

# **Economics of biodiversity and ecosystem services workshop**

September 20<sup>th</sup> -21<sup>st</sup> 2014,  
King's College, University of  
Cambridge.



# Incorporating Biodiversity and Ecosystem Services into National Development Policy

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VANTAGE  
IWR



# A Tale of (Seemingly) Two Sides

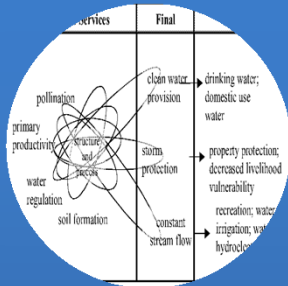
ECONOMY	1980	2013
GDP (PPP) (Current international dollar) Billion USD	11,475.67	86,995.06
Trade volume of goods and services index (1980=100)	100	584
Investment (Current international dollar) Billion USD)	2,930.20	21,297.26
Population (Total in million) (2012)	4,438.67	7,043.90

ENVIRONMENT	
Ecosystem Services being degraded	60 % (15 out of 24 ecosystems)
Greenhouse Gases: CO2 Emissions(billion tonnes) (2010)	33.62
Threatened Species (2013)	
Bird	3,822
Fish	6,404
Mammals	3,125
Plants	12,670

Source: World Development Indicators; Trade Developments, WTO; World Economic Outlook, IMF; World Investment Report  
Millennium Ecosystem Assessment; World Development Indicators; GEO5



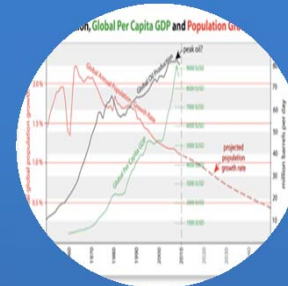
# Mainstreaming of Natural Capital .....



Concept /  
Epistemology



Project /  
Strategy



Policies  
(Macro  
Policies)



# Voices for Change of Basic Compass (GDP)



- Kuznets 1941
- Hicks 1948
- Samuelson
- Nordhaus

## Inclusive Wealth Report 2012

Measuring progress toward sustainability

IWR

- Dasgupta
- Dasgupta
- Many others



United Nations

- Post-2015 UN development agenda
- Sustainable

Development Goals  
CBD revised Nagoya  
Strategy 2010

EA revisio  
12/13: Be  
Initiatives

Biodiversity and  
ecosystem targets

- Green economy/growth



The World Bank

- Beyond GDP Conference, Brussels 2007
- Potsdam 2007 G8+5 Initiative & TEEB 2008, 2010

Stiglitz/ Sen/ Fitoussi report Paris 2009

- Ecosystem Capital Accounts fast track

project in Europe (2009-2012)

- WAVES

Man Made Capital

Natural Capital

Human Capital

# Also..

1. **Making Natures Values Visible:** improved evidence base for improved governance – government, business, people
2. **Changing the incentives:** taxes, charges, subsidy reform, markets
3. **Ecological infrastructure and benefits:** climate change and beyond
4. **Natural capital and poverty reduction:** investment for synergies
5. **Mainstream the economics of nature:** across sectors, across policies, seek synergies across disciplines.

# Community of Practice (CoP): Need of the Hour

## Technical Objectives

1. Bring different disciplines (scientists, economists, policy makers) to work for the common purpose
2. Increase the buy in of mainstreaming across sectors, regions, and institutionalize NCA in governments.
3. Promote standardization of approaches, improve data and consistency, and capacity building.

## Outreach Objectives

1. Outreach decision-makers, media, general public through technical channels.
2. Deepen the involvement of each.

# Specific activities of CoP

1. Share good practices
2. Peer-to-peer learning and consultations
3. Ensure methodological consistency and improvements with continuous communications
4. Support practitioners (Guidelines, tutorials)
5. Organize training events
6. Sponsor research
7. Promote initiatives to increase new members
8. Monitor progress





1. Economic valuation of ecosystem services and other forms of Natural Capital
2. Natural capital accounting and its linkages with environmental policies
3. Development of robust framework for linking macroeconomic policies with natural capital
4. Develop and demonstrate the use of economic instruments and incentives for ecosystems management
5. Capacity development in valuation and accounting



# Workshop Objectives

- Stocktaking of what is known about economics of ecosystem services
- Provide briefing on the main principles involved in the economic analysis of policies for biodiversity conservation and ecosystem management
- Discuss the possible tools for analysis of institutional issues in order to successfully incorporate biodiversity conservation and ecosystem management into national policy
- Identify limitations of these tools and approaches

# General questions to be addressed

- What insights can economics provide into the design of conservation policy?
- What are the economic benefits of conservation of ecosystem services and biodiversity?
- How can we include ecosystem services and biodiversity into policy appraisal and into national accounting?

# Course Tutors:

- Professor Stefanie Engel (Zurich)
- Professor James Salzman (Duke)
- Professor Kirk Hamilton (London School of Economics)
- Professor Giles Atkinson (London School of Economics)
- Professor Susana Mourato (London School of Economics)
- Professor Nick Hanley (University of St Andrews) – workshop coordinator
- Pushpam Kumar, UNEP

# Day 1

- 2.00-2.45pm: welcome and discussion of aims and objectives (led by Nick Hanley) – THIS SESSION
- 2.45-3.45pm: Economic Instruments for Ecosystem Management (Nick Hanley)
- 3.45-4.15pm: Tea / Coffee
- 4.15-5.45pm: Valuing biodiversity and ecosystem services (Susana Mourato)

7pm onwards, Dinner in Kings College, including dinner speaker Professor W. Sutherland (Cambs)

## Day 2

- 9.00-11.00am: National accounting for biodiversity and ecosystem services (Kirk Hamilton)
- 11.30-12.30 am: **optional** exercise: A practical session on designing a valuation study with Nick Hanley and Susana Mourato
- 1.30-3.00pm: Designing and Implementing Payment for Ecosystem Services (1) – James Salzman.
- 3.15-4.45pm: Designing and Implementing Payment for Ecosystem Service schemes (2) – Stefanie Engel
- 4.45-5.45: Closing panel discussion (led by Giles Atkinson; all tutors plus Pushpam Kumar)

*7pm: welcome reception for Bioecon 2014*

- Plenty of opportunities for you to interact with each other and with the course tutors
- We assume you know not much about the economics of biodiversity and ecosystem services, although some of you have PhDs in economics!
- And we have kept the material as non-technical as possible, whilst still being “state of the art”
- Full pack of lecture slides will be provided
- Nick’s email: [ndh3@st-andrews.ac.uk](mailto:ndh3@st-andrews.ac.uk)

# Some useful textbooks for those who want more background on environmental economics

Hanley N, Shogren J and White B (2006)

Environmental Economics in Theory and Practice (2<sup>nd</sup> edition) Palgrave MacMillan.

Hanley N, Shogren J and White B (2013):

An Introduction to Environmental Economics (2<sup>nd</sup> edition) Oxford University Press.

Hanley N and Barbier E. (2009)

Pricing Nature: Cost-Benefit Analysis and Environmental Policy. Edward Elgar.



- Now let us meet you all...

- ANY QUESTIONS?