**Research-practice co-creation as a strategy to foster use of natural capital accounting at the national level: practical reflections from the Pacific**

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*Implementing the SDGs calls for a holistic understanding of the interactions between socio-economic activities and the environment. The systematic integration of environmental and related data into mainstream national accounts, through the development of Natural Capital Accounting (NCA), can significantly advance this task. Linking the production to the use of natural capital accounts, however, faces important hurdles, many of which are related to the need for new modes and models of collaboration. In this paper, we discuss the experience of developing a Research and Practice Network on NCA in the Pacific region on a nationally- and demand-driven model. The paper concludes with some practical lessons with regard to the engineering of collaboration, and can be useful to broader discussion about NCA advances in developing countries, and SDG implementation more broadly.*

# Introduction

Implementing the Sustainable Development Goals (SDGs) calls for a holistic understanding of the interactions between socio-economic activities and the environment. The idea that achieving the SDGs rests upon integrating social, economic and environmental dimensions of development is widely acknowledged, and it is represented in the complex interconnections between the SDGs.

Natural Capital Accounting (NCA) can provide a tremendous contribution to this task: it provides a clear accounting framework that integrates environmental information with conventional socio-economic statistics, in line with the existing System of National Accounts (SNA) already used by government as a reference for policy discussions and decisions. Stimulating the adoption of NCA at the national level, in terms of both production and use of these accounts, remains a key challenge. NCA can help achieve the SDGs only if used and owned by national stakeholders. This challenge is particularly urgent in developing countries, where both production and use are in most cases at an incipient, experimental stage.

In 2017, the Global Development Network (GDN) and Ideas Belong explored the creation of a Research and Practice Network (RPN) in the Pacific (PANCAnet) as a strategy to work on NCA *use* at the same time other actors, specifically WAVES and UNESCAP, worked on the *production* of SEEA-CF accounts (Energy, Land, Water, Waste) with selected National Statistical Offices (NSOs). PANCAnet was born with the aim to facilitate the emergence of nationally driven research projects that use NCA to produce policy relevant evidence on the link between the economy and the environment. In the process, we also learned a lot about what it takes to use a RPN to foster linkages between demand and supply of policy relevant knowledge at the national level, in connection with global debates and expertise but on a clear demand-driven model. This paper reflects on this experience, the tools developed and the lessons learnt that can usefully inform other initiatives globally. It also provides a discussion on the collaboration challenges that will be key to implementing the SDGs at the national level, and the role of global actors in accelerating them.

# Linking the production and use of the accounts: a collaboration challenge for local and global actors

In recent years, much effort has gone into supporting the production of natural capital accounts and to strengthen statistical and data handling capacities in countries to do so, notably through the WAVES partnership. Capacity building activities and training have been delivered in the countries that expressed interest, and the agencies responsible have produced a growing number of accounts, either in an experimental or full-fledged form.

Accounts organize environmental data in a useful manner, but they are rarely directly useful to policy-makers in their raw format. Users, whether decision makers or program managers, need ‘processed’ information (Oosterhuis, Van der Esch, and Hoogervorst 2016), in the form of indicators or analysis that link the accounts to context and policy priorities. The NCA community, notably through the first WAVES Policy Forum in 2016, has started to debate this issue, yet the practicalities of linking production and use and how the accounts can permeate the policy cycle (Vardon, Burnett, and Dovers 2016) remain a terrain of experimentation and discussion.

As pointed out by earlier studies (Vardon, Burnett, and Dovers 2016; and Oosterhuis, Van der Esch, and Hoogervorst 2016), the link between production and use necessitates the mobilization of a broad range of actors to act as ‘intermediaries’ and ‘translators’, and researchers in particular are a critical intermediary link between producers and end users. Their mobilization in this effort, however, poses a number of challenges. Development researchers mainly use traditional socio-economic statistics, particularly in their link to GDP, but at the current stage of development of NCA, the interest of academia in environmental and ecosystem accounting remains a niche. Accelerating their involvement in using NCA requires addressing a number of challenges for which tools and methods are lacking:

* *Interdisciplinarity:* turning natural capital accounts into useful and useable information requires an interdisciplinary effort between economists, statisticians, natural accountant, and natural scientists to name a few, but also social scientists more broadly. However, the accounts rely on concepts and definitions that are not necessarily shared by the different disciplines to be involved. This also comes at odds with hyper-specialization trends in research due to which the accounts may not be perceived yet as a useful set of data that can advance individual’s research.
* *Working across professional practices.* National accountants, academics and policy-makers are perceived as (and, for the most part, are) distinct groups with distinct interests and with limited space and habit to collaborate. Turning statistics into policy-relevant analysis requires collaboration mechanisms that acknowledge upfront the distinct roles of different profiles involved. There is no ‘how to’ guide to set up such collaborations, and this creates a knowledge-to-practice gap. Addressing the lack of proven ways to support diverse collaborations between different categories of stakeholders is necessary to accelerate the implementation of sustainable development policies through better and timely evidence.
* *Connect global, regional and local discussions.* Interactions between socio-economic activities and the environment cut across research scales and policy-making levels, from local, to regional, national and global. This calls both for better coordination of initiatives at the international and national levels, and for the development of a strong ownership of the NCA framework through a demand-driven approach connected with the existing expertise and experiences, globally.

Experiences in Guatemala and the Netherlands show that this type of collaboration. between disciplines and across professional practices, can sometimes happen endogenously, without the involvement of external or international actors, and as a step-by-step process. Even in these cases, international actors have a role to play in accelerating the collaborative agenda to link production and use of accounts by supporting cross-country learning and cross-country collaboration on approaches and tools adopted to this end.

The next section reflects on the role of international actors based on the experience of GDN and Ideas Belong in setting up PANCAnet.

# Setting up PANCAnet: a Research and Practice Network to link production and use of NCA at the national level

GDN and Ideas Belong identified an opportunity to start linking early on production and use of NCA in the Pacific. Of particular interest were five island countries in the South Pacific where SEEA-CF accounts (Energy, Land, Water, Waste) were being built in 2016-7 with the support of UNESCAP (Federal States of Micronesia, Fiji, Palau, Samoa and Vanuatu). WAVES was also supporting the development of some accounts in the Philippines, further expanding the potential for collaboration opportunities at the regional level.

Through PANCAnet, GDN and IdeasBelong approached linking of production and use of accounts in the Pacific as essentially a collaboration challenge. The intention of the project was to involve a broad range of actors. A first group were NCA producers, by which we mean the institutions in charge of producing the accounts: national statistical organizations, ministerial departments or, in some cases departments of several ministries or central banks. A second group were end-users: policy-makers and civil society organizations who need relevant information to design, implement and monitor policies or actions. A third group were intermediary users, researchers more precisely: the project assumed that researchers had the expertise to make the link between the accounts and policy concepts or policy-relevant indicators, through analytical work. As we pointed out earlier, the knowledge transmission between actors was not intended to be a linear mechanism; rather, the expectation was that repeated interactions between these different stakeholders would result in collaborations around specific questions, which could be answered through analytical work on the accounts, done by the researchers, but with a scope defined by all involved. PANCAnet also included international organizations and experts, who were meant to play a role of observers, resource people and advisors.

The purpose of PANCAnet was to accelerate the transition from a situation where stakeholders simply expressed a generic interest in NCA, to one where groups of researchers and practitioners from the concerned countries engage in a co-creation process leading to concrete research projects in response to real demands, and of a scientific quality such that they could contribute to national policy debates on the relevant underpinning development issues.

In sum, the decision to use a Research-Practice Network as a strategy to foster these collaborations was justified by three main ideas:

* The need to mobilize and connect diverse groups of stakeholders, without privileging the capacities, interest or goals of one groups over another.
* The need to develop spaces and tools fit for enabling meaningful interactions between these groups, based on common thematic interests;
* The need to accompany, and structure, the progression of these interactions, whenever possible, to enable specific collaboration groups to turn their ideas into fundable research projects with a clear demand.

PANCAnet was set up in three steps: we conducted a mapping of the actors in the region, we convened a stakeholder workshop to design the network with its potential users, and we set up an online collaboration interface to facilitate interactions, remotely, after the workshop.

The mapping intended to gather information of the potential actors who would be involved in this RPN and their agendas, needs and capacities. We identified five specific groups interested in linking the production and use of NCA, in line with the categories of stakeholders mentioned above: researchers from research institutions in the region, national policy-makers, national statistical offices, international and regional experts from Australia and New Zealand, and international organizations working on NCA production.

Respectively, international organizations were keen on demonstrating that the accounts can provide useful information to policy-makers; the conversation we had with researchers from the University of South Pacific led us to assume that they were also interested in working on this topic and that they saw NCA as an opportunity to engage in policy-relevant research; experts and researchers from Australia and New Zealand supported the idea, shared the sense of timeliness of the project, and agreed to engage in this process by providing their expertise.

A first face-to-face workshop with all the people previously contacted was a critical step in our effort, and it allowed the team behind the project to turn the vision of a network into a working plan and platform, whose design was based on inputs from its potential users. The workshop was an opportunity to define a short- to medium-term work program. The workshop was organized by GDN in association with WAVES and UNESCAP, at the Oceania Ecosystem Services Forum (OESF) in March 2017, in Brisbane, Australia. It gathered around 30 people: international experts on NCA, national accountants in charge of NCA in the Pacific, researchers and practitioners either identified by GDN and its partners, or as OESF delegates.

Specifically, in terms of inputs, the workshop allowed to identify five themes of broad interest to the group: sustainable tourism, marine and coastal ecosystems, SDG 14 (Oceans), energy regulation and health-environment links. These became the thematic backbone of the online platform at its launch. Along with each theme, we also identified ‘champions’: individuals that could play an instrumental role in steering one of the chosen themes on PANCAnet.

Following the workshop, the online interface of PANCAnet was launched, attracting over 40 members in the first weeks. Given the stage of development of NCA in the region, this result was considered extremely encouraging. Turning the dynamic of the workshops into concrete discussion on the platform, however, proved more difficult than anticipated. Discussion on the dedicated online spaces struggled to pick up pace, forcing us to revert to one-to-one discussions with ‘champions’ and partners on the use of the platform. A forthcoming paper discusses the specific approach implemented on the online platform (Bertrand, Dubochet and Obino, forthcoming). For the purpose of this contribution, we would like to focus on the fact that at the time of writing, October 2017, the platform is dormant, and GDN and Ideas Belong are reviewing their engagement strategy with the PANCAnet community.

Discussions with different stakeholders were instrumental to confirm that interest was genuine and its level significant, but some of the assumptions the initiative built on needed refining. We had a good understanding of the dynamic between the different stakeholders and the desire for collaboration was confirmed. Two main issues, however, proved critical. These should inform further fine-tuning of the specific role international actors play in the success of such initiatives, within and beyond PANCAnet.

First, there was a genuine and continued interest to be on the network at the national level, and an eagerness to define thematic priorities across the region. Though there is a general interest for environmental issues, for many, however, the link between NCA and individual and institutional agendas remains too vague. The awareness about NCA is still uneven, and the lack of references and examples of NCA use in policy undermines the capacity of members to take a proactive role and coalesce around concrete projects, even at a seminal state.

Second, researchers specifically remained silent on the platform, despite the key role they were expected to play. More work needs to go into understanding, from an insider’s perspective, the incentive structure researchers face when they engage in a new project of this scope. The incentives PANCAnet put forward were not necessarily appropriate at a stage where academic institutions themselves have not started working on NCA.

These two conclusions do not imply that a conversation on NCA use is premature in the region, or that a nationally driven effort is not viable, rather the contrary. At a general level, they imply, however, that any such effort should be woven together, systematically, with existing initiatives on strengthening NCA awareness and production, and not independently from them. More specific practical reflections on the experience of PANCAnet are listed in the next sections.

# Practical reflections on how to set up a Research and Practice Network

A few lessons can be gathered from the experience of setting up and running PANCAnet for around one year. These are useful to start building a toolbox for using RPNs to foster linkages between production and use of NCA in countries.

1. Conduct a comprehensive and early mapping of the context in which the network is to be set up. Of particular importance is to understand stakeholder’s readiness to engage on NCA production and use. It should aim to identify individual researchers and practitioners, appraise their level of readiness and understanding of NCA, how it relates to their existing priorities, and what they seek to gain individually and in terms of NCA development in general. It should be expected that this mapping will identify a need to raise awareness or build capacities of specific actors before the RPN can be set up.
2. Provide incentives to all stakeholders from the start. The transition from showing interest to engaging in a RPN is likely to be the most difficult step. Appropriate incentives, while necessary throughout the lifetime of an RPN and in need to attentive calibration throughout, are critical at this point. Financial incentives (like access to competitive funding) may be useful. However, two issues must be considered: one is that actors may be less attracted to funds from new sources, weakening the incentive. The other is that RPNs cover, by definition, activities that are not yet structured in goal-oriented projects, and that funding with pre-defined goals might limit the scope of co-creation and the level of participation of different groups. This requires a certain level of creativity in providing funding on other bases. It is therefore valuable to balance financial incentives (if any) with other incentives, such as facilitating access to global experts (networking), an emphasis on visibility and recognition gains, or to provide access to desirable assets such as difficult-to-obtain data or opportunities to engage in research projects perceived as innovative.
3. Broaden membership to become, from a core group of pre-existing experts, an inclusive group that is genuinely interdisciplinary and cross-sectoral. Existing approaches do not work well. Workshops and online platforms, while useful to reinforce existing networks, provide little return when it comes to reaching beyond those already interested. Early RPN members and facilitators should expect to take on the effort of extending the network, by individually identifying and approaching potential new members. A well-designed communication strategy can accelerate this process.
4. Create formal relationships with key research institutions before launching the RPN. Considering the specific challenge of engaging academic researchers in PANCAnet, it would be ideal for an RPN to be ‘anchored’ in existing or developing research centers of concerned developing countries. This is an area where financial incentives can be used effectively. How to set up academic centers that complement RPNs goes beyond the scope of this paper and is an area where more experience reports are needed.
5. Coordinate with international stakeholders that drive the global agenda on NCA. Using RPN as a strategy can accelerate the development of NCA in countries where international actors already have some programs to create synergies between these initiatives.

# Lessons for the NCA Community

NCA has a tremendous potential to help achieve the SDGs. However, this contribution will materialize only if NCA starts to be effectively used by national stakeholders (broadly understood), in-country. This will require some changes in the process of designing, implementing and evaluating projects and policies, and should inform a reflection on the scope of internationally-supported capacity building on NCA.

For international actors, specifically, there is a need to focus on a broad range of actors, well beyond national statistical organisations, and to acknowledge that incentives that work for actors involved in the production of NCA will be different from those interested in their use. Any initiative on NCA to help countries compile the accounts should also support new research and evidence agendas on the link between the economy and the environment. Recognizing the need to address the collaboration challenges underpinning NCA use with practical but highly engineered tools and processes, such as those enshrined in RPNs, will increase the ownership of the process and accelerate the integration of actionable knowledge on natural resources in policies and practices, in the spirit of the SDGs.

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