



System of
Environmental
Economic
Accounting

Communicating the Path to Sustainability through Natural Capital Accounting

18 – 20 March 2020

Yale University, New Haven, USA

Draft Agenda

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SEEA



United Nations

Yale SCHOOL OF FORESTRY &
ENVIRONMENTAL STUDIES



Bennett Institute
for Public Policy
Cambridge



NATURAL
CAPITAL
COALITION



THE WORLD BANK
IBRD • IDA



GOAL: Construct a coherent narrative around environmental or natural capital accounts, the questions they can help answer, what that means for how they are constructed and the course forward.

The conference will address four key questions:

1. Why do we need natural capital accounting?
2. What narratives should natural capital accounting focus on conveying?
3. How are big data and emerging technology changing the natural capital accounting story?
4. What are the impediments to advancement and how can they be overcome

Day 1: Wednesday, 18 March 2020

(meeting room for all plenary sessions: Classroom 2400)

8:00 Registration/Coffee

8:30 Welcome and introductions

Welcome and opening of the Conference

9:00 Plenary Panel 1 – Natural capital accounting and the 2030 Agenda for Sustainable Development

The 21st century faces a number of critical challenges. Now, more than ever, policy makers and decision makers need robust, relevant data and statistics to take effective action. This session lays out global environmental and sustainable development challenges facing society, explores a vision for how natural capital accounting can help and considers the barriers to moving beyond the technical considerations.

Chair: **Benoit Blarel**, World Bank Global Programme on Sustainability, Practice Manager

Panelists:

1. **Zachary Mwangi Chege**, Kenya National Bureau of Statistics, Director-General
2. **Bill Clark**, Harvard University, Sustainability and Science Programme, Director
3. **Elliot Harris**, UN Assistant Secretary-General for Economic Development and Chief Economist
4. **Nosipho Nausca-Jean Ngcaba**, South Africa Department of Environmental Affairs, Director-General
5. **Michel Santos**, Bunge, Director of Global Sustainability

10:40 An Integrated Information System for the Environment

The System of Environmental Economic Accounting (SEEA) represents a major contribution by the statistical community to the development of an integrated information system on the environment on par with the System of National Accounts for the economy. However, the advances achieved over the past decades are not well known beyond the statistical community, leaving potential uses and application of the system mostly untapped. This keynote presentation will provide an overview of the current advances, a perspective on outstanding needs and set the stage for further discussions.

Keynote speaker: **Bert Kroese**, Statistics Netherlands, Deputy Director General

11:00 *Coffee break*

11:30 Plenary Panel 2: What decision making does Natural Capital Accounting support?

This session aims to discuss the kinds of decisions natural capital accounting can support by providing practical examples of how the accounts have been used as well as discussing barriers on implementation, reflecting on what has worked and what has not worked.

Chair: **Jonny Hughes**, World Conservation Monitoring Centre (WCMC), CEO

Panelists:

1. **Chola Chabala**, Ministry of Development Planning, Government of Zambia, Permanent Secretary
2. **Barry Gardiner**, Global Legislators Organization (GLOBE), UK Shadow Secretary of State for International Trade
3. **Mark Gough**, Capitals Coalition, CEO
4. **Steven Landefeld**, former director of the U.S. Bureau of Economic Analysis
5. **Christine Wirtz**, Eurostat, Acting Head of Sectoral and Regional Statistics

13:00 *Lunch*

14:15 Parallel sessions 1

For all parallel sessions the format will be four, 10-12 minute talks, a 5 minute discussion from a SEEA perspective, a 5 minute communications discussion, and 20 minutes for open discussion and questions.

Session 1a: Understanding ecosystems as inputs to human wellbeing (*meeting room: Classroom 2400*)

Ecosystems contribute to human wellbeing. How can natural capital accounting support a better understanding of the link between natural capital and the provision of ecosystem services with human wellbeing at the societal scale?

Chair: **Juha Siikamaki**, IUCN, Chief Economist

Presentations:

1. **Mario Abela**, World Business Council for Sustainable Development, Director of Redefining Value
2. **Eli Fenichel**, Yale School of Forestry & Environment Studies, Knobloch Chair of Natural Resource Economics
3. **Ronald Kaggwa**, Manager, National Planning Authority, Uganda
4. **Jan-Erik Petersen**, European Environment Agency, Project Manager

Session 1b: Mainstreaming natural capital accounting within the national statistical system
(meeting room: Classroom 2410)

Over 90 countries are compiling the SEEA. However, compilation of the SEEA does not necessarily mean the accounts are used in decision making. This session takes a deeper look at the experiences of some of these countries and reflects on the challenges on mainstreaming the SEEA into decision making. It will also provide examples of narratives that resulted as a result of the SEEA compilation.

Presentations:

1. **Vivan Ilarina**, Philippines Statistical Authority, Assistant National Statistician (tbc)
2. **Siti Zakiah Muhamad Isa**, Department of Statistics Malaysia, Director of Agriculture and Environment Statistics Division
3. **Shailja Sharma**, Ministry of Statistics and Programme Implementation of India, Additional Director General
4. **Rob Smith**, Midsummer Analytics, Principal

Session 1c: Natural capital accounting and the role of different institutions *(meeting room: Classroom 2200)*

Natural capital accounting requires a multidisciplinary approach to develop and support a number of policies that span different ministries. This session discusses the changing role of the various institutions (e.g. Ministry of Planning, Ministry of Finance, Central Banks, Ministry of Environment). What are their visions, concerns and barriers for natural capital accounting? What is the role of the national statistical offices and other government agencies in supporting these demands?

Chair: **Chola Chabala**, Ministry of Development Planning, Government of Zambia, Permanent Secretary

Presentations:

1. **Dimitri Zenghelis**, Bennett Institute, Project Leader of The Wealth Economy
2. **Coalition of Central Banks for the Greening of the Financial System** (tbc)
3. **Statistics Indonesia (Badan Pusat Statistik)**
4. **Marian Weber**, Environment Ministry of the Government of British Columbia, Chief Environmental Economist

Session 1d: Corporate and other private uses and needs for and from natural capital accounting (Classroom 2230)

This session is intended to understand how corporations might benefit from natural capital accounting and how they can contribute to the development of natural capital accounting. How do companies use natural capital accounting today? How could broader and more standardized accounts support decision making? How can the advances in natural capital accounting at the corporate level support the its implementation and mainstreaming in the public sector?

Chair: **Jane “Carter” Ingram**, Ernst and Young, Senior Manager, Climate Change and Sustainability Practice

Presentations:

1. **Mitchell Toomey**, BASF, Director of Sustainability
2. **Laura Palmero**, Danone, Senior Advisor for Sustainability Reporting
3. **Doug McNair**, ERM and Capitals Coalition, Technical Director
4. **Johan Lammerant**, UN Statistics Division, Consultant

15:30 *Coffee break*

16:00 Plenary Panel 3: Vision for using natural capital accounts in decision making

How can natural capital accounting close the gap between the current state of affairs and policy needs? What are the critical elements of natural capital accounting for addressing policy needs and overcoming barriers?

Chair: **Alessandra Alfieri**, United Nations Statistics Division, Chief of Environmental-Economic Accounts Section

Panelists:

1. **Erica Goldman**, Science Policy Director at the National Council for Science and the Environment
2. **Rodolfo Lacy**, OECD Environment Directorate, Director
3. **Elliott Harris**, UN Assistant Secretary-General for Economic Development and Chief Economist
4. **Jason Shogren**, University of Wyoming, Stroock Professor of Natural Resource Conservation and Management
5. **Tom Verheye**, European Commission DG Environment, Principle Advisor

17:30 Plenary debrief from Parallel Sessions 3 & 4

Chairs of each group make a short summary of the presentations and discussion in the groups, followed by Q&A.

18:00 Reception, Kroon Hall 3rd floor

(meeting room for all plenary sessions: Classroom 2400)

8:00 Arrive/Coffee

9:00 Plenary Panel 4: Practical application – Crafting a narrative for natural capital accounting

This session will draw upon the contribution and participation of communications professionals to make progress towards a common narrative for natural capital accounting. In this session, they will share their advice and thoughts on a narrative for natural capital accounting as it relates to natural capital accounting incorporating conversation from day 1.

Chair: **Matthew Agarwala**, Bennett Institute for Public Policy, Research Leader

Panel:

1. **Philip Aldrick** -Economics editor and an economics columnist for The Times
2. **Erica Goldman** –National Council for Science and the Environment, Science Policy Director
3. **David Pilling**, Financial Times editor and author of the Growth Delusion

10:30 Coffee break

11:00 Parallel sessions 2

Session 2a: Using natural capital accounts for environmental policy analysis (Classroom 2400)

This session features experts who use national accounting data and environmental data to answer a range of policy questions. The session will focus on lessons learned and ideas for creating accounts that will be useful in answering policy questions.

Chair: **David Finoff**, University of Wyoming, College of Business, Associate Professor

Presentations:

1. **Onil Banerjee**, Inter-American Development Bank, Natural Resource Economist
2. **Dr. Medrilzam, Director of Environmental Affairs, BAPPENAS, Indonesia**
3. **Nancy Olewiler**, Simon Fraser University, Director of and Professor in the School of Public Policy; chair of the Macroeconomic Accounts Advisory Committee for Statistics Canada

Session 2b: Matching data and valuation methods (meeting room: Classroom 2410)

The accounting approach takes its strength from a coherent, consistent organization of data and providing data in terms of economic value and biophysical stocks and flows. The valuation methods proposed in the SEEA follow the valuation principles inherent in the SNA, focusing on exchange values. This differs from the welfare based approach followed in most of the non-market valuation literature, even though they depart from the same

underlying economic theory and use the same underlying biophysical information. This session brings together leaders in non-market valuation and national accounts to discuss how such bridges can be built using emerging data sources.

Chair: **Carl Obst**, UN Statistics Division, Consultant

Presentations:

1. **Vic Adamowicz**, University of Alberta, Professor of Agricultural Life and Environmental Sciences and Vice Dean
2. **Cathy Kling**, Cornell University, Tisch University Professor and Faculty Director at the Atkinson Center for a Sustainable Future
3. **Anton Steurer**, EuroStat, Head of Unit for Environment Statistics and Accounts and Sustainable Development
4. **Peter van de Ven**, OECD, Head of National Accounts

Session 2c: Communicating natural capital accounts with digital tools (Classroom 2200)

This session explores the use of computational tools ranging from novel figures to interactive dashboards and story to enhance understanding of natural capital accounts and potentially change the questions we ask of them.

Chair: **Yuan Yao**, North Carolina State University, Assistant Professor of Sustainability Science and Engineering

Presentations:

1. **Ethan Addicott**, Yale University
2. **Kevin Butler**, ESRI, Product Engineer for the Spatial Statistics Team
3. **Charlie Colgan**, Middlebury College, Director of Research for the Center for the Blue Economy

Session 2d: Using NCA to support global environmental policy: Linking to IPBES Global Assessment, CBD COP 15 Post 2020 Agenda for Biodiversity, UNFCCC Cop 26 on climate change, UNCCD on desertification, IUCN Red List of Ecosystems (Classroom 2410)

Only transformative change in the mechanisms currently influencing development, climate and investment decisions, and in which businesses operate, can unlock the needed reversal of trends in environmental outcomes as reported in the IPBES global assessment report. Many global environmental initiatives exist aiming to be part of the solution. How can natural capital accounting provide a useful framework to support these initiatives and the required transformation?

Chair: **Nosipho Nausca-Jean Ngcaba**, South Africa Ministry of Environment, Director-General

Presentations:

1. **Alessandra Alfieri**, United Nations Statistics Division, Chief of the Environmental Economic Accounts Section
2. **Benoit Blarel**, World Bank Global Programme on Sustainability, Practice Manager
3. **Pushpam Kumar**, Chief Environmental Economist, UN Environment
4. **Markus Lehmann**, Convention on Biological Diversity (CBD) Secretariat, Senior Programme Management Officer (tbc)

12:30 Lunch

13:45 Keynote – Natural capital as a public good and its measurement

Simon Levin, Princeton University, Professor in Ecology and Evolutionary Biology, Director of the Center for BioComplexity in the Princeton Environmental Institute

14:30 Parallel sessions 3

Session 3a: Mainstreaming NCA in the decisions of Central Banks (Classroom: 2410)

Recognition that environmental degradation and climate change have strong impacts on the functioning of the economy and pose risks to the short and long term economic stability of countries, provides an opportunity for natural capital accounting to inform important economic stakeholders. This session will discuss how natural capital accounting can help central banks and financial institutions to inform decisions alongside the conventional national accounts.

Presentations:

1. **Craig Johnston**, Bank of Canada, Senior Economist
2. **Nick Muller**, Carnegie Mellon University, Associate Professor of Economics, Engineering and Public Policy
3. **Jim Tebrake**, International Monetary Fund, Division Chief, Real Sector Division, Statistics Department

Session 3b: The natural capital of the ocean and the sustainability of the ocean economy

This session will highlight the recent work of the High Level Panel for a Sustainable Ocean Economy as it relates to accounting for ocean capital and services provided by the ocean. Lead report author, Eli Fenichel, will highlight the key finding and recommendations from the Blue Paper, “National Accounting for the the Ocean and Ocean Economy,” then country representatives from High Level Panel Countries will respond and discuss a path forward to accounting for ocean capital. _

Chair: **Craig Hanson**, World Resources Institute, Vice President for Food, Forest, Water & the Ocean

Presentations:

1. **Eli Fenichel**, Yale University, Knobloch Family Professor of Natural Resource Economics
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2. **Carolyn Cahill**, Statistics Canada, Assistant Director

Session 3c: The role of (sub)national and thematic accounts in public policy – addressing issues of spatial scale

Natural capital accounting concepts can be used at different scales, including at national, regional and landscape level. This session will discuss current and potential uses of natural capital accounting at different scales and for specific themes, in particular identifying synergies and opportunities such as nature based solutions and ecosystem based management.

Presentations:

1. **Josh Abbott**, Arizona State University, Associate Professor
2. **Silvia Ferrini**, Centre for Social and Economic Research on the Global Environment, University of East Anglia
3. **Rebeca de La Rocque Palis**, Brazil Institute of Geography and Statistics, National Accounts Coordinator
4. **Rosimeiry Portela**, Conservation International, Senior Director and lead of the economics team

Session 3d: Capital and risk markets and environmental information

Capital markets are increasingly seeking methods to understand environmental risk and opportunities. How can and how do capital markets use environmental or natural capital data today in the future?

Presentations:

1. **Todd Bridges**, Arabesque, Global Head of Sustainable Investing & ESG Research
2. **Ekaterina Gratcheva**, Lead Financial Officer, World Bank
3. **Moritz Kraemer**, Acreditus, Chief Economic Advisor; former Head of Sovereign Ratings, S&P
4. **Arjan Ruijs**, Actiam, Senior Responsible Investment Officer

16:00 *Coffee break*

16:30 Plenary panel 5: Setting expectations for data sources and computation for natural capital accounts

The types of data and computational tools for natural capital accounting are rapidly changing. This session aims to provide insights into cutting edge data sources and technologies and to understand better the areas where data is, or is not, a limitation.

Chair: **Giuseppe Amatulli**, Yale Center for Research Computing and School of Forestry & Environmental Studies

Panelists:

1. **Diane Coyle**, Bennett Institute for Public Policy, co-Director
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2. **Charlie Frye**, ESRI, Chief Cartographer
3. **Rodolfo Lacy**, OECD Environment Directorate, Director
4. **Greg Petersen**, Statistics Canada, Assistant Chief Statistician

17:45 End of Day 2

18:30 Short reception followed by dinner, Omni Hotel

Day 3: Friday, 20 March 2020

(meeting room for all plenary sessions: Classroom 2400)

8:00 Arrive/Coffee

9:00 Plenary Panel 6: Data driven natural capital for business

This session focus on the natural capital data needs and uses by business and other non-governmental organizations. It will consider why and how these needs and uses may differ from the requirements for public policy and the potential synergies from an information perspective. It will examine how natural capital accounting can function as a powerful force for managing the shared resource that is natural capital.

Chair: **Johan Lammerant**, UN Statistics Division, Consultant

Panel:

1. **Alessandra Alfieri**, United Nations Statistics Division, Chief of Environmental-Economic Accounts Section
2. **Erin Billman**, Science Based Targets Network, Executive Director
3. **Ron Dembo**, Riskthinking.ai, CEO
4. **Robin Millington**, Planet Tracker, Executive Director

10:45 Coffee break

11:15 Plenary Panel 7: A Path Forward on Walking and Talking Natural Capital to Achieve Results

For this session, leaders in their fields will outline their visions of the path forward and reflect on the conference.

Chair: **Eli Fenichel**, Yale School of Forestry & Environment Studies, Knobloch Chair of Natural Resource Economics

Panel:

1. **Benoit Blarel**, World Bank Global Programme on Sustainability, Practice Manager
2. **Bill Clark**, Harvard University, Sustainability and Science Programme, Director
3. **Diane Coyle**, Bennett Institute for Public Policy, co-Director
4. **Barry Gardiner**, Global Legislators Organization (GLOBE), UK Shadow Secretary of State for International Trade
5. **Elliott Harris**, UN Assistant Secretary-General for Economic Development and Chief Economist
6. **Bert Kroese**, Deputy Director General, Statistics Netherlands

12:15 Closing remarks and official close of the Conference

12:30 Close and lunch
