Natural Capital Accounting for Policy—A Global View of Achievements, Challenges, and Prospects

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Summary

Natural capital accounting (NCA) has been used in all phases of the policy cycle and incorporated into the policy machinery of several governments. Uses range from the monitoring of sector-based policies, like water, energy, and forests, to more complex areas of implementing or analyzing cross-sectoral policies for green growth and climate change. Countries like the Netherlands, Sweden, and the United Kingdom, which have had NCA programs for many years, have developed the capacity and relationships between the users and producers of accounts to enable more effective use of the accounts in policy processes. While it takes time to produce NCA with the full range of functions, countries with relatively new programs have also had achievements in applying NCA to decision making, for example, in setting prices for water and energy, as well as in enriching national, sectoral, and regional planning. There are several challenges to introducing NCA into the policy process, including the prevailing policy focus on the short term (limited policy readiness for change), acceptance of the information (its perceived credibility and trustworthiness), communication of complex information, alignment of NCA supply with NCA demand, ensuring collaboration and understanding among diverse professions and institutions, and maintaining high-level support. The many opportunities for using NCA include the Sustainable Development Goals (SDGs), green growth, climate change, the intended nationally determined contributions (INDCs), and sector policies (for example, water, energy, and forests).

1. Introduction

In November 2016, the WAVES Global Partnership and the Netherlands Ministry of Foreign Affairs organized the first *Forum on Natural Capital Accounting for Better Decision-making* ("Policy Forum" for short). Its objective was to improve the uptake, use, and effectiveness of NCA, complementing the recent emphasis on accounts generation with greater effort to engage the institutions involved in decision-making. In the Forum, NCA developers and policy-makers from high-, middle-, and low-income countries met to share country experiences of using natural capital accounts and to address the challenges of getting quality natural capital information to influence real-life policy decisions.

This assessment of experience to date enabled the identification of 10 "living principles" to ensure that NCA is policy-ready. These are described in more detail later. The principles were grouped under four headings—comprehensive, purposeful, trustworthy, and mainstreamed—and can now be tested and revised. The next steps are to work together to develop more thematic applications of NCA, especially to realize the opportunities identified, as well as to develop practical guidance documents.

The papers contributed to Policy Forum were compiled in the publication *Better Policy Through Natural Capital Accounting: Taking Stock and Moving Forward,* published by the World Bank in 2017.[1] Figure 1 shows the table of contents from the publication. We hope that, by publishing the papers, we will encourage others to document and share their experience, and so further build the body of knowledge. This task is vital if we are to embed NCA in the policy and processes of government as well as in the thinking of business and society more generally.

Figure 1. Tables of contents from *Better Policy Through Natural Capital Accounting: Taking Stock and Moving Forward*

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[1] Two editions of the publication were released. The first was in June 2017 for the WAVES Annual Partnership Meeting and was a compilation of papers without formatting (see: https://www.wavespartnership.org/en/knowledge-center). The second and final was published in September 2017. This paper is based on Chapter 3 of this publication

2. Policy uses, users and processes

Figure 2 gives a schematic overview of how NCA has been (or could be) used in policy using a standard representation of the policy cycle. The most straightforward use of NCA is for policy monitoring and review, often by deriving indicators from the accounts, and this was seen in several countries, including Australia, Costa Rica, Indonesia, Sweden , the Netherlands (and United Kingdom The SDGs provided an interesting case with countries envisage using NCA to both monitor and **achieve** the SDGs.

Figure 2: How NCA supports an integrated and multistakeholder approach to policy—to both serve policy and drive policy change
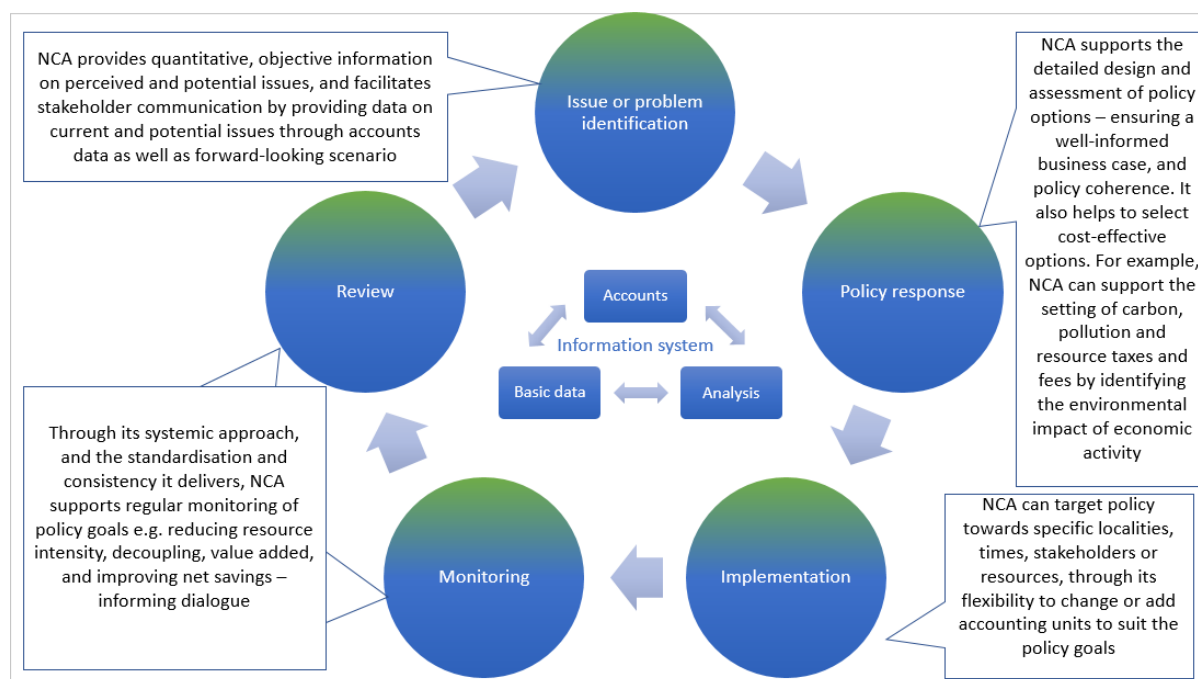
Source: Adapted from Vardon et al. (2016a)

The users of NCA potentially include:

- Government agencies responsible for particular natural resources or geographical areas
- Government agencies with responsibilities for broad or cross-sectoral strategic direction, planning, or budgeting
- Research and analytical institutions, within or outside government
- Businesses and civil society

In the past, several countries started implementing NCA, but the accounts were not continued. The most frequent reason for this was that the accounts were not actually used by policy makers, that is, the key potential users of NCA. The lessons from countries like the Netherlands with a long history of NCA, is that it takes a long time for NCA to make its way into policy formulation processes and more active engagement is needed between NCA producers and potential policy users. Analytical institutions and academics have therefore often been the primary NCA users, indirectly providing a bridge between accounts and policy through their analysis.

Government agencies responsible for energy, water, minerals, land, and forests have been key users of NCA in in Australia, Botswana, Colombia, the Netherlands, the Philippines, and Rwanda. Such policy uses of NCA are also made by subnational management authorities in Colombia and the Philippines (Vardon et al. 2016b).

Outside government, the business community and civil society have, to varying extents, recognized the potential of NCA. The business community has a range of initiatives, and civil society has taken an interest in NCA in some countries—with examples in the Netherlands and United Kingdom. However, in most countries, NCA knowledge is limited to a few accounts professionals and bureaucrats.

A key achievement of the Netherlands, Sweden and the United Kingdom is that they have built enduring links between the NCA user and producer communities. In all three countries, NCA producers have a legal mandate for their work, there are formal administrative arrangements, and high-level requests for information on particular issues. Relationships have also been built between producers of accounts and the research community. This has helped to build credibility and legitimacy for NCA production, and to improve the efficiency and purposeful alignment of NCA producers and users.

The WAVES countries that have recently started NCA programs, have also has notable achievements. For example:

- Botswana has institutionalized NCA within the Department of Water Affairs and the importance of NCA is recognized at the highest levels of government.
- Costa Rica has institutionalized accounts production in the central bank, and collaborative mechanisms have been established between the producers and users of accounts for water, energy, and forests.
- Colombia has institutionalized NCA production in the national statistical office, with NCA being explicitly mentioned in the National Development Plan 2014–18, and indicators from NCA are being used to support the country's Green Growth Strategy.
- Indonesia is aligning its existing NCA production system to better meet the needs of climate change policy through a process of collaboration between NCA producers and users.
- The Philippines has mandated the inclusion of resource accounting results as an information source for developing policies to protect the environment and promote responsible mining.
- Guatemala's national development plan calls for the creation of statistical mechanisms to monitor its progress. The accounts have been used as a basis for key indicators on sustainable development, and have triggered and informed a new forestry strategy.
- Rwanda has developed formal processes for sharing data between government agencies and has used accounts information for water management, including price setting and water allocation.

3 NCA's challenges in improving policy

While many positive achievements are evident all countries face challenges—some operational and relatively easy to solve, others more deeply rooted in structural issues. The structural challenges may mean that account use does not go beyond the issue or problem identification stage in the policy cycle (figure 2).

The discussions in the Policy Forum, the contributed papers, and other experience reveal six types of challenges to NCA informing policy, although some progress has been made in each:

- Policy readiness for change
- Credibility and trustworthiness
- Policy-relevant communication
- How to align supply and demand and arrive at a clear NCA purpose
- Collaboration
- High-level support

Policy readiness for change. Multidimensional and long-term issues may not be highest on the policy agenda, and/or there may be little policy space in terms of debate and review processes to address them. The authorities with interest in tracking the natural capital base may be politically weak. Or there may not yet be a requirement or an appetite for evidence-based policy. Thus institutions may be unable to evolve from the silos stage to the stage where NCA helps to find synergies for sustainable use of natural capital, or where NCA is fully integrated into public policy making.

Credibility and trustworthiness. For NCA information to be used, it must be credible and trustworthy. Trustworthiness challenges have been reported in some countries, but most countries have noted that it takes time before data are accepted politically—as being reliable and trustworthy—especially regarding new, and for some people complex, concepts. The international standardization of NCA has helped to ensure data reliability, particularly in the area of monetary valuation, although there are still some doubts (chapter 26). Note that having reliable data does not automatically mean the results are trusted by everybody—perhaps due less to data reliability and more to mistrust or misunderstanding over how the NCA information was analyzed or interpreted. Such analyses require assumptions to be made, additional information to be collected, and sometimes normative choices to be made, which are all debatable. Institutionally separating the task of building accounts from the task of using the accounts for policy analysis, such as we see in the Netherlands (chapter 4), may be one of the answers because it creates a greater sense of trust in the NCA data and allows institutions to specialize and build expertise. On the other hand, examples from Botswana (chapter 7), Colombia (chapter 8), Guatemala (chapter 12), and Indonesia (chapter 14) show that it is not essential for both tasks to be allocated to separate institutions.

Policy-relevant communication. Almost all countries struggle with the question of how results from NCA can be communicated to policy makers and to the population at large. Often too little is done. Yet, increasingly, NCA is being presented through infographics, maps, and charts to make complex results easier to understand. Examples of green growth indicators in the Netherlands (chapter 15), energy use in Costa Rica (chapter 11), or the peace dividend in Colombia (chapter 8) show the strength of graphic messages in conveying the results and their implications. Direct communication can be useful for policy makers with immediate interests. For example, in the United Kingdom, the Natural Capital Committee reports directly to the British government, which is obliged to respond to the committee's advice (chapter 21). In the Netherlands (chapter 4), NCA information is increasingly communicated through the media. A dedicated communication strategy—elaborating what messages, to whom, and how they are delivered—can help to ensure messages reach their target audiences.

How to align supply and demand and arrive at a clear NCA purpose. One major barrier to mainstreaming NCA in policy making is misalignment between the supply of, and demand for, NCA results. (Chapter 5) asserts that accounts should be designed for policy relevance, not just to meet accounting standards, but also to support the policy process. A stepwise approach is useful here:

start with issues high on the policy agenda with a clear role for NCA, and later, once NCA is accepted as useful, tackle other environment-economic issues. Another barrier that could arise is if the accounts have not been designed to be fit-for-purpose: does the level of detail correspond with the questions at stake, the feasible policy options, and the decision-making level? For example, the limited use of water accounts for analyzing possible water policies in the Netherlands relates to a mismatch between the type and level of decision making on one hand, and the type and level of information in the accounts and related models on the other (chapter 16). The questions of detail and scale are especially important when NCA is used as an input in modeling or scenario exercises— the data may fit to some policy questions, but not to all (chapter 13).

Collaboration. A system in which NCA is fully integrated in the decision-making processes is characterized by cross-sectoral, multidisciplinary cooperation between ministries, statistical agencies, and research organizations; data sharing among institutions; and mutual trust. In many countries, the reality is still very different from this ideal, and those on the supply side of NCA have not yet had a productive history of working with those on the demand side. Countries experienced in NCA show that collaboration takes time and continuous effort to achieve, with multidisciplinary technical working groups and multiagency NCA–policy steering committees helping to forge effective paths (chapter 4, 20, 21). Some institutions beginning to explore NCA for specific purposes, such as the ACT's *State of the Environment Reporting* (chapter 6), have put in place processes for linking account producers and users, as well as linking to the research community.

In most countries that have only recently started building NCA, much of the necessary data exist, but they are dispersed over many organizations that do not necessarily want to share their data or are mandated to share it. And even if data sharing is possible, aligning interests may not be an easy thing to accomplish (chapter 23). Almost all countries have had to learn how to transcend the difficulties of cross-sectoral and multidisciplinary cooperation. The Indonesian experience (chapter 14) showed that a streamlined system could be achieved for tracking indicators and reporting on international and national targets, such as SDGs, Strategic Environmental Assessments (SEAs), government financial statistics (GFS), and INDCs.

High-level support. A final challenge—but a major one that must be overcome to successfully integrate NCA in decision-making processes—is how to create and sustain high-level political will and support for natural capital policy and the role of NCA. Those countries partnering with WAVES have powerful central ministries, such as finance and planning, backed by high-level officials or ministers, and are more successful in setting up accounts and realizing their added value than countries where this high-level support is lacking. The European examples show that once the utility and position of NCA is established, it can be mainstreamed. The Australian (chapter 6) and Dutch lessons (chapter 4), in contrast, show that NCA is having to continuously prove its added value to politicians, senior bureaucrats, and the wider public to keep earning a role in the institutional landscape.

4 Opportunities for NCA to improve policy decisions

The policy areas that offer real potential for NCA:

- Concern complex and dynamic links between the environment and the economy;
- Concern many government agencies as well as business and civil society;
- Are information and/or consultation intensive, and may be suffering an information or democratic deficit; and
- Are high profile, involving major policy or investment decisions.

The Forum discussions pointed to three such policy areas: (1) the SDGs and the 2030 Agenda, 92) green growth/green economy (GG/GE) and (3) climate change. . A start on these areas can be seen in the Forum publication and the 2nd Forum will focus primarily on the SDGs which encompasses the other two areas.

The policy demand for NCA can also be reinforced by the trend for improvements in regular cross-sectoral processes, such as national development planning, competition analysis, risk analysis, science-policy fora, environmental/biodiversity mainstreaming, review processes such as parliamentary commissions, and future search and visioning exercises. Calls for more evidence-based approaches to policy bode well for NCA. Countries cite international drivers as opening up such opportunities, such as Colombia with its aspirations to accede to the Organisation for Economic Co-operation and Development (OECD).

5. Principles and prospects

The myriad uses of NCA in policy are demonstrated in all of the papers in *Better Policy Through Natural Capital Accounting*[2]. Real leadership has been displayed by the countries with a long history of NCA, but countries that have more recently adopted NCA also have valuable examples of actual or planned policy applications. All countries concluded that the institutional arrangements needed to translate NCA into policy are important, offering a range of lessons on how this can be done. We now consider how best to move forward—to scale up and speed up NCA's fruitful application to policy.

5.1 Living principles of NCA that is "fit for policy purpose"

From the first NCA Policy Forum we have drawn out 10 tentative principles for NCA that will make it fit for policy purpose. They are termed "living principles", with the intention that they be tested and updated with experience.

NCA is fit for improving policy if it is:

Comprehensive:

1. *Inclusive*—Acknowledging the diverse stakeholders concerned with decisions affecting natural capital, responding to their information demands, respecting different notions of value, and using appropriate means of engagement

2. *Collaborative*—Linking the producers of NCA, the users of NCA for policy analysis and the policy makers using the NCA results, and building their mutual understanding, trust, and ability to work together

3. *Holistic*—Adopting a comprehensive, multi/interdisciplinary approach to the economic and environmental dimensions of natural capital and to their complex links with policy and practice

Purposeful:

4. *Decision-centered*—Providing relevant and timely information for indicator development and policy analysis to improve and implement decisions with implications for natural capital

5. *Demand-led*—Providing information actually demanded or needed by decision makers at specific levels

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[2] For a more thorough overview of the papers, please see chapter 3 in the publication.

Trustworthy:

6. *Transparent and open*—Enabling and encouraging public access and use of NCA, with clear communication of the results and their interpretation including limitations of the data sources, methods, and/or coverage

7. *Credible*—Compiling, assessing, and streamlining data from all available sources, and deploying objective and consistent science and methodologies

Mainstreamed:

8. *Enduring*—With adequate, predictable resourcing over time; continuous application and availability; and building increasingly rich time series of data

9. *Continuously improving*—Learning-focused, networked across practitioners and users, testing new approaches, and evolving systems to better manage uncertainty, embrace innovation, and take advantage of emerging opportunities

10. *Embedded*—NCA production and use becoming part of the machinery of government and business, building capacity, improving institutional integration for sustainable development, and incorporating NCA use in procedures and decision-support mechanisms

5.2 Prospects

The papers in *Better Policy Through Natural Capital Accounting* are a global stock-take of how NCA has engaged with policy. The papers reveal the policy challenges and opportunities ahead of us. The experiences of the WAVES partnership countries, as well as from the other countries and institutions that participated in the Forum, give some clear directions for future work, including greater collaboration between NCA producers and users and producing practical guidance documents.

Collaboration between producers and users. The NCA community of practice is growing and is now beginning to more firmly link NCA producers with users, thanks in part to the first NCA Policy Forum. A second NCA Policy Forum will be held in November 2017 to take the next step, from learning to leadership, and to spread lessons learned and develop NCA production processes, analytical tools, and applications to policy.

Developing practical guidance documents. There is clearly a global appetite for guidance on how to address increasingly complex policy challenges such as the SDGs. While generic interest in policy-relevant NCA has been growing, now is the time to supplement the detailed technical guidance on building accounts with guidance on NCA's many applications to policy. Account producers and users will need to work together on this.

6. Questions for the London Group

    A. Can the London Group provide other examples of
        a. increasing policy demand for NCA and/or
        b. effective applications of accounting to policy?
    B. Are there any comments on
        a. The "10 living principles" and
        b. the use of a policy cycle framework to track policy engagement with NCA
    C. What sort of guidance is now needed to ensure decision-centred NCA? and what roles would members of the London Group like to have in developing it?

7 References

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