

BIOECON XXI: The 21st ANNUAL BIOECON CONFERENCE

Inequality and poverty in biodiversity conservation and natural resource management

*11-13 September 2019, Wageningen University,
The Netherlands*

Programme

WEDNESDAY 11 SEPTEMBER	DAY 1: THURSDAY 12 SEPTEMBER		DAY 2: FRIDAY 13 SEPTEMBER	
18.00-20.30 REGISTRATION AND WELCOME DRINKS including a simple buffet- style dinner <i>Loburg Café</i>	8.00 - 8.45	Registration		
	8.45 - 9.00	Welcome Address	8.45 - 9.00	Final Announcements
	9.00 - 10.00	Keynote lecture Marten Scheffer	9.00 - 10.00	Keynote lecture Katharine Sims
	10.00 - 10.30	Coffee break	10.00 - 10.30	Coffee break
	10.30 - 12.30	<u>Parallel Sessions A1 - A4</u>	10.30 - 12.30	<u>Parallel Sessions D1 - D4</u>
	12.30 - 13.30	Lunch	12.30 - 13.30	Lunch
	13.30 - 15.30	<u>Parallel Sessions B1 - B4</u>	13.30 - 14.30	<u>Parallel Sessions E1 - E4</u>
	15.30 - 16.00	Coffee break	14.30 - 15.00	Coffee break
	16.00 - 17.30	<u>Parallel Sessions C1 - C4</u>	15.00 - 16.30	<u>Parallel Sessions F1 - F3</u>
	17.30 - 18.00	Information Dasgupta Review Call for Evidence	16.30 - 17.30	Closing drinks
	17.30 - 18.30	BIOECON internal meeting		
	18.15 - 19.00	Pre-dinner drinks		
	19.00 - 22.00	Conference dinner		

WEDNESDAY 11 SEPTEMBER 2019

18:00 – 20:30 Registration and welcome drinks including a simple buffet-style dinner

Loburg Café

THURSDAY 12 SEPTEMBER 2019

8:30 – 8:45 Registration

Lounge WICC

8:45 – 9:00 Welcome Address

Haakzaal

9:00 – 10:00 PLENARY SESSION 1

9:00 – 10:00 Keynote lecture Marten SCHEFFER

Haakzaal

Dominance by a few, what does it do?

10:00 – 10:30 Coffee break

Lounge WICC

10:30 – 12:30 PARALLEL SESSIONS A1 – A4

10:30 – 12:30 PARALLEL SESSION A1 - Special Session Sponsored by PBL Netherlands Environmental Assessment Agency

Haakzaal

Discounting: Accounting for ecosystem services.

Chair: Gusta RENES, PBL Netherlands Environmental Assessment Agency

Moritz A. DRUPP, University of Hamburg, Germany

Relative Prices and Climate Policy: How the Scarcity of Non-Market Goods Drives Policy Evaluation

Aart DE ZEEUW, Tilburg University, the Netherlands

Discounting in the Presence of Scarce Ecosystem Services

Xueqin ZHU, Wageningen University, the Netherlands

Empirical evidence for time-declining social discount rates: the role of intermediate ecosystem services in production

10:30 – 12:30 PARALLEL SESSION A2 – Field experiments

Roghorstzaal

Chair: Andreas KONTOLEON

Sandra ROUSSEAU, KU Leuven, Belgium

Country borders and the value of scuba diving in an estuary: The case of the Oosterschelde

Discussant: Francisco Alpízar

Francisco ALPÍZAR, Wageningen University, the Netherlands

Input Efficiency as a Solution to Externalities: engineers vs behavioral scientists in a randomized controlled trial

Discussant: Adriana Bernal-Escobar

Adriana BERNAL-ESCOBAR, University of Osnabrück, Germany

Spillover effects from mixing conservation policies in neighboring areas: Evidence from a field experiment in Colombia

Discussant: Andreas Kontoleon

Emma WILK, Bangor University, UK

Mechanisms and impacts of an incentive-based conservation scheme: evidence from a Randomized Control Trial in Bolivia

Discussant: Sandra Rousseau

10:30 – 12:30 PARALLEL SESSION A3 – Fisheries

Tarthorstzaal

Chair: Luc DOYEN

Benjamin BLANZ, University of Hamburg, Germany

Three Types of Interaction in Multi-Species Fisheries and When They Need to be Considered

Discussant: Irmelin Slettemoen Helgesen

Irmelin SLETTEMØEN HELGESEN, Norwegian University of Science and Technology (NTNU), Norway

ITQs, Market Power and the Potential Efficiency Loss

Discussant: Luc Doyen

Luc DOYEN, University of Bordeaux, France

Risk averse policies foster bio-economic sustainability in mixed fisheries

Discussant: Benjamin Blanz

10:30 – 12:30 PARALLEL SESSION A4 – Agricultural Systems I

Peppelzaal

Chair: Ludovic BEQUET

Zachary S. BROWN, North Carolina State University, USA

Willingness-to-Pay Effects of Gene Drive Insect Use for Agricultural Pest Management in Diverse U.S. Market Applications

Discussant: Margaux Lapierre

Margaux LAPIERRE, University of Montpellier, France

Improving Farm Environmental Performance through Technical Assistance: Empirical Evidence on Pesticide Use

Discussant: Nonka Markova Nenova

Nonka MARKOVA-NENOVA, Brandenburg University of Technology Cottbus-Senftenberg, Germany

Cost-effectiveness, Distributional Impacts and Regionalization in Agri-Environment Scheme Design. A case study of a Grassland Scheme in Saxony, Germany

Discussant: Ludovic Bequet

Ludovic BEQUET, University of Namur, Belgium

Agricultural Practices and Environmental Degradation - The Case of GM Corn in the Philippines

Discussant: Zachary Brown

12:30 – 13:30 Lunch

Restaurant WICC

13:30 – 15:30 PARALLEL SESSIONS B1 – B4

13:30 – 15:30 PARALLEL SESSION B1 – Games

Haakzaal

Chair: Erik ANSINK

Olli TAHVONEN, University of Helsinki, Finland

Optimal and Markov-perfect Nash equilibria in harvesting age-structured populations

Discussant: Adam Lampert

Adam LAMPERT, Arizona State University, USA

When establishing a common environmental project, countries that benefit less may need to contribute more

Discussant: Pauli Lappi

Pauli LAPPI, CMCC Foundation, Italy

Lobbying and environmental policy instruments

Discussant: Erik Ansink

Erik ANSINK, VU University Amsterdam, the Netherlands

Common pool resources: Is there support for conservationists?

Discussant: Olli Tahvonen

13:30 – 15:30 PARALLEL SESSION B2 – Lab in the field experiments

Roghorstzaal

Chair: Christian KÖNIG-KERSTING

Michael BROCK, University of East Anglia, UK

The Can Challenge: Exploring the Best Way to Incentivise Pro-Environmental Behaviour

Discussant: Tum Nhim

Tum NHIM, Wageningen University, the Netherlands

Endogenous institutions and cooperation in natural resource governance: insights from an economic experiment in Cambodia

Discussant: Zachary Brown

Zachary S. BROWN, North Carolina State University, USA

Prices, Peers, and Perceptions: Field experiments on improved cookstove adoption in Ghana

Discussant: Christian König-Kersting

Christian KÖNIG-KERSTING, Heidelberg University, Germany

The nature of experience

Discussant: Mike Brock

13:30 – 15:30 PARALLEL SESSION B3 – Carbon, Climate, Ecosystems

Tarthorstzaal

Chair: Martin DRECHSLER

Matthew AGARWALA, University of Cambridge, UK

Carbon Accounts for Measuring Sustainability under Globalization

Discussant: Elena Lagomarsino

Elena LAGOMARSINO, University of Genova, Italy

Ecosystem accounts for Marine Protected Areas: A proposed framework

Discussant: Sergei Schaub

Sergei SCHAUB, ETH Zürich, Switzerland
Species diversity-income relationship under increasing drought risk
Discussant: Martin Drechsler

Martin DRECHSLER, Helmholtz Centre for Environmental Research, Germany
The value of flexibility in conservation management in the face of climatic uncertainty
Discussant: Matthew Agarwala

13:30 – 15:30 PARALLEL SESSION B4 – Agricultural systems II

Peppelzaal

Chair: Maria NARANJO BARRANTES

Guangcheng REN, Wageningen University, the Netherlands
The economic and environmental performance of farms: The impact of migration
Discussant: Paul Hofman

Paul HOFMAN, Wageningen University, the Netherlands
Local Economy effects of Large-Scale Agricultural Investments
Discussant: Maria Naranjo Barrantes

Maria NARANJO BARRANTES, Wageningen Economic Research, the Netherlands
Testing conditional cooperation: Local participation of farmers in agricultural cooperatives
Discussant: Guangcheng Ren

15:30 – 16:00 Coffee break

Lounge WICC

16:00 – 17:30 PARALLEL SESSIONS C1 – C4

16:00 – 17:30 PARALLEL SESSION C1 – Special session sponsored by MarEEshift
Marine ecological-economic systems: Shifting the baseline to a regime of sustainability

Haakzaal

Chair: Martin QUAAS

Stefan BAUMGÄRTNER, University of Freiburg, Germany
Responsibility for regime shifts in ecological-economic systems
Discussant: Thang Dao

Thang DAO, IBG Berlin, Germany
Regulating mixed commercial-recreational fisheries
Discussant: Martin Quaas

Martin QUAAS, Leipzig University, Germany
Harvesting efficiency and welfare in restricted open-access fisheries
Discussant: Stefan Baumgärtner

16:00 – 17:30 PARALLEL SESSION C2 – No session

16:00 – 17:30 PARALLEL SESSION C3 – Forestry

Tarthorstzaal

Chair: Charles PALMER

Mandy MALAN, Wageningen University, the Netherlands

Can conservation be pro-poor? Evidence from an impact evaluation of a REDD+ program in Sierra Leone

Discussant: Tung Nguyen Huy

Tung NGUYEN HUY, Tilburg University, Netherlands

Combatting forest fires in arid Sub-Saharan Africa: Quasi-experimental evidence from Burkina Faso

Discussant: Charles Palmer

Charles PALMER, London School of Economics and Political Science (LSE), UK

Participatory policy approaches and cooperation in forest commons: Experimental evidence from Program Bolsa Floresta in Brazil

Discussant: Mandy Malan

16:00 – 17:30 PARALLEL SESSION C4 – Valuation and Time

Peppelzaal

Chair: Eli FENICHEL

Masayuki SATO, Kobe University, Japan

Valuation and Discounting of Forest Ecosystem Services

Discussant: Eli Fenichel

Eli P. FENICHEL, Yale University, USA

Wait for it: Valuing natural capital when management is dominated by periods of inaction

Discussant: Masayuki Sato

17.30 - 18.00 Information session Dasgupta Review Call for Evidence

Haakzaal

The secretariat of the Dasgupta Review on the Economics of Biodiversity, led by Professor Sir Partha Dasgupta, has launched a Call for Evidence asking for the latest evidence and strongest case studies on biodiversity and ecosystem services, the relationship between biodiversity and economic prosperity, causes of biodiversity loss, and actions to tackle biodiversity loss.

In this session, via a video link, the secretariat will give a brief overview of the Call for Evidence and instructions on how to submit responses, and answer questions.

17.30 - 18.30 BIOECON internal meeting

Roghorstzaal

18.15 - 19.00 Pre-dinner drinks

Restaurant WICC

19.00 - 22.00 Social dinner

Restaurant WICC

FRIDAY 13 SEPTEMBER 2019

8:45 – 9:00 BIOECON Announcements

Haakzaal

9:00 – 10:00 PLENARY SESSION 2

9:00 – 10:00 Keynote lecture Katharine SIMS

Haakzaal

From Forest Frontiers to Landscapes of Opportunity

10:00-10:30 Coffee break

Lounge WICC

10:30 – 12:30 PARALLEL SESSIONS D1 – D4

10:30 – 12:30 PARALLEL SESSION D1 – Natural Capital

Haakzaal

Chair: Stuart WHITTEN

Sturla F. KVAMSDAL, SNF – Centre for Applied Research at NHH, Norway

Ecosystem wealth in the Barents Sea

Discussant: Jasper Meya

Jasper N. MEYA, University of Oldenburg, Germany

Inter- and Intragenerational Distribution and the Valuation of Natural Capital

Discussant: Rintaro Yamaguchi

Rintaro YAMAGUCHI, National Institute for Environmental Studies, Japan

Discounting, inclusive wealth and sustainability

Discussant: Stuart Whitten

Stuart WHITTEN, CSIRO Land and Water, Australia

Natural capital and native grazing pastoral systems in Australia: A tale of the north and south

Discussant: Sturla Kvamsdal

10:30 – 12:30 PARALLEL SESSION D2 – Choice experiments II

Roghorstzaal

Chair: Anna-Kaisa KOSENIUS

Margrethe AANESEN, UiT - Arctic University of Norway, Norway

Do we choose differently after a discussion? Results from a deliberative valuation study in Ireland

Discussant: Zhaoyang Liu

Zhaoyang LIU, University of Glasgow, UK

Effects of air pollution on Beijing residents' willingness to pay for green amenities
for green amenities

Discussant: Eiichiro Nishizawa

Eiichiro NISHIZAWA, Hosei University, Japan

Preferences for result-based agri-environmental measures: a choice experiment study with Japanese farmers

Discussant: Anna-Kaisa Kosenius

Anna-Kaisa KOSENIUS, University of Helsinki, Finland

Private forest owners' interest in forest conservation programs – analysis of motivation and preference heterogeneity

Discussant: Margrethe Aanesen

10:30 – 12:30 PARALLEL SESSION D3 – Valuation of ecosystem services

Tarthorstzaal

Chair: Ernst-August NUPPENAU

Liselotte HAGEDOORN, VU University Amsterdam, the Netherlands

Ecosystem-based adaptation as a means to support the vulnerable: evidence from Central Vietnam

Discussant: Frits Bos

Frits BOS, CPB Netherlands Bureau for Economic Policy Analysis, the Netherlands

Biodiversity in the Dutch practice of cost-benefit analysis

Discussant: Shiri Shamir

Shiri Z. SHAMIR, School of Sustainability IDC Herzliya, Israel

Economic valuation of the ecosystem services in the Israeli Mediterranean

Discussant: Ernst-August Nuppenau

Ernst-August NUPPENAU, Justus Liebig-University, Germany

Community Valuation of Eco-System Services as Social Capital Creation: On Joint Participation in Farming System, Landscape and Project Analysis

Discussant: Liselotte Hagedoorn

10:30 – 12:30 PARALLEL SESSION D4 – Special session: EU BioMonitor Project Session

Peppelzaal

Chair: Hans VAN MEIJL, Wageningen Economic Research and Wageningen University, the Netherlands

In this session we provide an overview on how the EU Bioeconomy Strategy incorporates the global challenges and how this can be translated into a measurement and monitoring strategy. The theoretical model will be presented starting from the concept of genuine investment and advanced by explicitly considering irreversibility effects using the real option methodology. In a second presentation, the different implementation strategies and the state of the art of knowledge and monitoring are presented. It features the data needs and sources, tools employed, addressing the different spatial and time scales. The presentation also encompasses the challenges currently faced in capturing the potential and trade-offs of the bioeconomy. The third presentation addresses the possibility for linking material flow accounts including biomass with greenhouse gas emissions as proposed by the Central Bureau of Statistics, The Netherlands. After the presentation two international experts provide comments for opening the discussion.

Discussant: Herman Vollebergh, PBL Netherlands Environmental Assessment Agency.

Maximilian KARDUNG, Wageningen University, the Netherlands

BioEconomy Options and Sustainability

Myrna VAN LEEUWEN, Wageningen Economic Research, the Netherlands

Linking Material Flows with Economic Flows

Dusan DRABIK, Wageningen University, the Netherlands

Full Speed Ahead or Floating Around? Exploring the Dynamics of the EU Bioeconomies

12:30 – 13:30 Lunch

Restaurant WICC

13:30 – 14:30 PARALLEL SESSIONS E1 – E4

13:30 – 14:30 PARALLEL SESSION E1 – Conservation auctions

Haakzaal

Chair: Abel-Gautier KOUAKOU

Marc N. CONTE, Fordham University, USA

Coalitions, Competition, and Conservation: Spatial Procurement Auction Design and Performance

Discussant: Abel-Gautier Kouakou

Abel-Gautier Kouakou, Osnabrück University, Germany

Performance of conservation auctions: Does preexisting institution matter

Discussant: Marc Conte

13:30 – 14:30 PARALLEL SESSION E2 – Payments for ecosystem services I

Roghorstzaal

Chair: Katsuya TANAKA

Knut Per HASUND, Swedish Board of Agriculture, Sweden

Result and Value Based Payments for Field Elements in the Agricultural Landscape – experience from Swedish Pilot study

Discussant: Katsuya Tanaka

Katsuya TANAKA, Shiga University, Japan

Farmers' Preferences Towards Outcome-based Payment for Ecosystem Service Schemes

Discussant: Knut Per Hasund

13:30 – 14:30 PARALLEL SESSIONS E3 – Biodiversity

Tarthorstzaal

Chair: Frank WÄTZOLD

Yoomi KIM, Ewha Womans University, Republic of Korea

Quantitative analysis of the effectiveness of the Convention on Biological Diversity (CBD)

Discussant: Frank Wätzold

Frank WÄTZOLD, Brandenburgische Technische Universität Cottbus-Senftenberg, Germany

Biodiversity conservation in a dynamic world may lead to inefficiencies due to lock-in effects and path dependence

Discussant: Yoomi Kim

13:30 – 14:30 PARALLEL SESSION E4 – Regime shifts

Peppelzaal

Chair: Esther SCHUCH

Katharina HEMBACH, Osnabrück University, Germany

Combined Impact of Exogenous Scarcity Shocks and Endogenous Regime Shifts on Common Pool Resource Management

Discussant: Esther Schuch

Esther SCHUCH, Wageningen University, the Netherlands

A threshold public good game with public good and public bad framing: evidence from farmers and fishers in Cambodia

Discussant: Katharina Hembach

14:30 – 15:00 Coffee break

Lounge WICC

15:00 – 16:30 PARALLEL SESSION F1 – F3

15:00 – 16:30 PARALLEL SESSION F1 – Bio-economic models

Haakzaal

Chair: Brooks KAISER

Pierre COURTOIS, CEE-M, INRA, Montpellier, France
Spatially explicit criterion for invasive species control
Discussant: David Finnoff

David C. FINNOFF, University of Wyoming, USA
Bioeconomic Grizzly Bear Management
Discussant: Brooks Kaiser

Brooks A. KAISER, University of Southern Denmark, Denmark
Growth, Transition, and Decline in Resource Based Socio-Ecological Systems
Discussant: Pierre Courtois

15:00 – 16:30 PARALLEL SESSION F2 – Behaviour

Roghorstzaal

Chair: Andries RICHTER

Ilda DREONI, University of Southampton, UK
Favouritism breeds self-interest: an experimental study of procedural and outcome fairness
Discussant: Robbert Schaap

Robbert SCHAAP, Ruprechts-Karls University Heidelberg, Germany
Prudence and Precautionary Saving by Natural Resource Users
Discussant: Andries Richter

Andries RICHTER, Wageningen University, the Netherlands
Behavioural biases of experts and their influence on natural resource management
Discussant: Ilda Dreoni

15:00 – 16:30 PARALLEL SESSION F3 – Spatial models

Tarhorstzaal

Chair: Jo ALBERS

César MARTINEZ, University of Montpellier, France
Private management of epidemics
Discussant: Stephen Newbold

Stephen C. Newbold, University of Wyoming, USA
Ecological benefit spillovers from nutrient load reductions and management improvements in a multispecies fishery
Discussant: Jo Albers

Jo ALBERS, University of Wyoming, USA
Optimal Siting, Sizing, and Enforcement of Marine Protected Areas
Discussant: César Martínez

16:30 – 17:30 Closing drinks

Lounge WICC