



The Economics of Ecosystems and Biodiversity TEEB for Agriculture & Food Global Symposium, February 2019

The TEEB Initiative

25 February 2019, Nairobi

Dr. Salman Hussain, TEEB Coordinator

Supported by:



Federal Ministry
for the Environment, Nature Conservation
and Nuclear Safety



The Economics
of Ecosystems
& Biodiversity

based on a decision of the German Bundestag

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Outline

- 1. What is TEEB?**
2. Why is TEEB working on agri-food systems?
3. Who is in the room, and what do we ask of you?



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1. What is TEEB?



TEEB – genesis, scope, ambition

- **Stern Review on the Economics of Climate Change (2007)**
 - **Biodiversity/climate change:**
 1. **biodiversity is the living fabric of our planet including all its ecosystems, species and genes**



TEEB – genesis, scope, ambition

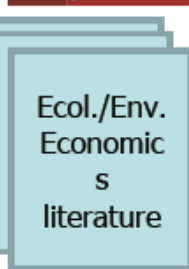
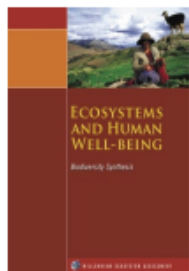
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 - **Biodiversity/climate change:**
 1. biodiversity is the living fabric of our planet including all its ecosystems, species and genes
 2. ‘Carbon sequestration and storage’ is *an* ecosystem service –trade-offs



TEEB – genesis, scope, ambition

- **Stern Review on the Economics of Climate Change (2007)**
 - **Biodiversity/climate change:**
 1. biodiversity is the living fabric of our planet including all its ecosystems, species and genes
 2. 'Carbon sequestration and storage' is *an* ecosystem service –trade-offs
 3. **We have an intrinsic connection with nature and biodiversity. Any (instrumental) valuation must not commodify nature. *TEEB does not.***

TEEB initiative (2008-2012)



**G8+5
Potsdam
2007**

“Potsdam Initiative – Biological Diversity 2010”

The economic significance of the global loss of biological diversity....
Importance of recognising, demonstrating & responding to values of nature...

Interim Report Climate Issues Update



**CBD COP 9
Bonn 2008**



**Input to
UNFCCC
2009**

**TEEB End User
Reports Brussels
2009, London 2010**



**India, Brazil, Belgium,
Japan & South Africa
Sept. 2010**

**TEEB
Synthesis**



BD COP 10 Nagoya, Oct 2010

**TEEB
Books**



**CBD
COP11
India**

**National
TEEB
Work**

**Sectoral
TEEB
Work**

**Business
Externalities
Work**

**Rio+20
Brazil**

TEEB – Aichi targets

- Strategic Plan for Biodiversity 2011-2020 (the Aichi Biodiversity targets), target 2:
- *“by 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.”*



TEEB 2013 – present

- **Implementation phase:**
 1. TEEB Country Studies
 2. Ecosystem Accounting
 3. TEEB for Agriculture and Food



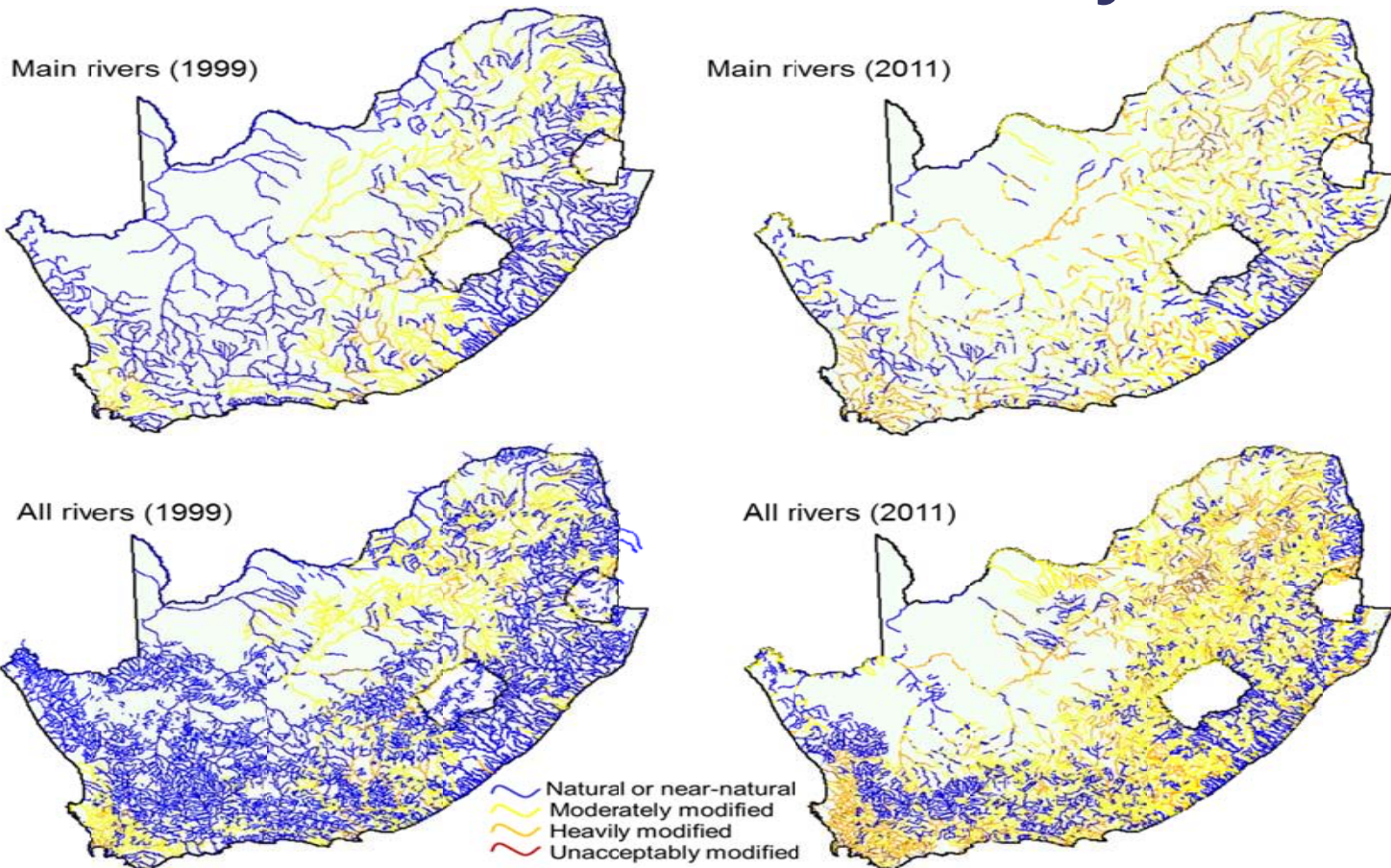
System of Environmental-Economic Accounting (SEEA)

- The SEEA Central Framework was adopted as an international statistical standard by the UN Statistical Commission in 2012
- The SEEA Experimental Ecosystem Accounting complements the Central Framework and represents international efforts toward coherent ecosystem accounting





SEEA-EEA South Africa National river ecosystem





TEEB for Agriculture & Food

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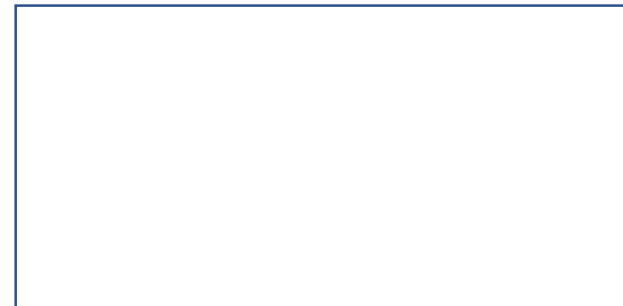
UN Environment



LIGIA NORONHA

Director, Economy Division - UN
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TEEB Study Leads



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TEEBAgriFood Study Leader
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JACQUELINE McGLADE

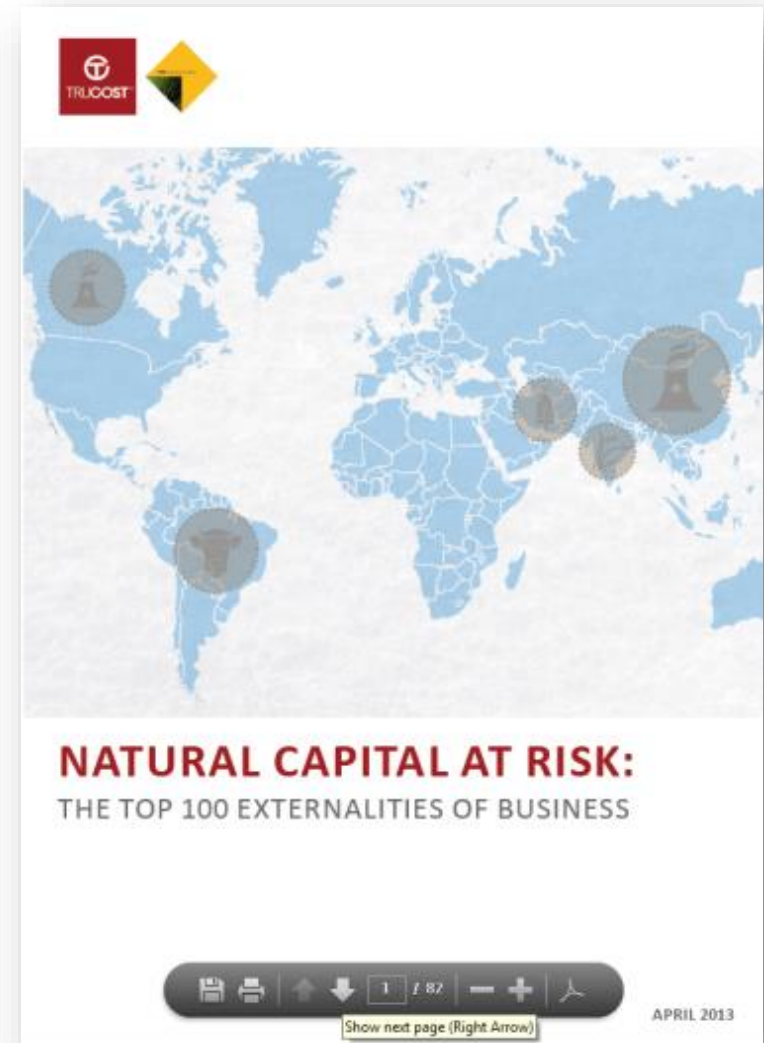
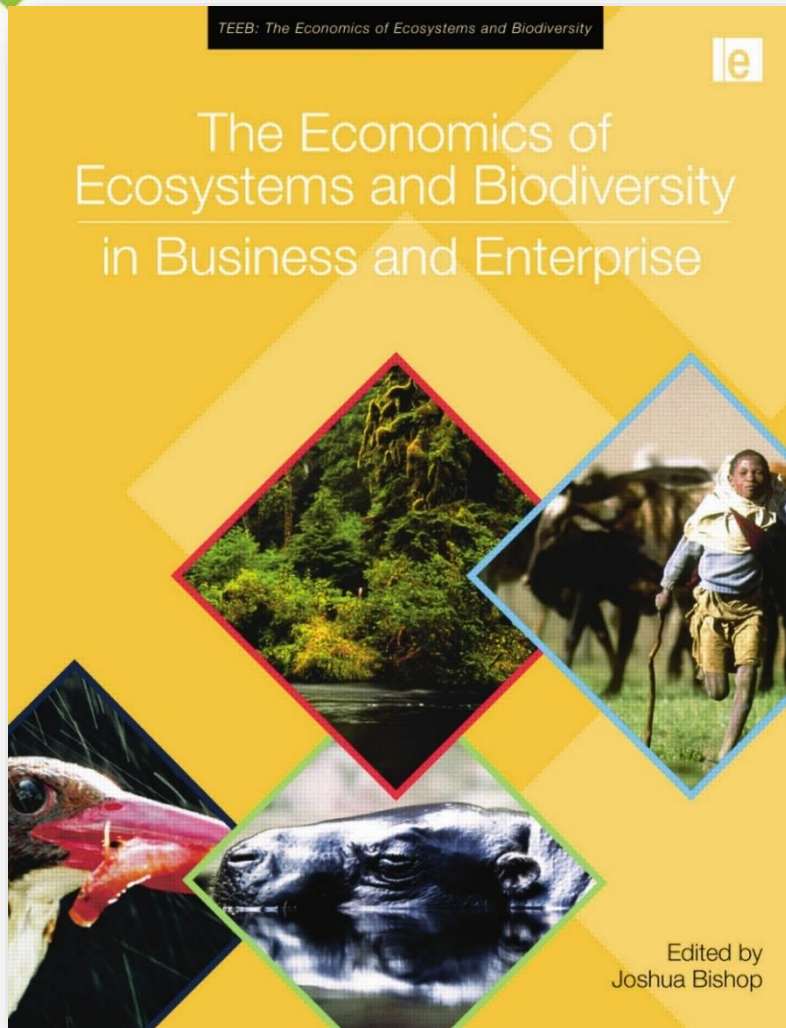
Gresham Professor in Environment, University College London, Institute for Global Prosperity

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2. Why is TEEB working on agri-food systems?

TEEB for Business





Why select the Agriculture sector?

7.1.2 THE GLOBAL 20 REGION-SECTORS

Ranking of the 20 region-sectors with the greatest total impact across the 6 EKPIs when measured in monetary terms.

RANK	SECTOR	REGION	NATURAL CAPITAL COST, US\$ BN	REVENUE, US\$ BN	IMPACT RATIO
1	COAL POWER GENERATION	EASTERN ASIA	452.8	443.1	1.0
2	CATTLE RANCHING AND FARMING	SOUTH AMERICA	353.8	16.6	18.8
3	COAL POWER GENERATION	NORTHERN AMERICA	316.8	246.7	1.3
4	WHEAT FARMING	SOUTHERN ASIA	266.6	31.8	8.4
5	RICE FARMING	SOUTHERN ASIA	235.6	65.8	3.6
6	IRON AND STEEL MILLS	EASTERN ASIA	225.6	604.7	0.4
7	CATTLE RANCHING AND FARMING	SOUTHERN ASIA	163.0	174.0	0.8
8	CEMENT MANUFACTURING	EASTERN ASIA	147.0	5.8	23.0
9	WATER SUPPLY	SOUTHERN ASIA	111.7	14.1	7.9
10	WHEAT FARMING	NORTHERN AFRICA	100.1	7.4	13.6
11	RICE FARMING	EASTERN ASIA	99.3	91.2	1.1
12	WATER SUPPLY	WESTERN ASIA	86.7	18.4	4.7
13	FISHING	GLOBAL	86.1	136.0	0.6
14	RICE FARMING	NORTHERN AFRICA	84.2	1.2	69.6
15	CORN FARMING	NORTHERN AFRICA	80.4	1.7	47.8
16	RICE FARMING	SOUTH-EASTERN ASIA	79.7	41.0	1.9
17	WATER SUPPLY	NORTHERN AFRICA	76.4	3.4	22.2
18	SUGARCANE	SOUTHERN ASIA	75.6	6.0	12.5
19	PETROLEUM AND NATURAL GAS EXTRACTION (excludes water and land use)	EASTERN EUROPE	72.6	371.6	0.2
20	NATURAL GAS POWER GENERATION	NORTHERN AMERICA	69.4	122.7	1.0



Sustainable Development Goals

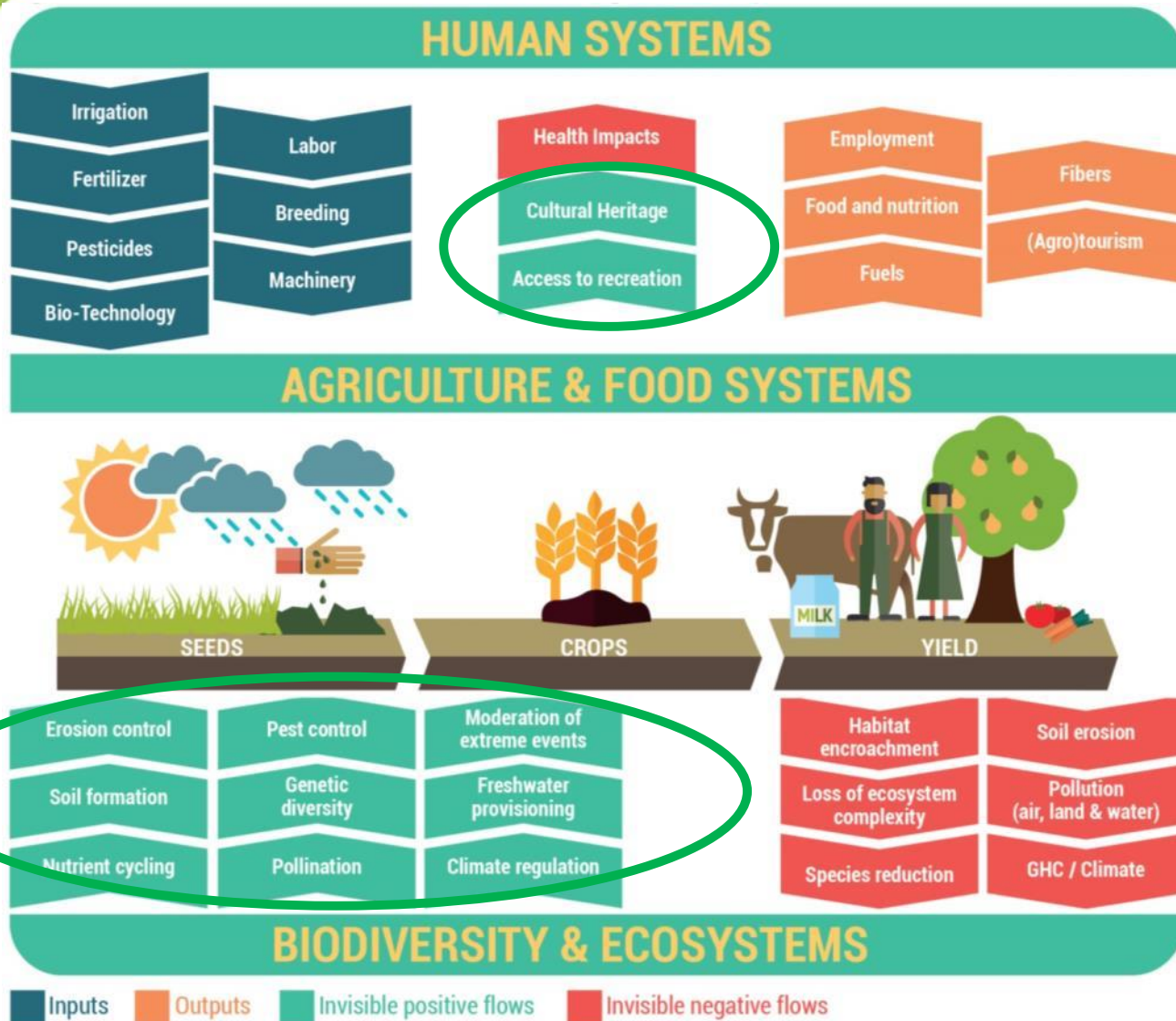




Sustainable Development Goals



What does TEEB bring to the table?





3. Who is in the room, and what do we ask of you?



TEEBAgriFood Projects

1. Global Alliance funding (February 2018)
 - Haripriya Gundimeda (Wheat value chain **North India**)
 - Peter May (Cattle and Soy in **Amazon**)
2. TEEBAgriFood DEVCO Africa (April 2019)
 - Livestock (**Tanzania**), cocoa (**Ghana**), coffee (**Ethiopia**), rice (**Senegal**)
3. IKI studies (December 2019)
 - **Colombia**: Putumayo Department - includes Amazon lowlands, highland forests, Colombian plateau and several important water basins
 - **Kenya**, options are two upper Basin areas (Tana Basin and Ewaso Njoro Basin), the Mau catchment area/ Mara River Basin and the drainage basin from Mt Suswa to Lake Magadi
 - **Thailand** – organics production
 - **Tanzania** - Southern Highlands (tbc)
4. EU Partnership Instrument (December 2022)
 - **Brazil, China, India, Indonesia, Malaysia, Mexico, Thailand**

TEEB AgriFood - A Global Initiative



TEEB AgriFood - A Global Initiative





TEEBAgriFood Community

- Researchers who developed the *Scientific and Economic Foundations* Report
- Representatives from funded projects
 1. Policy makers
 2. Technical experts

Your instructions:

1. Share, learn, become part of the Community of Practice
2. Develop a Theory of Change so that we improve livelihoods and biodiversity outcomes



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