



WELCOME

Mainstreaming the values of water and wetlands into decision-making

TEEB Professional training workshop
Kampala,, Uganda
24-27th November 2013

Organized by:
UNESCO-IHE, Netherlands and
UNEP TEEB Office, Geneva, Switzerland



Meet the team

Learning facilitator

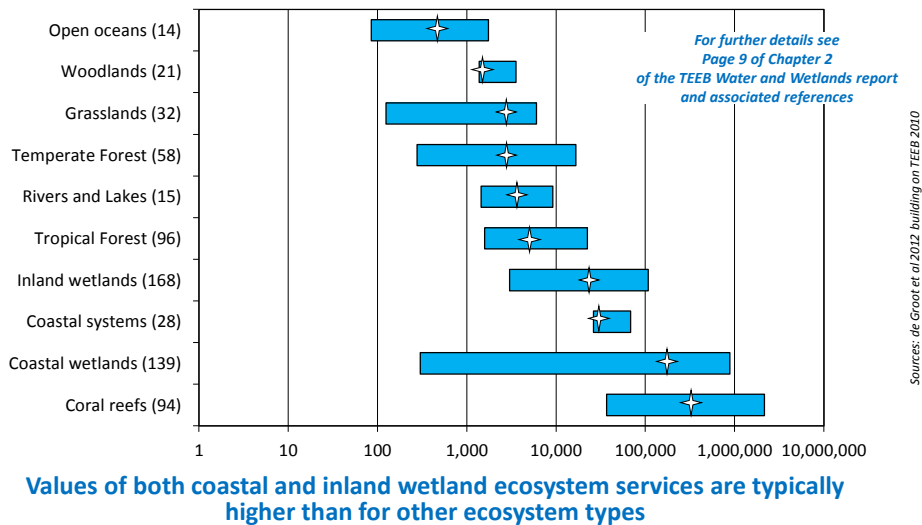
Mathew Parr
(IUCN Netherlands)

Trainers:

Andrew Farmer
(Institute for European
Environmental Policy (IEEP)
Thierry De Oliveira
(Division of Early Warning
(DEWA), UNEP)
Teddy Tindamanyire
(Ministry of Water and
Environment, Uganda)
Yong Jiang
(UNESCO-IHE, Netherlands)
Sharon Oseku-Frainier (UNEP TEEB)
Ken Irvine (UNESCO-IHE)



Values of Ecosystem Services



Objectives of TEEB for Water and Wetlands Training

- To generate better understanding of the values of water and wetland ecosystem services
- To learn from experts how the values of ecosystem service related to water and wetlands can lead to better informed and fairer decision making
- To learn practical recommendations of how to include these values in decision making
- To share experiences in managing water and wetlands



Training Programme Day 1

Day 1 - MODULE 1.
TEEB and its role in water and wetlands
<u>Introduction to TEEB and the TEEB Country Studies Guidance Manual</u> <i>Sharon Oseku-Frainier (UNEP TEEB)</i>
<u>The 'TEEB for Water and Wetlands' report</u> <i>Andrew Farmer (IEEP)</i>
Lunch
<u>Experiences from Uganda and the Region</u> <i>Paul Mafabi (RAMCEA)</i>
Cocktails and Joint Dinner



Training Programme (2)

MODULE 2.
Improving measurement and assessment for better governance and wise use
<u>Recap, knowledge check and objectives</u> <i>Mathew Parr (IUCN NL)</i>
<u>Valuation of wetlands: introduction to field techniques</u> <i>Thierry De Oliveira (DEWA UNEP)</i>
<u>Working with the data: examples of valuing water</u> <i>Teddy Tindamanyire (Ministry of Water and Environment, Republic of Uganda)</i>
Lunch
<u>Framing Economic Valuation for Ecosystem Services in Policy Context</u> <i>Yong Jiang (UNESCO-IHE)</i>



Training Programme (3)

MODULE 3. Integrating the value of water and wetlands into decision-making
<u>Recap, knowledge check and objectives</u> <i>Mathew Parr (IUCN NL)</i>
<u>Policy Design and Instruments for specific Policy Decisions</u> <i>Andrew Farmer and Thierry De Oliveira</i>
Exercise and Work groups
Lunch
<u>Closing Discussion, dissemination strategies and Outreach</u> <i>Ken Irvine and Mathew Parr</i>



Icebreaker and Introductions

Getting to know each other:

- Your name, organisation and function (name on card)
- What you want to learn in the coming 3 days?
- Choose one person to report major learning objectives back to the group
- 10 mins



Coffee Break



MODULE 1.

TEEB and its role in water and wetlands



Objectives of Module 1

- To explain **origins, objectives** and **key products** of TEEB
- To present the objectives and contents of the **TEEB Water & Wetlands** report
- To introduce the **TEEB Country Study Guidance Manual** and its relevance to the training
- To introduce **key terminology** and concepts
- To **practice** the use of some of these concepts



Introduction to TEEB and the TEEB Country Studies Guidance Manual

Sharon Oseku-Frainier

UNEP TEEB Office
Geneva, Switzerland

www.teebweb.org



Presentation objectives

- To explain **origins, objectives** and **key products** of TEEB
- To introduce the **TEEB Country Study Guidance Manual** and its relevance



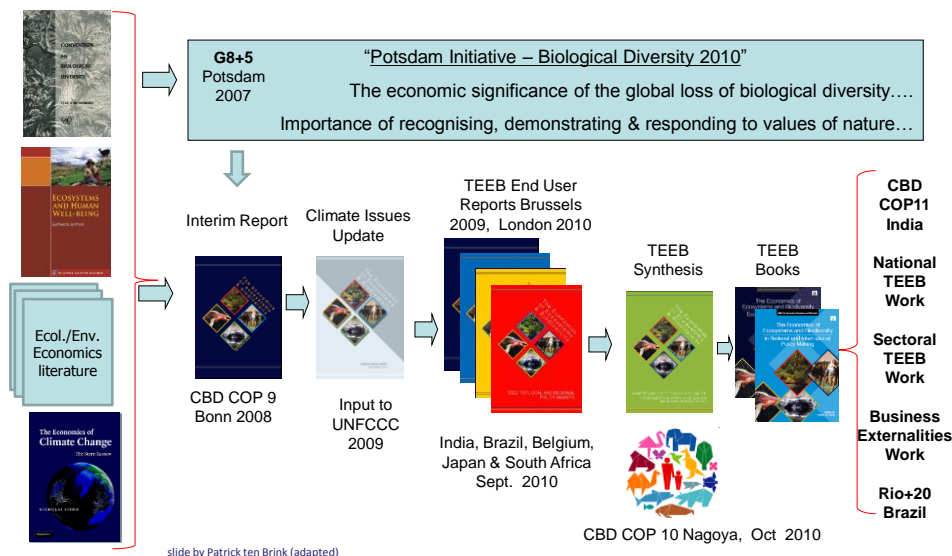
“I believe that the great part of miseries of mankind are brought upon them by false estimates they have made of the value of things.”

Benjamin Franklin, 1706-1790

The Economics of Ecosystems & Biodiversity



TEEB (2008-2010) Genesis, Aims, and Progress



The Economics of Ecosystems & Biodiversity



Objectives:

Ending the economic invisibility of nature

1. Drawing attention to the economic benefits of biodiversity
2. Highlighting the growing cost of biodiversity loss and ecosystem degradation.
3. Approach to help decision-makers recognize, demonstrate and capture the values of ecosystem into decision-making

The Economics of Ecosystems & Biodiversity



Five Big Reasons to End the Economic Invisibility of Nature...

1. Costs & risks to society of “BAU” are too large to ignore
2. “BAU” nature losses exacerbate poverty
3. Economic solutions exist, across policy & business, which begin by valuing nature
4. To realize the productive and employment potential of Natural Capital stewardship (as against extraction)
5. To replace our ancient economic compass before it is too late...

The Economics of Ecosystems & Biodiversity



TEEB's perspective on Valuation...



1. **Recognizing value:** a feature of all human societies and communities... needs no economic models, no 'cost-benefit analysis'



2. **Demonstrating value:** in economic terms, to support decision making, but without any financial payments



3. **Capturing value:** through mechanisms to incorporate the economic values of ecosystem services, with financial payments



The Economics of Ecosystems & Biodiversity



Areas of work

1. **Biome studies** – Oceans and coasts, water and wetlands
2. **Sectoral studies** – Agriculture and food
3. **TEEB for Business**
4. **Country Projects**

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TEEB's Five Reports ...



Science & Economics
Foundations



Policy Evaluation
for National Policy-Makers



Evaluation & Decision Support for
Local and Regional Policy



Business Risks
& Opportunities



Synthesis

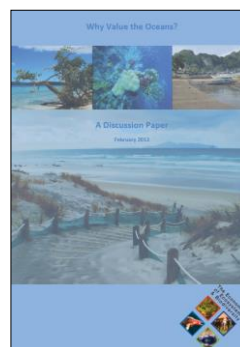


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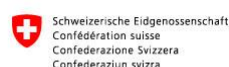


TEEB Biome and Sectoral studies

- **Water and Wetlands (Report launched, Feb 2013)**
- Oceans and Coasts (Discussion Paper, flyer, and Project Proposal, 2012-2013)
- Agriculture and Food (Concept note, Aug 2013)



February 2012



The Economics of Ecosystems & Biodiversity



TEEB for Business Coalition

- Inspired by TEEB for Business and Enterprise, 2012
- Launched in Singapore on 6th November 2012.
- Recently Launched "Natural Capital at Risk : The top 100 externalities of Business" on April 15th, 2013

Founders and members of the Board, Advisory and Observer Groups



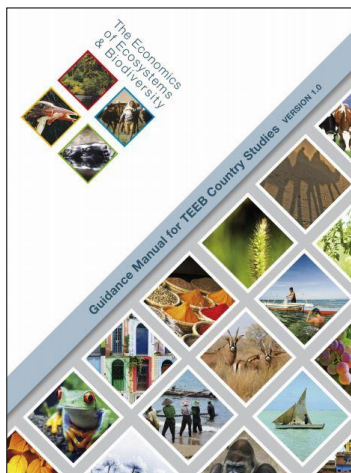
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TEEB implementation

- **National TEEB studies:** e.g. Brazil, Georgia, Germany, India, Mexico, Netherlands, Norway, Portugal, Thailand, UK, Saint Lucia, South Africa, Sweden
- **Sub-national TEEB studies:** Polish TEEB for Cities, TEEB Flanders, TEEB Reykjavík
- **Regional TEEB studies:** Heart of Borneo, Nordic TEEB, Southeast Asia
- **TEEB for Business:** NL TEEB for Business, TEEB Germany for Business, TEEB for Business Brazil



The Economics of Ecosystems & Biodiversity



TEEB for Country Studies Guidance Manual



Authors:

Heidi Wittmer, Hugo van Zyl, Claire Brown, Julian Rode, Ece Ozdemiroglu, Nick Bertrand, Patrick ten Brink, Andrew Seidl, Marianne Kettunen, Leonardo Mazza, Florian Manns, Jasmin Hundorf, Isabel Renner, Strahil Christov, Pavan Sukhdev





Guidance Manual for TEEB Country Studies

Focus: Guidance for countries who would like to do a TEEB Country Study (TCS)

Target audience: Person(s) in charge of conducting a TCS

Format:

- Practical guidance for how to do a TCS
- Integrates problems, experience, obstacles, pitfalls from on-going projects

Timeline:

First draft available since May 2013
Final version printed by 2015



A TEEB Country study helps to answer the following questions:

- What is the natural capital in your country and what is driving change?
- Do we measure and understand our natural capital?
- To what extent are the values of nature integrated in decision-making?
- What are the issues that need policy attention?
- What are the policy tools and decision options that offer solutions?



What is the TEEB Country Study Manual about?

1

What is TEEB? How does it integrate into the policy landscape?

2

How to select the scope and objective of the TEEB Country Study (TCS)? How to set up the process?

3

Main study phase: TEEB six-step Approach

4

How to use findings & recommendations of a TCS?



Experiences from TEEB International Study



Conclusions

1. TEEB is more than economic valuation:

- Economics is about the relationship between humans and ecosystem services, choices, public goods, trade-offs
- Complementary argument: Economic argument should complement not replace other arguments.

2. TEEB is an instrument rather than a goal:

- it can help address policy and management concerns

3. TEEB is not (just) a study but a process:

- „Valuation as conversation“ Kai Chan, Univ British Colombia
- Dialogue in society to decide the kind of life we want to live:
Globally, nationally, regionally, locally



Follow TEEB

- TEEBrief – Newsletter provides an update on natural capital news
- Teeb4me – Facebook, Twitter, Blog
- TEEB website- www.teebweb.org



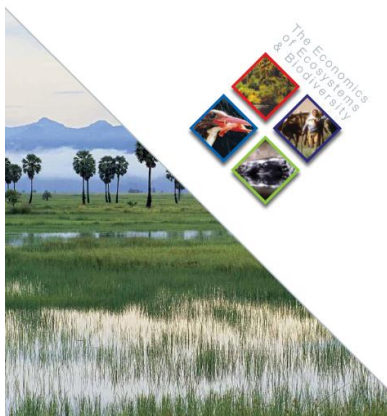
TEEB for Water and Wetlands outreach activities are possible
thanks to the generous contribution of the Government of Norway

THANK YOU

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THE ECONOMICS OF ECOSYSTEMS AND BIODIVERSITY
FOR WATER AND WETLANDS



The TEEB for Water and Wetlands report

*For more information: Chapters 1 and 2 of
the TEEB W&W report*

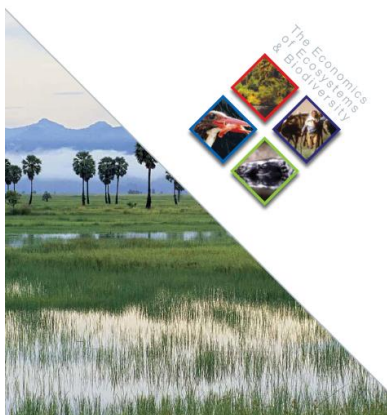
By Andrew Farmer
Director of Research, Institute for European Environmental
Policy, IEEP

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TEEB for Water and Wetlands www.teebweb.org/wetlands/

THE ECONOMICS OF ECOSYSTEMS AND BIODIVERSITY
FOR WATER AND WETLANDS



Core Team



Institute for
European
Environmental
Policy



CONVENTION ON WETLANDS
(Ramsar, Iran, 1971)



Convention on
Biological Diversity



Case contributions

Reviewers

Discussions at Rio+20, Ramsar COP 11, CBD COP11

Full Report: Russi D., ten Brink P., Farmer A., Badura T., Coates D., Förster J., Kumar R. and Davidson N. (2013).
The Economics of Ecosystems and Biodiversity for Water and Wetlands. IEEP London, Brussels.

Executive Summary: ten Brink P., Russi D., Farmer A., Badura T., Coates D., Förster J., Kumar R. and Davidson N. (2013)
The Economics of Ecosystems and Biodiversity for Water and Wetlands. Executive Summary.

The Economics of Ecosystems & Biodiversity



- Objectives:
 - To argue for the importance of measuring the ES provided by wetlands
 - To show how to improve their management through different policy tools
 - To collect many examples of good practices and assessment exercises across the globe
- Targeted to a wide audience
- Buy-in strategy: revised by more than thirty experts, hundreds of comments received

slide by Daniela Russi

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Ecosystems: “*dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit*”

(Convention on Biological Diversity, art.2)

slide by Daniela Russi

The “nexus” between water, food and energy is one of the most fundamental relationships - and increasing challenges - for society.

Biodiversity and particularly wetland ecosystems are increasingly understood to be at the core of this nexus.

Water security is a major and increasing concern in many parts of the world, including both the availability (including extreme events) and quality of water.

Photo credit: Nick Davidson

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Ecosystems services: benefits humans obtain from nature

Provisioning services

Food, fibre, fuel
Fresh water
Genetic resources
Medicinal resources



Cultural Services

Spiritual/religious experiences
Landscape value
Recreation & tourism
Cultural heritage
Education & scientific knowledge



Regulating Services

Climate regulation
Water purification
Air purification
Natural hazards management
Erosion control
Pollination



Supporting/habitat services:

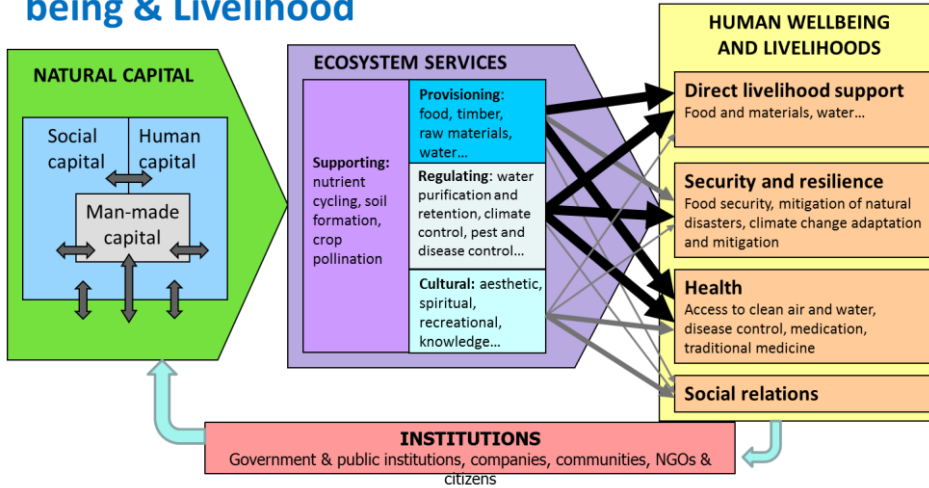
Soil formation & fertility
Nutrient cycle
Photosynthesis



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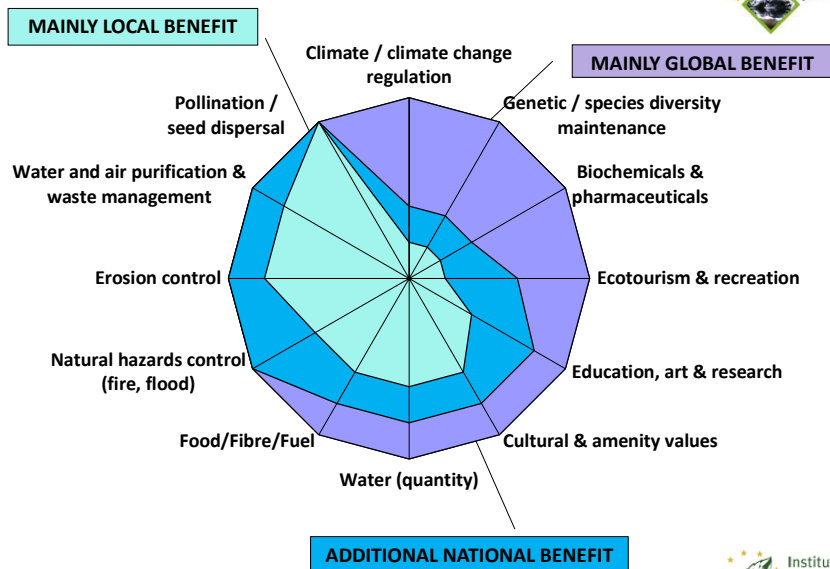


Contribution of Natural Capital to Human Well-being & Livelihood



slide by Patrick ten Brink, adapted from Laure Ledoux in ten Brink et al 2012, building on MA (2005) and TEEB (2011a)

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slide by Patrick ten Brink



What are wetlands?

The broad definition by the Ramsar convention

- Areas where the water table is at or near the surface level, or the land is covered by shallow water
- Areas of marine water the depth of which at low tide does not exceed 6m
- A list of islands or bodies of marine water deeper than 6m (e.g. coral reefs)

The definition includes human-made wetlands (e.g. aquaculture, farm ponds, inundated agricultural land)

Inland wetlands cover at least **9.5 M km²** (i.e. **6.5%** of the Earth)

Inland and coastal wetlands cover a minimum of **12.8 M km²**

slide by Daniela Russi

Photo credit: Nick Davidson

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Ramsar Convention and other MEAs

- Parties commit to "*Conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world.*"
- The Convention's Strategic Plan recognizes that to achieve this "... *it is essential that the vital ecosystem services, and especially those related to water and those that wetlands provide to people and nature through their natural infrastructure, are fully recognized, maintained, restored and wisely used.*" (COP11 Resolution XI.3, 2012).
- Strong links to other MEAs: UN Convention on Biological Diversity; UN Convention to Combat Desertification (UNCCD); the Convention on Migratory Species (CMS); and the UN Framework Convention on Climate Change (UNFCCC)



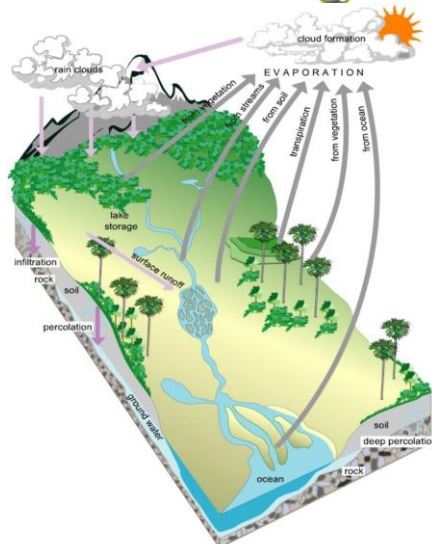
Wise Use of Wetlands

- Ramsar defines 'wise use' as: *"the maintenance of their ecological character, achieved through the implementation of ecosystem approaches, within the context of sustainable development"*
- "ecological character" is *"the combination of ecosystem components, processes and services that characterize the wetland at any given point of time"*
- Understand water and wetland ecosystem services, their importance for human societies and making decisions based on this understanding is essential



The water cycle and wetlands

- Global and local water cycles are strongly dependent on wetlands
- Without wetlands, the water cycle, carbon cycle, and nutrient cycles would be significantly altered

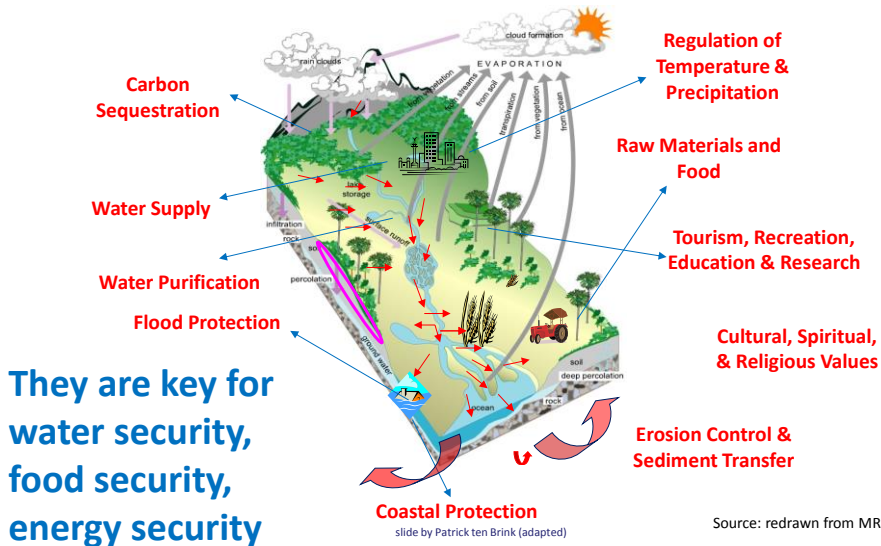


slide by P. Patrick ten Brink (adapted)

Source: redrawn from MRC (2003)



Wetlands provide many key ecosystem services



- Despite their values and potential policy synergies, wetlands have been and continue to be lost or degraded. This leads to biodiversity loss and a loss of ecosystem services.
- Wetlands loss can lead to significant losses in human well-being and have negative economic impacts on communities, countries and business.

"I believe that the great part of miseries of mankind are brought upon them by false estimates they have made of the value of things."

Benjamin Franklin, 1706-1790



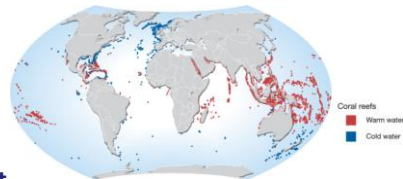
Wetlands : historical loss of natural capital

- Since 1900 around **50%** of wetlands have disappeared worldwide (UNWWAP 2003), and around **60%** in Europe (EEA 2010)



http://upload.wikimedia.org/wikipedia/commons/9/95/World_map_mangrove_distribution.png

- In the past two decades, **35%** of mangroves have disappeared. In some countries the loss has been up to **80%** (MA 2005)



- ~20%** of the world's coral reefs destroyed
- 24%** of the remaining reefs under imminent risk of collapse due to human pressure (Wilkinson C., 2004; Nellemann et al 2008)

slide by Patrick ten Brink



Why?

One of the reasons is that the ES provided by wetlands are often invisible, as they are free or underpriced



- Not enough awareness of full benefits/costs of restoration vs. degradation \Rightarrow insufficient incentives towards wise use
- Inadequate evidence base at policy makers' finger tips



Continued loss of wetlands

slide by Patrick ten Brink (adapted)

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Understanding and communicating the economic, social and cultural value of wetlands is crucial to fostering conservation

This needs a combination of **qualitative and quantitative** and, where appropriate, **monetary indicators**

Different policy tools can be used to promote the wise use of wetlands (e.g. regulation, MBIs, PAs, ...)



slide by Patrick ten Brink and Daniela Russi

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Case Study Practical Exercise: TEEB Papyrus wetland

Instructions:

- *Choose your group leader, who will lead the discussion and report back to the other participants*
- *Use the questions as a guide to propose solutions for the case study, taking into account the methodologies and the issues discussed during the previous session*

Case Description:

The TEEB Wetland is an extensive papyrus swamp on the edge of an African lake, providing multiple benefits to a variety of people. Besides its current use it has the potential to be an appealing destination for eco tourists.

Therefore the TEEB Wetland adjoins a periodically flooded area used for growing a variety of crops and identified as an area suitable for rice farming and irrigation. The regional agriculture Ministry is not convinced of the value of the papyrus swamp and wish to maximise conversion of the swamp as part of the national food security policy. The wetland is NOT a Ramsar site



Practical Exercise Questions – Module 1

- What are the most important ecosystem services provided by the wetland?
Where are the ecosystem services of the wetland used?
- What are the potential threats to the wetland and its ecosystem services?
How do they impact the wetland and its functions?

	Local context	Regional context	National context	International context?
Ecosystem services provided by the wetland				
Threats to the wetland				



Lunch



Wetlands management:

Select a wetland you are personally familiar with, and make a few notes reflecting on the the following questions

To what extent are the **values of nature integrated in decision making** regarding this wetland?

What are **issues that need the most policy attention** in your selected wetland?

Assembling **information about your selected wetland**,



Coffee Break





Paul Mafabi



END DAY 2

Mainstreaming the values of water and wetlands into decision-making

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