

BOOK OF ABSTRACTS

SESSION DESCRIPTION

Session ID:

T12

Title of session:

Governance of Ecosystem Services: Multiple actors at multiple levels of hybrid governance approaches – Who is in and why?

Hosts:

	Title	Name	Organisation	E-mail
Host:	Dr.	Lasse Loft	Senckenberg Biodiversity and Climate Research Centre (BiK-F), Frankfurt, Germany	lasse.loft@senckenberg.de
Host:	Dr.	Claudia Sattler	Leibniz-Centre for Agricultural Landscape Research (ZALF), Institute of Socio-Economics, Müncheberg, Germany	claudia.sattler@zalf.de
Others involved:		Carsten Mann	Center for Technology & Society, Technische Universität Berlin, Germany	carsten.mann@tu-berlin.de

Abstract:

In this session we intend to take a closer look at the multi-actors and multi-rationalities involved in (various) governance approaches that were designed for the provision of ecosystem services and biodiversity protection. Typically, three gross concepts in governance are contrasted against each other: hierarchical state intervention, the market and network approaches like collective community management or public-private partnerships. In practice though, hybrids of such approaches are more common for checks and balances. Emphasis is given to these hybrid governance approaches and the multitude of involved international, national and subnational actors from all spheres of society – state, market, and civil society. Biodiversity and ES are usually managed at a local ecosystem level. However, the benefits they provide occur at multiple levels from local to global. Governance of ES therefore faces the challenge of balancing the interests of multiple actors at multiple scales and levels. Governing ES gets further complicated as involved stakeholders may base

their judgment about the use and conservation of ES and biodiversity on different value systems. While, for example, in many 'western societies' a pragmatic utilitarian perception of nature guides many decisions, for example in southern America the intrinsic value of nature plays an important role (see e.g. the Constitutions of Ecuador and Bolivia). Hence, governance of ES and biodiversity faces the challenge of taking multiple value (systems) into account, for strategic negotiation and finding trade-offs.

In this session we would like to particularly focus on the exploration of underlying values and motivations guiding the involvement and strategies of different societal actors in hybrid governance for ES provision and use.

Presentations are supposed to address one or several of the following research questions:

- What are actors' motivations to become involved in governance of ES?
- What are the underlying values that drive their participation?
- What different interests and power structures are at play when actors interact for tradeoffs?
- What are the functions and roles of individual actors in policy processes?
- How do actors share responsibilities in governance?
- How are actors involved into decision-making; what are their strategies?

Contributions that provide in-depth insight into single case studies, but also presentations that draw more general conclusions from careful cross-case comparisons, both from industrialized and developing countries are invited to participate.

Additional note: This session directly links to the continued debate on governance and policy for sustainable ecosystem service provision and biodiversity protection that was started at the 2013 ESP Conference in Bali (session title: "Design and assessment of policy instruments for ecosystem services provision and biodiversity – Challenges of sustainable development") and which continued with an interim workshop on "Governance of Ecosystem Services" in March 2014 in Frankfurt, and another special session at the 2014 ESP Conference in Costa Rica (session title: "Governance of ecosystem services – challenges for sustainable development"). Former presenters from both sessions and the workshop will be contacted for invited presentations (at a later stage).

Additional information:

This session is an integral part of the activities conducted under the TWG on Governance and Institutional Aspects. We will focus the session specifically on governance hybrid approaches, in particular involved actors and their motivations. Therefore the session might also link to topics of other TWGs of the ESP.

Planned output:

Based on the presentations and in particular on the final discussion we plan on producing a joint journal (paper) publication focusing on the presented state of the art and identified new research needs.

Voluntary contributions accepted:

Yes

SPEAKERS

Oral presentations

First name	Name	Organization	Title of presentation
Elena	Gissi	University luav of Venice	Exploring the social production of Ecosystem

First name	Name	Organization	Title of presentation
			Services within a decision making process. Comparative analysis from a role-playing game approach in South East Europe.
Kathrin	Knüppe	University of Osnabrück	Requirements towards sustainable governance and management of ecosystem services: case study insights from Hungary, Germany, Spain, and South Africa
Lasse	Loft	Leibniz Centre for Agricultural Landscape Research	The Importance of Equity Perceptions in PES: A Case Study from Dien Bien, Vietnam
Bettina	Matzdorf	Leibniz-Centre for Agricultural Landscape Research (ZALF)	Markets 2.0 – How to develop and institutionalize a marketplace for ecosystem services
Eeva	Primmer	Finnish Environment Institute	My values meet others' values: decision-maker views on biodiversity conservation arguments
Claudia	Sattler	Leibniz-Centre for Agricultural Landscape Research (ZALF)	Switching from top-down to co-management in a Brazilian conservation unit: How does it affect the network of governance actors?
Francis	Turkelboom	INBO	Ecosystem services real-world applications: The proof of the pudding is in the eating!

Poster presentations

First name	Name	Organization	Title of poster
Luis Guillermo	Castro	Alexander von Humboldt institute	Knowledge, education and dialogue about ecosystem services as a pathway to improve local adaptive capacity to climate change: The case of the "Orotoy" river, Colombia.
Elisabeth	Huber-Sannwald	Instituto Potosino de Investigacion Cientifica y Tecnologica	Mega-network of Socioecosystems and Sustainability: A national

First name	Name	Organization	Title of poster
			transdisciplinary participative alliance among academic institutions and key sectors
Paulo Antonio	De Almeida	University of São Paulo	Proposal of PES Scheme due to Biodiversity in São Paulo State Brazil
Runsheng	Yin	Michigan State University	Governing Payments for Ecosystem Services by Incorporating Their Multiple Scales and Dimensions

Type of submission: Voluntary contribution

T12 Governance of Ecosystem Services: Multiple actors at multiple levels of hybrid governance approaches – Who is in and why?

Exploring the social production of Ecosystem Services within a decision making process. Comparative analysis from a role–playing game approach in South East Europe.

Presenting author: Elena Gissi

Other author: Garramone V

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Ecosystem Services has gained relevance in supporting decision–making process towards sustainability. Within the well–known ES cascade model (Haines–Young and Potschin, 2009) ecosystems processes and structures give place to ecosystem functions, which are interpreted as ecosystem services because of their benefits and values for society. In the interplay between demand and supply, ES are those functions which are recognized by the end users, as decision makers, local communities and economic actors, in a process of knowledge co–production, exchange and negotiation, as to activate social and natural capital simultaneously.

However, while the capacity to supply ES is widely investigated, the process and dynamics of recognition and activation of functions as services, benefits and perceived values have been less considered. The present contribution aims at exploring social production of ES, as the process of knowledge activation and selection of ecological functions by the actors contributing in decision–making processes.

The analysis is drawn from a comparative experimental approach, applying a Role Playing Game (RPG) on trade–off between ES within a stakeholder participation process to support sustainable development through Renewable Energy Sources (RES). The experiment has been replicated in 10 sessions in 8 Southern East European Countries, with almost 230 participants from marginal rural landscapes.

Qualitative and quantitative results are discussed within the framework of social learning, in relation to the problem setting, to the process of knowledge building, as well as to the solutions which emerged from the interpretation of the same problem by different pools of stakeholders.

Keywords: Ecosystem services, trade–off, stakeholder participation, role playing game, South East Europe

Type of submission: Voluntary contribution

T12 Governance of Ecosystem Services: Multiple actors at multiple levels of hybrid governance approaches – Who is in and why?

Requirements towards sustainable governance and management of ecosystem services: case study insights from Hungary, Germany, Spain, and South Africa

Presenting author: Kathrin Knüppe

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In many regions of the world, socio-economic benefits derived from ecosystem services (ES) are favored over ecological benefits with long-term negative consequences for human well-being. Governance and management systems must develop more integrated and adaptive approaches to maintain ecological processes and functions without compromising socio-economic developments. The natural resources governance and management literature depicts that certain system characteristics are a prerequisite towards more sustainable practices of ES: (i) balance between bottom-up vs. top-down management processes, (ii) role and patterns of interactions of state and non-state actors and power relationships, and (iii) role and interaction of bureaucratic hierarchies, markets and networks. These system characteristics were studied across four river basins in Hungary, Germany, Spain, and South Africa. Results indicate that ES are acknowledged in diverse policies but implementation is low. This in turn can be ascribed to weak cooperation across actors and sectors and strong political influence from the agriculture and industry lobbies. While Germany and South Africa established stakeholder initiated process at the local level to protect ES, the management and governance system of Hungary and Spain can be characterized as a centralized (top-down) and hierarchical organized system with narrow stakeholder participation and mono-sectoral decision making. Finally it can be concluded that the sustainable management of ES requires political will and support of local stakeholders as well as adequate human and financial resources.

Keywords: Comparative case studies, ecosystem services, multi-level, cross-sectoral cooperation, stakeholder participation

Type of submission: Voluntary contribution

T12 Governance of Ecosystem Services: Multiple actors at multiple levels of hybrid governance approaches – Who is in and why?

The Importance of Equity Perceptions in PES: A Case Study from Dien Bien, Vietnam

Presenting author: Lasse Loft

Other authors: Pham Thu Thuy, Le Ngoc Dung, Januarti Sinarra Tjajadi, Anastasia Yang, Grace Wong

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Equity perceptions are powerful determinants of human behaviour and, consequently, many environmental conflicts arise from contested visions of what constitutes ‘equitable’ environmental management (Martin et al. 2014). Thus, a growing body of evidence increasingly suggest that equity considerations should be integrated into conservation planning and implementation (Pascual et al. 2014). This paper explores the relationship between local perceptions of equity and the more globally referenced fairness principles embedded in the implementation of the Vietnamese Payments for Forest Ecosystem Services (PFES) scheme in Dien Bien province as case study. Equity dimensions assessed are i) contextual equity ii) procedural equity and iii) distributive equity (Brown and Corbera 2003, McDermott et al. 2012). We conducted surveys with 52 village heads in four selected communes. In each of these communes two villages were selected to conduct focus group discussions and in-depth interviews with households (n=179). Amongst others we find that the weak direct participation of villagers in communication and information distribution on PFES to local communities could undermine their engagement in the scheme. Further, local perspectives of equity and fairness are not explicitly reflected and taken up in the implementation process. We find that the dominant perception of equitable benefit distribution corresponds to the egalitarian understanding of fairness. It thereby conflicts with the underlying “k-coefficient” for calculating payment distribution under the Vietnamese PFES legislation. This has in most cases led to suspending the official distribution rules on the ground. The insights from Dien Bien highlight the need of inclusive information flows and participatory communication processes with local villagers, as this plays a crucial role in their decision for an involvement in PFES and their forest conservation efforts. Furthermore, assessing and incorporating prevailing local distributional equity perceptions may improve the overall effectiveness of the program.

Keywords: PES, governance, equity perceptions, local stakeholders, effectiveness

Type of submission: Voluntary contribution

T12 Governance of Ecosystem Services: Multiple actors at multiple levels of hybrid governance approaches – Who is in and why?

Markets 2.0 – How to develop and institutionalize a marketplace for ecosystem services

Presenting author: Bettina Matzdorf

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The concept of payments for ecosystem services has been discussed extensively in the policy arena as well as in different fields of research during the last years. After a theoretical debate as well as empirical studies we have a more realistic view on the potential, pitfalls and challenges of this kind of approach. Most current PES examples are governmental payments, often being very close to conventional subvention programs. This should not surprise us as we all know about the issue of public and common goods. What are the consequences? How to go forward?

A group of at least eight researchers from different disciplines and seven practitioners start to develop an internet based marketplace for ecosystem services and biodiversity in Germany. With the help of a six–year funding scheme by the Ministry of Education and Research and the Ministry for Environment the potential for privately financed ecosystem services management approaches – based on the idea of voluntary payments for a well–defined ecosystem services or biodiversity goal – will be assessed. Subsequently the internet–based market place will be implemented. We would like to introduce our approach and the role of different actors within this development process to share experiences with the ESP community.

Keywords: Payments for ecosystem services, ecosystem markets, actors, governance

Type of submission: Voluntary contribution

T12 Governance of Ecosystem Services: Multiple actors at multiple levels of hybrid governance approaches – Who is in and why?

My values meet others' values: decision-maker views on biodiversity conservation arguments

Presenting author: Eeva Primmer

Other authors: Yennie Bredin, Mette Termansen

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For decades, biodiversity conservation policies have been driven by species' right to exist and the intrinsic value of all living forms, with arguments gradually broadening to encompass role of biodiversity in maintaining essential ecological functions and its importance for the production of valuable products. The ecosystem service approach has emerged as a framework for uncovering the anthropocentric values associated with biodiversity as a source of wellbeing and benefits. Values have been of particular interest and empirical research has shown that people associate with differing value dimensions. Despite compelling research on biodiversity and ecosystem service values, meagre empirical interest paid to what value arguments decision-makers adhere to or encounter in governance situations.

In seminal psychological, administrative and political science research, organisational and political decision-making has been characterised to rely on intuition, previous experience, appropriateness and compromise. Compromises abound also in conservation decision-making where interests are conflicting, budgets are shrinking and public interest in conservation issues is fluctuating. Although it is likely that biodiversity conservation decision-makers value biodiversity highly and seek to rely on their own judgements, they are also likely to experience that the broader decision-making context embodies values that differ from their own. This contrast might force them to compromise or use different arguments than their own.

This paper reports an empirical investigation on the match between biodiversity conservation decision-maker's own values and their perceptions of the values that dominate in the decision-making context where they work. The analysis of decision-makers applies the Q-methodology with an aim to explore the personal perspectives and perspectives perceived to dominate in the decision-making contexts of the 43 respondents from 9 European countries. The decision-makers' own perspectives are compared against the dominant perspectives and

discussed against the psychological and decision-making literature relevant for biodiversity and ecosystem service governance.

Keywords: Biodiversity and ecosystem service values, value arguments, decision-maker perceptions, governance

Type of submission: Voluntary contribution

T12 Governance of Ecosystem Services: Multiple actors at multiple levels of hybrid governance approaches – Who is in and why?

Switching from top–down to co–management in a Brazilian conservation unit: How does it affect the network of governance actors?

Presenting author: Claudia Sattler

Other authors: Barbara Schröter, Karla Sessin–Dilascio and Camila Jericó–Daminello

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The study presents a Brazilian case where a community located inside a conservation area successfully initiated a switch in environmental governance from top–down to co–management together with the administration of the conservation unit. In doing so they were able to avert two different threats: the impending eviction from the conservation unit for the community and the increasing environmental degradation of the natural resources and diminishing of ecosystem service provision in the conservation unit through impacts from mass tourism. This was achieved through a process of self–organization and entering into a negotiation process with the conservation unit authorities. Social network analysis was applied to investigate the process and identify the involved actors and how their relations changed over time. Two different networks were contrasted against each other: before and after the governance change from top–down to co–management happened. Network data needed for the analysis were retrieved from qualitative interviews conducted with the different governance actors. Results highlight the changes in the relevant actors in the network as well as their network relations from initially conflicting to finally supporting relationships between the community and the conservation unit authorities. Results also show which actors were of central importance for the process. The case study constitutes one example for a successful governance change that led to a re–definition of represented roles of network actors, from opposition to collaboration in favor of an improved ecosystem service governance.

Keywords: Community management, environmental governance, governance actors, social network analysis, Brazil

Type of submission: Voluntary contribution

T12 Governance of Ecosystem Services: Multiple actors at multiple levels of hybrid governance approaches – Who is in and why?

Ecosystem services real-world applications: The proof of the pudding is in the eating!

Presenting author: Francis Turkelboom

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OpenNESS (Operationalisation of natural capital and ecosystem services: From concepts to real-world applications) is a FP7 project that aims to develop innovative and practical ways of applying the concepts of ecosystem services (ESS) in real-world applications. In order to achieve this goal, 35 research partners are involved and 27 case studies are selected (mostly in Europe, but including 4 case studies from developing countries).

This research project has a transdisciplinary focus and to ensure that research approaches and results are agreed, discussed and evaluated with ‘practitioners’, every case study established ‘Case Study Advisory Boards’ (CAB) (including natural resources management authorities, consultants, sector interest groups, NGO’s, environmental regulators, municipalities, local government,...). They are considered the primary user community of the research results. The researcher–practise platforms (CAB) has been an interesting platform for learning about user needs regarding ES information, for learning on the practical applicability of ES tools, maps and data; and for learning about science–practitioners interactions. Dominant features of this interaction will be described.

Besides developing and improving ESS assessments tools, OpenNESS also aimed to understand for which purpose the assessments are used. Across the 27 case studies, the most important use of the research results reported were: awareness rising, followed by priority–setting to determine future management, and instrument design. As consequence, ES tools are not used equally over the different phase(s) of project implementation: ES tools are mostly mobilized in initial phases of projects, and much less during the implementation and evaluation phases of projects. The initial lessons–learned in the OpenNESS case studies relate with 4 themes: (i) ES analysis, (ii) tool evaluation, (iii) use of ES in stakeholder processes, and (iv) context of application of the research results. This presentation is based on the OpenNESS Project Deliverable 5.2.

Keywords: Ecosystem services real-world applications, science–practise interaction, OpenNESS

Type of submission: Poster

T12 Governance of Ecosystem Services: Multiple actors at multiple levels of hybrid governance approaches – Who is in and why?

Knowledge, education and dialogue about ecosystem services as a pathway to improve local adaptive capacity to climate change: The case of the "Orotoy" river, Colombia.

Presenting author: Luis Guillermo Castro

Other authors: Paola Avilán

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In Colombia, for 2100, it is expected an increase on temperature of 2,14°C and a decrease in precipitation on over 25% of the country. Impacts of climate change on biodiversity and ecosystem services that support local livelihoods in Colombia is barely known. That is the case of the Orotoy River, a 188 Km² basin located in the eastern lowlands of Colombia, where 78.000 people live, many of them in precarious conditions, and facing high rates of ecosystem transformation. Events linked to ecosystem services and Climate change, such as water scarcity and floods, have affected the ability of local communities to face poverty and have created environmental conflicts.

In order to protect ecological processes that support water supply, and other ecosystem services, the Humboldt Institute (Colombia) and CRDI (Canada) are generating knowledge and implementing an educational program to enhance the adaptation capacity to climate change of local communities at the Orotoy River. This project includes (1) research on the social – ecological systems and ecosystem services that converge at the basin, (2) implementation of a methodology for the valuation of ecosystem services by local stakeholders, (3) facilitation of a dialog process between local authorities, private companies and local stakeholders to find alternatives to solve environmental conflicts associated to ecosystem services supply (4) and an educational process on climate change, ecosystem services, water governance and conflict management.

Mutual interests, conflicts and compromises between stakeholders will be stated on a “Local water governance strategy to climate change adaptation at the Orotoy River”. This strategy will be an explicit tool to link ecosystem services management with local livelihoods, regional sustainable development. In this project, it is confirmed that better information and education on ecosystem services could improve the adaptive capacity of local communities to climate Change.

Keywords: Climate change, adaptation capacity, water governance, ecosystem services.

Type of submission: Poster

T12 Governance of Ecosystem Services: Multiple actors at multiple levels of hybrid governance approaches – Who is in and why?

Mega-network of Socioecosystems and Sustainability: A national transdisciplinary participative alliance among academic institutions and key sectors

Presenting author: Elisabeth Huber-Sannwald

Other authors: Barbara Ayala Orozco, Patricia Balvanera Levy, Aline Pingarroni; Alfonso Langle Flores, Red SocioecoS

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Mexico is one of the top megadiverse hotspots on our planet both biologically and culturally; it is one of the most biome and ecosystem-rich countries worldwide. It harbors an extraordinarily high level of endemism in all biotic kingdoms. Traditional ecological knowledge of a large indigenous and peasant population adds enormous cultural wealth to these ecosystems. However, as developing country, this mega richness and its function are extremely endangered by a large and increasing human population, land use change, ecosystem loss and degradation. Hence, what national efforts and actions have been taken to mitigate and combat this immense danger of biodiversity loss and to conserve and restore Mexican ecosystems and their goods and services? In Mexico, as in many developing countries humans are omnipresent, thus, any conservation, restoration or management plan needs to incorporate the human dimension at large, when considering both scope and focus. Rural stakeholders are and will be the key players and decision makers at local scale. Ecosystems are their life-support systems; hence the functional integrity of ecosystems is fundamental for sustainable development and biodiversity conservation. Academic institutions across the country have responded to this daunting challenge and formed a National Meganetwork of Socioecosystems and Sustainability. The aim of this network is to foster partnerships among already existing networks with regional, sectoral or biome emphasis, and to establish and coordinate a transdisciplinary participative research-governance alliance including academics, non-governmental organizations, local stakeholders and policy-makers, and to foster capacity building in ecosystem stewardship at all levels. The objective of this poster is to share the challenges faced and lessons learned during the formation and operation of this national Socio-ecosystem and Sustainability Network. We hope this approach will open dialogue, stimulate feedback and overall ignite interest by other megadiverse developing countries and endorsement by the Ecosystem Services Partnership.

Keywords: Mexico, megadiversity, networks, sustainable development, partnership

Type of submission: Poster

T12 Governance of Ecosystem Services: Multiple actors at multiple levels of hybrid governance approaches – Who is in and why?

Proposal of PES Scheme due to Biodiversity in São Paulo State Brazil

Presenting author: Paulo Antonio de Almeida

Other authors: Daniela Osorio Bueno, Thais Luiz, Monique Pereira, Bruno Meirelles

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The perception of the contribution of the natural systems to human well-being is rapidly growing worldwide, part of it due to seminal works as “The Value of World’s Ecosystem Services and Natural Capital” and the “Millenium Ecosystem Assessment”. Due to this recognition of nature’s value, several schemes of Payment for Ecosystem Services (PES) are arising all over the world. In São Paulo State, Brazil, two schemes are highlighted: the OASIS Project and the RPPN-PES. Both of them are focused on protection of water, landscape, connectivity and forests. This proposal was created to subsidize the State Government in order to create a new scheme, focused in areas of wild animal’s release (Release and Monitoring Areas – RMA). Every year, this State has to deal with thousands of wild animals that were recovered from traffic by environmental police. The problem is that, due to the high costs of maintenance and implementation, there are few of these RMA areas. The aim of this work is to include in the PES equations, an specific component of biodiversity called Group Biodiversity (GBio), in order to provide some economic recognition to that effort of the ES provider. GBio is composed of several components which represents the chosen biodiversity groups that the São Paulo State Government want to reward. Birds, mammals and amphibians were used to create the first draw of the State Law. This approach is also dependent of conservation initiatives taken by de owner to manage risk for the protected area. The conclusions show that including these biodiversity group can improve the owners reward and thus the land protection.

Keywords: PES, payment for ecosystem services, biodiversity, São Paulo, Brazil

Type of submission: Poster

T12 Governance of Ecosystem Services: Multiple actors at multiple levels of hybrid governance approaches – Who is in and why?

Governing Payments for Ecosystem Services by Incorporating Their Multiple Scales and Dimensions

Presenting author: Runsheng Yin

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The governance of payments for ecosystem services (PES) has attracted broad attention as more and more such programs are launched and more and more people ask the question of how to enhance their performance. So far, however, the deliberations of PES governance have been unfolding mostly at the local level and from the institutional perspective, out of the academic tradition of governing the commons and community-based resource management. While that has helped advance our understanding and improve our capability of project design and implementation, it has not been very conducive to dealing with more complex issues facing PES, especially those large programs. Because relevant variables of social-ecological systems operate at different scales and entail multiple dimensions and their impacts can differ radically, it is imperative to approach PES governance in a more appropriate and comprehensive way by carefully incorporating the multiple scales and dimensions and better reflecting the real-world situations. The objectives of this paper are to articulate this broader perspective and its theoretically ramifications and to illustrate how to make it work in practice using China's recent experience of ecological restoration.

Keywords: Social-ecological systems, PES design and implementation, multiple scales and dimensions, ecological restoration, program performance