

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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- III. ABSTRACTS

I. SESSION DESCRIPTION

ID: T17

Title of session:

Accounting For Ecosystem Services : Policy and Practices

Hosts:

	Title	Name	Organisation	E-mail
Host:	Mr.	Muniyandi Balasubramanian	Institute for Social and Economic Change	balasmku@gmail.com
Co-host:		Keerthi Srilakshmi	Institute for Social and Economic Change	keerthislvyasam@gmail.com

Abstract:

The conventional national income accounts provide only the market value of goods and services information on the economic system. Most of the environmental goods and services are missing in the market or ignored in national income accounting calculation system. System of Environmental Economic Accounting 2012-Experimental Ecosystem Accounting (SEEA-EEA) provides a comprehensive framework for the accounting for ecosystem services in physical and monetary aspects. SEEA Experimental Ecosystem Accounting provides preliminary efforts to describe a measurement framework for integrating biophysical data, tracking changes in ecosystems and connecting those changes to economic and other human activity (UN et al 2014). This session aims at the ecosystem accounting can give a new view that can be used to support results on the most efficient use of ecosystem in support of individual and social well-being. Examples of topics of interests include:


- Classification of data, tools and methods for calculating of ecosystem accounting
- Identification detailed, spatial information on ecosystem services supply
- Monitoring the status of stock of flow of natural capital and ecosystem services
- Linking ecosystem accounting and Sustainable Development Goals (SDGs)



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- Ecosystem Accounting is integrating information related to environmental sustainability and human well-being.
- The use of environmental valuation techniques and sustainable land and natural resource management.

Goals and objectives of the session:

The goals and objectives of the session is ecosystem accounting policy and practical situation in this research field. Those who are working in this area can contribute their views, papers, discussion and proposal. The main aim of the session is to identify the gap between policy and practice of ecosystem accounting in Asia.

Planned output / Deliverables:

Contributions to an on-going special issue; joint paper.

Related to ESP Working Group/Natioanl Network:

TWG 17 - ES Accounting & Greening the economy

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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	Muniyandi	Balasubramanian	Institute for social and Economic Change	Introduction
14:15-14:30	Pranab	Mukhopadhyay	Goa University	Recreational Value of Coastal and Marine Ecosystems in India
14:30-14:45	Mahendra	Singh	ICAR-Central Agroforestry Research Institute, Jhansi	Valuation and Accounting of agroforestry systems for ecosystem services
14:45-15:00	Prachi Ugle	Pimpalkhute	Eco Endeavourers Network	Payments for Ecosystem Services (PES) in Cites – A need for global endeavour towards sustainable cities and communities
15:00-15:15	Mousami	Prasad	IIT Bombay	Natural Resource Management and Corporate Governance in Indian Firms
15:15-15:30	Sheryl Keerthi	Christina Srilakshmi	Madras Christian college Institute for Social and Economic Change	Water Accounting in India: Concept, Crisis, Compliance
15:30-16:00			Discussion	

III. ABSTRACTS

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




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authors unless indicated otherwise.

1. Type of submission: Invited speaker abstract

T. Thematic Working Group sessions: T17 – Accounting For Ecosystem Services : Policy and Practices,
M. Balasubramanian

Water Accounting in India: Concept, Crisis, Compliance

First author(s): Sheryl Christina,

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The purpose of the study undertaken is to provide a comprehensive analysis of the issues encountered in accounting for water resources in India and identifying the lag in the implementation of its conceptual framework provided by the United Nations Organization as given in the System of Environmental–Economic Accounting in the year 1993. The research draws upon the framework documents, published methodologies used by other countries and secondary sources including articles and statistics available in India on the said topic. The main constraint faced in taking this up is the abundance of information on the concept but the lack of statistical data needed for accounting. This is mainly due to the lack of recognition on the importance and need for such accounting measures. Given the inconsistency in the data availability, there is a need for further research and survey in this area and a long way before it can be made mandatory. Therefore, the study threads the concept towards a futuristic reality by drawing comparisons with a there developed and developing economies, tracing the water crisis situation in India and how compliance standards can be achieved in the long run.

Keywords: Water Accounting, Constraints, UN standards, Compliance of standards, India

2. Type of submission: Abstract




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T. Thematic Working Group sessions: T17 – Accounting For Ecosystem Services : Policy and Practices,
M. Balasubramanian

Recreational Value of Coastal and Marine Ecosystems in India

First authors(s): Pranab Mukhopadhyay,

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Coastal and marine ecosystems offer a large number of services for human wellbeing ranging from livelihood to medical uses. Recreation has assumed an increasingly important role with growing incomes and people's willingness to spend for leisure travel. What gets reflected of this activity in the National Income are sectoral contributions under heads of "Services" such as "Hotels and Restaurants", "Transport", etc. These are the payments for use of hotels and transport services but do not capture the net welfare (consumers' surplus) from recreation that can be attributed to the 'existence of the ecosystem'. This paper presents the first estimates of a country-wide recreational value in terms of the consumers' surplus generated by marine and coastal ecosystems in India using a Zonal Travel Cost Method. Recreational value of such ecosystems from nine coastal states in India was estimated as INR 456 billion (about 7.3 billion USD) for domestic and foreign tourist (at 2012–13 current prices) which was about 0.54 % of India's Net Domestic Product in that year and about 0.94% of the Net State Domestic product of the nine coastal states– a value not accounted for in the National Income aggregates. The estimate highlights the importance of coastal and marine ecosystems for India and can provide objective criteria for conservation of this gift of nature. It also provides an important policy tool in terms of estimated recreational demand functions for coastal states in India which can be used for generating revenue to the exchequer through a suitable state-specific tariff structure on recreational services for financing conservation measures in the country.

Keywords: Recreational value, Zonal Travel Cost Method, Coastal and Marine Ecosystems, Optimum tariff, Panel data

3. Type of submission: Abstract





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T. Thematic Working Group sessions: T17 – Accounting For Ecosystem Services : Policy and Practices,
M. Balasubramanian

Natural Resource Management and Corporate Governance in Indian Firms

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Natural resource management is an integral part of ecosystem management and has become critical in present times with rapidly shrinking forests, pollution in water bodies and increasing green house gas levels. Ecosystem is one of the stakeholders of the firms, as firms use ecosystem services, are responsible for the environmental degradation and have access to resources (financial and technological) that can provide solutions. Firms are economic engine of growth and employment. Policies targeted at firms, are being introduced for restoration of ecosystem. Recently, India mandated social responsibility disclosure to improve firms' accountability towards ecosystem. However, Indian firms have been criticized for poor compliance and have been found to make disclosures without improving their real behavior. It is therefore necessary to encourage firms to assume environmental responsibilities.

Corporate governance principles argue for recognition of rights of stakeholders; ecosystem being one of the stakeholders. However, there is lack of empirical evidence on the role of corporate governance on natural resource management by firms, particularly in developing nations, like India. This study therefore, examines the role of corporate governance in influencing natural resource management of firms in India. The study first examines the firms practices towards natural resource management namely, air, water, land, soil, forests and biodiversity, through disclosures in their annual reports. Second, the empirical evidence on the relationship between disclosures of natural resources and corporate governance is investigated. The theoretical framework of legitimacy theory is used. The study sample includes 137 firms from diversified sectors across two time periods (pre and post disclosure regulation period) that are analyzed using econometric techniques. The findings of the study have implications for corporate managers and public policy.





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Keywords: Natural Resource Management, Legitimacy theory, Corporate Governance, Firm, India

4. Type of submission: Abstract

T. Thematic Working Group sessions: T17 – Accounting For Ecosystem Services : Policy and Practices,
M. Balasubramanian

Valuation and Accounting of agroforestry systems for ecosystem services

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The multi-functionality nature of agroforestry provides various goods and services to the society. To achieve the targets of SDG1: on ending poverty, SDG2: on end hunger, SDG 6: on protecting water-related ecosystems, SDG 7: on access to sustainable energy to all, SDG 13: on combating climate change and SDG 15: on protecting terrestrial ecosystems, agroforestry contributes in achieving the Sustainable Development Goals (SDGs). It is well documented that agroforestry provides various ecosystem services viz provisioning, regulating, supporting and cultural services, however, the accounting and valuation of these services were not yet given priority. Poplar-based agroforestry is extensively adopted in the irrigated plains of the state of Punjab, Haryana, western Uttar Pradesh, outer plains area in Uttarakhand and Himachal Pradesh of India. It serves as a major source of raw material for various wood-based industries. The present paper highlights the methodology for valuating and accounting of provisioning and regulaing services derived from the poplar-based agroforestry system. Market survey was conducted in Yamunanagar district of Haryana, which is the biggest hub of plywood industries in northern India. Results verified that the value of a regulatory service (carbon sequestration) was over 60 percent of provisioning service (timber wood) of poplar-based agroforestry system. The per hectare timber production of poplar trees was estimated at 459 q and 1133 q from boundary and agrisilviculture system respectively for seven years of rotation. The total value of the sequestered carbon estimated was US\$ 1778 and 4673 in both the systems respectively. The estimated total value for carbon sequestered by poplar-based agroforestry system in





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the district was US\$4284969 for entire period of seven year of rotation period. Therefore, if the farmers get remunerative price for their wood and incentives for their contribution in carbon sequestration, which help in mitigating climate change, the adoption of agroforestry will increase significantly. Agroforestry serves as an ideal and economically viable option to achieve the committed targets of mitigating climate change under Paris agreement. Finally, the agroforestry systems encourage to diversify agriculture landscapes that would enhance the farmers' income in India.

Keywords: Carbon sequestration, provisioning services, regulating services, wood-based-industries

5. Type of submission: Abstract

T. Thematic Working Group sessions: T17 – Accounting For Ecosystem Services : Policy and Practices, M. Balasubramanian

Payments for Ecosystem Services (PES) in Cites – A need for global endeavour towards sustainable cities and communities

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Payment for Ecosystem Services (PES) has emerged as an incentive based policy instrument for environmental conservation and human wellbeing. It aims to improve the livability of communities as majority of population is striving and thriving in cities. As cities are nodes of intense energy and resource use, managing growing cities becomes a formidable task that places demand on infrastructure and the environment. As regard to the UN Sustainable Development Goal 11: Sustainable Cities and Communities, PES as a tool shall assist to remunerate cities and communities for the positive externalities. To balance the action in terms of "People", "Planet" and "Profit", provision of environmental services with regard to land use planning, landscape development, biodiversity conservation in cities and the rural-urban fringe areas, floods and disaster management, pollution abatement and carbon sequestration potential of trees needs utmost attention. As per UN by 2030 almost 60 % of the world's population will live in urban areas with 95% of urban expansion in the next



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decade shall take in developing world, PES shall be an opportunity to address market failures, risks & reward positive outcomes. It shall also provide opportunity for capacity building, knowledge transfer, climate change action and sustainable development. PES schemes should however be financially sustainable & should aim for design and innovation and be a vehicle to deliver services of value. The present paper aims to study how PES can be conceived as a diverse scheme with set of policies, institutions and processes that shall mobilize funding from direct beneficiaries through government, public-private partnership, taxpayers, consumers and other interested parties to reward or provide incentives or be pay providers of environmental services. The paper shall provide an approach based & country specific policy framework aligning with PES for Urban setting and also towards UN SDG: Sustainable Cities and Communities.

Keywords: PES, Cities, Communities, Sustainable Development, innovation

