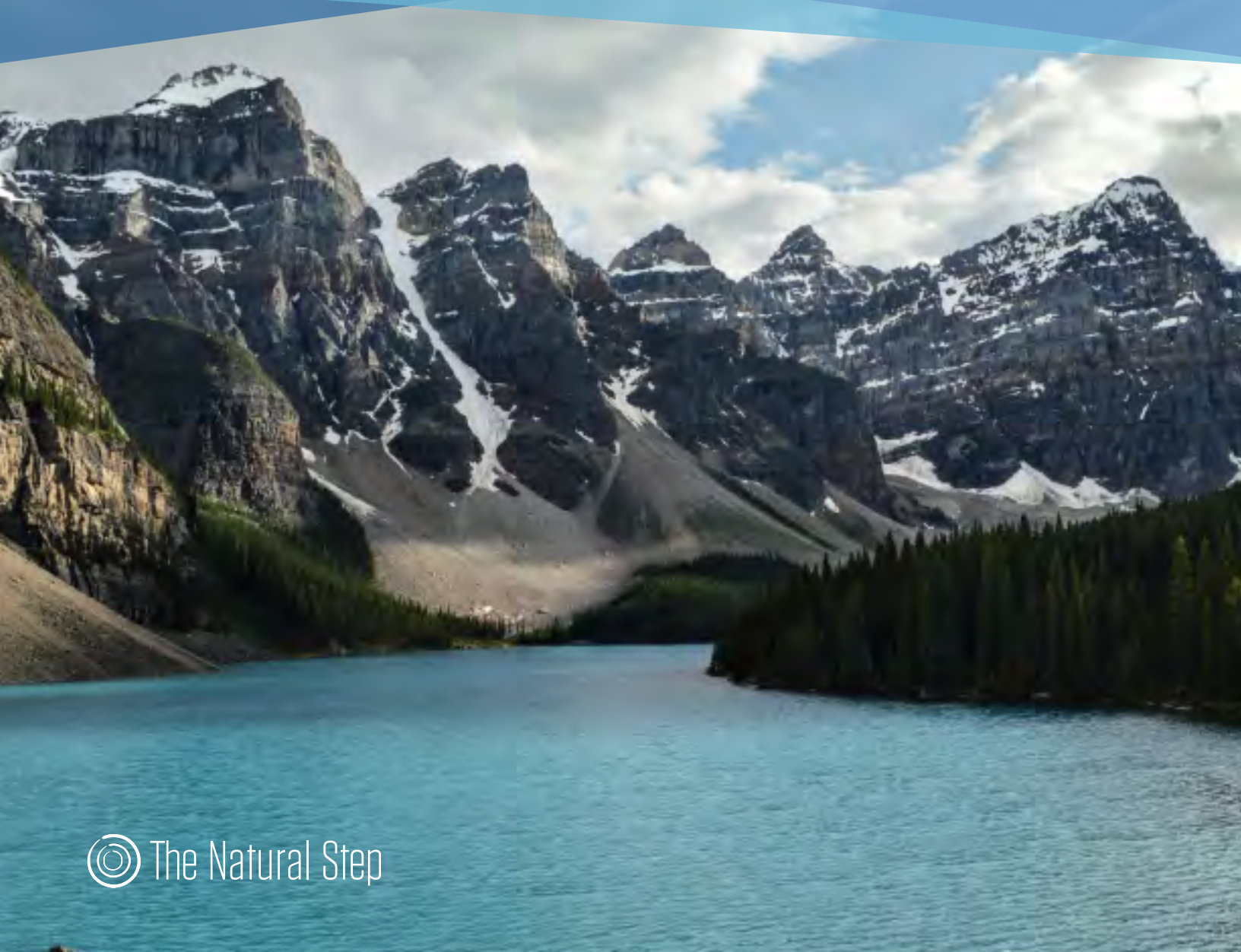


# NATURAL CAPITAL LAB

PHASE II • Final Report • 2018



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# Glossary



## Comprehensive wealth

“Comprehensive wealth includes natural, human and social capital in addition to produced and financial capital. Collectively, these five asset categories have come to be known as comprehensive wealth.” (Institute for International Sustainable Development, 2017).

## Natural capital

“Natural capital is another term for the stock of renewable and non-renewable resources (e.g. plants, animals, air, water, soils, minerals) that combine to yield a flow of benefits to people. The benefits provided by natural capital include clean air, food, water, energy, shelter, medicine, and the raw materials we use in the creation of products. It also provides less obvious benefits such as flood defence, climate regulation, pollination and recreation.” (Natural Capital Coalition, 2017)

## Ecosystem goods and services

“Ecosystem goods are the products from natural capital such as food, fibre, clean air, and water; ecosystem services are the less tangible but no less significant benefits from ecosystem processes such as nutrient cycling, water purification and climate regulation, and non-material benefits such as recreation, aesthetic and cultural benefits.” (Source: Municipal Natural Asset Initiative, 2017).



# INTRODUCTION

# Introduction



## The Issue

The abundance and diversity of our natural environment is fundamental to both Canada's economy and our identity as citizens of a resource-rich, geographically diverse nation. To make informed decisions governments, communities, and businesses need to understand all of their assets by using a comprehensive wealth approach - including engineered and natural capital in addition to other forms of wealth. Seeing only one part of the equation misses important opportunities to manage risk, improve resilience, adapt to climate change, and boost ecosystem health.

Many economists and environmentalists believe that the mismanagement of our environment occurs because natural capital is not properly measured and accounted for. Measuring and managing natural capital is not a new concept. In recent years international efforts to standardize approaches have emerged including the development of the [Natural Capital Protocol](#) and the creation of the UN's [System of Environmental and Economic Accounts](#) (SEEA). However, the field as a whole is fragmented, and potential efforts are often met with confusing variety of metrics, definitions, and methodologies.

Canadians intuitively grasp the importance of nature including natural capital – stocks of natural assets which include minerals, timber, soil, water and ecosystems goods and services – but we do a poor job of measuring it, especially for capital without a market price such as wetlands, rivers, foreshores and the like. Natural capital is the basis of much of our wealth and underpins our economy, but we have no shared, robust means of factoring the value of these assets into our decisions. We need consistent, robust approaches and the Natural Capital Lab (NCL) project was conceived as a step on that path.

## Phase I

Established in 2014, the NCL was an initiative, led by The Natural Step Canada, for innovating and experimenting with new frameworks and approaches to valuing Canada's natural capital. It was a collaborative effort to build on existing domestic and international thinking and was intended to help shift Canada toward becoming a global leader in natural capital stewardship.

Beginning in 2014, Phase I of the lab initially brought together funders, subject matter experts, and decision-makers to address the question "How can we collaborate to improve Natural Capital measurement, management, and decision-making in Canada?" This resulted in a series of reports, and a number of promising directions for further research. Most importantly participants established general agreement that there was indeed significant opportunity to advance work on natural capital through collaboration, and a hunger for Phase II.



READ THE PHASE I RESEARCH SUMMARY HERE.



## Phase II

In 2015 The Natural Step Canada secured funding from CPA Canada, TD Canada Trust, and The Co-operators to support the objective of Phase II:

*To improve the way we measure, manage and make decisions about Canada's natural capital in order to become better stewards of our rich natural endowment and optimize its use in our economy.*

This report summarizes the outcomes of Phase II of the Natural Capital Lab.



# OUTCOMES

# Outcomes

Progress towards the lab's overarching objective are organized into 3 categories.



## 1. Establishing and Supporting the Lab

### **Assembling a core design team and steering committee**

Natural capital is a complex issue – spanning a variety of disciplines and sectors. As such, tackling the issue requires a variety of perspectives at the table. Building a strong, experienced and diverse design team and steering committee was an important priority at the outset of Phase II.

The core design team was comprised of in-house experts in sustainability, social innovation, facilitation, communications and engagement. [John Purkis](#) was selected to lead the Lab as Director; and the ensuing leadership transition went smoothly, without any major impact to the strategic planning process. Other design team members included TNS employees supporting communications, fundraising, administrative, and facilitation functions. Given TNS' deep experience in convening Sustainability Transition Labs, the design team also had the benefit



of drawing on past and ongoing Lab experiences to help guide their work.

Early in Phase II, Deloitte joined the convening partners of the lab, contributing in-kind time from staff members Geneva Claesson and Robyn Seetal who became integral members of the core design team. In addition, based on their work piloting the Town of Gibsons Eco Asset Strategy with other municipalities, the design team entered into an agreement for in-kind time with Roy Brooke from the Municipal Natural Assets Initiative.

A steering committee was established early in Phase II to work with the core team in guiding the lab. Each founding partner organization was offered steering committee membership.

To ensure a broad range of technical expertise on the committee, additional members were recruited for particular skill sets or knowledge. Founding steering committee members included representatives from the following organizations: Chartered Professional Accountants of Canada, TD Bank, The Co-operators, Smart Prosperity Institute, Deloitte, Ontario Trillium Foundation, Ivey Foundation, and the Municipal Natural Assets Initiative.

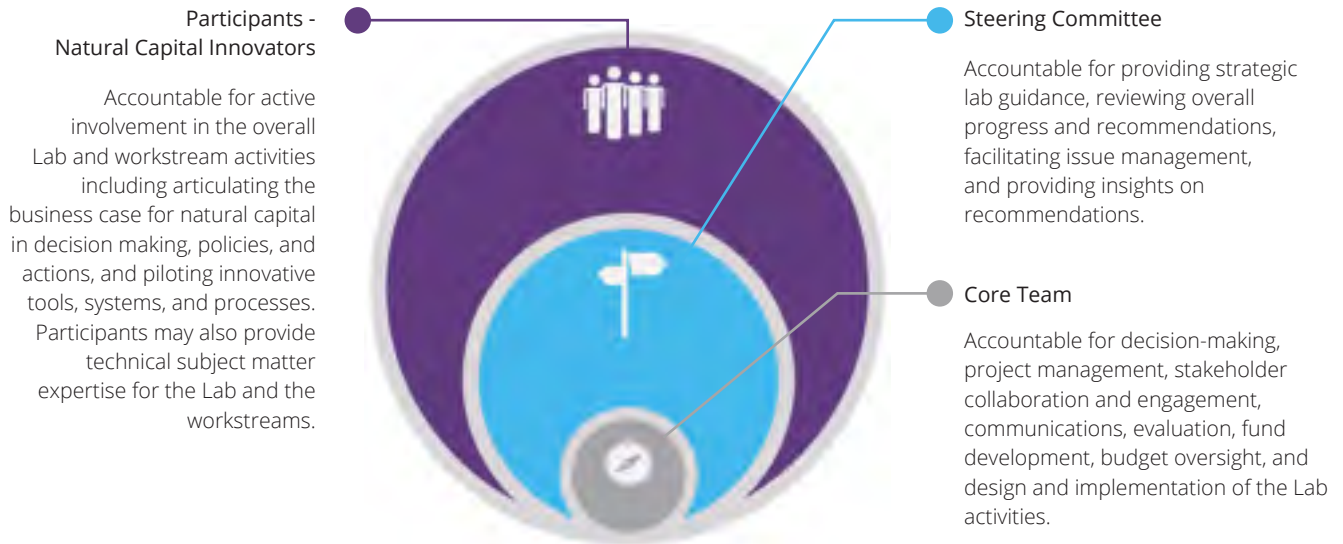
Additional representatives to round out the group included economists, natural capital experts and municipal government professionals. The steering committee met on a monthly or bi-monthly basis for the majority of Phase II; and in addition to its guiding role, added significant visibility and credibility to the effort.

## **Governance structure**

The core design team worked hard to ensure a high level of transparency and a meaningful feedback loop with the Innovator participants and the steering committee. This clarity was essential to the lab's effective functioning. Figure 1 illustrates the intended working relationships across the core design team, steering committee and Innovators.

FIGURE 1: NATURAL CAPITAL LAB GOVERNANCE STRUCTURE

**A clearly defined governance model and appropriate leadership has been established to support NCL's activities and to sustain momentum over time.**



## **NCL Innovators: recruit and engage**

The NCL was built on the successful fellowship model pioneered by the [Energy Futures Lab](#).

Hailing from a variety of disciplines including business, community development and government; the [37 Natural Capital Innovators](#) represented the incredible diversity that characterizes the natural capital field. The application process and selection criteria were designed to ensure that Innovators represented a broad cross-section, and held influence among their peers.

The recruitment process helped to provide a mixed revenue stream for the project and solidify Innovators' commitment to the Lab. A number of participants

also provided significant in-kind support including writing blogs, assisting with NCL promotion and providing access to valuable networks.

The Innovator cohort was at the core of the lab's work, being supported by the core design team and steering committee.

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## 2. Building the Field

Activities in this section include engagement with NCL Innovators and also communication activities with a growing contact list of experts who were following the work of the lab.

### **Designing shared priorities**

Once the recruitment process was complete, planning quickly turned to the identification of collective priorities. This was done by first providing Innovators with a big picture view of the challenges and innovation potential underpinning the lab. As a way of laying the groundwork, Innovators were provided with the research material and insights gathered in Phase I.

Onboarding interviews were conducted with each Innovator on an individual basis. Feedback from these interviews allowed the design team to ensure that introductory materials and webinars addressed the questions and needs of the group. Building a shared understanding of the issues was a key step towards convening meaningful in-person gatherings of the cohort. Consequently, a summary report based on research from Phase I and interviews was prepared for Innovators.



READ NCL INNOVATION FORUM PARTICIPANT PACKAGE, INCLUDING SUMMARY REPORT FROM PHASE I.

## 2016 Innovation Forum

The first official gathering of the Innovator cohort took place in Toronto, November 23-24, 2016. The purpose of the Forum was to explore challenges, opportunities and transition strategies to shape and align how decision-makers in Canada account for natural capital.

The Forum resulted in the creation of three workstreams, according to Innovators' expertise and interest. These workstreams would largely structure the work of the Innovators throughout the rest of Phase II and were: Corporate, Municipal, and Federal/Provincial. Each workstream identified and prioritized high potential initiatives; those of which are described in more detail below. In addition participants helped create a system map of existing tools, resources and organizations in Canada that are working on natural capital.



[VIEW FORUM SUMMARY HERE.](#)



[VIEW THE SYSTEM MAPPING REPORT HERE.](#)

## 2017 Innovation Summit

After a busy year developing workstream initiatives (as described below), the Innovator cohort came together again in Toronto, October 5-6, 2017 to outline potential strategies and plans for future NCL activities. The purpose of the Summit was to refine NCL's transition strategies and long term vision.

## Natural Capital Vision Statement

Over the course of Phase II, the Natural Capital Lab Innovators collectively drafted and endorsed a vision for Canada's approach to natural capital.



[THE VISION CAN BE READ HERE.](#)

## **Natural Capital Lab Communications - Newsletter and Blogs**

Over the course of Phase II, with support from different Innovators, the core design team produced a newsletter and blog series. These materials were produced in order to provide updates to a growing distribution list which included Innovator organizations and networks. The NCL newsletter list included over 1000 subscribers from across Canada and beyond.

In addition, presentation and primers on Natural Capital were produced for use by the core design team and Innovators.



THE BLOG SERIES CAN BE READ HERE.



### **3. Advancing High Potential Initiatives**

The following initiatives emerged from the Forum and Summit and were pursued by the Innovators in the periods between and after each event.

#### **Corporate Workstream: Piloting the Natural Capital Protocol with Manulife Financial**

In the spring of 2017, the Natural Capital Lab developed a [Financial Sector Primer](#) on Natural Capital and sent out a call for applications from Canadian companies in the financial services sector. This invitation sought organizations interested in piloting the [Natural Capital Protocol](#) - a framework designed by the Natural Capital Coalition to help generate trusted, credible, and actionable information for business managers to inform decisions.

More specifically, the project was intended to support a sector partner in

piloting the 'framing' and 'scoping' stages of the Natural Capital Protocol (NCP). This included engaging in a series of dialogues and working sessions to follow the steps outlined in the Protocol and Financial Sector Supplement (FSS), all in an effort to understand specific natural capital accounting challenges and opportunities.

A group of 10 NCL Innovators participated in the working sessions to provide their expertise and guide the process. The pilot was led by Geneva Claesson and Robyn Seetal of Deloitte's Sustainability and Climate Change practice.

Following the recruitment period, Manulife was selected as the financial services organization to complete the pilot. The pilot ran between June – October 2017 with a final presentation delivered at the Natural Capital Lab's Innovation Summit in October 2017.



[VIEW THE PRESENTATION HERE](#)

### **Government Workstream: Publication of the Draft Natural Capital Accounts for Ontario report**

With additional funding support from the Ontario Trillium Foundation, a group of NCL Innovators was able to complete and publish a report on *Draft Natural Capital Accounts for the Province of Ontario*.

This report introduces the concept of natural capital accounting (NCA) as a promising framework for the Government of Ontario's efforts to improve decision-making; presenting a means of developing more coherent, complete and comparable environmental data. NCA provides a systematic approach - developed by the United Nations System of Environmental and Economic Accounts - for measuring stocks and flows of natural capital in physical and monetary terms in a way that is fully consistent with existing economic data. This approach allows the cost and benefits of using and protecting natural capital to be assessed and integrated into decision-making.

In addition to developing and maintaining a set of accounts, the report also highlights importance of working with municipalities, First Nations communities, provincial departments, and other stakeholders to explore how they might use this information..



[VIEW REPORT HERE](#)

## **Municipal Workstream: Municipal Natural Assets Research**

NCL partnered with the [Municipal Natural Asset Initiative](#) (MNAI), which is piloting the Eco Asset Strategy approach developed by the Town of Gibsons. In addition to a series of municipal pilot initiatives lead by MNAI, NCL Innovators focused on other two areas in the Municipal Workstream.

First, they wanted to help ensure that new funding from federal and provincial governments for municipal infrastructure would take into account natural capital. NCL and MNAI prepared a letter with rationale and recommendations for the federal and provincial ministers of Infrastructure. Through these and other efforts, the wording in federal infrastructure funding was changed to allow for the consideration of natural capital.

The second area of focus was to explore how municipalities are currently measuring and managing natural capital. NCL core team and Innovators interviewed representatives of several municipalities and created a list of early adopters (e.g. Town of Gibsons utilizing Eco Asset Strategy, and the City of Saskatoon utilizing SEEA to help structure accounts). Innovators recommended that the further research be undertaken to identify pioneers experimenting with strategies rooted in accounting, planning, asset management and policy development.

## Other Offshoots

In addition to the efforts described above, a number of other initiatives were conceived in the lab; and subsequently spun off as individual projects led by one or more Innovators working in collaboration with another organization.

INNOVATORS	ORGANIZATION	RESULTING PROJECT
Andreas Link / Will Wistowsky	Ministry of Natural Resources and Forestry	Used SEEA to create 2 sets of accounts for the province of Ontario.
Roy Brooke	Municipal Natural Assets Initiative	Delivered 5 municipal pilots of the Eco Asset Strategy and secured funding to deliver new pilots in 2018.
Sarah Keyes / Davinder Valeri	CPA Canada	Prepared a series of blogs for NCL.
Vince Deschamps	Nature Conservancy of Canada	Prepared a series of blogs for NCL.
Stephanie Fox	CPA Canada	Explored wording changes to the Accounting Standards Code that would allow municipalities to incorporate natural capital.
Nasha Spence	City of Saskatoon	Explored and then began using SEEA to help structure the city's accounts.
Robert Siddall	Metrolinx	Conducted an assessment of natural capital vs traditional infrastructure options for a new parking lot.





**THANK YOU & CONCLUSION**

# Thank you & Conclusion



The Natural Step Canada is proud to have led this important initiative.

Through the work of the Natural Capital Lab it has become evident that accounting for natural capital may be among the most important steps that any organization, municipality, province or country may ever take to accelerate its transition to a truly prosperous, low-carbon, economy. We have also come to realize that we have only scratched the surface of the need and opportunity here. We anticipate that interest and investment in natural capital will continue to grow in the coming years.

Thanks to the Natural Capital Lab we now have greater clarity about the work that needs to be done in the future by those with the expertise and influence to drive wide scale change on this issue. Here we will look to such groups as CPA Canada and their members, policy makers and regulators at all levels of government, other organizations and front-line practitioners to provide the thought leadership, standards, policies, tools, and training required to advance best practices in the measurement and management of natural capital. We also know that Canada is not alone in this work, and could benefit by strengthening relationships with such groups as the Institute of Chartered Accountants of England and Wales (ICAEW), the Natural Capital Coalition (NCC) and others to establish a hub of expertise and action in Canada that works collaboratively with its global partners.

It is our hope that the work of the Natural Capital Lab will have set the foundation for a more permanent and substantial effort in the future. We encourage others to build on this work and invite them to reach out to discuss how we can assist in this effort. While the formal activities of the Natural Capital Lab have wound-up as of March 1 2018, the TNS Canada staff and associates remain passionate about these issues. We will be working to incorporate the lessons of our lab into our Energy Futures Lab and Circular Economy Lab, and would be keen to support any future efforts to build on what we have started.

Finally, we would like to take this opportunity to thank those key funders and champions without whom this work would not have been possible. These include: Chartered Professional Accountants of Canada, The Cooperators, Ontario Trillium Foundation, TD Bank, Deloitte, Smart Prosperity Institute, and the Municipal Natural Assets Initiative.

Thank you to one and all for giving us the opportunity to contribute to this important topic and to help set the stage for the work that we hope continues.



The Natural Step Canada is a national charity whose mission is to tackle climate change and accelerate the transition to a truly sustainable society that thrives within nature's limits.

**Learn more at [naturalstep.ca](http://naturalstep.ca).**