



BOOK OF ABSTRACTS

- I. SESSION DESCRIPTION
- II. SESSION PROGRAM
- III. ABSTRACTS

I. SESSION DESCRIPTION

ID: S6

Business and Ecosystem Services in Research and Practice

Hosts:

	Title	Name	Organisation	E-mail
Host:	MSc.	Martine van Weelden	Capitals Coalition	martine.vanweelden@capitalscoalition.org
Co-hosts:	PhD.	Davide Murgese	SEAcop STP	murgese@seacop.com
	PhD.	Dalia D'Amato	University of Helsinki	dalia.damato@helsinki.fi

Abstract:

The UN driver Agenda 2030 and other recent international political processes have legitimized the role of private sector organizations in tackling pressing sustainability challenges, such as climate change, biodiversity loss, the disruption of water and biogeochemical cycles, ocean acidification, land–system change and related resource use.

Businesses organizations and industries have the financial means to contribute to the post–2020 sustainability goals. Moreover, they also have significant transformative potential as large companies have global, resource–dependent value chains as well as positive and negative impacts on landscapes, biodiversity and ecosystem services (ES).

Many companies are active in reducing greenhouse gas emissions and waste, developing environmentally–friendly products or making supply chains more sustainable. Beyond that, issues related to natural capital, ES and biodiversity have increasingly attracted the attention of businesses in recent years: Business alliances have been forged (e.g. the EU Business @ Biodiversity Platform, the Business for Nature community, Natural Infrastructure for Business platform, the Value Balancing Alliance), and frameworks and tools have been developed to guide a sustainable business management of the natural environment (e.g. the Natural Capital Protocol



by the Natural Capital Coalition, the ENCORE tool, the Aligning Biodiversity Measures for Business initiative).

This session aims to critically present scholarly research, policy developments and best practices in the context of business and ES. The session is organized in two sub-sessions, which will be linked through an overarching discussion slot at the end: i) the first part of the session will present recent academic research on a diverse range of business and ES issues. ii) The second part will place an emphasis on current policy developments to promote business commitment, and it will present best-practices from selected companies.

With the first sub-session, we aim to provide a knowledge-sharing opportunity for researchers that have recently conducted studies related to one or multiple of the following topics:

- business case for biodiversity and ES;
- business perceptions, actions and strategies related to natural capital and biodiversity challenges, such as the TEEB AgriFood Project by the Capitals Coalition;
- company stakeholder expectations related to natural capital and biodiversity challenges;
- advances in natural capital accounting and ecosystem services valuation, including sustainable value chain management;
- reporting practices of biodiversity and ES-related activities;
- governance mechanisms, including market-based approaches, to promote business engagement e.g. Payments for Ecosystem Services (PES) schemes, business' willingness-to-pay studies and institutional preferences of PES markets.

The second sub-session will focus on the experiences of private companies and public institutions in the context of governance, especially regarding PES activation to positively impact natural assets. The aim is to examine relevant aspects related to the transition to new environmental business management models:

- potential and limitations linked to current legislation;
- types of PES (e.g. private-private, public-private) and methods for managing the agreements between the parties;
- monitoring of environmental and economic performance, i.e. integration of sustainability issues into environmental management systems defined according to existing standards, development of new management systems;
- stakeholders involvement and management of relationships with the actors indirectly involved in the processes;
- customer perception and reaction regarding the implemented initiatives.

Goals and objectives of the session:



The aim of this session is to bring together knowledge and foster discussion about recent scholarly research, policy developments and organizational best practices linking business and ES. By engaging researchers, business representatives and policy practitioners, we will investigate knowledge gaps as well as practicable ways to further promote and mainstream business efforts for biodiversity and ES. The session ensures to provide a valuable platform of exchange between researchers and practitioners and is, moreover, central in guiding an applied and timely ES research agenda that acknowledges and highlights the role of the business community.

Planned output / Deliverables:

Depending on the session results and discussion, it might be conceivable to initiate a joint publication among interested participants on knowledge gaps and a research–practice agenda setting.

Related to ESP Working Group/National Network:

Sectoral working group: SWG 6 – ES in Business

II. SESSION PROGRAM

Date of session: Thursday, 10 June 2021

Time of session: 13:30 – 14:30

Timetable speakers

Time	First name	Surname	Organization	Title of presentation
13:30 13:35	Martine	van Weelden	Capitals Coalition	Introduction
13:35 13:45	Alessandra	La Notte	Joint Research Centre of the European Commission	The role of ecosystem services in corporate natural capital accounting: an initial framework proposal
13:45 13:55	Cheng	Chen	Leibniz Centre for Agricultural Landscape Research	Digital platform to support private sector's contribution of payments for ecosystem services
13:55 14:05	Shane	Mc Guinness	University College Dublin	Making the business case for biodiversity in Ireland through Financial Needs Assessment

3rd ESP EUROPE CONFERENCE

Tartu, Estonia

2021 7-10 June

Ecosystem Services Science,
Policy and Practice in the
face of Global Changes

Time	First name	Surname	Organization	Title of presentation
14:05 14:10	Davide	Murgese	SEAcop STP	Agro-ecology and strategies to support the transition to sustainable farming systems. The partnership with Coldiretti Piemonte
14:10 14:25	Roberto	Moncalvo	Coldiretti Piemonte	Natural capital and ecosystem services management: a new perspective for agriculture
14:25 14:35	Martine	van Weelden	Capitals Coalition	Including the value provided by natural, social and human capital in the agri-food value chain
14:35 14:55				<p>Discussion:</p> <ul style="list-style-type: none"> • Matching OFFER of NC and related ES with SMEs' DEMAND: how land ownership fragmentation can affect ES provision with regard to large demand from businesses and governments? What would be needed to improve management of fragmented plots of land, so overall ecosystem services provision and access to benefits of ES would improve. • Bridging gaps between conducting and completing an assessment and the application of the ecosystem services/natural capital assessment. • Discussion about the interest to initiate a joint publication among interested participants on knowledge gaps and a research-practice agenda setting
14:55	Martine	van Weelden	Capitals Coalition	
15:00	Davide	Murgese	SEAcop STP	Closing
	Dalia	D'Amato	University of Helsinki	



III. ABSTRACTS

Abstracts are ordered based on the session program. The first author is the presenting author unless indicated otherwise.

1. Type of submission: Abstract

S. Sectoral Working Group sessions: S6 – Business and Ecosystem Services in Research and Practice

The role of ecosystem services in corporate natural capital accounting: an initial framework proposal

Presenting author: Alessandra La Notte

Affiliation: Joint Research Centre of the European Commission, Italy

Contact: alessandra.la-notte@ec.europa.eu

Natural capital accounting can be undertaken at national level (following the SEEA guidelines that expand the System of National Accounts with satellite environmental and ecosystem accounts) or at business level. There are two different perspectives: the use of the “micro” and “macro” suffixes may have multiple uses and interpretations: in spatial applications, they are often used to define different territorial scales, that may range from local (high resolution) to continental (low resolution). However, when moving to an accounting context, the underlying principles should refer to (i) “microeconomics” that consider the behaviour of producers and consumers, how demand and supply interact in individual market, etc.; and (ii) “macroeconomics” that does not consider anymore the individual markets but the whole economy. Ecosystems support individual firms in many ways: by providing input, by mitigating emissions (negative externalities), by protecting against adverse events (such as flood control), etc. In some cases, the microeconomic perspective can already work well because the use of natural input and the emission of pollutants are variables that enter directly into the business production process. In fact, private/corporate reporting can already include this kind of variables (e.g. water consumption, CO₂ emissions) in the monitoring dashboard. In all the other cases a direct linkage with the business production process is not there. Some ES cannot be part of a production process, but they are related to the daily safety and to the long-term existence of the production site & activities and its surrounding infrastructures. Another important element to be considered is that while economic activities by businesses (recorded in their bookkeeping) are all within the SNA boundary, their environmental



impacts are not. E.g. the pollution created throughout manufacturing, distribution, marketing, trading and disposal. Both elements are described and explored throughout the Natural Capital Coalition framework (Frame– Scope– Measure and Value– Apply).

Keywords: natural capital accounting, ecosystem services, macroeconomy, microeconomy, value chain

2. Type of submission: Abstract

S. Sectoral Working Group sessions: S6 – Business and Ecosystem Services in Research and Practice

Digital platform to support private sector's contribution of payments for ecosystem services

Presenting author: Cheng Chen

Affiliation: Leibniz Centre for Agricultural Landscape Research (ZALF), Germany

Contact: cheng.chen@zalf.de

The concept of ecosystem services (ES) has accompanied by a change in our understanding of governance, moving away from mostly state–carried hierarchical command towards more inclusive market– and incentive–based approaches, which include also private and civil society actors. While Payments for Ecosystem Services (PES) are often promoted as an innovation to solve environmental management problems, the non–governmental actors involved in PES, the sources of funds and the scope for application of PES are often quite limited. This study investigates innovative models of governance for sustainable land use using digitalization as opportunities. The digital tools (e.g. remote sensing, online–platform, social media, Internet of Things) are considered to enable efficiency and to influence how people perceive the value of ES. As the technologies are increasingly available in bringing ES providers (land users) and stakeholders (private, civil and government actors) together and making the low–cost verification of the results (e.g. monitoring), the new opportunity to overcome the mentioned challenges of governance can be found. Establishing new governance approaches in many instances will require new institutions, skills and new partnerships. However, there is little research about taking digitalization as opportunities for PES. Particularly how they can help to overcome market failure, information gaps and asymmetries, lower policy–related transaction costs, and enable people



with different preferences and incentives to work better together are rather not clear. This study take two innovative private initiatives for biodiversity as case studies, AgoraNatura (<https://agora-natura.de/>) from Germany and Ant Forest from Chinese technology giant Alibaba (<https://www.antgroup.com/en>). This study reveals that both of them could leverage the advantages of the platform economy and certificate system, reducing transaction costs through economies of scale, standardisation and a supporting institutional environment. It shows the great potentials of digital platform to support the private sector's contribution to biodiversity and sustainable development.

Keywords: digitalization, governance, biodiversity, protected area, PES

3. Type of submission: Abstract

[S. Sectoral Working Group sessions: S6 – Business and Ecosystem Services in Research and Practice](#)

Making the business case for biodiversity in Ireland through Financial Needs Assessment

Presenting author: Shane Mc Guinness

Other author(s): Craig Bullock

Affiliation: University College Dublin, Ireland

Contact: shane.mcguinness@ucd.ie

Ireland's biodiversity is in trouble. According to most recent assessments, 86% of our habitats are in unfavourable condition, while the number of Red-listed birds in Ireland continues to increase. Ireland's 3rd National Biodiversity Action Plan, under our Natura 2000 and Aichi CBD commitments, aims to remedy this through targeted actions and strategic objectives. Concurrently, Ireland will struggle to meet its carbon emissions reduction commitments. Addressing these challenges is further constrained by extremely limited funding and competing priorities. In conservation, not least elsewhere, money matters. Using the Biodiversity Finance (BIOFIN) model of the United Nations Development Programme, this research project based in University College Dublin's School of Architecture, Planning and Environmental Policy, has accounted for existing spending on biodiversity in Ireland across all sectors, assessed the policies and institutions influencing this spending, and has undertaken a financial needs assessment



(FNA) of the resources necessary to meet stated biodiversity objectives. It has also identified potential synergies and co-benefits in meeting biodiversity and climate targets through ecosystem service provision and has highlighted harmful subsidies that threaten these across various sectors. The present paper characterises the financial gap between current resources and those needed to conserve biodiversity, but also serves to narrow the “chasm of incomprehension” between business and science (SWT, 2020), by speaking the languages of both parties. The outputs of this project are thus aimed squarely at the confluence of business interests, financial provision and ecosystem services support, by providing the foundations for more innovative funding streams and increased efficiencies in existing spending. This is the first time a developed nation has used the BIOFIN model (until now a developing world tool) to strategically plan the financial needs of conserving national biodiversity, making Ireland a flagship for this methodology worldwide. This research is supported by the Ireland’s National Parks and Wildlife Service and the Irish Research Council.

Keywords: biodiversity finance, BIOFIN, investment, FNA, Ireland