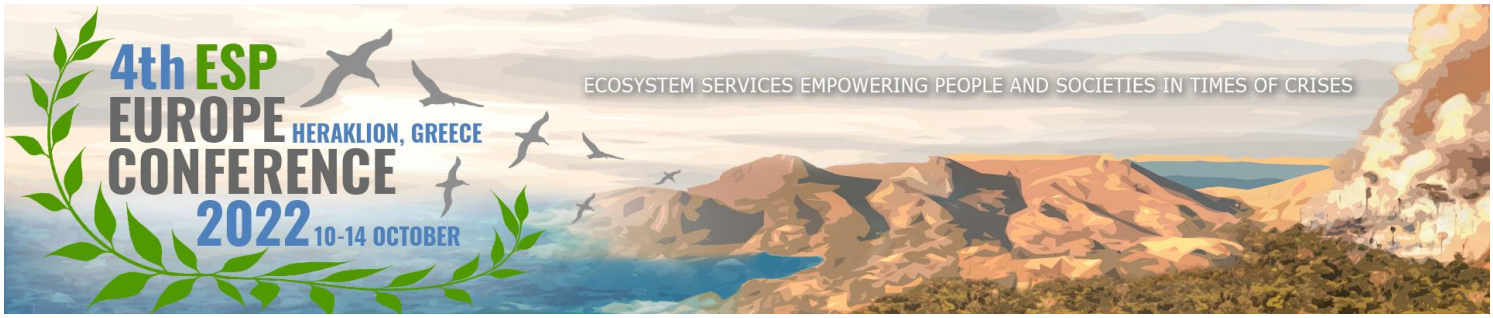


BOOK OF ABSTRACTS

I. SESSION DESCRIPTION

ID: T1

Guidelines, tools and standards for integrated ecosystem services assessments

Hosts:

	Title	Name	Organisation	E-mail
Hosts:		Dolf de Groot	FSD	Dolf.degroot@fsd.nl
		Benedetto Rugani	LIST	benedetto.rugani@list.lu
		Simon Moolenaar	Commonland	simon.moolenaar@commonland.com
		Luis Inostroza	Univ. Bochum	luis.inostroza@rub.de
		Fernando Rodríguez	Salamanca University	frodriguez@usal.es
		Victor Colino	Salamanca University	vcolino@usal.es
		Luke Brander	Institute for Environmental Studies	lukebrander@gmail.com
		Simone Quatrini	JRC	simone.quatrini@usys.ethz.ch

Abstract:

The general objective of this session is to contribute to improve, and harmonize guidelines, toolkits, data bases and standards for implementing integrated ecosystem service assessments (ESA). Four main topics will be addressed in this session to allow cross-fertilizations between state-of-the-art practices, methods and tools for incorporating ESA in decision-making:

1. Guidelines: building on previous ESP conferences, notably ESP 9 World conference in Shenzhen (2017) and ESP 10 World Conference in Hannover (2019), guidelines for integrated ecosystem services assessment (ESA) have been developed (www.es-partnership.org/esp-guidelines/). In this session, lessons learnt from other guidelines and frameworks will be shared and discussed to explore how these guidelines can be further improved and, possibly adopted as official ESP Guideline.
2. Life Cycle Assessment (LCA) and standardization. Latest advances in the ES-LCA literature show promising avenues to develop ES accounting in LCA and overcome the current taxonomic and methodological challenges, such as knowledge gaps on how to inventory

ES flows along products life cycles, and/or how to increase the accuracy, transparency and replicability of ES assessments inspiring on the International Organization for Standardization (ISO) approaches used in LCA.

3. ES Valuation Databases. To support the implementation of ES-Assessment guidelines and LCA guidelines, advances in databases are needed to improve our knowledge about value functions, assessments, and dependencies as well as to increase data availability for benefit transfer. Several ongoing initiatives will be presented (e.g., ESVD (www.esvd.info), ESValues (https://www.esvalues.org/, TEER (https://www.fao.org/in-action/forest-landscape-restoration-mechanism/our-work/gl/teer/en/)). Moreover, the session aims to expand the discussion on benefit transfer as a valuation approach for ES, going deeper into the main obstacles for the generation of databases, learn from best practices in the generation of benefit transfer databases and discuss the key elements that the next generation database for the valuation of ecosystems and their services must satisfy.
4. Standards. Assessments and valuations can be criticized for lack of accuracy, comprehensiveness and quality, which in turn can lead to a 'credibility deficit' if they are not accompanied by robust verification, certifications and audits. Most certification programs to-date focus on a single resource or commodity, or address only a narrow definition of sustainability. However, new initiatives that assess environmental protection, ecological restoration, ecosystem services, and sustainable production outcomes and impacts in an integrated manner are gradually emerging. An overview will be provided of the most promising certification and standardization processes, including those pursued by the International Organization for Standardization (ISO).

This session will explore common challenges, synergies and overlaps between complementary research fields, and interactive web-based databases to support environmental decision-making, creating the foundations for an international ES assessment and management standard as well as new directionalities to capture the value of environmental externalities and embed it into decision-making through robust guidelines, toolkits, databases and standards.

Goals and objectives of the session:

The session aims to provide a platform to share and discuss the latest developments regarding ES-assessment Guidelines, Tools and Standards.

Public and private sector investors, multilateral and intergovernmental authorities, regulators, landowners and land users, require best-in-class, customized and harmonized standard monitoring and management practices, instruments and guidelines to systematically incorporate ES considerations in their decision-making processes. Mainstreaming ES knowledge into policy and decision-making practice requires the harmonization of definitions, the standardization of classification processes, the generation

of comprehensive databases and the streamlining of methodological and epistemological properties of ES accounting, quantification, valuation and mapping approaches.

Planned output / Deliverables:

1. **Production of Special Issue on ESA Guidelines, Tools and Databases**
   A collection of papers presented during the workshop will be submitted as Special Issue to Ecosystem Services https://www.sciencedirect.com/journal/ecosystem-services
2. **Contribute to a special issue on integrating ES into LCA**
   A special issue addressing LCA and ES research and application questions is currently in preparation for the Ecosystem Services journal https://www.sciencedirect.com/journal/ecosystem-services
3. **Establishment of a working group** to further develop the ESA-Guidelines in combination with web-based support tools and ESA and Valuation Databases in collaboration with the existing ESP Task Forces on Guidelines & Tools and TF on Databases. Possibly to be combined with a new initiative from ELD to set up a `Valuation Harmonization Database`.

Session format:

Combined standard session (short presentations) and discussion forum

Related to ESP Working Group/National Network:

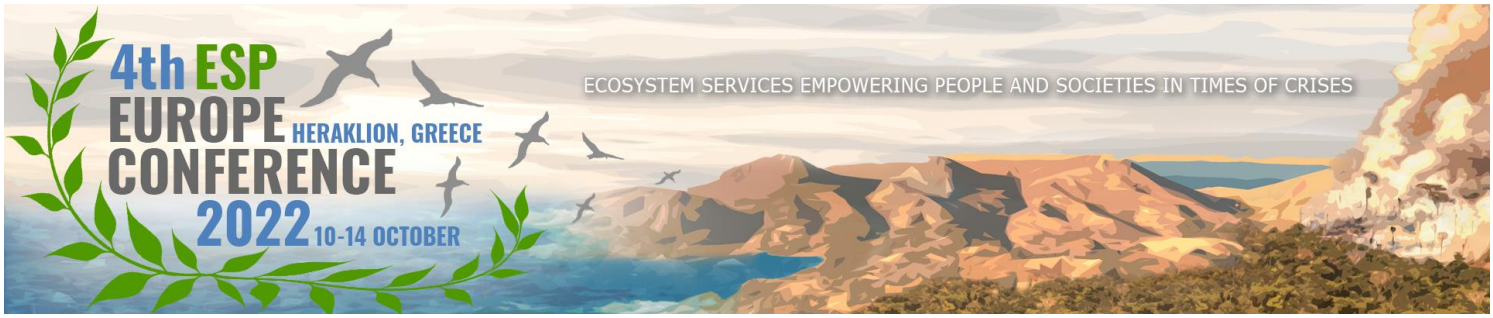
Thematic Working Groups: TWG 1 – ES Assessment frameworks & Typologies

II. SESSION PROGRAM

Date of session: Wednesday, 12 October
Time of session: 11:00 – 13:00 and 16:00 – 18:00

Timetable speakers sub-session T1a: Guidelines and Frameworks

Time	First name	Surname	Organization	Title of presentation
11:00	Rudolf	De Groot	FSD	Introduction to the session
11:10	Evangelia	Drakou	Harokopio Univ Athens	The ESP task Force on ES Guidelines and Standards
11:15	Rudolf	De Groot	FSD	Guidelines for Integrated Ecosystem Services Assessment
11:30	Katerina	Macova	Charles University	Ecosystem assessment guidelines – towards a more appropriate mainstreaming into national practice



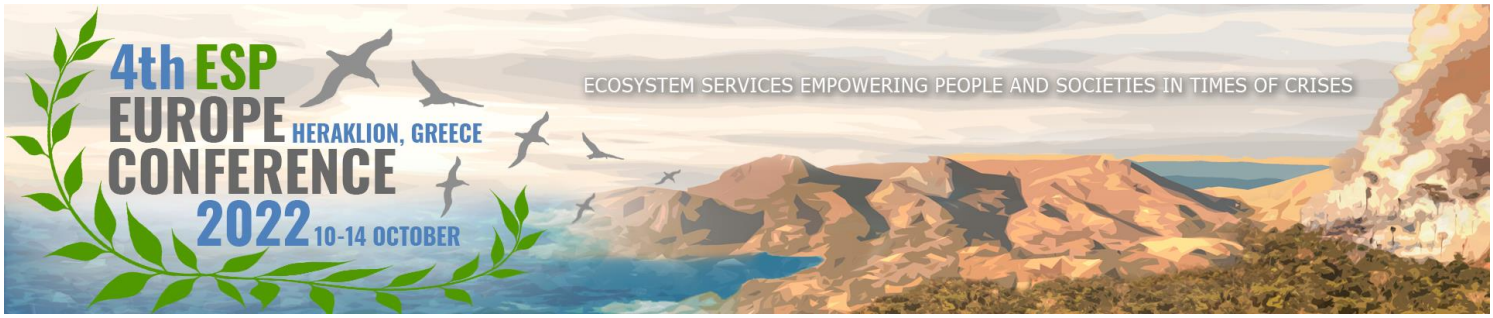
Time	First name	Surname	Organization	Title of presentation
			Environment Centre	
11:45	Evangelia	Drakou	Harokopio Univ Athens	Setting up an ecosystem services ontology – showcase, testing and ways forward

Timetable speakers sub-session T1b: Tools and standards

Time	First name	Surname	Organization	Title of presentation
12:00	Benedetto	Rugani	Luxembourg Inst. of Science and Technology – LIST	A Standards Application Protocol to establish environmental footprint neutrality based on combined LCA-ES assessment procedures
12:15	Javier	Babi Almenar	Joint Research Centre	SEEA-EA ecosystem accounts as an opportunity for standardization of ecosystem services assessment and its intertwining with life cycle assessment
12:30	Frederic	Joly	INRAE	Integrating ecosystem services in the life cycle assessments of meats of different species
12:45	Paula	Castro	University of Coimbra, Portugal	Is spatial analysis the missing link between Life Cycle Analysis and Ecosystem Services? A systematic literature review
12:50	Victor	Colino	Universidad de Salamanca	Valuing Nature APP for ES economic valuation

Timetable speakers sub-session T1c: Databases to support ES Assessments and valuation

Time	First name	Surname	Organization	Title of presentation
16:00	Luke	Brander	Leibniz Univ., Hannover, Germany	Ecosystem Services Valuation Database (ESVD) www.esvd.info
16:10	Daniel	Dionisio	FAO	ABC-Map: a new geospatial app that allows governments, international



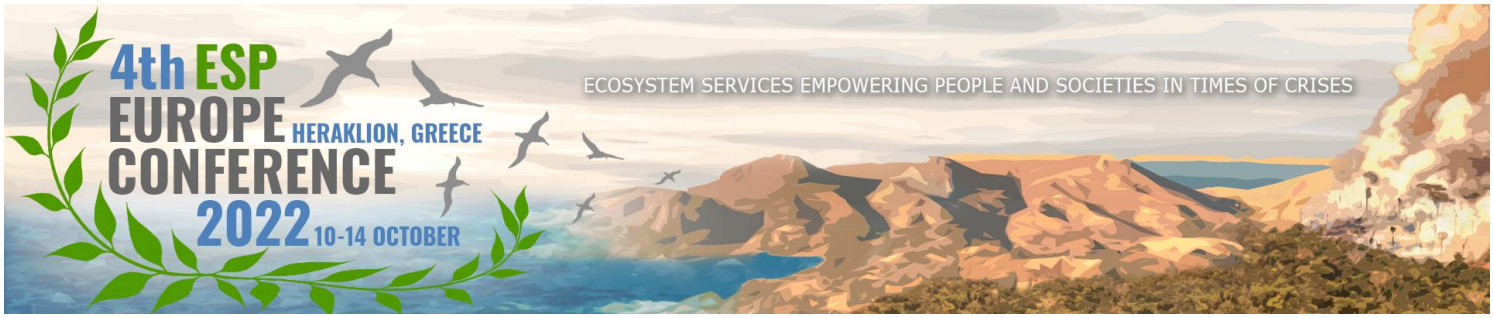
Time	First name	Surname	Organization	Title of presentation
				funds, banks, and other stakeholders to holistically assess the environmental impact of National Policies
16:20	Fernando	Rodriguez	Univ. de Salamanca, Spain	Parameter appraisal to improve benefit transfer for winery landscapes
16:30	Richard	Thomas	ELD	The Economics of Land Degradation initiative (ELD) a look back and forward
16:45	Christophe	Raymond	Univ. of Helsinki, Finland	An inclusive typology for conceptualising the diverse values of nature: Insights from the IPBES Values Assessment
17:00	Mike	Christie	Aberystwyth Univ., UK	Incorporating the diverse values of nature into decision-making: Insights from the IPBES Values Assessment

Timetable speakers subsession T1d: Certification and other tools for ES implementation

Time	First name	Surname	Organization	Title of presentation
17:15	Simone	Quatrini	European Commission	Emerging initiatives to foster the sustainability transition in times of crisis and uncertainty
17:30	Ken	Bagstad	US Geological Survey	Interoperability for ES: The problem, solutions, and paths forward.
17:45	Claudia	De Luca	Univ. of Bologna, Italy	Emerging approaches for assessment of Environmental Justice in Ecosystem Services
18:00	Rudolf	De Groot	FSD	Brief outlook and end of session

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*

T. Thematic Working Group sessions: T1 - Guidelines, tools and standards for integrated ecosystem services assessments

Conceptualising the diverse values of nature: Insights from the IPBES Values Assessment

Presenting author: Christopher Raymond
Other author(s): IPBES Values Assessment - Chapter 2 Coordinating Lead Authors, Lead Authors and Fellows,
Affiliation: University of Helsinki, Finland
Contact: christopher.raymond@helsinki.fi

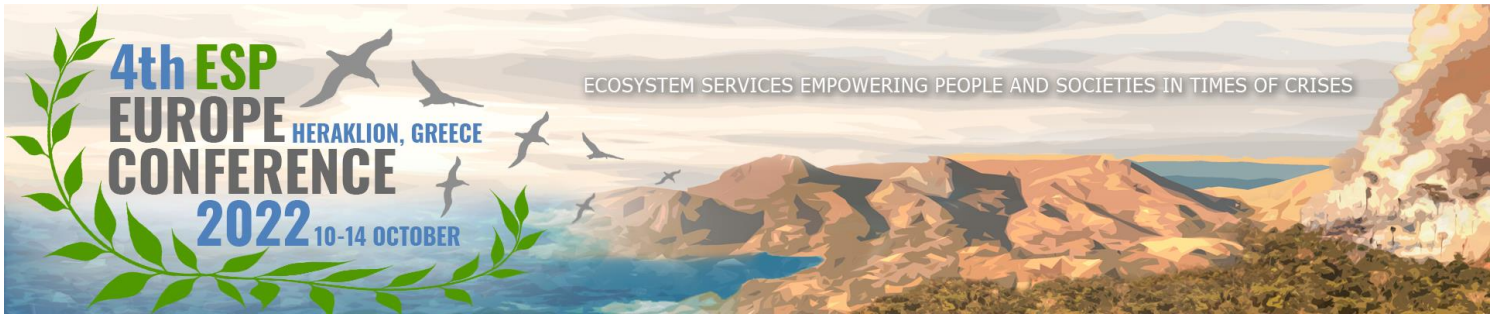
Interest in the conceptualisation and assessment of nature's values has grown rapidly over the last four decades across multiple disciplines, resulting in stakeholders conceiving and managing the values of nature in different ways. A central challenge thus lies in how to build a cross-disciplinary understanding of values in ways that can build bridges across a diversity of worldviews and knowledge systems. Drawing on the IPBES Values Assessment (VA), we present a unified typology for connecting concepts and theories on the diverse values of values. We demonstrate how this typology: a) is inclusive, hierarchical and represents no single disciplinary perspective; b) can be used to map areas of conflict and common ground in the conceptualisation of nature's values, contributing to a less dualistic understanding of human-nature relationships; and c) provides a way of organising the diversity of values into different ways of living in the world, and their associated consequences on just and sustainable futures. We conclude with future directions for research.

Keywords: IPBES Values Assessment; instrumental values; intrinsic values; relational values

2. Type of submission: Abstract

T. Thematic Working Group sessions: T1 - Guidelines, tools and standards for integrated ecosystem services assessments

Ecosystem assessment guidelines - towards a more appropriate mainstreaming into national practice



Presenting author: Kateřina Mácová

Other author(s): Jan Melichar, Eva Horváthová

Affiliation: Charles University Environment Centre, Czech Republic

Contact: katerina.macova@czp.cuni.cz

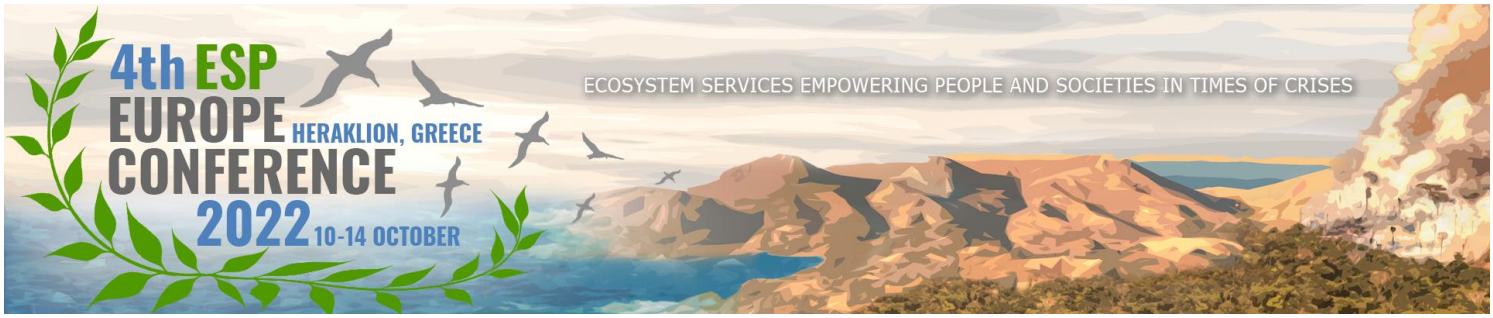
The Czech Republic has a long tradition in standardization of assessment of services provided by nature to society. More than 10 guidelines varying in aims, land use types and assessment methods covered were fit specifically to the purposes of national or regional stakeholders. The oldest ones build on concepts of Czech environmental law, forest economics, arboriculture etc. and have been developed for up to 30 years. More recent approaches shifted the scope to fit the ecosystem services (ES) science that is currently mainstreaming worldwide.

Most approaches have been certified for official use by national administrative bodies, but in practice they remain underused by the target users. Through a 10-year period of co-creation of previous ES methodologies with their users, we have identified and addressed several factors hindering the use of ES research results in practice that have been relentless up to present. These include e.g. potential misuse of monetary values against nature protection or limited compatibility of the newer scientific concepts with the existing environmental law.

Our contribution focuses on a new complex set of tools for integrated, dynamic and spatially explicit ES assessment of Czech landscape that are developed within the Integrated project LIFE for Natura 2000 network, called One Nature: guidelines for ES assessment, value database and interactive web tool. Building on previous CZ and EU experience, we share and discuss viable ways forward to a design of the tools that (as we believe) might lead to a more successful mainstreaming of ES assessment through these tools into national practice. We demonstrate this approach on an initial set of four ecosystem services.

The new guidelines specifically address e.g. harmonization of existing methodological concepts using IPBES based framework; prioritizing most suitable methods for particular ES assessment using locally specific data and models; fitting the results explicitly into uses prioritized by the stakeholders (land use planning, management practices, PES etc.); aggregation of results across ES; defining boundaries for robust use of results; or user friendly factsheets to bridge the gap between ES knowledge (its focus, uncertainties, limits) and stakeholders´ explicit needs, FAQs and common misunderstandings.

Keywords: Ecosystem services assessment, Socio-economic benefits, Science-policy interface, Guidelines for evaluation, Assessment tools



3. Type of submission: Abstract

T. Thematic Working Group sessions: T1 – Guidelines, tools and standards for integrated ecosystem services assessments

SEEA-EA ecosystem accounts as an opportunity for standardization of ecosystem services assessment and its intertwining with life cycle assessment

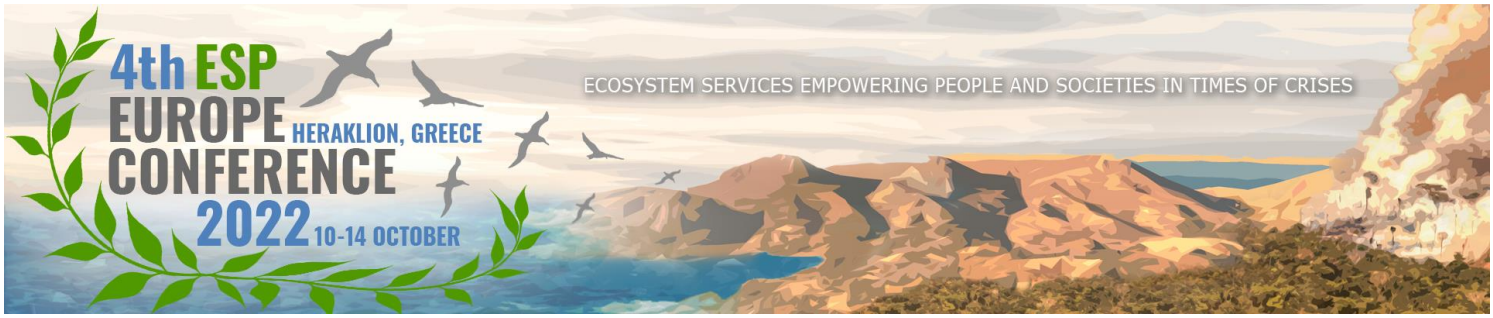
Presenting author: Javier Babi Almenar

Affiliation: European Commission – Joint Research Centre,

Contact: javier.babi-almenar@ec.europa.eu

During the last decade there has been an increasing interest in the development of national ecosystem accounts, which has led to the recent adoption of the statistical framework for Ecosystem Accounting (SEEA-EA) of the United Nations. SEEA-EA is a system composed of five types of accounts which are developed integrated: ecosystem extent, ecosystem condition, ecosystem services flow (biophysical and monetary), and monetary ecosystem asset. Its clear systems of rules and the integration of anthropocentric, ecocentric, intrinsic and utilitarian perspectives offer a great opportunity for standardization of ecosystem assessments, and ecosystem services assessments from local to international levels. In the case of anthropogenic ecosystem types, e.g., urban ecosystems, ecosystem accounts also present an opportunity window for integrating life cycle assessment (LCA) to achieve ecosystem condition accounts that take into account global and local changes. In this presentation, we introduce initial works on SEEA-EA urban ecosystem accounts for EU to reflect on the potential value of SEEA-EA ecosystem accounts for standardisation of ecosystem services assessments. We also introduce current gaps of urban ecosystem accounts, common for other anthropogenic ecosystems, which could be minimised or tackled via the integration of life cycle assessment, especially a territorial life cycle assessment approach. As a final output, this research draw lines to integrated ecosystem services assessment guidelines, territorial life cycle assessment, and previous works on the intertwining of ES and LCA, highlighting the potential value of ecosystem accounts for standardisation of integrated ecosystem services assessments.

Keywords: life cycle assessment, ecosystem condition accounts, ecosystem services accounts, anthropogenic ecosystems, urban ecosystems



4. Type of submission: Abstract

T. Thematic Working Group sessions: T1 – Guidelines, tools and standards for integrated ecosystem services assessments

Interoperability for ecosystem services: The problem, solutions, and paths forward

Presenting author: Ken Bagstad
Other author(s): Stefano Balbi,
Affiliation: Basque Centre for Climate Change, United States of America
Contact: kjbagstad@usgs.gov

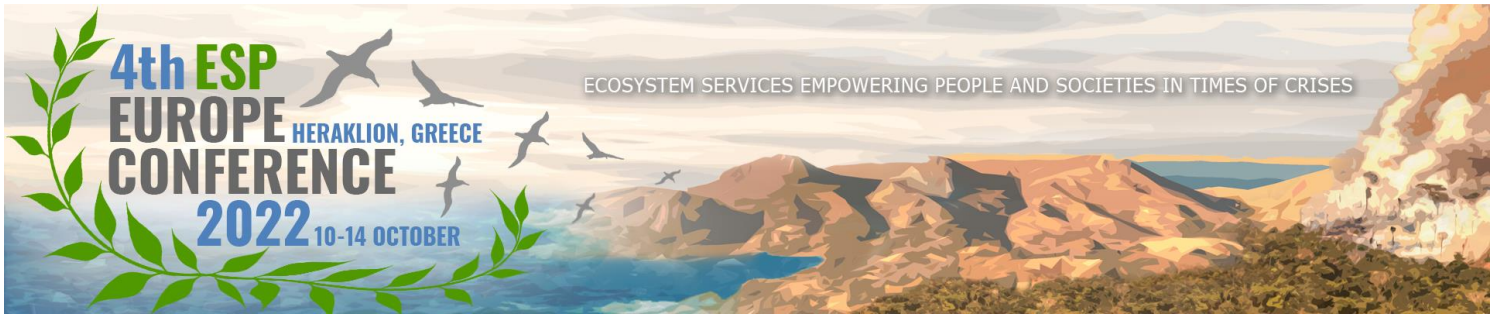
Interoperability is the ability of independently produced data and models to seamlessly work together with minimal effort and is one of the key tenets espoused by the FAIR Principles for modern open science: that science be Findable, Accessible, Interoperable, and Reusable. Interoperable ecosystem services data and models offer the promise of faster, cheaper, and higher-quality assessments that systematically reuse preexisting science rather than continually reinventing the wheel. Interoperability is also critical to large-scale approaches like natural capital accounting, which relies on highly heterogeneous data that must be repeatedly used to generate long-term time series ecosystem service accounts. Yet despite a decade of advances in open science, interoperability is still relatively poorly understood by most ecosystem services scientists, and widespread achievement of interoperability in our field remains stalled.

This presentation will briefly introduce the concept of interoperability and why it matters to scientists and practitioners in the field of ecosystem services. It will then cover solutions to the interoperability problem, drawing primarily from fifteen years of work on the Artificial Intelligence for Environment and Sustainability (ARIES) Project, which is making data and models interoperable for ecosystem services and natural capital accounting, as well as recent experiences with making data and models interoperable. These opportunties and challenges can collectively illustrate a path forward to more widespread use of interoperable data and models in the ecosystem services community in Europe and beyond.

Keywords: FAIR, interoperability

5. Type of submission: Abstract

T. Thematic Working Group sessions: T1 – Guidelines, tools and standards for integrated ecosystem services assessments



Ecosystem-specific adjustment parameters to improve benefit transfer functions for vineyard valuation

Presenting author: Fernando Rodriguez
Other author(s): Victor Colino, Miguel Lizana
Affiliation: Universidad de Salamanca, Spain
Contact: frodriguez@usal.es

The improvement of datasets and estimation procedures will definitely ease the way for benefit transfer, but the limited availability of original studies for certain ecosystems may pose a limit to the accuracy of this sort of techniques. However, the use of some easily available ecosystem-specific ecological and socioeconomic parameters may help to enhance the precision of benefit transfer functions. This contribution will explore the possibility to identify ecosystem-specific adjustment factors to improve the accuracy of benefit transfer applied to vineyard valuation, using as a baseline a set of original studies from the ESValues dataset and working on the results of choice experiments carried out in 2022 in three different wine regions of Spain.

Keywords: Benefit transfer, datasets, ESValues, adjustment factors

6. Type of submission: Abstract

T. Thematic Working Group sessions: T1 - Guidelines, tools and standards for integrated ecosystem services assessments

A Standards Application Protocol to establish environmental footprint neutrality based on combined LCA-ES assessment procedures

Presenting author: Benedetto RUGANI
Other author(s): Marco ALLOCCO,
Affiliation: Luxembourg Institute of Science and Technology (LIST), Luxembourg
Contact: benedetto.rugani@list.lu

No product or service supply-chain, even the one considered most “sustainable”, is free of generating an impact on the environment. By applying life cycle assessment (LCA), several measures can then be proposed and undertaken to reduce such impact(s). However, among the numerous ISO standards nowadays available to guide organisations in verifying and

monitoring their product(s) impacts, none suggests further compensation pathways for the unavoidable impact.

In this regard, policy and corporate decision-making are more and more oriented towards neutrality targets in order to offset the environmental impact. The most known example is the carbon neutrality achievement, whereby an organisation that has already implemented a carbon management plan to reduce its life cycle greenhouse gas emissions, can achieve a carbon neutrality state by acquiring credits (i.e., sequestered carbon, which is an ecosystem service) from the voluntary carbon market to offset residual emissions. This is not, however, the only strategy that can be followed to be carbon neutral. Moreover, the environmental footprint of a company or a product is made of multiple issues (associated with water depletion, land use, air pollutants, etc.), which depending on the scope of the analysis may reveal as important as greenhouse gases.

Through a state-of-the-art analysis on the most known certification and labelling schemes, guides, procedures, and roadmaps for the assessment of natural capital, and a case study of an Italian company producing wine and extra virgin olive oil, we propose the development of a novel Standards Application Protocol for the agroforestry sector. This is based on the use of a decisional tree for companies in this sector, which guide into the application and certification, on one hand of LCA principles for the Measurement and Reduction of the impact, and on the other hand of ecosystem service quantification and assessment approaches for residual impact Compensation actions.

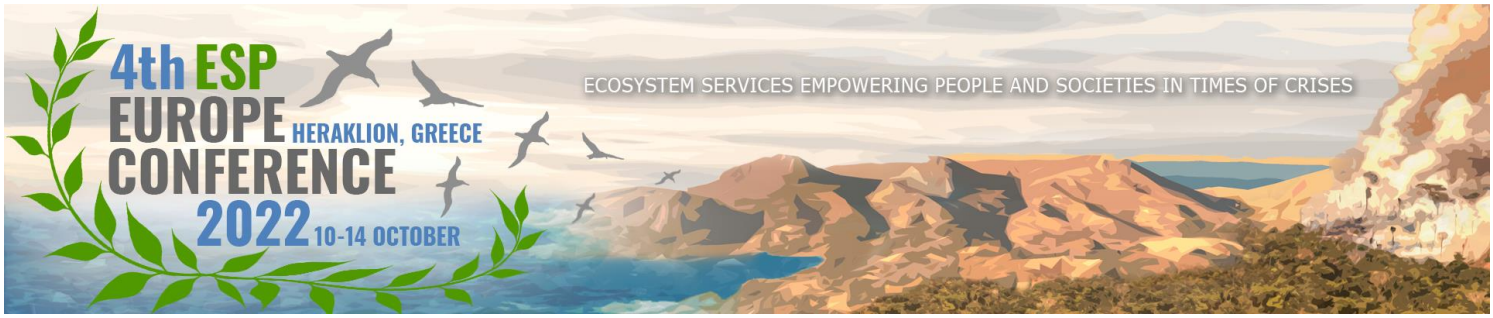
Keywords: Agroforestry sector, ecosystem Service(s), life cycle assessment (LCA), natural capital, protocol

7. Type of submission: Abstract

T. Thematic Working Group sessions: T1 - Guidelines, tools and standards for integrated ecosystem services assessments

Emerging Approaches for Assessment of Environmental Justice in Ecosystem Services

Presenting author: Aniseh Saber
Other author(s): Claudia De Luca, Simona Tondelli
Affiliation: Department of Architecture, University of Bologna, Italy, Italy
Contact: aniseh.saber@studio.unibo.it



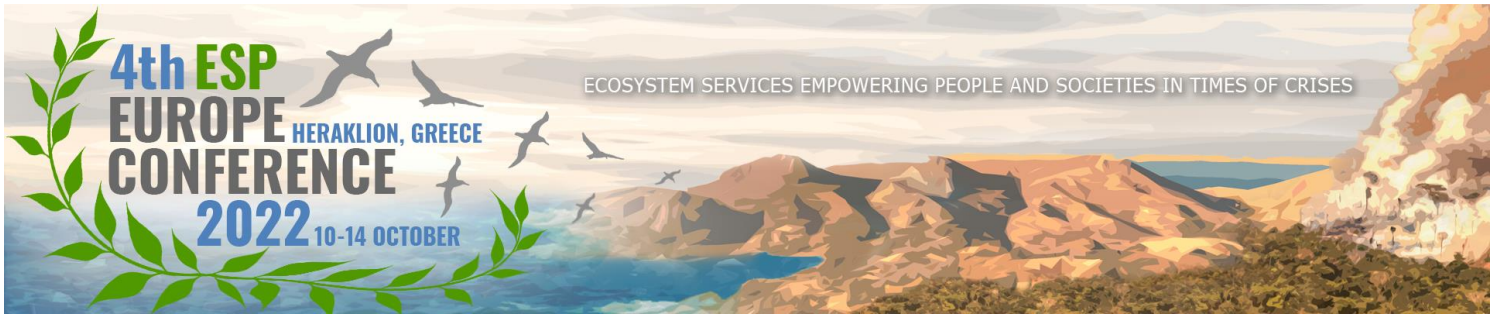
The ecological benefits which strongly contribute to human well-being are known as Ecosystem Services (ES). The proper distribution of supply and demand of ES is of paramount importance for the Environmental Justice (EJ) perspective. However, different social, environmental, health, and economic challenges are gaining ground with urbanization and climate change, leading to inequity in Urban Ecosystem Services (UES). Scientists are seeking to develop methods to investigate ES's tangible and intangible benefits and the different dimensions of EJ in the urban context. A variety of research methods including biophysical measurements, statistical analysis, models, risk assessments, questionnaires, and surveys, as well as qualitative assessments, are available for ES evaluation. Yet, this issue is not easy to tackle due to the complex human-nature relationships, available data, and limitations in existing methods. In light of such limitations, emerging technologies and data sources, such as Application Programming Interfaces (APIs), Artificial Intelligence (AI), and social media have experienced a global increase. Owing to the importance of EJ in UES and its impact on human health and life quality, the purpose of the present study is to provide a review regarding new methodologies conducted in UES studies. Accordingly, using the ISI Web of Science, we gathered relevant papers from our respective study areas between 2013 and 2022. Peer-reviewed articles written in English and given various keyword combinations in their titles and abstracts have been selected for further investigation. The first results showed that implementing machine learning approaches for analyzing hashtags, images, and texts taken from social media networks like Facebook, Instagram, Twitter, or Weibo besides location-based photograph content sharing portals such as Flickr are the most predominant new methods to look over the notion of EJ in ES, while Convolutional Neural Networks (CNN) are still under development and exploration and need further research.

Keywords: Ecosystem Services, Environmental Justice, Social media, Big data, Artificial Intelligence

8. Type of submission: Abstract

T. Thematic Working Group sessions: T1 - Guidelines, tools and standards for integrated ecosystem services assessments

Incorporating the diverse values of nature into decision-making: Insights from the IPBES Values Assessment



Presenting author: Mike Christie

Other author(s): All the authors of the IPBES Values Assessment,

Affiliation: Aberystywth University,

Contact: mec@aber.ac.uk

Over the past few decades there have been increasing calls to incorporate nature's diverse values into local to global policy decisions. This paper draws on the findings of the IPBES Values Assessment (VA) to: examine current levels of uptake of nature's values in decision; explore tools and approaches for embedding the diverse values of nature into decision-making; and proposes four leverage points that can help catalyse transformation towards sustainable and just futures.

Based on an extensive review of the literature, we find that <5% of published studies document uptake of values information into decisions, and few studies adequately represent stakeholder diversity or engage them in the valuation process itself. This implies a wide gap between the availability of valuation methods and their uptake by policymakers.

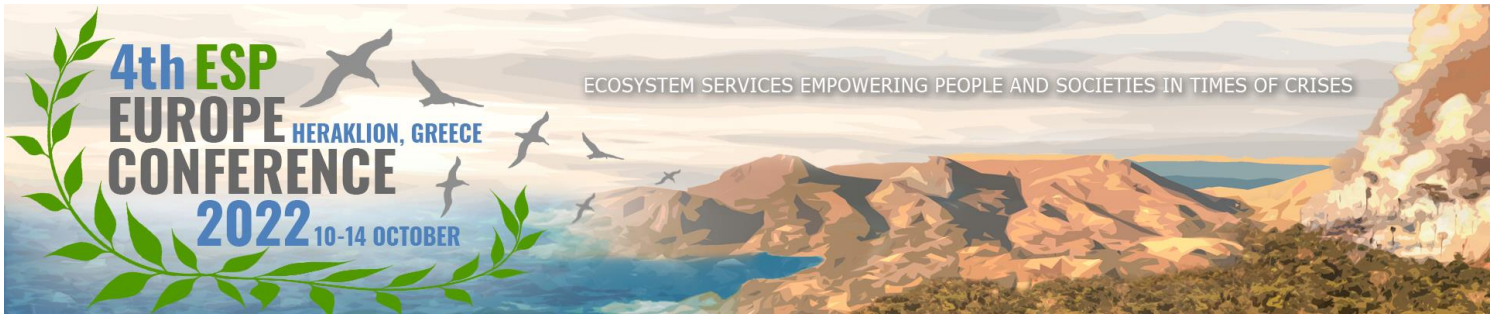
However, evidence also demonstrated that people and nature benefit when nature's diverse values are considered in the design and implementation of biodiversity conservation or territorial management policies (e.g., protected areas, payments for ecosystem services). In particular, we find that including a wider set of values in decision-making, especially at local levels, while controlling for power dynamics can improve the effectiveness in achieving environmental sustainability and people's wellbeing.

We also propose four leverage points that can help policy making activate transformative change for achieving more just and sustainable futures for people and nature. The leverage points are: undertake valuation, embed valuation into inclusive decision-making, reform policies and regulation, and shift societal norms and goals. With these in mind, we also highlight that different pathways exist for policymakers to seek the global goals of justice and sustainability (e.g. 'green economy', 'Earth stewardship', 'nature protection', and 'degrowth'), and while each pathway emphasises different specific values (i.e. instrumental, intrinsic and relational values), they all share some sustainability-aligned broad values like inter-generational justice and respect for biophysical limits.

Keywords: Valuation, decision-making, value, transformative change, nature

9. Type of submission: Abstract

T. Thematic Working Group sessions: T1 - Guidelines, tools and standards for integrated ecosystem services assessments



Integrating ecosystem services in the life cycle assessments of meat of different species

Presenting author: Frédéric Joly

Other author(s): Philip Roche, Jo Dewulf

Affiliation: Université Clermont Auvergne, INRAE, VetAgro Sup, UMR Herbivores, 63122 St Genes-Champanelle, France,

Contact: frederic.joly@inrae.fr

The impact of meat production, as evaluated from life cycle assessment (LCA), is dependent on livestock species. To produce one kg of meat, energy consumption and CO2-eq emissions increase from chicken to pork, and from pork to beef, partly because of feed efficiency differences. Beef production has thus the highest impact according to LCA but it can also be beneficial to ecosystem services (ES), if its feeding system involves grasslands.

To integrate these aspects, a method has been proposed to allocate LCA impacts between the strictly productive activities, i.e. provisioning ES (PES), and regulating ES (RES). The method uses allocation factors, calculated based on available matrices of ES scores, to assess the relative weights of PES and RES in ES bundles. The method has been applied to compare organic and conventional crops and here we apply it to the production of 1 kg of chicken, pork and grass-based beef. In this aim, we modified the method to account for the share of croplands and grasslands in feeding systems.

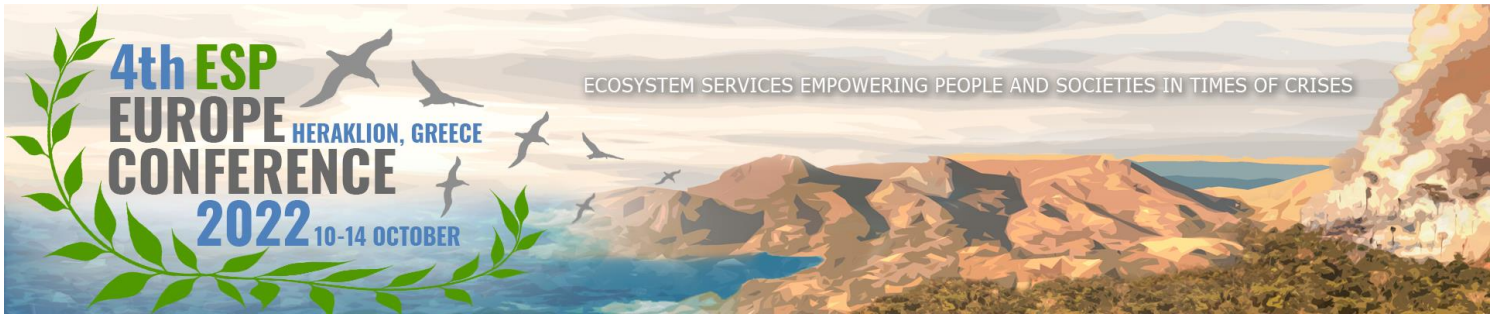
Without allocation, the differences in LCA impact between chicken and beef along the species gradient are 2.5 times higher for energy (~20 MJ/kg to ~50 MJ/kg), and six times higher for CO2-eq (~5 to ~30 kg CO2-eq/kg). With allocation according to the PES factors, the energy gradient is modified with beef having the lowest impact (14 MJ/kg), and pork the highest (20 MJ/kg). The CO2-eq gradient is not modified, but the difference of impact is reduced to two times (4 to 8 kg CO2-eq/kg). There are thus more or less important differences that correspond to LCA impacts allocated to the supply of RES. Our results do not mean that beef impact is lower that currently assessed, but that beef production can also contributes to balanced ES bundles in farming landscapes.

Keywords: livestock farming; allocation; factors; bundles; landscape

10. Type of submission: Abstract

T. Thematic Working Group sessions: T1 - Guidelines, tools and standards for integrated ecosystem services assessments

The Economics of Land Degradation Initiative: a look back and forward



Presenting author: Richard Thomas

Other author(s): Johannes Kruse, Nina Bisom

Affiliation: ELD, Canada

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As countries, development agencies and the private sector gear up to meet the objectives of the UN Decade on Ecosystem Restoration, one recurring theme is the need for more detailed estimations of the costs and benefits of specific interventions to avoid, reduce and reverse the loss of ecosystem services. The Economics of Land Degradation initiative (ELD) during its first decade focused on the economics of improved cropping, rangeland and agroforestry systems in developing countries, with most identified as priority areas for restoration. The approach depends on trained national teams applying ELD's 6+1 methodological approach to develop cost-benefit scenarios for sustainable land management options. The studies range from farm, watershed to national scales and attempt to estimate total economic valuations of all four categories of ecosystem services. Over 40 case studies are available plus two continent-wide soil erosion studies for African and Asia (www.eld-initiaitive.org). Some examples will be presented.

The data is being incorporated into the Ecosystem Services Valuation Database and the new ECON-WOCAT dataset. As ELD moves into its second decade, the methodological approach is being revised based on experience and feedback from national participants and other experts in order to support national responses to various natural capital accounting exercises promoted by the UN SEEA, TEER, the World Bank and others.

How ELD can link and work with these other initiatives will be a discussion topic at the Thematic session on "Guidelines, tools and standards for integrated ecosystem services assessment"

Keywords: Economics, Sustainable land management, agriculture, forestry, cost-benefit analysis