



KNOWLEDGE EXCHANGE SESSION REPORT

## MAKING NATURE COUNT FOR ADAPTATION:

### Global, national and local action to value services provided by nature

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**INTACT CENTRE**  
ON CLIMATE ADAPTATION



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## SESSION DESCRIPTION

It is widely recognised that nature-based solutions have a key role to play in climate adaptation. Historically, climate adaptation approaches have heavily relied on “grey” infrastructure solutions to either control natural processes, or to harden development, to reduce risk of damage and danger to public safety. In some cases, these techniques have resulted in negative impacts on the function of ecosystems. In contrast, nature-based solutions can help manage climate risks in a way that provides benefits for both people and nature. Examples include protecting and restoring wetlands to manage downstream flooding or increasing urban forest cover to reduce extreme heat in cities. The role of nature in climate adaptation is underscored by Target 11 of the recently adopted Kunming-Montreal Global Biodiversity Framework, which calls for Parties to use nature-based solutions to restore, maintain and enhance nature’s contributions to people, including protection from natural hazards.

As parties work to implement the Global Biodiversity Framework, there is significant opportunity to accelerate the use of nature-based solutions to reduce the impact of climate change on people, while achieving multiple benefits. Identifying and valuing these multiple benefits will be important to support decision-making to make this opportunity a reality, at global, national and local scales.

A key challenge is that, while nature is considered by many to be priceless, nature’s contributions to people are largely absent from the financial balance sheet of a world driven by produced capital and GDP. This panel session brought together leaders working at global, national and local scales to highlight initiatives and tools that are already been applied to make the value of nature for climate adaptation (and other services) transparent. Specific consideration was given to how Indigenous ways of knowing and values can be used to accelerate this process. Canada was also used as a case study to discussed the inter-relationship between organisation and ecosystem scales.

## CO-ORGANISERS

**Joanna Eyquem, PGeo. ENV SP. CWEM. CEnv, Managing Director, Climate-Resilient Infrastructure Intact Centre on Climate Adaptation, University of Waterloo**

Joanna is an internationally recognized leader in climate adaptation and nature-based solutions, with over 20 years experience in Europe, North America and Western Africa. She focuses on practical measures to reduce flooding, erosion and heat risk, in particular working with nature and the financial sector. Joanna is leading efforts to mainstream nature-based solutions, including natural asset management, across Canada and serves on several related boards and committees, including as Vice Chair of the Board of the Natural Assets Initiative.

**Dr Ursule Boyer-Villemare, Team Leader, Socioeconomic Analysis for Adaptation, Ouranos and Associate Professor in Disaster Risk and Resilience, Université du Québec à Montréal**

Ursule Boyer-Villemare is a geographer-oceanographer and leads a team in climate disaster risk and socioeconomic analysis for climate change adaptation at Ouranos. She earned a PhD. in environmental sciences focussed on community and infrastructure vulnerability to climate change and perceptions of natural risks, including geomorphology, geomatics, risk perception and public policies.

## PANELISTS AND CONTRIBUTORS

### **Shawn Blankinship, MBA, CPA, CA, Data & Analytics Manager (Panelist)**

#### **First Nations Financial Management Board**

Shawn provides leadership in statistical research and evaluation, design and implementation of quantitative data collection tools, and economic/fiscal policy research to support First Nations governments in their decision making. FMB is advancing its role in data and analytics to provide meaningful information to First Nations that will be useful in their policy development. In this role, Shawn is forging relationships, networks, and partnerships with First Nations governments and other organizations to advance First Nations economic/fiscal data, analytics, and policy research.

### **Liesbeth Casier, LLB., Nature-Based Infrastructure Global Resource Centre (Panelist)**

#### **International Institute for Sustainable Development (IISD)**

Liesbeth is Coordinator of the Nature-Based Infrastructure (NBI) Global Resource Centre, where she works with the Sustainable Asset Valuation (SAVi) methodology to make the case for investing in nature. In this capacity, she has been building new partnerships with national governments, cities, CSOs, IFIs and project developers to plan, procure, value, finance and implement NBI projects. Liesbeth has an academic background in political science, law and sustainable development. She previously worked with the UN Environment Program and started her career as consultant in auditing and corporate finance with a family-owned consultancy business in Belgium.

### **François Soulard, Research Manager, Census of Environment (Contributor)**

#### **Statistics Canada**

Francois manages the Census of Environment program at Statistics Canada and has been involved in the field of environmental statistics for over 25 years, with a specific focus on the development of environmental accounts and the integration of Earth observation data. He has coordinated several large scale environmental accounting projects, provides international training and engages in cooperation on the development and applications of the United Nation's System of Environmental-Economic Accounting (SEEA), namely on ecosystem, land, water, urban and ocean accounts.

### **Bailey Church, CPA, CA, CIA, Lead, National Public Sector Accounting Advisory (Contributor)**

#### **KPMG Canada**

Bailey is the leader of KPMG's National Public Sector Accounting Advisory service line. His more than 17 years of experience includes substantial work in financial management, accounting, financial reporting and auditing matters within the public sector environment. Bailey is a well-known speaker at seminars and conferences across the country, including the Government Financial Officers Association, the Municipal Financial Officers Association of Ontario, the Institute of Internal Auditors, the Financial Management Institute, the Canadian Comprehensive Auditing Foundation and the Office of the Auditor General.

# KEY DISCUSSION POINTS

## 1) OPPORTUNITIES

Coming from COP15 to Adaptation Futures in Montreal, there is a sense of momentum in how we recognise the role and value of nature for adaptation. The finance and business sector are at the nature table. Our panelists were asked if they felt the same momentum, and to identify opportunities that we should be taking right now to drive adaptation that also makes nature count.

### Recognition of financial risks and returns

- The conversation can be steered from “funding” to “investment” in nature as infrastructure.
- It is possible to make returns on investment explicit in decision-making, by assigning economic value to ecosystem services, including those related to climate adaptation (e.g. flood risk damage reduction due to soaking up and storing water in wetlands).
- Decision-makers can use direct growing investment in adaptation to approaches that create more “return”, by embedding benefits of nature in option selection processes.

### Indigenous leadership and reconciliation

- Recognizing the value of nature can be framed within Indigenous worldviews, including consideration of seven generational thinking and translation into Indigenous languages.
- There is a key opportunity to uplift Indigenous-led approaches to managing nature and learn from different communities (Australia, New Zealand)
- Putting a financial value on services from nature and concepts of ownership of natural assets may be challenging to reconcile, but there is opportunity to explain why these approaches are being used to contribute to nature protection/restoration and climate adaptation.

### The power of data for decision-making

- Data on the state of ecosystems, at scale, can enable governments, businesses, and communities to make evidence-based decisions regarding climate adaptation strategies to achieve benefits for people and nature.
- Climate adaptation can be aligned to address documented environmental trends, based on time-series information (e.g. trends in urban greenness, continuously settled area)
- Higher resolution and reference data can be collected at a local scale and inform asset management planning. There is a “right” scale of information for different, nested spatial scales.

### Development of standards and guidance

- Standards are required to guide formalized reporting and disclosures on nature and biodiversity in sustainability reports. This can be embedded in standards from the International Sustainability Standards Board (ISSB).
- Planning and design standards of nature-based solutions can be used to increase confidence and scale-up use of technical solutions.
- Training and guidance can help build capacity to plan, design, manage and report on nature-based approaches to climate adaptation.

## 2) PRACTICAL TOOLS

Sometimes our discussions around working with nature to reduce climate risks may appear aspirational or abstract. Our panelists sought to “make it real” by identifying key practical tools that participants could use right now to help them make nature count for adaptation:

- **Existing data brokers:** - Environmental data can be overwhelming, so it is useful to rely on data brokers, or data intermediaries to “translate” data into useful findings. Data brokers may include climate / nature information portals,
- **Geographic Information Systems:** Spatial data is crucial in understanding natural ecosystems, climate impacts and adaptation needs. A GIS allows us to analyze and visualize spatial data and patterns and their evolution, identify vulnerable areas and planning appropriate adaptation strategies.
- **Ecosystem services valuation tools:** tools like the Natural Capital Project's InVEST model can help assign economic values to ecosystem services according to established methods.
- **The Taskforce on Nature-related Financial Disclosures (TNFD):** The TNFD are currently looking for early adopters. The framework is an excellent tool to build structure around nature-related disclosures and tell a story to interested parties relating to a specific organization.
- **Existing standards on natural assets and natural capital accounting:** South Africa's Accounting Standard Board has also developed a Standard of Generally Recognised Accounting Practice. Living and Non-Living Resources (GRAP 110). CSA Group have released a first National Standard of Canada on Specifications for Natural Asset Inventories (CSA W218:23). There is also a British Standard on Natural Capital Accounting for Organizations. Specification (BS 8632:2021).

## 3) GETTING STARTED

It is actions that change things not just words. Our panelists were asked what they wanted participants to do when they left the room at Adaptation Futures 2023:

- **Inform yourself:** Use the resources provided to find out more and consider how this fits into your own work on climate adaptation and nature-based solutions.
- **Get involved!** We will not advance collectively on accounting for nature and making nature central to decision-making, including adaptation, unless we start somewhere.
- **Make your voice heard in the standard setting process:** Respond to consultations from the International Sustainability Standards Board, International Public Sector Accounting Board (Natural Resources) and national accounting boards.
- **Sign up for updates from the Census of Environment:** Available from the Daily, StatCan's official communication channel.

## WHAT WE HEARD

Participants were asked to complete an online survey to obtain feedback and additional audience perspectives on the discussion. The results are summarized below:

**What aspects of the event did you find most valuable, and are there any suggestions or areas for improvement that you'd like to share?**

- *Using natural asset value to inform project related decisions - it would be interesting to go deeper into this topic to outline what should be considered in the evaluation or provide examples of evaluations.*
- *Discussion on the barriers and tools was most valuable for me.*
- *Consideration of potential lower cost / more durable solutions is useful.*
- *Good to hear of strategies to get neighbouring municipalities on board with nature-based solutions.*
- *Talking about the practicality of how to do this was very helpful. Bringing the different perspectives of the panel was also good.*
- *The discussions and Q and A. some tangible experiences and more on tools would be useful*
- *Appreciated the casual and personal delivery. Panel format of specific questions in a logical progression while hearing short answers from each panelist. Leaving time for questions at the end.*
- *The fact that we will receive a report with all the references and tools listed !!*

**Lessons learned, highlighting success and impacts of the session: What were the most significant lessons or insights you gained from the workshop regarding the role of nature-based solutions in climate adaptation? How do you envision applying these lessons in your work or community?**

- *I'm going to do some research on natural asset valuation to see if it would be possible to put it in action at my ministry.*
- *That there are municipalities already doing this.*
- *Indigenous perspectives. Choosing words carefully when talking about valuation of nature. Translating to Indigenous languages.*
- *To promote nature-based solutions in our territory*
- *Needs to develop knowledge-based solutions to ensure optimal option and follow up on efficiency*
- *On the possibility of including a continued appreciation of value into decision-making and also as a mechanism for raising financing and ensuring regular monitoring and reporting*
- *The importance of standards for investors and the existing tools, especially the natural assets inventories being used by Canadian municipalities.*
- *"The real meaning behind Natural Assets is to recognize the value of nature."*
- *I was a bit apprehensive of the importance of finance in this presentation, but I understand more the importance of it now.*
- *As an advisor to a provider of wave-powered desalination solutions to coastal communities and enterprises, curious to learn and think about the intersection of our solution and investment in nature.*

**Exploring Research Avenues and User Needs:** Are there specific areas or topics discussed during the workshop that you believe warrant further research or exploration in the context of nature-based adaptation strategies? Please provide details.

- *How can government support/promote this in municipalities with limited capacity?*
- *We need a set of standardized values for natural assets that can be applied to create a first blush, back of the envelope calculation that can be used to start conversations.*
- *Municipal level nature-based infrastructure and knowledge systems that support design, financing, implementation, and management*
- *Stream/ riverbank rehabilitation and « stabilization » to protect nearby infrastructures.*
- *The inclusion of nature valuation and reporting in financial reporting should be investigated further. There do not appear to be common standards that allow the upscaling and connection with stakeholders regarding the benefits of adaptation.*
- *The social and cultural aspect of natural assets.*

**Actions needed:** In your opinion, what are some collaborative or collective actions that could be taken at the global, national, or local levels to better harness and value the services provided by nature for climate adaptation?

- *Creating a national or provincial policy, or some type of standard that values nature-based solutions over grey ones.*
- *Do they include human health and wellness costs into their determinants or just infrastructure?*
- *FCM would be open to partnerships with academic institutions to conduct research on the benefits of natural assets, especially for equity deserving groups with Canadian communities.*
- *Municipal, academia, and civil society partnerships*
- *Need to quantify « unexpected » contribution from the nature-based solutions (other than the base/design role)*

## RESOURCES TO GET STARTED

Resource	Organisation	Use
<a href="#"><u>IUCN Global Standard for Nature-based Solutions: a user-friendly framework for the verification, design and scaling up of NbS : first edition</u></a>	International Union for Conservation of Nature	Consistent definition and criteria for verification of nature-based solutions
<a href="#"><u>System of Environmental-Economic Accounting Ecosystem Accounting (SEEA EA)</u></a>	United Nations	Conceptual framework for national natural capital accounting
<a href="#"><u>InVEST (Integrated Valuation of Ecosystem Services and Tradeoffs)</u></a>	Natural Capital Project, Stanford University	Valuation of ecosystem services (several modules available).
<a href="#"><u>Sustainable Asset Valuation (SAVi)</u></a>	International Institute for Sustainable Development	Method for analysis of costs of infrastructure throughout their life cycles, including full costs of environmental, social, economic and governance risks
<a href="#"><u>Taskforce on Nature-Related Financial Disclosures</u></a>	Taskforce on Nature-Related Financial Disclosures	Framework for Nature-Related Financial Disclosures
<a href="#"><u>Standard of Generally Recognised Accounting Practice. Living and Non-Living Resources (GRAP 110), South Africa</u></a>	Accounting Standards Board, South Africa	Example of existing accounting standards for living and non-living resources.
<a href="#"><u>Census of Environment</u></a>	Statistics Canada	National register of Canada's ecosystems, linked to national natural capital accounting
<a href="#"><u>Specifications for Natural Asset Inventories (CSA W218:23)</u></a>	CSA Group	National Standard of Canada for inventorying natural assets
<a href="#"><u>Getting Nature on the Balance Sheet: Recognizing the Financial Value Provided by Natural Assets in a Changing Climate</u></a>	Intact Centre on Climate Adaptation, Natural Assets Initiative, KPMG Canada	Review of the State of Play of natural asset management in Canada (October 2022).



To find out more:

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