Natural Capital in Practice

28th May 2019
Agenda

1. Introduction and welcome
   Eva Paulik - Arcadis

2. Gaps between conceptual and operational implementation of Natural Capital Accounting in a developing country context
   Julia Baker & Helena Newell
   Balfour Beatty / Conservation Capital

3. Q&A

4. Update on Coalition activities
   Hannah Pitts - Natural Capital Coalition

5. Topics for future calls
   Eva Paulik - Arcadis
The Natural Capital Coalition is a collaborative space to harmonize natural capital approaches and grow a supportive enabling environment for natural capital thinking.

Purpose
To mainstream the inclusion of natural capital in decision making, harmonizing approaches and getting them to scale, quickly.

Our Vision
A world that conserves and enhances natural capital

Represents 300+ organizations
GAPS BETWEEN CONCEPTUAL AND OPERATIONAL IMPLEMENTATION OF NATURAL CAPITAL ACCOUNTING IN A DEVELOPING COUNTRY CONTEXT

JULIA BAKER & HELENA NEWELL, BALFOUR BEATTY / CONSERVATION CAPITAL
Gaps between conceptual and operational implementation of Natural Capital Accounting in a developing country context

By Julia Baker, Helena Newell and EJ Milner-Gulland
Biodiversity Net Gain / No Net Loss developments

How do they affect people?

• Biodiversity Net Gain: development projects that generate measurable gains / net gains in biodiversity (No Net Loss)

• Increasingly in planning policies, laws & funder requirements

• Follow the mitigation hierarchy: avoid, minimise, restore, compensate

• Biodiversity NG/NNL can significantly affect people

• Yet these impacts are often not fully accounted for
Improved air quality
Recreational benefits
Climate regulation
Soil stability
Reduced flood risk
Fuel, food
Building materials
Cultural sites
✓ Biodiversity Net Gain
➢ People at development site permanently lose ecosystem services from the woods
➢ Different people benefit from the offset
➢ But fewer people benefit & in different ways
**Biodiversity NG/NNL developments – good practice for people**

- New international principles
- Tools?

- **Natural Capital Accounts of Biodiversity Net Gain developments:**
  
  ✓ Addresses current gaps
  ✓ Monetary values significantly influence project decisions
  ✓ Improves design & build of BNG especially offsets
  ➢ Limited data for project-level NCAs
  ➢ Merging with ESIAs & Biodiversity Net Gain principles
ESIA

PRINCIPLES OF ENVIRONMENTAL IMPACT ASSESSMENT BEST PRACTICE

SIA principles

Biodiversity NG/NNL

NATURAL CAPITAL PROTOCOL

deflect: giving nature a home

developing corporate natural capital accounts
Our case study – the Katosi Water Treatment Plant
Project area in the Mwola Central Forest Reserve, Mukono, Uganda.

Use of the project area by local communities
Aim

Using the case study of an NCA of an infrastructure project in Uganda, to explore the decisions that need to be taken to support the design and evidence-base for no net loss (NNL) of biodiversity that is sustainable and fair to project-affected people.

Objectives

i) Quantify the stocks of the biodiversity components of natural capital and the flows of ecosystem services for a baseline, post-construction and 30 years after construction, in order:

ii) To explore how decisions on the baseline, counterfactuals and scenarios affect the flows of ecosystem services, and

iii) Evaluate how this influences the operational use of the NCA to design no net loss.
Adapted from Natural Capital Protocol (Natural Capital Coalition 2016)
Steps for ex ante Natural Capital Account

- **Step 1:** Purpose, Scope & Data collection
- **Step 2:** Stocks of biodiversity components of natural capital
- **Step 3:** Classification of ecosystem services
- **Step 4:** Physical flow account
- **Step 5:** Monetary flow account
- **Step 6:** Biodiversity metric
- **Step 7:** Maintenance cost account
- **Step 8:** Dependencies
- **Step 9:** Determine need and criteria for delivering NNL
- **Step 10:** Offset accounts

Key decisions discussed in this paper

**Conceptual**
- Baseline
- Counterfactual
- Scenarios

**Scope**
- Dependencies

Other key decisions

**Scope**
- Purpose
- Scope
- Boundary

**Conceptual**
- Data aggregation

**Methodological**
- How to collect data?
- How to classify stocks and ecosystem services?
- How to quantify / monetise?

Key:
- Focus of this paper
- Not covered in scope of this paper

Adapted from Natural Capital Protocol and the CNCA frameworks (eFtec et al. 2015; Natural Capital Coalition 2016; Forest Trends & eFtec 2017)
Data Collection

Primary data
- Very short primary data collection period, with observation data only
- No direct collection of data from local people

Secondary data
- Project information from the ESIA
- Local area information from Ugandan data sources, including from The National Water and Sewerage Corporation, the National Forest Authority, the National Biodiversity and Data Bank and Ugandan Bureau of the Statistics
- Peer and non-peer reviewed literature utilised for benefit transfer

Our figures are indicative only and are used to highlight the decisions and uncertainties within a NCA.
We found a overall loss in monetary flow of ecosystem services of 161 UGX million per year as a result of the project.
Decisions and uncertainties in practice

The monetary flow of ecosystem services only gives part of the picture.

The importance of the decisions within the NCA was highlighted by our experiences in the field:

• The price of goods
• The fishing village
Examples of the impact of decisions made in the NCA on the outcomes

Net change in overall provisioning services from Baseline (2016) to After 30 years (2050)

- Overall loss
- Overall gain

Base scenario
Baseline - Fishing village
Scenario - After 30 years - no access
Scenario - After 30 years - full access
Scenario - Reduction in use of medicinal plants
Scenario - Reduction in use of firewood
Accuracy - 10% +
Examples of the impact of decisions made in the NCA on the outcomes

Net change in monetary value of aggregate provisioning services using different counterfactuals, from Baseline (2016) to After 30 years (2050)

- Base case (2016 baseline)
- Base case + Population growth
- Continued degradation of the project area in absence of the project
Lessons and areas for further research

• Our case study is the first to develop an ex ante NCA of an infrastructure project; there is a need for many more case studies.

• We uncovered major uncertainties, and decision-points which can have fundamental impacts on the resultant NCA. The ESIA did not recognize many of these issues.

• There is a need for further research in many of these areas, e.g. on how to measure and manage the project’s dependencies on natural capital.

• There is a need for research to be translated into practical and feasible guidance on the implementation of these NCAs, based on case studies, which should help to encourage uptake.
**Take-homes for practitioners**

- Compared with ESIAs, project-level NCAs can improve understanding of how BNG affects people – this improves the mitigation hierarchy but requires NCAs to be undertaken early.

- Decisions on the baseline & counterfactual significantly affect accounts: transparency & justification are vital.

- Be explicit on uncertainties & assumptions underlying accounts, especially when ESIAs do not uncover people’s complex relationship with nature.

- Assess all benefits, assign monetary values where appropriate & show non-monetary benefits in the accounts.

- Use NCAs alongside assessments of change in people’s wellbeing.
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Resources


Thank you
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UPDATE ON COALITION ACTIVITIES
A new tool to enable organizations to 'self-assess' the level of comfort they have in their natural capital assessment

An offline qualitative survey of c.11 questions.

Should provide confidence to stakeholders that:
• the approach used is fit for purpose;
• your results are robust enough for your objective: whether internal decision making, external communication, etc.

23 May: ‘BETA’ version available
Summer: Piloting by businesses
November: FINAL version available

Volunteers needed!
Natural Capital Week 2019

Madrid: November 4th - 8th

- Natural Capital Coalition Collaboration Day: 6th Nov
- We Value Nature General Assembly: 6th Nov
- European Business and Nature Summit: 7-8th Nov
- ...?

Networking, learning, agreeing priorities for nat cap agenda in 2020

Save the date!
TOPICS FOR FUTURE CALLS
Future calls and upcoming topics

NEXT CALL: 2nd July 2019

Topic: will be announced soon!

Suggestions for future calls:
https://nccoperations.typeform.com/to/zAOeOt
THANK YOU

www.naturalcapitalcoalition.org