BOOK OF ABSTRACT

I. SESSION DESCRIPTION

ID: T8

Linkages between ES and multi-dimensional wellbeing: how have we progressed since the Millennium Ecosystem Assessment?

	Title	Name	Organisation	E-mail
Host:		Jorge C.Llopis	University of Bern	jorge.llopis@cde.unibe.c
		Julie G. Zaehringer	University of Bern	julie.zaehringer@cde.unibe.ch
Co-host		Flurina Schneider		Flurina.schneider@cde.unibe.ch
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Abstract:

The Millennium Ecosystem Assessment (MEA) had as a main objective to highlight the critical relevance of the natural environment for human well-being, and to make specific the linkages between the state of the world's ecosystems and human development and poverty alleviation objectives. Following the MEA, numerous reports and studies has been published on ecosystem services supply and demand assessments, including cultural services, on the different types of values people ascribe to nature, and on the disaggregated contribution of ecosystem services to different social groups.
However, despite important advances on the conceptualisation of these connections in the ESP and IPBES communities, empirical evidence on the connections between landscape transformations, ecosystem services change and subsequent changes in human well-being understood in a disaggregated manner is still meagre. While different approaches to assessing multidimensional well-being are available in the literature (e.g. Sen's and Nussbaum's Capabilities Approach, 3D Wellbeing/WeD framework, IPBES Conceptual Framework, etc.), few authors so far have tried to empirically evaluate the precise connection of ecosystem services

change and different and concrete aspects of human well-being. In the context of rapid landscape transformation, especially in developing countries' resource frontiers, and in order to design transformative actions towards sustainable development, it is crucial to understand how changes both on ecosystem services supply, and on people's values for nature, influence different components of well-being.

For this reason, in this session we propose to look back at the progress of the ecosystem service research community in terms of conceptualizing and assessing the interlinkages between ecosystem services and multidimensional human well-being. Based on existing approaches, we also aim to look ahead by outlining opportunities for better integrating people's values and multidimensional well-being into measurements of sustainable development and poverty alleviation at different levels. We welcome empirical studies on the linkages between ecosystem service supply and demand change and effects on multidimensional human wellbeing, especially from (but not limited to) contexts of landscape transformation in developing countries, and papers that highlight innovative methodologies and co-production approaches for assessing these linkages. Also, sound approaches on how to better conceptualise a multidimensional understanding of well-being in its relation to the natural environment will be gladly explored in the session.

Goals and objectives of the session:

In this session we aim at: reviewing existing empirical and conceptual knowledge on the concrete linkages between ecosystem services change and human well-being dynamics; review the lessons learned from research conducted in the last years to analyse these dynamics; and to discuss implementation and policy gaps to outline future steps on research on the linkages between ecosystem services change and human well-being.

Planned output / Deliverables:

The expected output of this session is an enhanced understanding of the best practices and innovative approaches available so far for analysing multidimensional human well-being in its relation to the natural environment, and the outline of a roadmap for future research endeavours on these linkages.

Related to ESP Working Group/National Network:

Thematic working group: TWG 8 – Cultural services & Values

II. SESSION PROGRAM

Date of session: Tuesday, 22 October 2019
Time of session: 16:30 – 18:00

Timetable speakers

Time	First name	Surname	Organization	Title of presentation
16:30–16:35	Session hosts			Introduction
16:35–16:50	Christian	R. Vogl	Division of Organic Farming, Department of Sustainable Agricultural Systems, University of Natural Resources and Life Sciences, Vienna, Austria	The valuation of ecosystem services and linkages to the human well-being of farmers home gardens in Eastern Tyrol (Austria)
16:50–17:05	Aleksandra (Sasha)	Kosanic	Department of Biology, University of Konstanz, Germany	Cultural ecosystem services and human well-being in Madagascar under climate change
17:05–17:20	Jorge C.	Llopis	Centre for Development and Environment, University of Bern, Switzerland	The neglected couple: ecosystems services and capabilities
17:20–18:00	All presenters	All presenters	All presenters	Plenary discussion

III. ABSTRACTS

The abstracts appear in alphabetic order based on the last name of the first author. The first author is the presenting author unless indicated otherwise.

1. *Type of submission:* ***Abstract***

T. Thematic Working Group sessions: T8 Linkages between ecosystem services and multi-dimensional well-being: how have we progressed since the Millennium Ecosystem Assessment?

Cultural ecosystem services and human well-being in Madagascar under climate change

First author: Aleksandra (Sasha) Kosanic

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Anthropogenic climate change, together with other global change drivers are predicted to have an unprecedented impact on human well-being. Interdisciplinary knowledge on the interplay between environmental protection, nature conservation and public health is urgently required in order to improve the current governance systems. In this project, we will unravel synergies and trade-offs between climate change impacts related to cultural ecosystem services and to 'ecological grief' in Madagascar, one of the poorest countries in the world, but hosting a significant proportion of the world's biodiversity. Specifically, we will carry out a survey (1) to identify climate change main associated impacts across central and east Madagascar, and (2) to identify the importance of cultural ecosystem services across different local communities and subgroups and their relationship to human well-being. The proposed project will allow us to collate spatially informed data on cultural ecosystem services, human well-being and climate change impacts. The expected outcome of the project includes evidence-based information for local policy makers, conservation practitioners and climate change agencies to improve government efforts towards sustainable development.

Keywords: Climate change, cultural ecosystem services, ecological grief, human well-being, vulnerable subgroups

2. *Type of submission:* ***Abstract***

T. Thematic Working Group sessions: T8 Linkages between ecosystem services and multi-dimensional well-being: how have we progressed since the Millennium Ecosystem Assessment?

The neglected couple: ecosystems services and capabilities

First author: Jorge C. Llopis
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Even in spite the Millennium Ecosystem Assessment's (MEA) understanding of human wellbeing as supported by ecosystem services supposedly was inspired to some extent by the capabilities approach to human development and wellbeing, up to date this connection has been rarely explored, although remarkable exceptions do exist.

In this study we draw on the capabilities approach to explore the changes induced on human wellbeing by two major factors external to the local context in four research sites in the biodiversity hotspot of north-eastern Madagascar. One the one hand, we look at how price fluctuations, including an on-going boom, for the two main cash crops produced here, vanilla and clove, is influencing the wellbeing of local communities. One the other hand, we look at how the establishment of terrestrial protected areas with biodiversity conservation and carbon sequestration objectives impacts these dynamics.

Analysis on the data generated through focus groups discussions and structured interviews in our four villages revealed the following. First, that beyond the most obvious contributions of the main wellbeing components found to be necessary to have a 'good life' in our villages to local capabilities, many of these components are appreciated by their relational value. Second, that different wellbeing dimensions present a bundled nature, where changes in one capability might trigger changes in a whole set of them. And third, that the two globally-driven processes explored have contradictory implications for local human wellbeing, suggesting the existence of trade-offs between capabilities.

These findings are key to understand how global change processes reaching out to local contexts affects already complex local wellbeing dynamics. These insights should also help to

inform better biodiversity conservation practice and development initiatives to support local communities under multiple pressures.

Keywords: Capabilities approach, disaggregated wellbeing, relational values

3. *Type of submission:* ***Abstract***

T. Thematic Working Group sessions: T8 Linkages between ecosystem services and multi-dimensional well-being: how have we progressed since the Millennium Ecosystem Assessment?

The valuation of ecosystem services and linkages to the human well-being of farmers home gardens in Eastern Tyrol (Austria)

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Healthy ecosystems regulate local and global climate, support biodiversity, offer spiritual, educational, aesthetic and recreational landscapes to people. Apart from natural ecosystems, modified ecosystems e.g. home gardens play an important role in the delivery of ecosystem services (ESS) and the maintenance of local biodiversity. Home gardens have been recognized for their cultural importance that serve as 'pockets of social-ecological memory' where the knowledge and experience of a locally managed ecosystem and its services are captured. The basic conceptual MEA framework provides a structure for the assessment of the different components of ESS and its linkages to the human well-being (HWB). The importance of HWB benefits e.g. health deriving from the modified natural environment and the importance of cultural ESS in cultural landscapes, home and urban gardens has been acknowledged by past research. Yet, many ESS of specific ecosystems remain unrecognized in their importance or role they play in meeting needs in particular regions and for the achievement of the Millennium Sustainable Development Goals. Within the presented study a quantitative questionnaire based on the MEA framework and on existing key literature of ESS of home gardens was developed. The specific Likert type item statements refer to the different ESS categories and the related HWB constituents of farmers home gardens. In addition to socio-demographic and Likert scale

data collection the subjective dimension of the HWB (individual assessment of people's quality of life) was assessed by using Cantril's self-anchoring ladder. The presented study offers a new perspective on the valuation of ESS and the strength of linkages between the ESS and components of HWB explicitly for the small-scale ecosystem of FHG. The presented data challenges the conceptual MEA framework and leads to a better understanding of the significance of FHG and their contribution to the well-being of the human society and its environments.

Keywords: Millennium Ecosystem Assessment, Ecosystem Services, Human well-being, Home gardens, Millennium Sustainable Development Goals