL 6: Clean Water and Sanitation
GOAL 7: Affordable and Clean Energy
GOAL 8: Decent Work and Economic Growth
GOAL 9: Industry, Innovation and Infrastructure
GOAL 11: Sustainable Cities and Communities
GOAL 12: Responsible Consumption and Production
GOAL 14: Life Below Water
GOAL 15: Life on Land

- **NO POVERTY**: Sustainable ocean growth means sustained growth, which is able to lift and keep people out of poverty.
- **ZERO HUNGER**: Farming and fishing sustainably has the potential to produce far more protein than a 2050 population requires.
- **GOOD HEALTH AND WELL-BEING**: Apart from being able to provide more nutritious food, a healthy ocean is the recharging point for billions of people.
- **QUALITY EDUCATION**: Lifting marginalised coastal communities out of poverty increases their children’s chances for a good education.
- **GENDER EQUALITY**: Increasing gender equality in the ocean economy would empower millions of women.
- **CLEAN WATER AND SANITATION**: Desalination of ocean water provides drinking water to millions of people. Additionally, improving sanitation can increase coastal water quality.
- **AFFORDABLE AND CLEAN ENERGY**: Expanding the ocean’s almost unlimited renewable energy potential is predicted to contribute 10% of the global electricity production increase by 2050.
- **DECENT WORK AND ECONOMIC GROWTH**: Growing the ocean economy sustainably is projected to more than double the current ocean economy.
- **INDUSTRY, INNOVATION AND INFRASTRUCTURE**: Constructing low carbon ports and renewable ocean energy will stimulate innovation and create vital infrastructure.
- **REDUCED INEQUALITIES**: Granting well-defined ocean access rights and sustainable resource use ensures long-term prosperity of marginalised groups.
- **SUSTAINABLE CITIES AND COMMUNITIES**: Constructing blue-green storm protection infrastructure will make cities more sustainable.
- **RESPONSIBLE CONSUMPTION AND PRODUCTION**: Solving ocean plastic pollution drives us to build a more circular economy on land.
- **CLIMATE ACTION**: Growing ocean industries sustainably can contribute up to one-fifth of greenhouse gas savings towards achieving a 1.5°C future.
- **LIFE ON LAND**: Reducing ocean dead zones catalyses land-based reforms towards regenerative precision agriculture.
- **PEACE, JUSTICE & STRONG INSTITUTIONS**: In a sustainable ocean economy, a nation’s sovereignty over its exclusive economic zone and resources is achieved.
- **PARTNERSHIPS FOR THE GOALS**: The ocean is a platform for collaboration and strengthens the global partnership for sustainable development.
Extra slide: Ocean accounting framework
Extra slide: MFSD