BOOK OF ABSTRACTS

I. SESSION DESCRIPTION

ID: S6

Making Nature Count: Applying monetary valuation data in (financial) decision-making contexts

Format: Hybrid

Hosts

	Name	Organisation	E-mail
Host	Vince van 't Hoff	Foundation for Sustainable Development (FSD)	vince.vanthoff@fsd.nl
Co-Hosts	Mieke Siebers	Foundation for Sustainable Development (FSD)	mieke.siebers@fsd.nl
	Luke Brander	Brander Environmental Economics	lukebrander@gmail.com

Abstract

Through their investments, financial institutions can be heavily dependent on ecosystem services and therefore, deterioration of nature causes risks for financial institutions: physical risks and transitional risks, including reputational risks. Based on several case studies with financial institutions, the Ecosystem Service Valuation Database (ESVD) team has gained insights in integrating the monetary valuation of ecosystem services in impact assessments and risk analysis of financial institutions (see https://www.esvd.info/project-asnbank for our first collaboration with the ASN Bank). In our current collaboration with ASN Bank, we are assessing investments of the ASN Biodiversity Fund in terms of impacts and dependencies on ecosystem services using the ESVD in combination with other tools such as ENCORE and several foot printing analyses. These case studies will shed new light on the importance of providing a place for nature on the equation of financial assessments, on the link between ecosystem services and financial risks and on the monetary impacts of loans and investments on ecosystems. Moreover, it highlights the importance of involving (potentially) impacted stakeholders in investment decisions, which can be identified through the changes in ecosystem services. Since this project is currently ongoing, it is not yet possible to highlight (all) outcomes. Using monetary valuation as a language to convey the importance of nature supports the incorporation of nature in decision-making. Our work with ASN Bank underlines the urgency for financial institutions, businesses and policy makers to create new

financial products, different PES mechanisms, as well as creating a larger and much broader stakeholder engagement.

Goals & Objectives

Overall objective is to give insight in the possibilities of using monetary valuation data in impact assessments for financial institutions, governments and other organizations, and the relevance and the importance of doing so. We will showcase the significance of stakeholder engagement, the 'why' of integrating monetary valuation in decision-making and possible future developments. We welcome voluntary contributions from participants on their experiences with applying monetary valuation in decision making, especially in the financial sector.

Planned Output

If there is sufficient interest, we will produce a Special Issue on the topic of this session

Session Format

Presentations and discussions

Acceptance of voluntary contributions

Yes, I allow any abstract to be submitted to my session for review.

Relation to ESP Working Groups or National Networks

Sectoral Working Groups: SWG 6 – ES in Business

II. SESSION PROGRAMME

Date of session: 8 November 2023
Time of session: 16:00-18:00

Timetable speakers

Time	First name	Surname	Organization	Title of presentation
16:00-16:05	Vince/Victoria		Foundation for Sustainable Development	Introduction
16:05-16:25	Victoria	Guisado Goni	Foundation for Sustainable Development	An ESVD deep dive: Explaining the data, the structure and the ESVD in a global, Latin America and Caribbean context

Time	First name	Surname	Organization	Title of presentation
16:25–16:35	Maria	Alarcon Blazquez	University of New South Wales	Ocean Accounting as an approach to track progress towards Sustainable Development
16:35–16:50	Victoria	Guisado Goni	Foundation for Sustainable Development	Discussion & questions
16:50–17:10	Vince	Van 't Hoff	Foundation for Sustainable Development	Making Nature Count – Insights about the integration of ecosystem services valuation data in financial decision-making
17:10–17:20	Christian	Ramírez Cabrera	Instituto Politécnico Nacional, CIIDIR – Unidad Oaxaca	Changes in the Economic Value of Ecosystem Services due to Land Cover and Land Use Dynamics in Oaxaca, Mexico
17:20–17:30	Tasew	Tadesse	Dilla University, Dilla, Ethiopia	Cost-Benefit Analysis of Sustainable Land Management Interventions: Evidence from Southern Ethiopia
17:30–17:40	Luiz	Magelhaes Filho		Assessing the impacts of climate and socio-economic scenarios on ecosystem service values in the Atlantic coastal zone.
17:40–18:00	Vince	Van 't Hoff	Foundation for Sustainable Development (FSD)	Discussion, questions and closing

III. ABSTRACTS

1. *Type of submission*: Abstract / Resumen

S. Sectoral Working Group sessions / Sesiones del Grupo de trabajo Sectoriales S6 - Making Nature Count: Applying monetary valuation data in (financial) decision-making contexts

Making Nature Count Applying monetary valuation data in (financial) decision-making contexts

First author(s): Vince Vince

Presenting author: Vince van 't Hoff

Contact: vince.vanthoff@fsd.nl

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financial products, different PES mechanisms, as well as creating a larger and much broader stakeholder engagement.

Keywords: Economic valuation, financial institutions, ESVD, impact assessment

2. *Type of submission*: Abstract / Resumen

S. Sectoral Working Group sessions / Sesiones del Grupo de trabajo Sectoriales S6 - Making Nature Count: Applying monetary valuation data in (financial) decision-making contexts

Cost-Benefit Analysis of Sustainable Land Management Interventions: Evidence from Southern Ethiopia

First author(s): Tasew Tadesse

Presenting author: Tasew Tadesse

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Ethiopia has been implementing sustainable land management (SLM) measures throughout the country to reverse land degradation. Such actions against land degradation have costs and benefits. The most convincing argument for smallholder farmers to adopt SLM practices on their farms is an improvement in land productivity and long-term financial gains. Using the cost-benefit analytical framework, the costs, benefits, and returns of SLM practices are compared with a business-as-usual scenario for the period 2019-2046. Data for the analysis were obtained primarily from a survey of 231 farmers, and implementing agencies in the Barcha-Adado watershed, which is one of SLM intervention watersheds found in the southern highlands of Ethiopia. Soil bunds, fanyajuu bunds and fanyajuu bunds stabilized with grass strips were the major SLM measures adopted by farmers. The average cost of SLM measures was found to be $171 per hectare. Farmers adopting SLM measures, on average, were found to experience a yield gain of 28% per hectare compared to the business-as-usual scenario. The net present value (NPV) of SLM interventions was $1,491.6 per hectare. The gain in crop productivity and returns, however, was observed to vary by the type of SLM technology adopted by farmers. The returns are the highest for fanyajuu bunds compared to the other structures. The gain in crop productivity and positive returns justify the profitability of SWC measures from the adopting farmers' perspectives. Thus, scaling up SLM practices to degraded farmlands would help to enhance crop productivity, farm income and thereby rural farmers' welfare, and ensure the sustainability of smallholder agriculture in the face of land degradation.

Keywords: Land degradation, SLM, costs, benefits, cost-benefit analysis, Ethiopia

3. *Type of submission*: Abstract / Resumen

S. Sectoral Working Group sessions / Sesiones del Grupo de trabajo Sectoriales S6 - Making Nature Count: Applying monetary valuation data in (financial) decision-making contexts

Ocean Accounting as an approach to track progress towards Sustainable Development

First author(s): Ben Milligan

Presenting author: Maria Granada Alarcon Blazquez

Other author(s): Philip James, Maria Granada Alarcon Blazquez

Contact: maria.alarcon@unsw.edu.au

The ocean is under increasing pressure from climate change and anthropogenic pressures such as over fishing and marine pollution. Understanding the state of the marine and coastal ecosystems in a robust and comparable manner is vital to maintain the ecosystem services that the ocean provides humanity. Sustainable ocean management and the proposal by the High Level Panel for Sustainable Ocean Plans are essential for equitable and inclusive sustainable development. This transformational approach requires decision making to be underpinned by a deep understanding of environmental, social and economic data from the ocean. This can be achieved by the use of ocean accounting as described by the Global Ocean Accounts Partnership (GOAP) Technical Guidance. GOAP, set up by UNESCAP and Fisheries and Oceans Canada in 2018, coordinates the global efforts in accounting for the ocean consistent with the SEEA guidance. It has an ever growing membership which currently stands at over 30 members and helped coordinate pilot ocean accounting activities in more than 15 countries. The approach however remains novel and is new to most countries in the Latin America and Caribbean region. Ocean accounting provides a standardized system to organise and track information relevant to the ocean, including ocean risk and identifying economic vulnerabilities.

The primary objective of presenting our work in this session is to increase awareness among the Latin America and Caribbean community and global conference participants of ocean accounting approaches and the exciting evolution of these approaches over the past five years. This work will outline the ocean accounting approaches, provide a global view of progress, provide deep-dive insights into pilot programmes from around the world and end by gathering common lessons learned and highlight key areas of future research.

Keywords: Ocean Accounting, Sustainable Ocean Management, Marine Ecosystems, Methodological Standardization

4. *Type of submission*: Abstract / Resumen

S. Sectoral Working Group sessions / Sesiones del Grupo de trabajo Sectoriales S6 - Making Nature Count: Applying monetary valuation data in (financial) decision-making contexts

Assessing the impacts of climate and socio-economic scenarios on ecosystem service values in the Atlantic coastal zone

First author(s): Luiz Magalhães Filho

Presenting author: Luiz Magalhães Filho

Other author(s): Carlotta Quagliolo, Peter Roebeling

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The future of coastal ecosystem services and values will be shaped by uncertainties when considering sea-level rise and socio-economic development. This study investigates how the combined effects of future coastal flooding and socio-economic development will influence ecosystem service values (ESV) in the Atlantic coastal zone by 2100. To this end, flood probability maps (based on the Uncertainty Bathtub Model; uBTM) and local ecosystem service value estimates (based on meta-analytic value function transfer) are derived for combinations of Representative Concentration Pathway (RCP) and Shared Socio-economic Pathway (SSP) scenarios. Results show that the largest areas at risk of sea-level rise are associated with SSP5 ('Fossil-fueled development') and SSP3 ('Regional rivalry'), while largest ecosystem service value losses due to sea-level rise are associated with SSP5 ('Fossil-fueled development') and SSP1 ('Sustainability'). The findings reveal that coastal ecosystem service values are influenced by temporal variations and local factors, including population and income. While income growth contributes to a larger valuation of coastal ecosystem services, population growth leads to increased demand for and pressure on vulnerable coastal ecosystems. Consequently, sea-level rise and socio-economic transformations have a direct impact on ecosystem service values, ultimately influencing the overall well-being of the population in the Atlantic coastal zone. By uncovering the unequal allocation of losses in coastal ecosystem service values across various biomes and regions, this study takes a crucial stride towards acknowledging the values at risk and people affected. This comprehension plays a vital role in the development of adaptation plans, strategies and measures.

Keywords: Ecosystem services valuation; Meta-analytic value function transfer; Sea-level rise; Climate change scenarios; Socio-economic scenarios.