

World Forum on
Natural Capital
E D I N B U R G H · 2 0 1 5



Natural Capital: solutions for a changing world

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www.naturalcapitalforum.com

The earth's stock of natural assets

- including forests, rivers, land, minerals and oceans –
that supply us with essential goods (such as food, medicine,
fuel and building materials) and services such as pollination
climate regulation and flood protection

Natural capital is thus the stocks of natural ecosystems that yield flows of valuable ecosystem goods or services

Can't see the **TREES** for the **WOOD**?

Natural Capital explained . . .

HERE'S WHAT WE
GET FROM

WOOD



... BUT HERE'S WHAT WE
GET FROM

TREES

POLLINATORS
SPIRITUAL BENEFITS CLIMATE REGULATION
BIODIVERSITY STORM PROTECTION
CARBON STORAGE RECREATION
SHELTER IMPROVED WATER QUALITY MEDICINES
RESILIENCE TO DISEASES NATURAL FLOOD DEFENCES FOOD
TOURISM HEALTHY SOIL WOOD FUEL
FRESH AIR EMPLOYMENT EDUCATION

HERE'S A VALUE WE
CAN PUT ON

WOOD

\$

In Thailand, a study shows mangrove forests are worth about **\$1,000 per hectare** if exploited for wood.¹

... BUT LOOK WHAT HAPPENS
WHEN WE VALUE

TREES

\$ \$ \$ \$ \$ \$ \$
\$ \$ \$ \$ \$ \$ \$
\$ \$ \$ \$ \$ \$ \$

If left intact, their value for flood protection, carbon capture and as a breeding ground for fish is in excess of **\$21,000 a hectare**.¹

HERE'S THE BUSINESS
VALUE OF

WOOD

\$ 0.4 Trillion

Global value of timber industry.²



... BUT WE'RE IN THE BUSINESS
OF VALUING

TREES

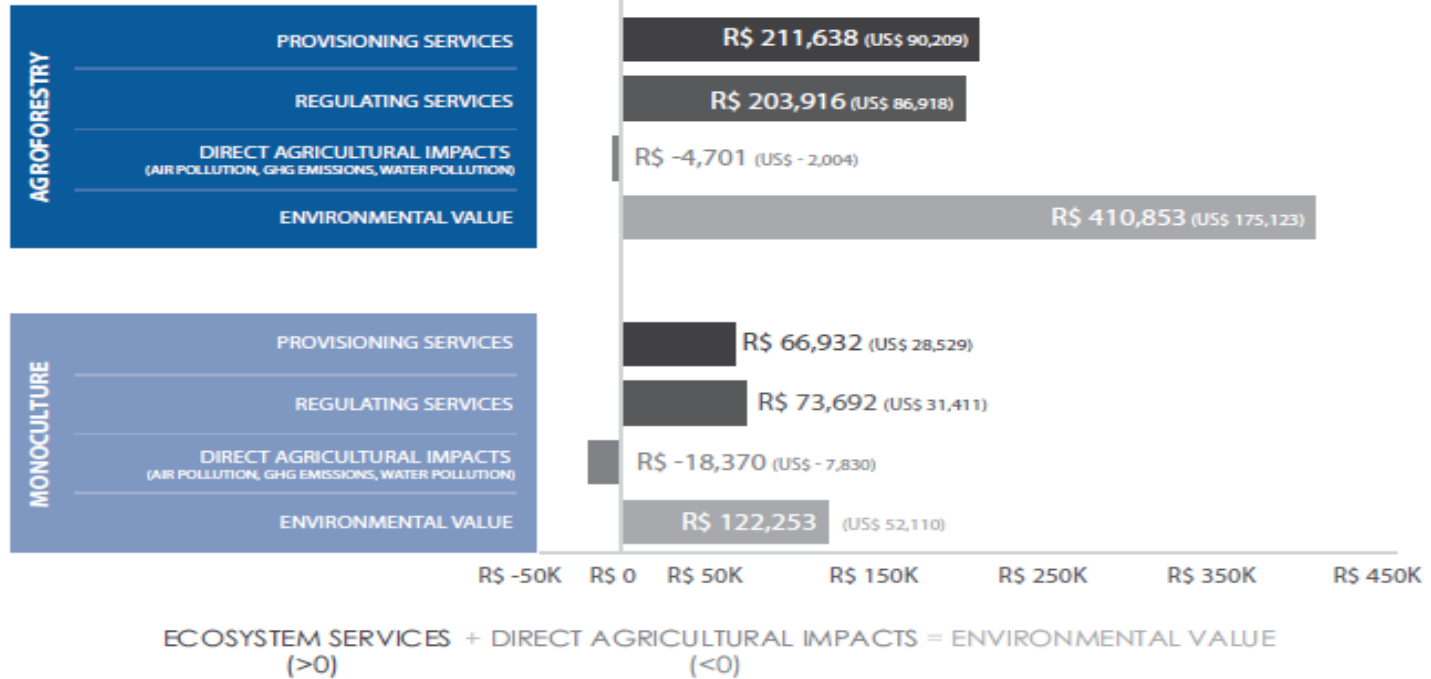
\$ 3.7 Trillion

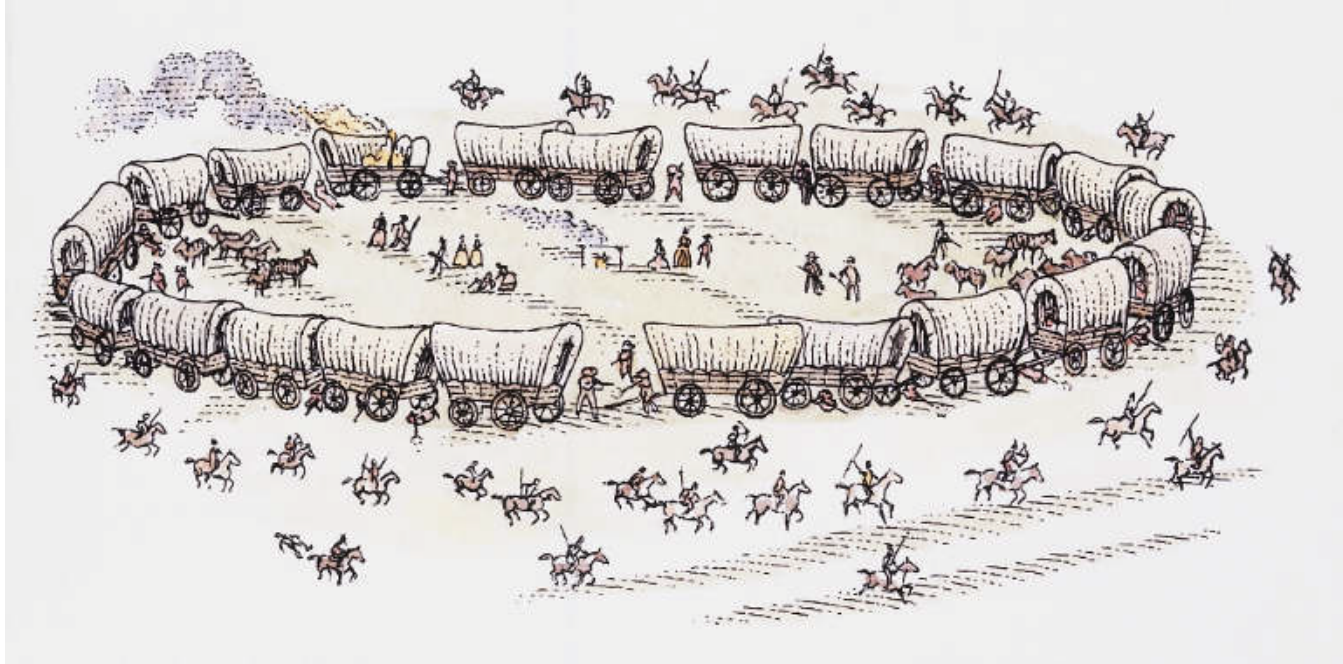
Value of conserving forests just to
cut greenhouse gas emissions.³



**It's time to start
valuing nature's capital**

Natura - Brazil palm oil case study







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Four highlights

Natural Capital accounting
Investable conservation products
Finance sector disruptors
Ethical Charter

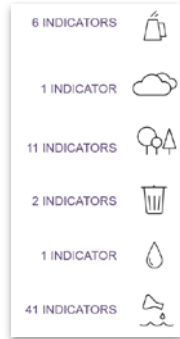
What is an E P&L?



5000 SUPPLIERS
578 PROCESSES
107 MATERIALS
126 COUNTRIES
62 ENV. INDICATORS

14,190
COEFFICIENTS
582 STUDIES
VALUE IN EUROS BY
IMPACT AND
LOCATION

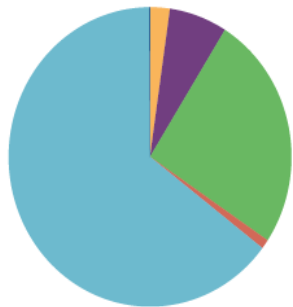
DESKTOP ANALYSIS
BY TIER, PROCESS,
MATERIAL,
BUSINESS UNITS....



Using the EP&L as a Business decision tool

VALUED E P&L IMPACTS PER 1 KG OF CONVENTIONAL AND ORGANIC COTTON FROM INDIA AND TURKEY

INDIA COTTON



INDIA ORGANIC COTTON



- AIR POLLUTION
- GREENHOUSE GAS EMISSIONS
- LAND USE
- WASTE
- WATER CONSUMPTION
- WATER POLLUTION





































TURKEY COTTON



TURKEY ORGANIC COTTON

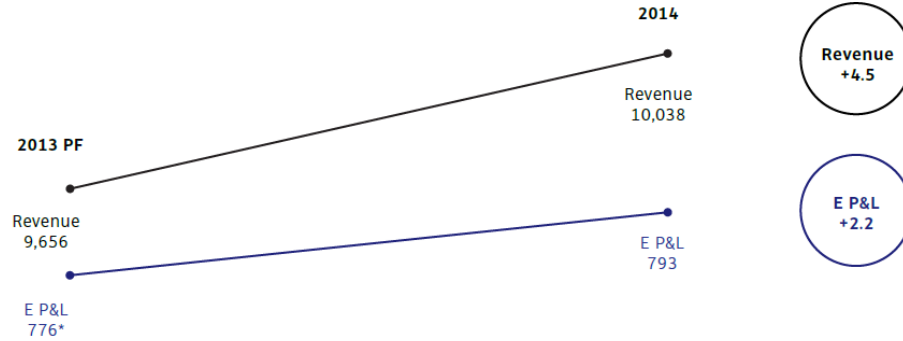


KERING GROUP 2014 E P&L RESULTS

	TIER 0: STORES WAREHOUSE OFFICES	TIER 1: ASSEMBLY	TIER 2: MANUFACTURING	TIER 3: RAW MATERIAL PROCESSING	TIER 4: RAW MATERIAL PRODUCTION	TOTAL IN MILLIONS:
AIR POLLUTION 						9% €75.0
GREENHOUSE GAS EMISSIONS 						37% €288.9
LAND USE 						28% €223.7
WASTE 						5% €40.3
WATER CONSUMPTION 						10% €80.1
WATER POLLUTION 						11% €84.8
TOTAL IN MILLIONS:	7% €52.4	14% €111.8	5% €36.6	25% €202.3	49% €389.7	100% €792.8

KERING ENVIRONMENTAL PROFIT & LOSS ACCOUNT

2013 vs. 2014



	TIER 0 STORES/WHOLESALE OFFICES	TIER 1 ASSEMBLY	TIER 2 MANUFACTURING	TIER 3 RAW MATERIAL PRODUCTION	TIER 4 RAW MATERIAL PRODUCTION	TOTAL IN MILLIONS
AIR POLLUTION	●	●	●	●	●	8% 65.5
GREENHOUSE GAS EMISSIONS	●	●	●	●	●	35% 277.2
LAND USE	●	●	●	●	●	27% 220.9
WASTE	●	●	●	●	●	5% 41.0
WATER CONSUMPTION	●	●	●	●	●	11% 87.3
WATER POLLUTION	●	●	●	●	●	14% 109.2
TOTAL	7%	8%	6%	26%	50%	100% 4772.0



	TIER 0 STORES/WHOLESALE OFFICES	TIER 1 ASSEMBLY	TIER 2 MANUFACTURING	TIER 3 RAW MATERIAL PRODUCTION	TIER 4 RAW MATERIAL PRODUCTION	TOTAL IN MILLIONS
AIR POLLUTION	●	●	●	●	●	8% 67.9
GREENHOUSE GAS EMISSIONS	●	●	●	●	●	37% 428.9
LAND USE	●	●	●	●	●	28% 322.7
WASTE	●	●	●	●	●	5% 60.3
WATER CONSUMPTION	●	●	●	●	●	12% 140.1
WATER POLLUTION	●	●	●	●	●	15% 166.9
TOTAL IN MILLIONS	7%	16%	7%	27%	43%	100% 4792.8

2013

2014

Natural Capital Protocol



provide clear guidance on **qualitative, quantitative and monetary valuation** of natural capital impacts and dependencies and when to apply which level of assessment

be framed for use in **different business applications**

provide guidance on the applicability of the Protocol at **different organizational levels** (corporate, project, products, site) through the value chain

be applicable to all **business sectors** across **all geographies**

CREDIT SUISSE



McKinsey&Company

Conservation Finance
Moving beyond donor funding toward
an investor-driven approach

To meet global demand for conservation funding, investable cashflows need to be 20-30 times higher than they are today. \$200-300 billion a year

To unlock this level of private investment we need to develop measurable and verifiable products which provide conservation and financial returns

In EU, 80% of the CO₂ emissions from agricultural
land are from peatland









PEATLANDCODE



Department
for Environment
Food & Rural Affairs



Peatland Programme



- ✓ A voluntary transaction where
- ✓ A well-defined ecosystem service or land use management likely to secure that service
- ✓ Is being invested in an ecosystem service investor
- ✓ From one or multiple ecosystem service providers
- ✓ If and only if the ecosystem service provider secures provision

How much will it cost?

The Costs:	
Capital cost to restore the peat bog, depending on degree of damage.	£257-£400 per hectare
Cost of monitoring over a 30 year contract	£126 per hectare
Management costs over the 30 years	£180 per hectare
Total cost for a 100 hectare site	£56,300-£70,600
A £72,435 Corporate Social Responsibility (CSR) restoration project would be equivalent to paying £7.50 per tonne CO ₂ -eq (including a 25% carbon buffer). NB for some projects the costs may be higher – up to £15 per tonne CO ₂ -eq.	
The Benefits:	
Expected Greenhouse Gas emission reduction benefits depending on type of restoration and state of damaged peatland.	3.9-4.2 tonnes of CO ₂ -equivalent per hectare per year,
Total Greenhouse Gas emission reductions for a 100 hectare site, over 30 years.	11,700-12,600 tonnes of CO₂ (equivalent to a year's CO ₂ emissions of over 7000 average family cars)
If this CSR investment were turned into an asset, the investment would break even by the end of the contract, with a projected carbon market value of £7.50 per tonne between 2020-2030. Further returns on investment would be possible under higher market values.	

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UNITED NATIONS ENVIRONMENT PROGRAMME

BANK AND INVESTOR RISK POLICIES ON SOFT COMMODITIES

A framework to evaluate
deforestation and forest
degradation risk in the
agricultural value chain

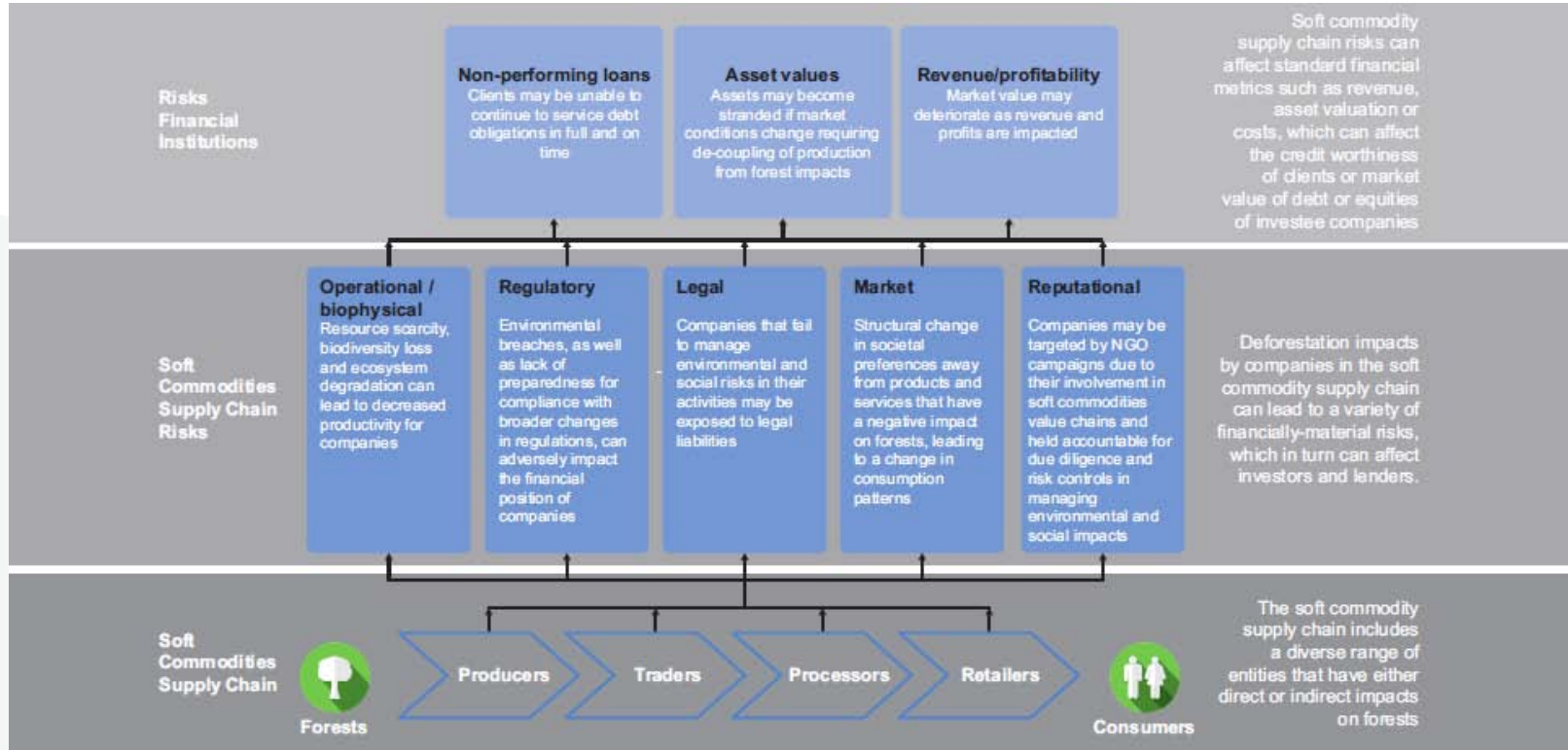


Natural
Capital
Declaration
Financial sector declaration
of the UN system

Secretariat:
 **GCP**
Global Commodity Programme



Risks to financial institutions



Natural Capital Charter



Transformational change? Four Challenges

Finance sector adoption - internalising externalities

De-regulatory agenda

Ideological inertia

Complexity of nature

Thank you

