

2018 ESP Asia Conference

Communicating and Engaging Ecosystem Services

In Policy and Practice in Asia.

9 - 12 October, 2018. Dehradun, India

Book of Abstract

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I. SESSION DESCRIPTION

ID: S8b

Title of session:

Economic Valuation of Protected Areas

Hosts:

	Title	Name	Organisation	E-mail
Host:	Ms.	MADHU VERMA	Indian Institute of Forest Management, Box 357, Nehru Nagar, Bhopal,	mverma@iifm.ac.in
Co-host:	DR.	ADVAIT EDGAONKAR;	Indian Institute of Forest	advait@iifm.ac.in;
	DR.	ASHISH DAVID	Management, Bhopal	adavid@iifm.ac.in,

Abstract:

The session intends to disseminate the outcomes of 'The Manual on Economic Valuation of Tiger and Snow Leopard Landscape' prepared by IIFM with the support of The World Bank in collaboration with GTF, GTI, SLF and 'The Report on Economic Valuation of Tiger Reserves in India' prepared by IIFM with the support of National Tiger Conservation Authority, Govt of India & Various Working Papers developed by the UNEP on Ecosystem Services, specially the one on 'Regulating Services' with IIFM, Bhopal, India so as to build technical capacity and develop extensive understanding of the concepts like Natural Capital, Ecosystem Services and their classification, Total Economic Valuation and its methodologies/tools, Green Accounting, Conservation Finance, Payment of Ecosystem Services and incentive-based mechanisms across various practitioners and non economists.

Goals and objectives of the session:



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The sessions will be systematically designed to build capacity of a wide-ranging audience including policymakers, protected area managers of tiger and snow leopard landscapes, other field experts, academia, specially non-economists, funding agencies, conservationists, non-governmental organizations in various tiger range countries, and early to mid-career professionals.

Planned output / Deliverables:

The desired deliverables of the session are threefold. Firstly, the sessions intends to inculcate an appreciation of myriad of intangible benefits which society receives from conservation of tiger landscapes but are often unacknowledged. Secondly, the workshop seeks to expose the participants to a range of pragmatic, yet objective and tailor-made tools (including data needs) that can be used to provide insights on the economic value of these benefits and the multiplier effects of funds spent on their conservation and management. Thirdly, drawing on the example from Asia and specifically India, the session shall discuss the pros and cons of various approaches that can be used to internalize this information in various policies and developmental programmes.

Related to ESP Working Group/Natioanl Network:

SWG 8 – ES in Conservation



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II. SESSION PROGRAM

Date of session: Tuesday, 9 October 2018

Time of session: 14:00 - 16:00

Time	First name	Surname	Organization	Title of presentation
14:00-14:15	MADHU	VERMA	Indian Institute of Forest Management,	Introduction
14:15-14:30	Andy S.	Choi	National Institute of Ecology	Value Spillovers from the Korean DMZ Areas and Social Desirability
14:30-14:45	Hyun-Ah	Choi	Hanns Seidel Foundation Korea	Ecosystem Services Assessment for supporting natural resources management -Case Study of Forest Ecosystem in South Korea
14:45-15:00	Ananta Ram	Bhandari	Tribhuvan University	Valuation of Ecosystem Services: A Case of Panchase Protected Forest in the Mid-hills of Nepal
15:00-15:15	P	Venkatesh	ICAR-Indian Agricultural Research Institute	Economic Valuation of Agro Ecosystem: A Case Study on Pulse Crops Based Production System in Telangana, India
15:15-16:00			Discussion	



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III. ABSTRACTS

Abstracts are clustered based on the last name of the authors. First authors are presenting authors unless indicated otherwise.

1. Type of submission: Abstract

S. Sectoral Working Group sessions: S8b – Economic Valuation of Protected Areas

Valuation of Ecosystem Services: A Case of Panchase Protected Forest in the Mid-hills of Nepal

First author(s): Ananta Ram Bhandari,

Other author(s): Udhab Raj Khadka, Keshav Raj Kanel

Affiliation: Tribhuvan University Central Department of Environmental Science, , Nepal

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Forests provide numbers of ecosystem services for human wellbeing. However, the importance of ecosystem services arising from forests is poorly recognized in developing countries like Nepal. It is due to the lack of market price of most of the ecosystem services. This paper aimed at valuing forest ecosystem services highlighting non-use value which lack market price. This study was conducted in Panchase protected forests, a representative forest in the mid-hill of Nepal. Applying contingent valuation method, 364 people were surveyed for their willingness-to-pay to estimate the economic value of ecosystem services. The economic value of the non-use values of the Panchase Protected Forest was estimated to be NPR 52.2 million (USD 521,930) annually. The per hectare economic value of the Panchase Protected Forest is NPR 9,037.75 (USD 90.37) per annum. This study concludes that protected forests are not only important for conserving biodiversity and environmental safeguards, but also important for economic benefits. The regression analysis suggests that people having higher income are willing to pay more. Moreover, people having access to executive positions in community based forest management are willing to pay more to conserve forests. This study suggests to strengthening community engagement in forest management decisions. Creation of economic opportunities for local people and strengthening community engagement in forest management decisions are crucial for better management of protected forests.

Keywords: contingent valuation, ecosystem services, forest, Panchase, willingness to pay



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2. Type of submission: Abstract

S. Sectoral Working Group sessions: S8b – Economic Valuation of Protected Areas

Value Spillovers from the Korean DMZ Areas and Social Desirability

First author(s): Andy Choi,

Other author(s): Choong-Ki Lee, Katsuya Tanaka and Honggang Xu

Affiliation: National Institute of Ecology National Institute of Ecology, South Korea, , Korea, Republic Of

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This paper aims to examine the extent to which economic values for protection of internationally significant environmental and cultural resources are influenced by social desirability across geopolitical boundaries. Valuation results were examined using discrete choice models across three samples from Korea, China and Japan. The impact of social desirability on the protection value was tested as the relationship between willingness-to-pay estimates from the conventional "subjective" questioning approach (i.e., my preferences) and an alternative "projective" questioning approach (i.e., others' preferences). The results demonstrated significant spillover benefits and the extent to which value spillovers work is substantially influenced not only by types of resources and national backgrounds, but also by social desirability bias. Although the overall findings support significant global spillover effects, the potentially inflating impact of social desirability bias might mask their true gravity because the bias is likely to be stronger in the hosting communities than in the international counterparts. Weak global spillovers might be observed using the conventional subjective questioning even when they are substantial in reality. Accordingly, a stronger engagement of international communities in the conservation activities involving globally significant environmental and cultural heritage sites might be granted.

Keywords: Value spillover, social desirability bias, Korean DMZ, cultural heritage, willingness to pay, choice experiment



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3. Type of submission: Abstract

S. Sectoral Working Group sessions: S8b – Economic Valuation of Protected Areas

Ecosystem Services Assessment for supporting natural resources management –Case Study of Forest Ecosystem in South Korea

First author(s): Hyun-Ah Choi,

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Assessment of ecosystem services is needed at the national level in order to support policy makers that aim to apply ecosystem services concepts and their values. The range of ecosystem services quantified and the ability to provide reliable information for policy makers should be considered a priority at the national level. Ecosystem services can be quantified through an ecosystem assessment. Ecosystem services assessment approaches support policy, decision-making, and implementation to protect biodiversity and ecosystem at national, regional, and global levels. This study therefore aims to provide hotspots for sustainable development using ecosystem assessment tool in South Korea. This study used the spatial decision support tool, Co\$ting Nature, for mapping biodiversity and ecosystem services priority area. The key map-based spatial analysis factors were conservation priority, ecosystem services and nature conservation priority, current pressure, and ecosystem services. The conservation priority was low in middle area near BaekduDaegan Mountain protected area. The ecosystem services were high in the middle area and Jeju Island. This study will provide useful information for ecosystem services assessment, habitat conservation, conservation planning and decision making. This study demonstrated conceptual approaches step by step description for supporting natural resources management at national level. The proposed approaches can provide useful information for ecosystem services assessment, habitat conservation, conservation planning, and decision-making at the national level.

Keywords: ecosystem service, spatial decision support, national assessment, conservation



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4. Type of submission: Abstract

S. Sectoral Working Group sessions: S8b – Economic Valuation of Protected Areas

Economic Valuation of Agro Ecosystem: A Case Study on Pulse Crops Based Production System in Telangana, India

First author(s): Venkatesh Palanisamy

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In India, despite many studies focused on valuation of ecosystem services such as forest, wetland, mangroves etc, the information on cultivated land ecosystem services and its valuation is relatively scarce. Traditionally, the cost of cultivation studies on agricultural crops had taken into account material inputs such as land, labor, seeds, fertilizer, etc as costs and grain yield as returns from main product and straw as byproduct, ignoring costs of environmental goods and value of ecosystem services. Under the gamut of ecosystem services, traditional cost approach covers only a part of provisioning services. However, other services such as regulating, supporting and cultural services were neglected in the valuation. By adopting benefit transfer method, a study measured Rs 1.75 lakhs/ha for ecosystem services in India after deducting values of food and recreation services. In this milieu, this study estimated the value of ecosystem services of pulses-based production. A field survey was conducted among the 90 farmers in Vikarabad, Nagar Kurnool and Mahabubnagar districts of Telangana in March, 2018. Farmers valuation was elicited contingent upon description of provision of genetic resources, habitat for flora and fauna, prevention of soil erosion, soil structure maintenance, fixation of atmospheric nitrogen in soil and reduction in fertilizer use in subsequent cereal crops and aesthetic services etc. By using double bounded discrete choice contingent valuation format, the respondent's willingness to pay for these services were estimated and service-wise valuation was arrived by using weighted scores of respondents for each identified service. The results indicated that the respondents valued Rs 29,232/ha for identified ecosystem services, excluding food and fibres. All the services more or less valued equally and cultural services which valued



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highest Rs 5,397/ha and provision of genetic resources had the lowest value of Rs 4,087/ha.

Keywords: Agricultural ecosystem, Contingent valuation, willingness to pay, India