CSI Business & Ecosystems Training

DAY 1

Bette Harms

Advisor Business & Biodiversity

Coordinator Leaders for Nature Academy

Leaders for Nature

SESSION 1
ICEBREAKER AND INTRODUCTION

Icebreaker and Introduction (cont.)

a) Your current role and scope of work
b) Your knowledge of biodiversity & ecosystems
c) What you want to learn from the course

2 minutes

Programme

Time	Duration	Topic
11.30	15	Quick Introduction of training, trainers, IUCN & LfN
11.45	30	Icebreaker & Introduction exercise
12.15	15	Biodiversity, Ecosystems and Ecosystem Services – the basics .
12.30	15	The global ecosystem challenge
12.45	15	Q&A
13.00	60	Lunch

Programme

Time	Duration	Topic
13.00	60	Lunch
14.00	30	External responses to the ecosystem challenge
14.30	45	Case study exercise
15.15	15	Sharing & discussing findings
15.30	30	Tea break
16.00	15	The business case for action
16.45	45	Exercise developing the business case
17.30	30	Wrap up
18.00		End

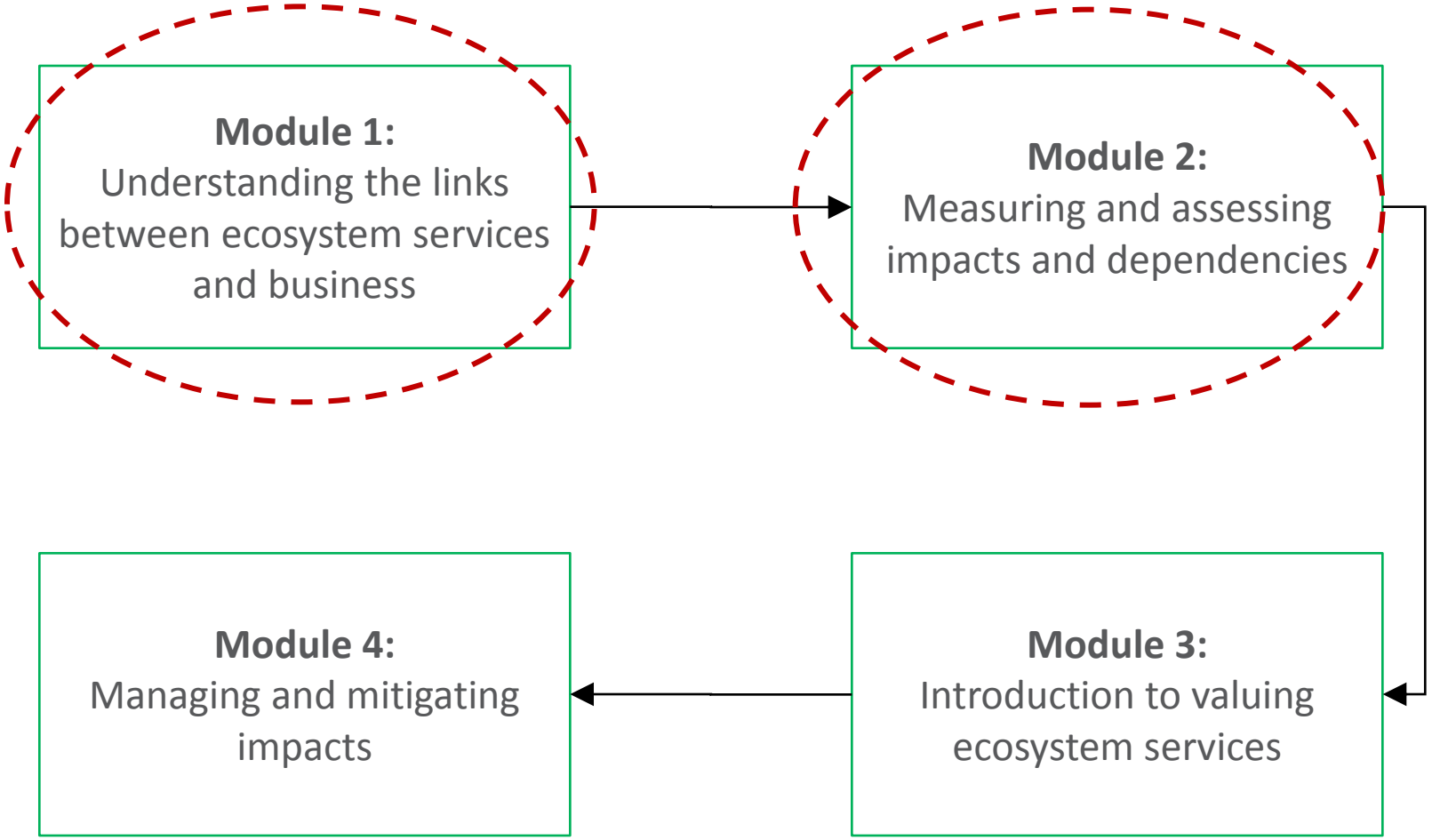
Objectives for the training

- ✓ Introduction to concepts of biodiversity, ecosystems, ecosystem services, environment and sustainability
- ✓ Understanding of global biodiversity trends and drivers of change
- ✓ Knowledge of the business case for managing ecosystems
- ✓ Learning to assess the impacts and dependency of companies on biodiversity and ecosystem services
- ✓ Demonstration of tools to measure impacts and dependencies
- ✓ Draft a action plan on natural capital

Business Ecosystems Training – Contributors

- The content is based on KPMG material and publically available reports.
- BET curriculum and structure was designed by
- The structure and content development of BET was governed by an Advisory Committee consisting of WBCSD member companies and Regional Network partners, NGOs, UN and academic institutions.

Where do module 1 & 2 sit within the broader training available?



Confidentiality

Chatham House rules: what is said in here, stays in here…

BEFORE WE BEGIN…

SESSION 2

BIODIVERSITY, ECOSYSTEMS AND ECOSYSTEM SERVICES – THE BASICS

Not another nature film

A few definitions

❖Biodiversity

The variability among living organisms within species and ecosystems.

❖Ecosystem

A dynamic complex of plant, animal, and micro-organism communities and the non-living environment.

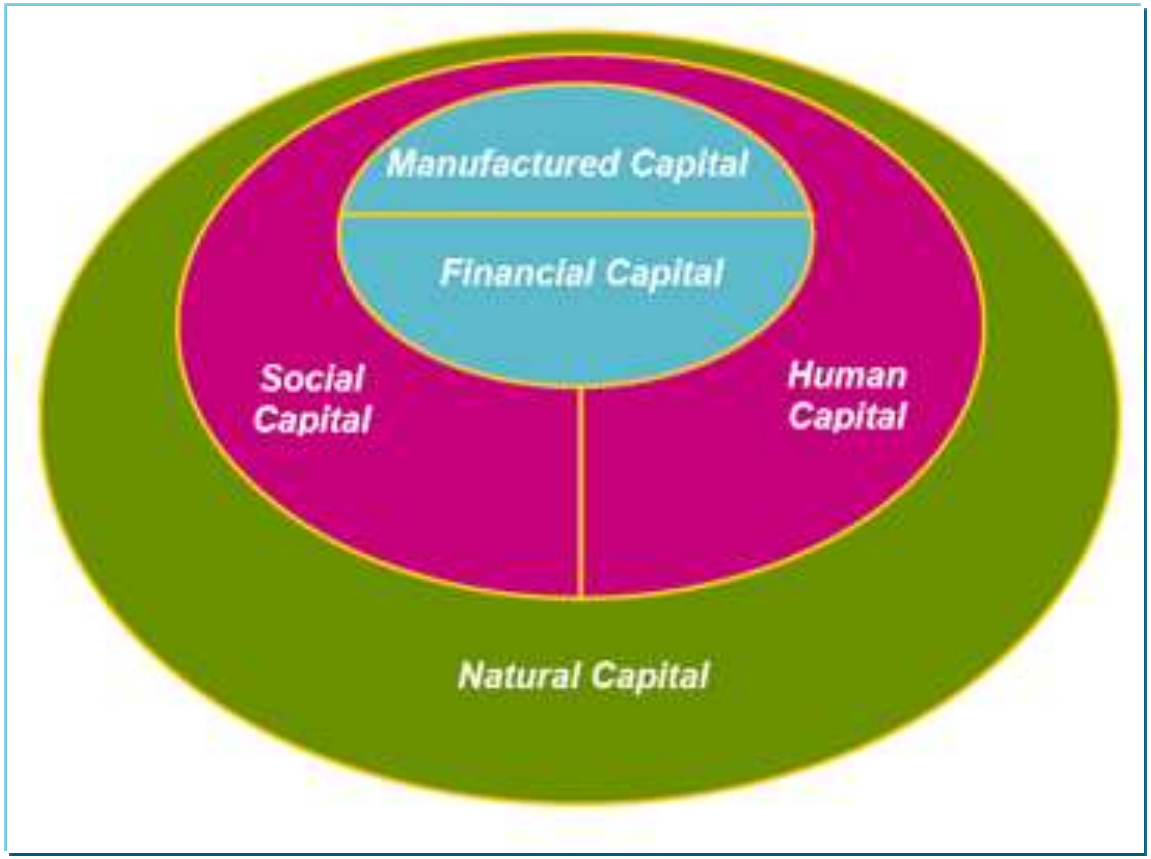
❖Ecosystem services

The benefits that people obtain from ecosystems – the goods and services of nature.

❖Natural capital

Natural Capital can be defined as the world's stocks of natural assets which include geology, soil, air, water and all living things.

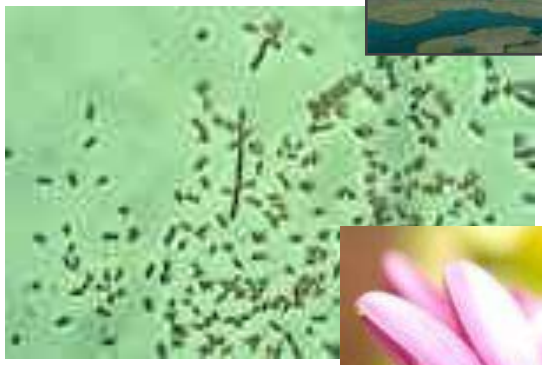
Natural capital



Natural capital is the extension of the economic notion of capital (manufactured means of production) to goods and services relating to the natural environment.

- Biodiversity is not just about:

- But also about:



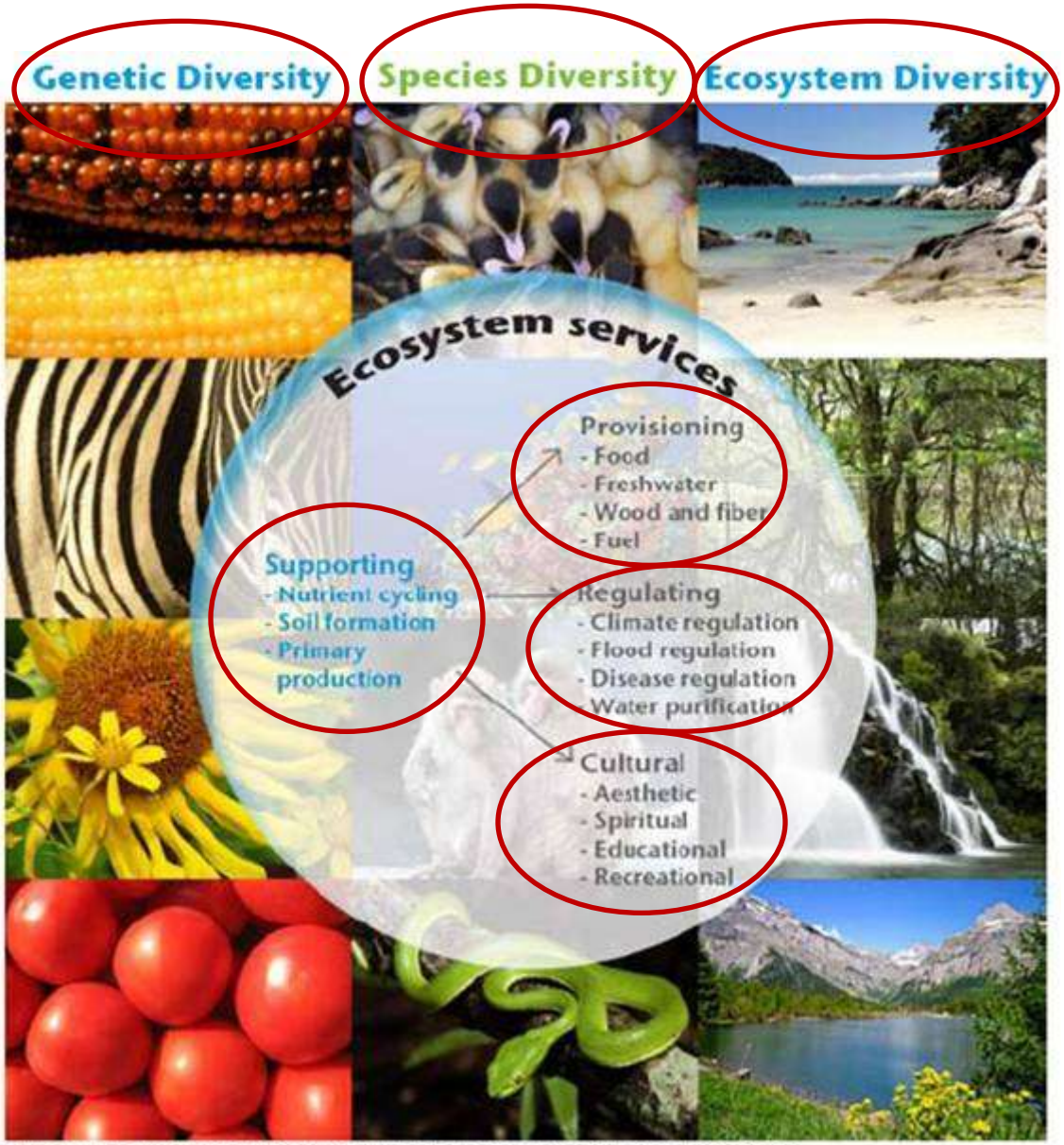


Figure 1: The diversity of life (biodiversity) underpins the supply of all ecosystem services

Ecosystem services – an overview

Provisioning
Goods or products produced by ecosystems

Regulating
Natural processes regulated by ecosystems

Cultural
Intangible benefits obtained from ecosystems







Supporting
Functions that maintain all other services

As described in the *Millennium Ecosystem Assessment*, 2005.

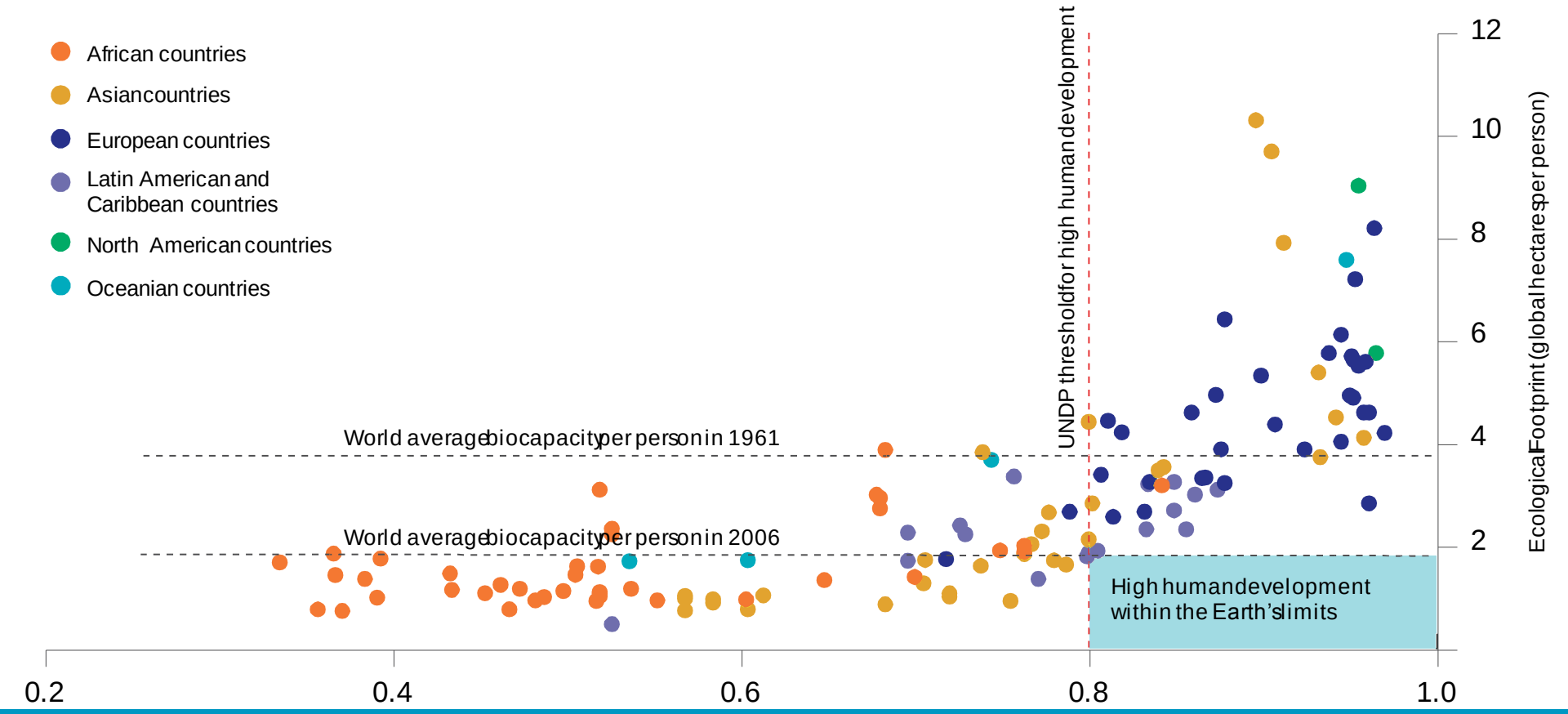
SESSION 3

THE GLOBAL ECOSYSTEM CHALLENGE

The global ecosystem challenge

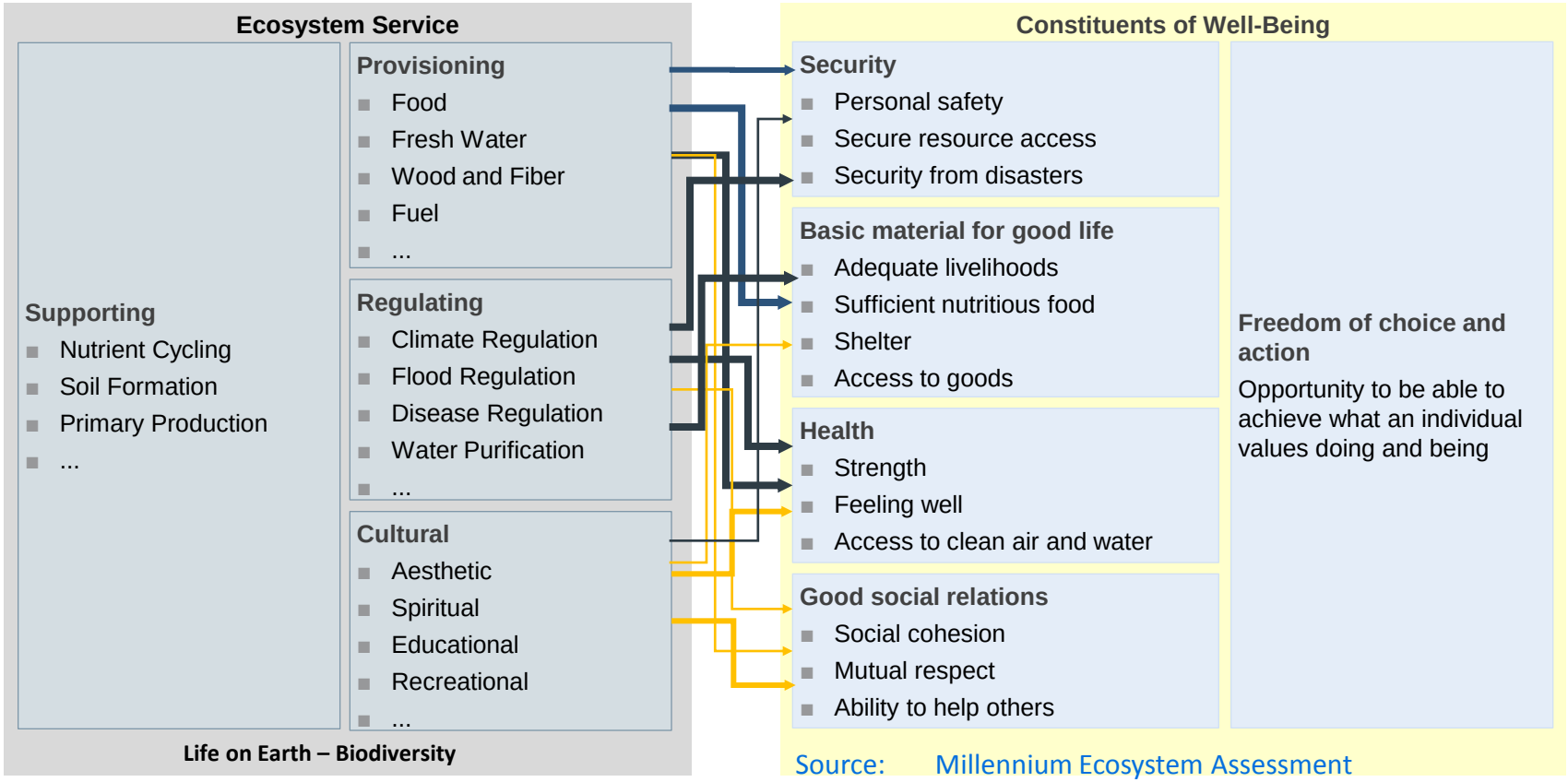
Meeting the dual goals of sustainability

High human development and low ecological impact



Source: © Global Footprint Network (2009). Data from Global Footprint Network National Footprint Accounts, 2009 Edition; UNDP Human Development Report, 2009

Link between ecosystem services and human well-being



Arrow's Color Potential for mediation by socioeconomic factors

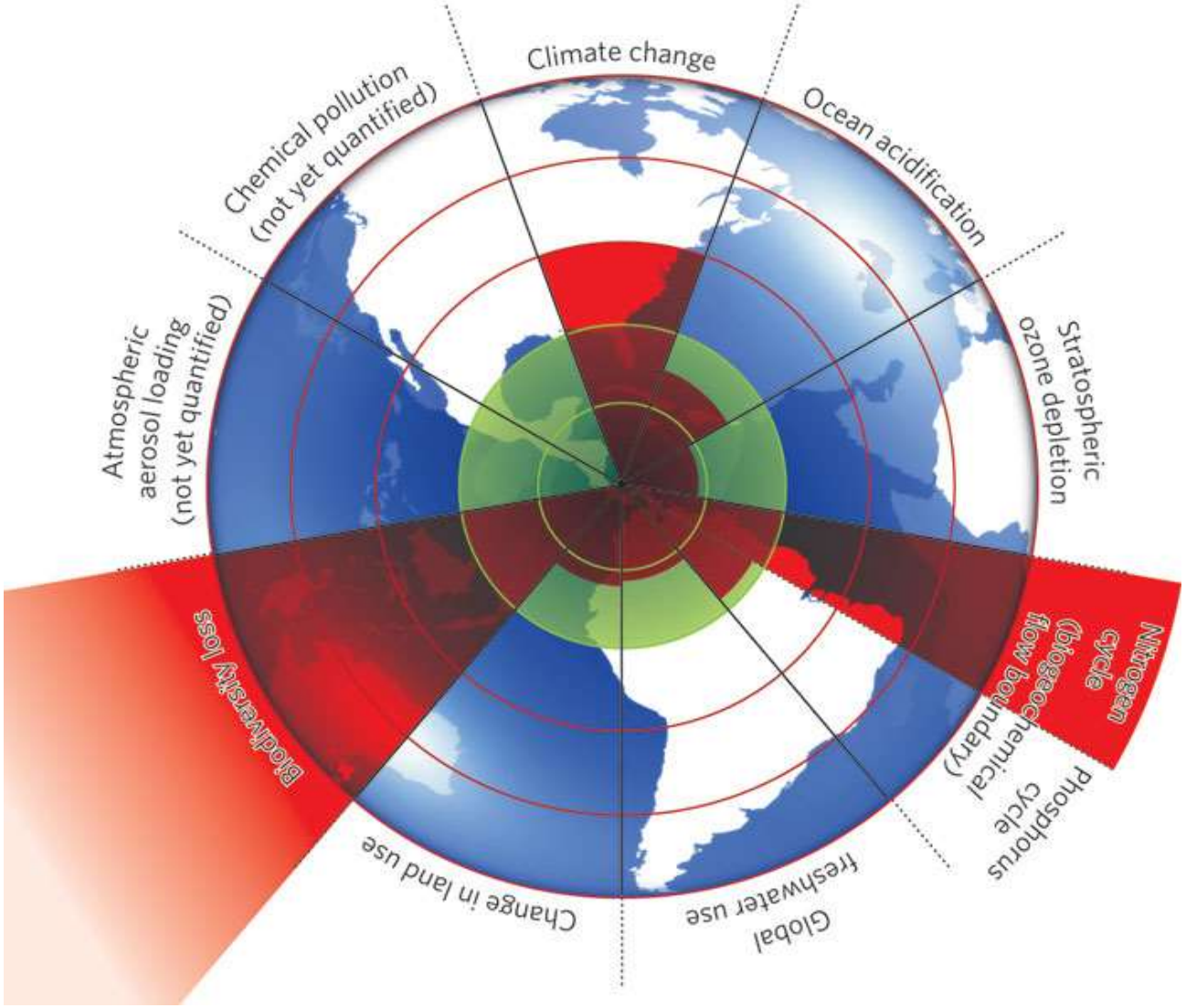
Key: Low Medium High

Arrow's Width Intensity of linkages between ecosystem services and human well-being

Key: Week Medium Strong

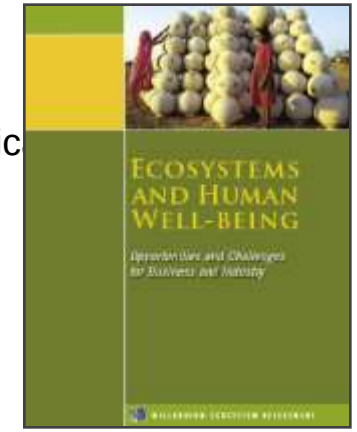
Source: Millennium Ecosystem Assessment, Synthesis

Planetary boundaries



Current situation biodiversity & ecosystems

- Many of the world's ecosystems are in serious decline
- Continuing supply of critical ecosystem services like water purific pollination and climate regulation are in jeopardy
- 5 main drivers for biodiversity loss and ecosystem degradation



Climate change

Habitat change

Invasive species

Over-exploitation

Pollution

Sources: WBCSD, Connecting the dots presentation

Millennium Ecosystem Assessment, 2005. *Ecosystems and Human Well-being: Opportunities and Challenges for Business and Industry*

The MA's major finding regarding ecosystems

- The structure and functioning of the world's ecosystems has changed rapidly the past 50 years
- 20% of the world's coral reefs have been lost and more than 20% are degraded
- 35% of mangrove area has been lost in the last several decades
- Amount of water in reservoirs quadrupled since 1960
- Withdrawals from rivers and lakes doubled since 1960

Source: Millennium Ecosystem Assessment, 2005.

CLARIFICATIONS AND QUESTIONS

Lunch

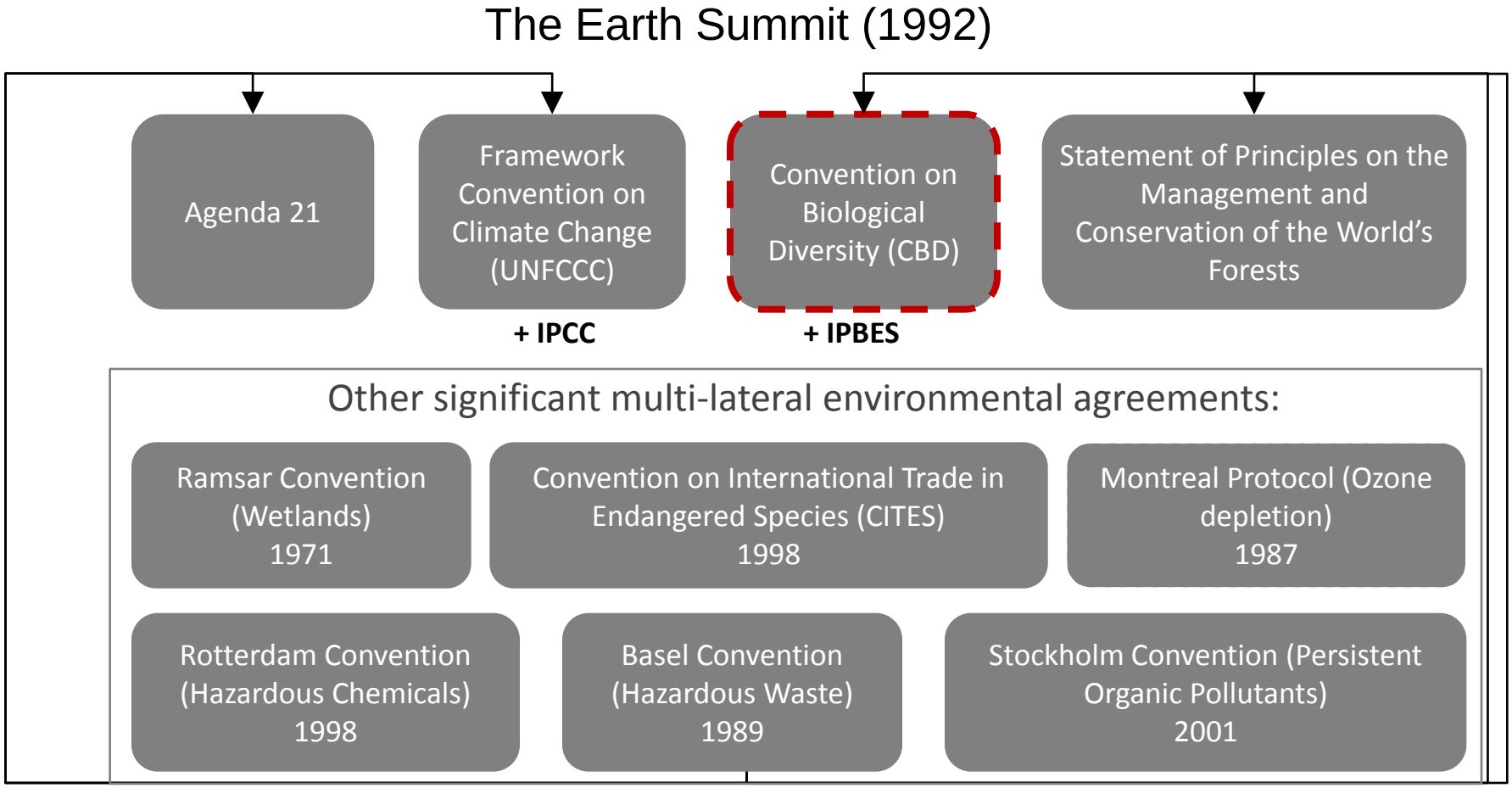
SESSION 4

RESPONSES TO THE GLOBAL ECOSYSTEM CHALLENGE

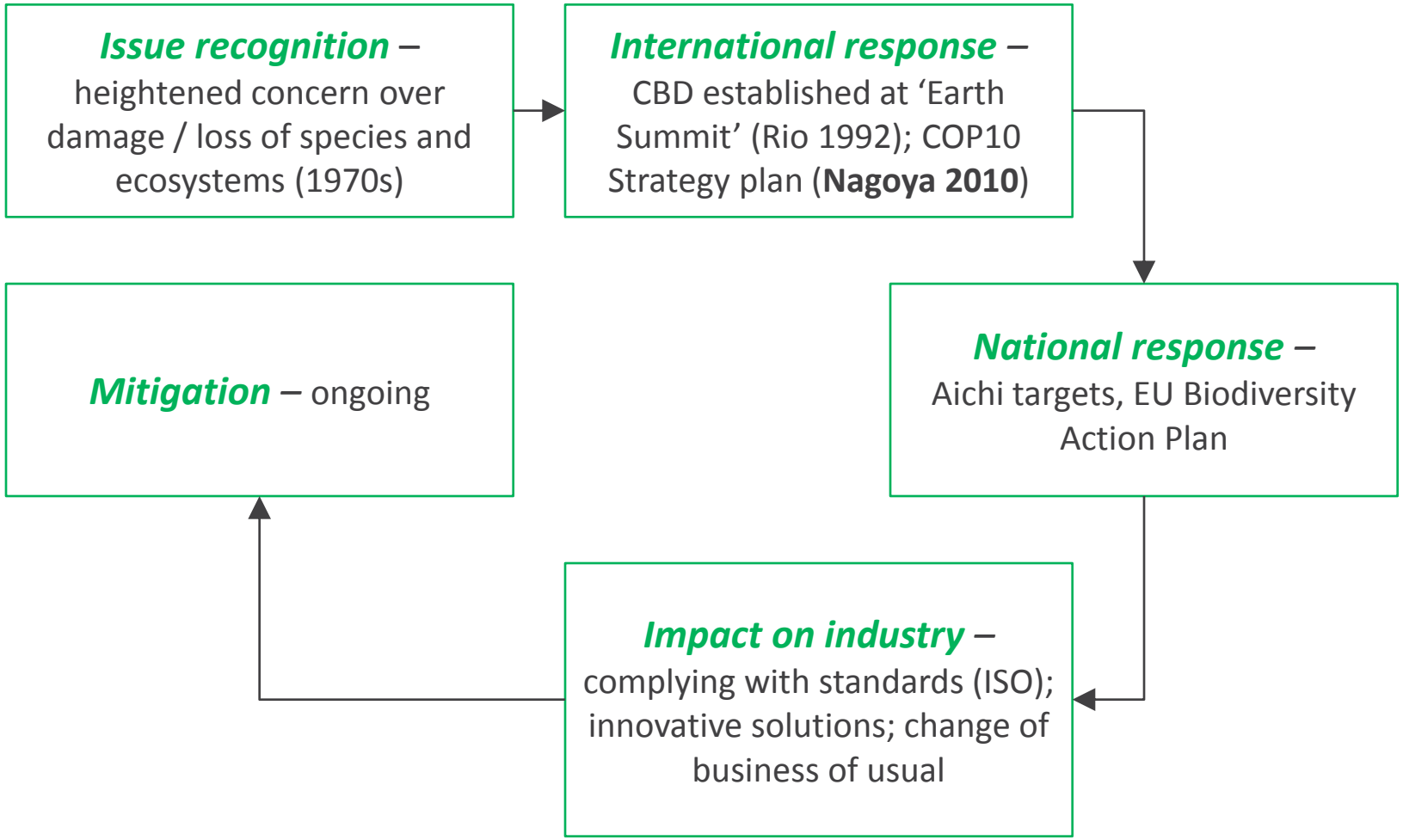
External responses: policies and legislation

- Long history of environmental regulation
  a) 1388 UK water pollution measures
  b) 1973 EU Action Programme on the Environment / Water
- The limits to growth (1972)
  - Modelled world population, industrialization, pollution, food production and resource depletion
- Brundtland Report (1987)
  - Defined sustainable development
  - Called for increased international cooperation
- Conventions, treaties, protocols, agreements…
  - Over 250 multilateral environmental agreements exist
- The Earth Summit (1992) – start of 'The Rio Process'

Background to ecosystem policy



International policy trends – Introduction to the CBD



External responses: Finance

Examples:

- IFC Performance Standards

  Mentioned in 5 standards; main focus in Performance standard 6: Biodiversity Conservation and Sustainable Natural Resource Management

- Equator principles

  The Equator Principles is a credit risk management framework for determining, assessing and managing environmental and social risk in project finance transactions

- Natural Capital Declaration

  A declaration by the financial sector demonstrating their commitment to work towards integrating natural capital considerations into financial products and services

Source: IFC Performance Standard 6, January 2012.

External responses: measurement reporting

Global Reporting Initiative (GRI)

- Sustainability reporting framework that enables organizations to measure and report their economic, environmental, social and governance performance.

Environmental Profit & Loss Accounting (EP&L)

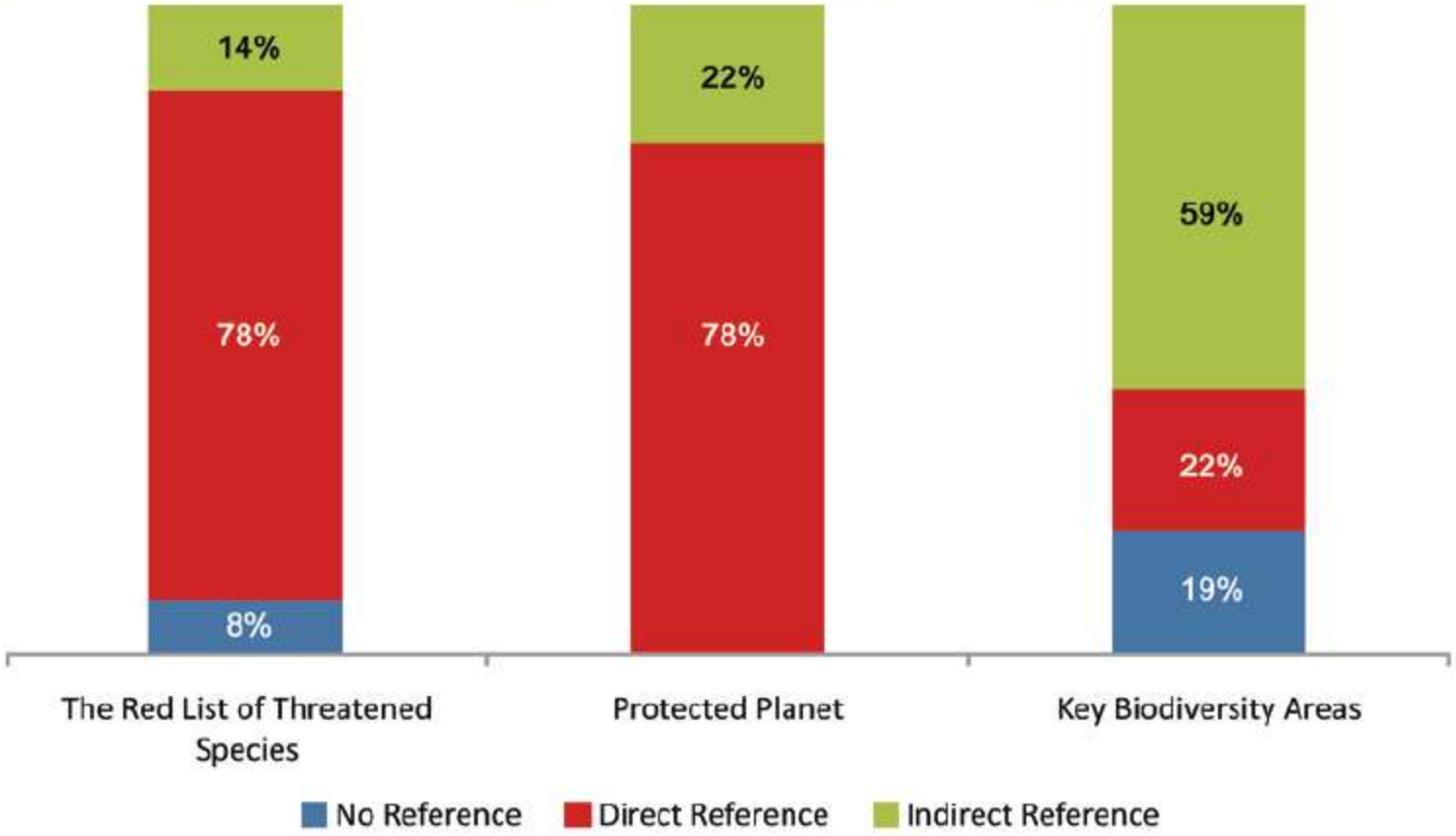
- Company's monetary valuation and analysis of its environmental impacts including its business operations and its supply chain
- EP&L internalizes externalities and monetizes the cost of business to nature by accounting for the ecosystem services a business depends on to operate in addition to the cost of direct and indirect negative impacts on the environment.

Indicators in GRI-G4

Indicator	Aspect	Knowledge product recommended by G4	Number of times reported*
G4-EN9: Water sources significantly affected by withdrawal of water	Water	The IUCN Red List of Threatened Species™	Fully: 37% (264) Partially: 5% (26) Not: 58% (412)
G4-EN26: Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the organization's discharges of water and runoff	Effluents and Waste	Protected Planet; The IUCN Red List of Threatened Species™	Fully: 64% (429) Partially: 14% (102) Not: 21% (151)
G4-EN11: Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Biodiversity	Protected Planet; Key Biodiversity Areas	Fully: 40% (282) Partially: 9% (61) Not: 52% (369)
G4-EN12: Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas	Biodiversity	Protected Planet; Key Biodiversity Areas	Fully: 41% (293) Partially: 7% (50) Not: 52% (369)
G4-EN13: Habitats protected or restored	Biodiversity	Protected Planet	Fully: 32% (228) Partially: 7% (47) Not: 61% (437)
G4-EN14: Total number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk	Biodiversity	The IUCN Red List of Threatened Species™	Fully: 34% (244) Partially: 10% (70) Not: 56% (398)

External responses: Standards

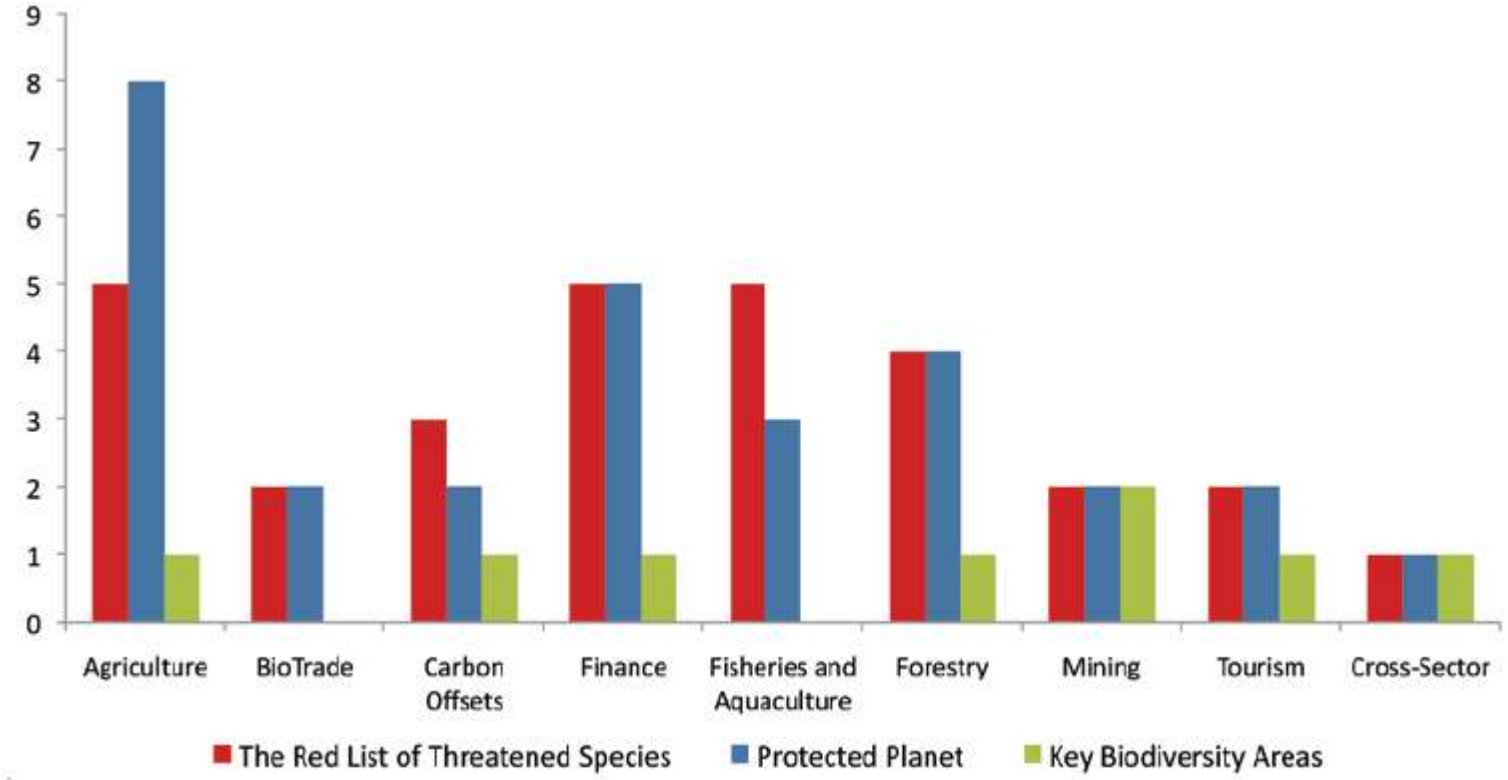
Figure 10 - Proportion of standards that require input from knowledge products



Direct reference: the knowledge product is explicitly mentioned.
Indirect reference: use of the knowledge product is not explicitly mentioned but is potentially required or would be useful for compliance.

Standards & certifications by sector

Figure 11 - Direct references to knowledge products in 37 standards and certification schemes, by sector



Task Force 5: Milestones to date

- **2005 ESIA Guidelines**
  - Concise guidelines to enable cement companies & local communities to identify & address some of the critical issues during each phase of a cement facility's development, operation and eventual closure:

- **2011 Quarry Rehabilitation Guidelines**
  - A clear set of recommendations for the development & implementation of a quarry rehabilitation plan.
  - (Available in 6 languages)

- **2012 IBAT 'Road-test'**
  - Integrated Biodiversity Assessment Tool (IBAT) for business – a decision-support system designed for private sector users to support fine-scale risk assessment across the globe i.e. biodiversity screening.

ibat FOR BUSINESS
Integrated Biodiversity Assessment Tool

Task Force 5: Workstreams

1. Biodiversity Management Plan (BMP) Guidance

Aim: To guide companies through the steps for developing a plan to manage biodiversity at their sites

Status: Draft completed. Review, editing & design phase

Delivery: July 2014

2. ESIA Guidelines Review

Aim: To update the 2005 guidance & provide advice on how to undertake a full environmental & social impact assessment (ESIA)

How integrate ESIA results into site planning &management

Status: Roundtable with experts, Apr 29. Feedback consolidation & document revision

Delivery: July 2014

CASE STUDY EXERCISE ON MAPPING IMPACTS AND DEPENDENCIES ON NATURAL CAPITAL

Ms. Bette Harms, Coordinator LfN Academy, IUCN NL

Case study: Cemex – ESR for quarry rehabilitation

Scope

- 100 hectare gravel pit in France – farmland and forest area
- focus on quarry operation and rehabilitation over 25 years
- Worked with Ligue pour la Protection des Oiseaux (LPO) - their French Birdlife International partner.

Ecosystems: identifying key ecosystem services

Please discuss in groups:

- Cemex decided to implement a strategy to manage their impacts and dependencies on biodiversity/ecosystem services.
- In your groups, discuss the following questions:

1) What ecosystems and ecosystem services apply to this case study?
2) What are Cemex's ecosystem service impacts/dependencies?
3) Based on your answers to 1 and 2, how can Cemex start to address their impacts and dependencies?

30 minutes

Concepts

- Ecosystem Dependency: “Ecosystem conditions required for successful corporate performance”, e.g. the agricultural industry is dependent on plant pollinator species such as bees.
- Ecosystem Priority: “those services on which the company has a high dependence and/or impact”, e.g. the paper industry impacts on forests by procuring timber for their products.
- Ecosystem Impact: “Company affects the quantity or quality of the ecosystem service”, e.g. mining industry has an impact on ecosystems that exist on the land occupied by extraction sites.

Source: Connecting the dots (slide 9) and WBCSD. 2008. Corporate Ecosystem Services Review [online]. [Accessed 2 August 2011]. Available from: http://www.wbcsd.org/DocRoot/R3HpfX53CixLEiQsBRpJ/Corporate_Ecosystem_Services_Review.pdf

Exercise identifying key ecosystem services

Impacts and dependencies on ecosystem services						
	SCOPE		SCOPE		SCOPE	
Key Ecosystem Services	**DEPEND**	**IMPACT**	**DEPEND**	**IMPACT**	**DEPEND**	**IMPACT**
Provisioning						
Food						
Timber and fibres						
Freshwater						
Genetic / Pharmaceutical resources						
Regulating						
Climate & air quality regulation						
Water regulation & purification						
Pollination						
Shoreline protection						
Cultural						
Recreation & tourism						
Aesthetic / non-use values						
Spiritual values						

3 Moderate to Major relevance 1 Minor relevance 0 No relevance

Note: “Supporting services” are not included in this table as they are already captured within provisioning, regulating and cultural services.

Case study: Cemex (cont)

Priority ecosystem services

Key ES were:

- **Crop production** – negative impact at start of quarrying – positive impact after rehabilitation
- **Freshwater** – dependent for aggregate production process and impacts through quarries filling with water
- **Recreation** – potential to enhance recreation by developing walkways, fishing and boating activities
- **Global and regional climate change impacts** – diesel quarrying equipment and land cover changes
- **Ethical values -** potential negative impacts from alien species and positive impacts from creating wetland habitat

Case study: Cemex (cont)

The result

- Provide technical assistance (e.g. to farmers) to improve watershed health (e.g. from reduced chemical and nutrient run-off)
- Increase invasive species control
- Enhance ES that underpin local tourism
- Quantify carbon benefits of restoration (as quarry rehabilitation has positive effect on GHG)

SESSION 5

THE BUSINESS CASE FOR ACTION

Mother Nature’s Invoice

Natural Capital at risk

- The primary production and primary processing sectors analyzed are estimated to have externality costs totaling US$7.3 trillion, which equates to 13% of global economic output in 2009
- The majority of environmental externality costs are from greenhouse gas emissions (38%) followed by water use (25%); land use (24%); air pollution (7%), land and water pollution (5%) and waste (1%).

Business case for action

Businesses impact on ecosystems and ecosystem services

Ecosystem change creates business **risks** and **opportunities**

Businesses rely and depend on ecosystems and ecosystem services

Vittel

Photo Credit: Nestlé Waters

Energia Global (now Enel Latin America)

Potlatch

Allegheny Energy

Risks & Opportunities

OPERATIONAL

E.g. Flooding of Honda factory

Photo Credit: The Economist

LEGAL

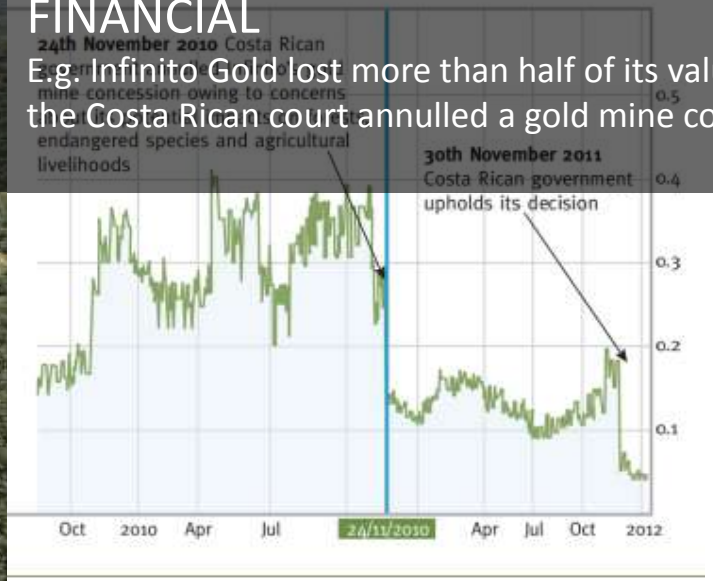
E.g. Concord Pacific fined $97 million after being found guilty of illegal logging in Papua New Guinea

REPUTATIONAL/ MARKETS

E.g. Mattel received over 500.000 customer complaints during Greenpeace campaign due to unsustainable packaging

FINANCIAL

E.g. Infinito Gold lost more than half of its value when the Costa Rican court annulled a gold mine concession



Risks & Opportunities

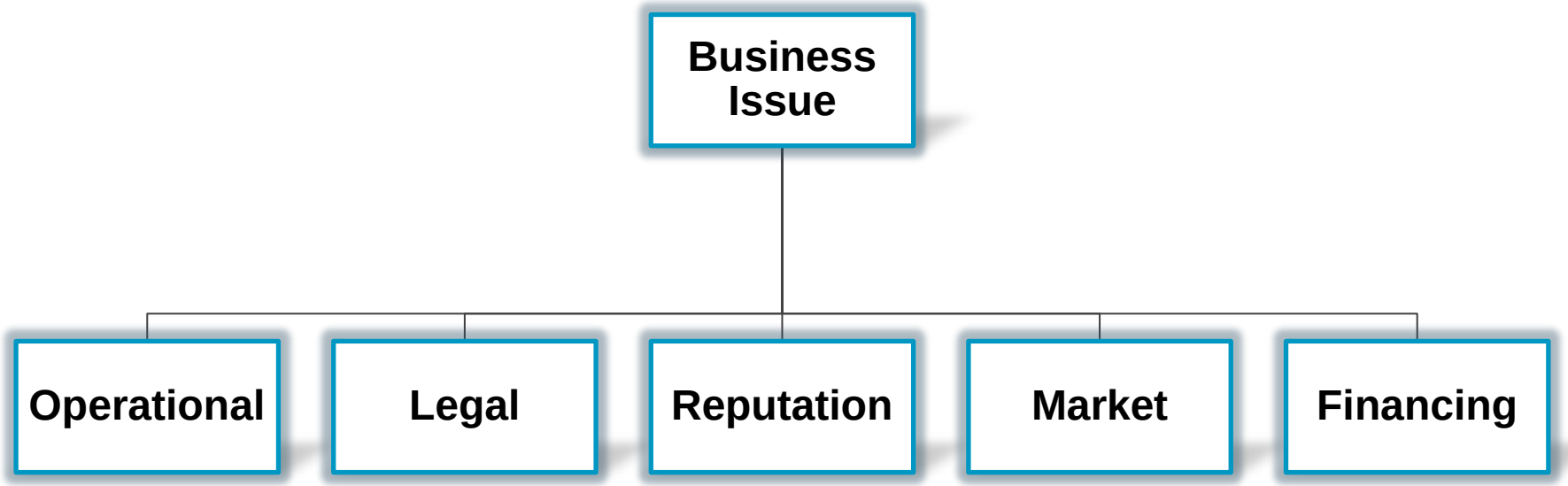
Walmart to save $150 Million in 2013 thanks to sustainability programs

Launch of Unilever's Rainforest Alliance Certified tea: 12% grow in sale in Australia

Vittel has secured its license to operate by rewarding farmers for changing agricultural practices

Chevron could earn US$ 150 million potential income from selling wetland credits

RISKS AND OPPORTUNITIES FRAMEWORK



EXERCISE- THE BUSINESS CASE FOR ACTION

Risks & opportunities

Please discuss in groups: Which risks & opportunities could your company face as a result of a change in the ecosystem services that your business relies on or benefits from?

You may do the exercise for an entire BU or specify a certain product, facility or supply chain.

30 minutes

Business risks and opportunities

Type	Risk	Opportunity
Operational		
Legal and political		
Reputational		
Market, product, replacement strategy		
Financing		

WRAP UP AND EVALUATION

Recap

- ✓ Introduction to concepts of biodiversity, ecosystems, ecosystem services, environment and sustainability
- ✓ Understanding of global biodiversity trends and drivers of change
- ✓ Knowledge of the business case for managing ecosystems

Review...

CSI Business & Ecosystems Training

DAY 2

Bette Harms

Advisor Business & Biodiversity

Coordinator Leaders for Nature Academy

Leaders for Nature

Objectives for the training

- ✓ Introduction to concepts of biodiversity, ecosystems, ecosystem services, environment and sustainability
- ✓ Understanding of global biodiversity trends and drivers of change
- ✓ Knowledge of the business case for managing ecosystems
- ✓ Learning to assess the impacts and dependency of companies on biodiversity and ecosystem services
- ✓ Demonstration of tools to measure impacts and dependencies
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Ecosystem services – an overview

Provisioning
Goods or products produced by ecosystems

Regulating
Natural processes regulated by ecosystems

Cultural
Intangible benefits obtained from ecosystems



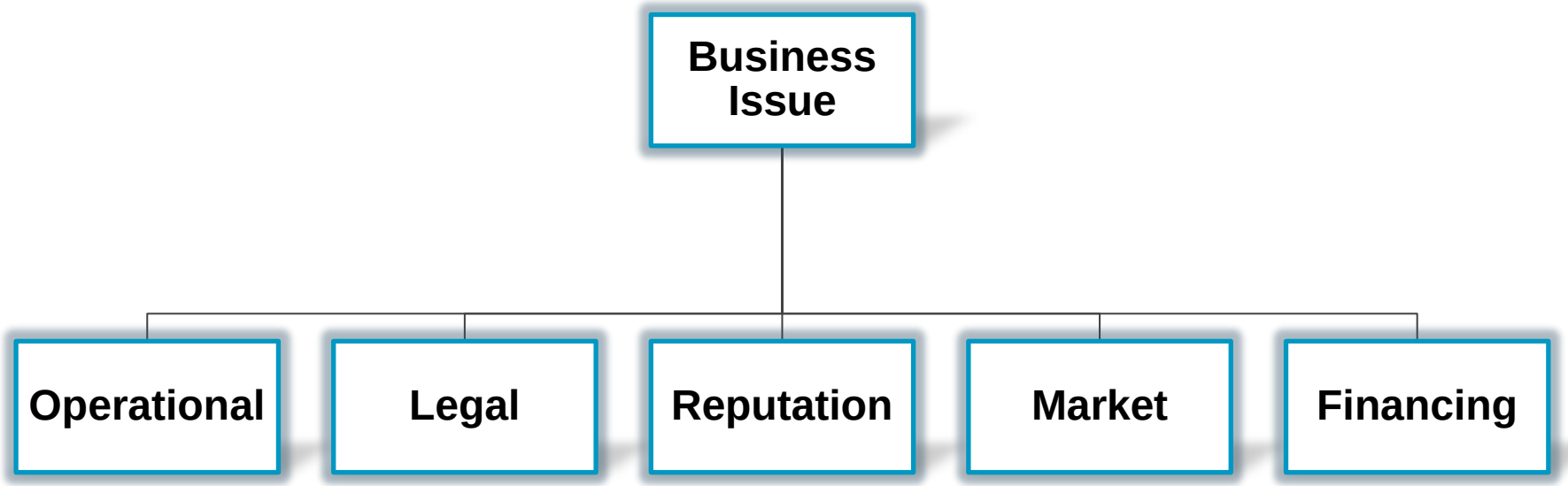




Supporting
Functions that maintain all other services

As described in the *Millennium Ecosystem Assessment*, 2005.

RISKS AND OPPORTUNITIES FRAMEWORK



Programme

Time	Duration	Topic
9.30	15	Recap
9.45	30	Introduction to mapping impacts and dependencies
10.15	45	Exercise mapping impacts and dependencies
11.00	30	Tea break
11.30	60	Introduction IBAT (including Q&A) by Martin Sneary
12.30	30	IBAT application example by Ultratech
13.00	60	Lunch

Programme

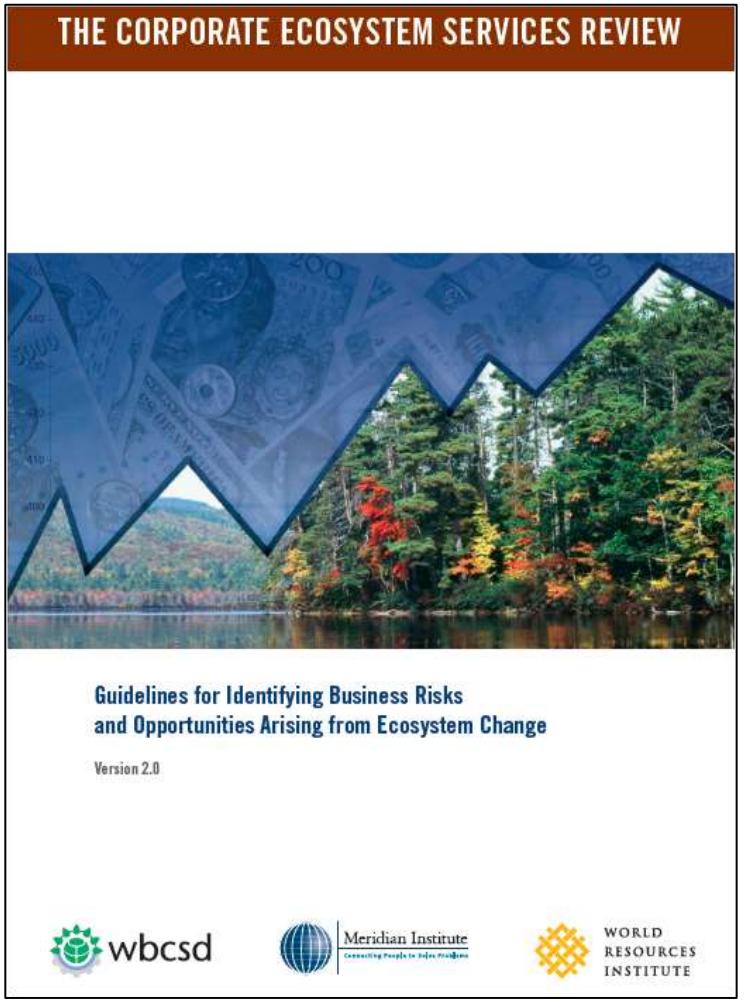
Time	Duration	Topic
13.00	60	Lunch
14.00	30	Developing partnerships
14.30	60	Interactive system analysis
15.30	30	Tea break
16.00	30	Introduction of Leaders for Nature & Natural capital roadmap
16.30	45	Developing action plans
17.15	45	Wrap up and evaluation
18.00		End

SESSION 9
INTRODUCTION TO THE ECOSYSTEM SERVICES REVIEW

The Corporate Ecosystem Services Review (ESR)

- **What is the ESR?**

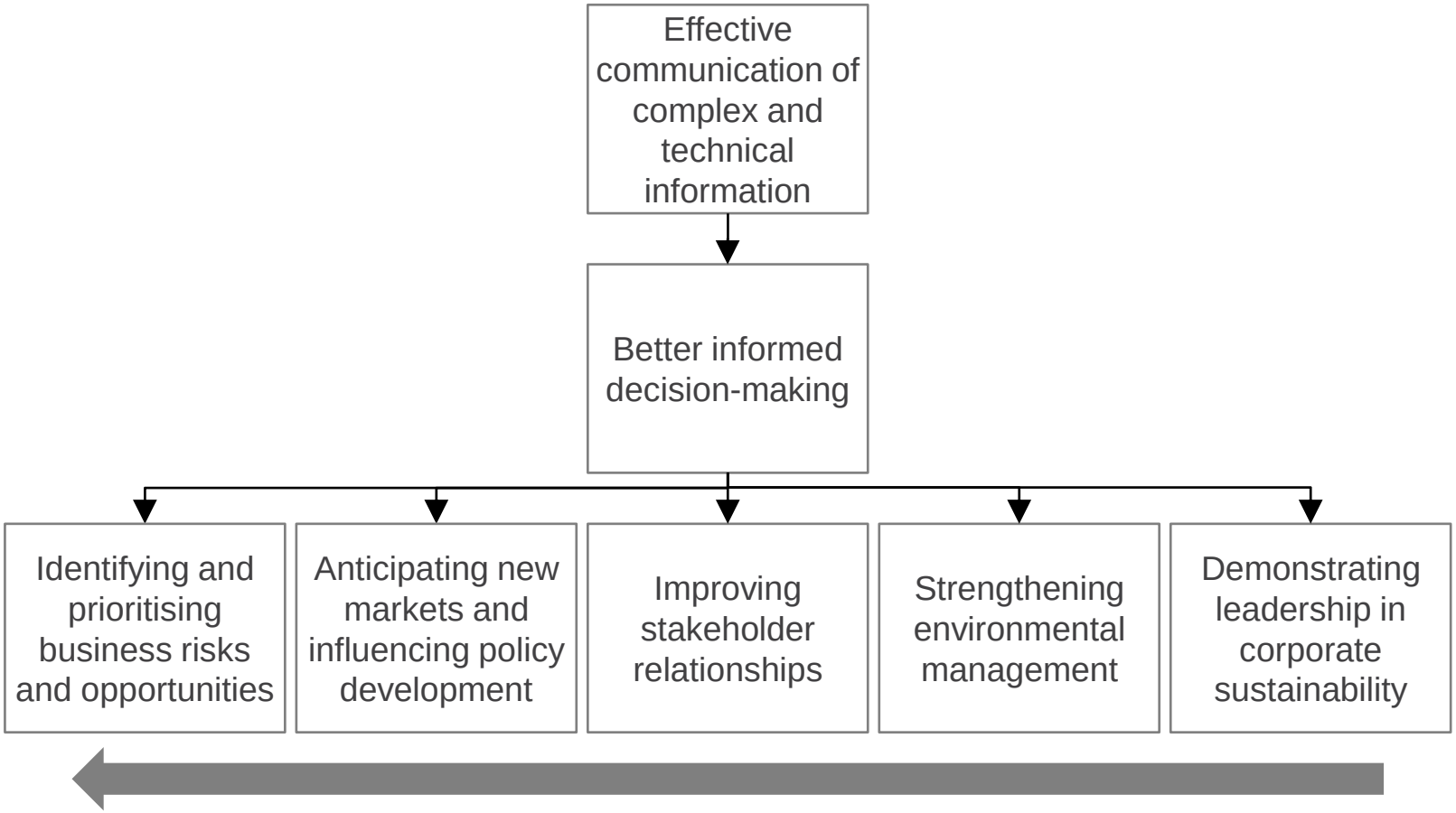
- A **structured methodology** that helps managers proactively develop strategies to **manage business risks** and **opportunities** arising from their company's **dependence** and **impact** on ecosystems.



What the ESR is not

- It does not identify or address every environmental issue
- It is not strictly quantitative
- It is not dependent upon economic valuation of ecosystem services
- It does not require a long, multiyear analysis

How can ecosystem service assessments help?



Source: WRI, Ecosystem Services Review Standard Presentation

Steps in a corporate ecosystem services review

Step	1. Select the scope	2. Identify priority ecosystem services	3. Analyze trends in priority services	4. Identify business risks and opportunities	5. Develop strategies
Key activity	Choose boundary within which to conduct ESR - Business unit - Product - Market - Landholdings - Customer - Supplier	Systematically evaluate degree of company's dependence and impact on ecosystem services Determine highest 'priority' services – those most relevant to business performance	Evaluate conditions and trends in priority ecosystem services, as well as drivers of these trends	Identify and evaluate business risks and opportunities that might arise due to the trends in priority ecosystem services	Outline and prioritize strategies for managing the risks and opportunities
Estimated time	1-2 weeks	1-2 weeks	2-5 weeks	1-2 weeks	1-2 weeks

Source: WRI, Ecosystem Services Review Standard Presentation

Case study: Mondi

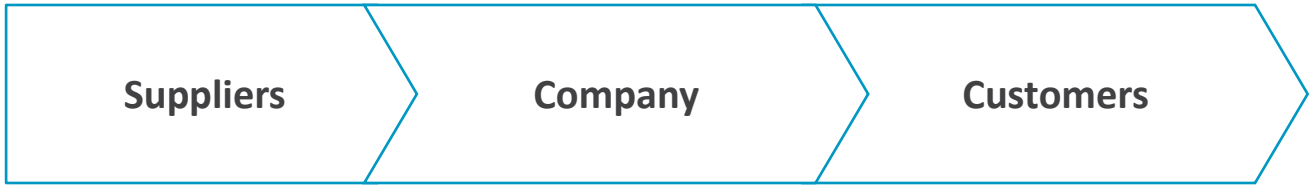
The issue: High water dependency

- Mondi
  - Integrated paper and packaging producer, owns plantations in South Africa
- South Africa
  - Fresh water, a scarce resource
  - 55% of South Africa's wetlands to date have been significantly damaged due to poorly managed agriculture; mining, urban development, etc.
- Because Mondi's commercial activities (commercial forests and processing plants) use significant volumes of water, it relies on healthy wetlands and riparian zones.
- **Mondi used the ESR to develop a corporate-wide strategy for addressing water scarcity in its South African plantations.**

Example of wetland rehabilitation carried out by Mondi in South Africa

Step 1. Considerations when selecting the scope

1. Which stage of the value chain?



2. Who and where specifically?

- Which supplier(s)?
- In which geographic market(s)?

- What aspect of the company?
  - Business unit
  - Product line
  - Facility
  - Project
  - Landholdings

- Which customer(s)?
- In which geographic market(s)?

3. Is it strategic, timely, and supported?

Source: WRI, Ecosystem Services Review Standard Presentation

Case study example: Mondi (cont.)

The result

- ESR Scope:
  - 3 of Mondi's South African pine and eucalypt plantation areas (Shanduka, SiyaQhubeka, and Tygerskloof)
  - One plantation, SiyaQhubeka, is adjacent to a UNESCO World Heritage site, and the company wanted to explore opportunities for biodiversity enhancement and ecotourism.

- Used the **Dependence & Impact Assessment Tool** to select six priority ecosystem services:
  - Freshwater.
  - Water regulation.
  - Biomass fuel.
  - Global climate regulation.
  - Recreation and ecotourism.
  - Livestock.

Step 2. Identifying priority ecosystem services

	Suppliers		Company operations		Customers	
Ecosystem service	**Dependence**	**Impact**	**Dependence**	**Impact**	**Dependence**	**Impact**
Provisioning						
Crops				○ –		
Livestock				● –		
Capture fisheries						
Aquaculture						
Wild foods				○ +		
Timber and other wood fiber				● +		
Other fibers (e.g., cotton, hemp, silk)						
Biomass fuel			○	● +		
Freshwater			●	● –		
Genetic resources			○	○ ?		
Biochemicals, natural medicines, and pharmaceuticals				○ +		

Key: ● High ○ Medium Low + Positive impact – Negative impact ? Don't know

Source: WRI, Ecosystem Services Review Standard Presentation

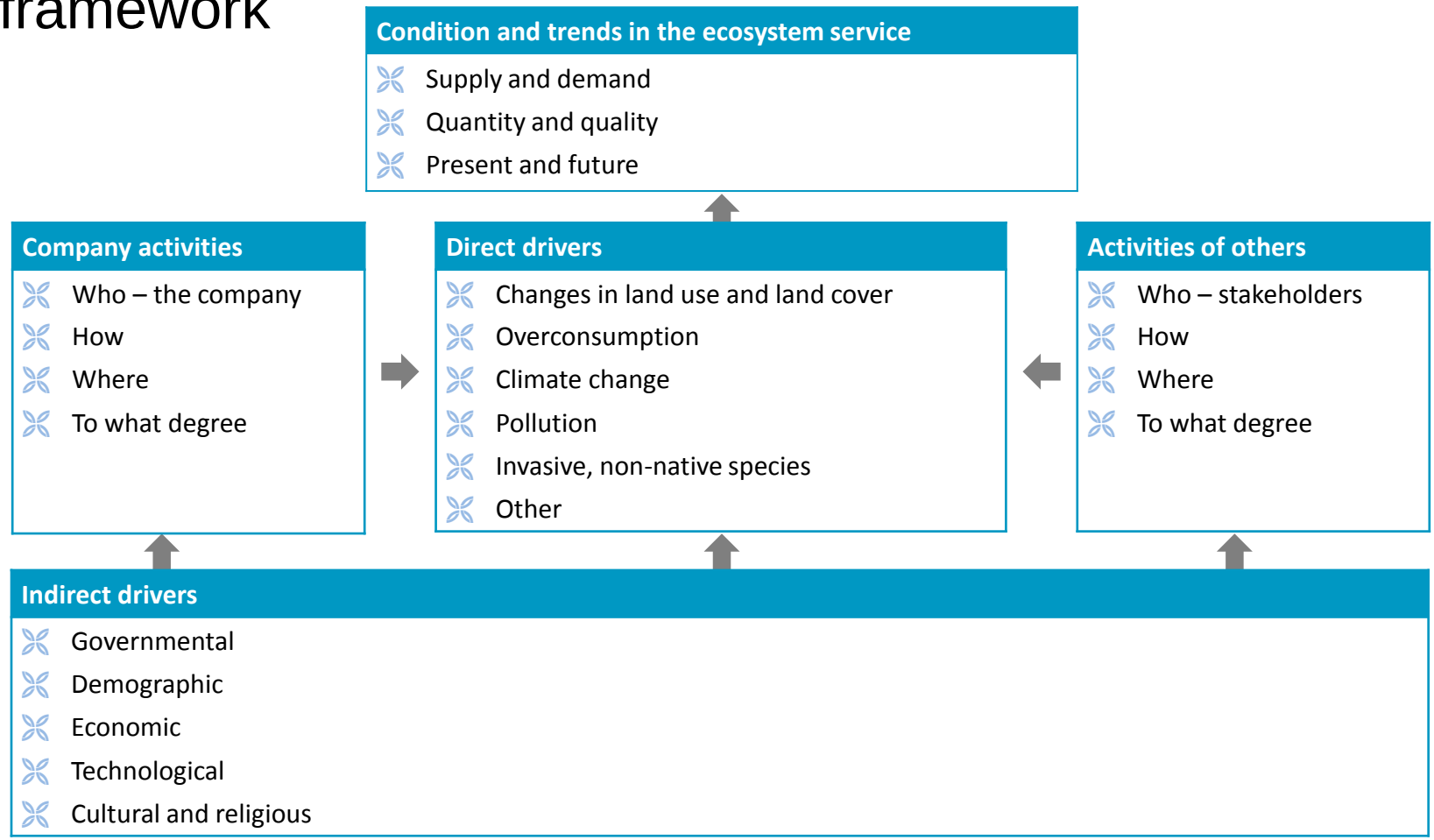
Step 2. Identifying priority ecosystem services (cont.)

	Suppliers		Company operations		Customers	
Ecosystem service	**Dependence**	**Impact**	**Dependence**	**Impact**	**Dependence**	**Impact**
Regulating						
Air quality regulation				? ?		
Global climate regulation			○	● +		
Regional/local climate regulation			○	○ +		
Water regulation			●	● –		
Erosion regulation			○	○ –		
Water purification and waste treatment				○ –		
Disease regulation						
Pest regulation						
Pollination						
Natural hazard regulation						
Cultural						
Recreation and ecotourism				● +		
Ethical values				○ +		

Key: ● High ○ Medium Low + Positive impact – Negative impact ? Don't know

Source: WRI, Ecosystem Services Review Standard Presentation

Step 3. Ecosystem service trends and drivers framework



Source: WRI, Ecosystem Services Review Standard Presentation

Some Concepts

- Ecosystem Dependency: *"Environmental conditions required for successful corporate performance"*, e.g. the agricultural industry is dependent on plant pollinator species such as bees.
- Ecosystem Impact: *"Company affects the quantity or quality of the ecosystem service"*, e.g. mining industry has an impact on ecosystems that exist on the land occupied by extraction sites.
- Ecosystem Priority: *"those services on which the company has a high dependence and/or impact"*, e.g. the paper industry impacts on forests by procuring timber for their products.
- Drivers: *"factors–natural or man-made–that cause changes in an ecosystem and its ability to supply ecosystem services".*

Step 4. Types of risks and opportunities arising from trends in ecosystem services

Not Exhaustive

Type	Risk	Opportunity
Operational	Increased scarcity or cost of inputs Reduced output or productivity Disruption to business operations	Increased efficiency Low-impact industrial processes
Regulatory and legal	Extraction moratoria Lower quotas Fines User fees Permit or license suspension Permit denial Lawsuits	Formal license to expand operations New products to meet new regulations Opportunity to shape government policy

Source: WRI, Ecosystem Services Review Standard Presentation

Step 4. Types of risks and opportunities arising from trends in ecosystem services (cont.)

Not Exhaustive

Type	Risk	Opportunity
Reputational	Damage to brand or image Challenge to social 'license to operate'	Improved or differentiated brand
Market and product	Changes in customer preferences (public sector, private sector)	New products or services Markets for certified products Markets for ecosystem services New revenue streams from company-owned or managed ecosystems
Financing	Higher cost of capital More rigorous lending requirements	Increased investment by progressive lenders and socially responsible investment funds

Source: WRI, Ecosystem Services Review Standard Presentation

Case study example: Mondi (cont.)

Priority ecosystem service	Potential risks	Potential opportunities	Type of risk/opportunity
Freshwater	Increased water scarcity due to: - Invasive alien species - Increasing demand among nearby, inefficient water users (farmers) - Climate change	Internal efficiency improvements in freshwater use (Co)financing water efficiency improvements of nearby landowners	Operational
Water regulation	See above		
Biomass fuel		New biomass-to-energy markets for plantation residues	Market and product
Global climate regulation		Emerging markets for carbon sequestration	Market and product
Recreation and ecotourism		Ecotourism or recreation-based revenue streams from company-managed wetlands/grasslands	Market and product
Livestock	Reduced plantation productivity due to increasing grazing pressures		Operational
	Increases scrutiny from nearby stakeholders for perceived "under-utilization" of Mondi land set aside as wetlands/grasslands		Reputational

Step 5. Categories of strategies

Internal changes	Sector or stakeholder engagement	Policy-maker engagement
Operations	Industry peer collaboration	Tax incentives
Product strategy	Cross-sector collaboration	Subsidy reforms
Market strategy	NGO collaboration	Protected areas
Procurement strategy	Transactions with stakeholders	Zoning
Land management	etc.	etc.
etc.		

Source: WRI, Ecosystem Services Review Standard Presentation

Case study example: Mondi (cont.)

The result (cont.)

- The ESR:
  - Highlighted the relationship among many of the known drivers of water scarcity (e.g., invasive species, climate change, poor irrigation by upstream users).
  - Expanded the analysis beyond the scope of the existing environmental management systems to include systematic reviews of more ecosystem services such as biomass fuel and ecotourism.
  - This uncovered new solutions and a platform for building a freshwater strategy stretching from the plantation management to community engagement, and even to their government relations divisions.

SESSION 11
EXERCISE– APPLYING THE ESR

Group exercise: impacts/dependency questionnaire

- Using the two tables provided on the wall charts, analyse how your company impacts and depends upon different ecosystem services.
- Select a scope for your group, for example a specific site, value chain or customer.

30 minutes

15 minutes for sharing findings

Group exercise

Dependence on ecosystem services			
Ecosystem service	1. Does this ecosystem service serve as an input or does it enable/enhance conditions for successful company performance? If 'no' skip to question 3	2. Does this ecosystem service have cost-effective substitutes?	Comments or supporting information

Group exercise

Impacts on ecosystem services				
Ecosystem service	3. Does the company affect the quantity or quality of this ecosystem service? If 'no' skip to the next ecosystem service	4. Is the company's impact positive or negative?([a])	5. Does the company's impact limit or enhance the ability of others to benefit from this ecosystem service?	Comments or supporting information

Note: ([a]) Positive impact: The company increased the quantity or quality of this ecosystem service.
Negative impact: The company decreased the quantity or quality of this ecosystem service.

CLARIFICATIONS AND QUESTIONS

IBAT (Integrated Biodiversity Assessment Tool)

Martin Sneary, Manager – Biodiversity Risk Assessment
& Corporate Decision Support (based in Washington DC)

Format of session

Key sources of biodiversity information

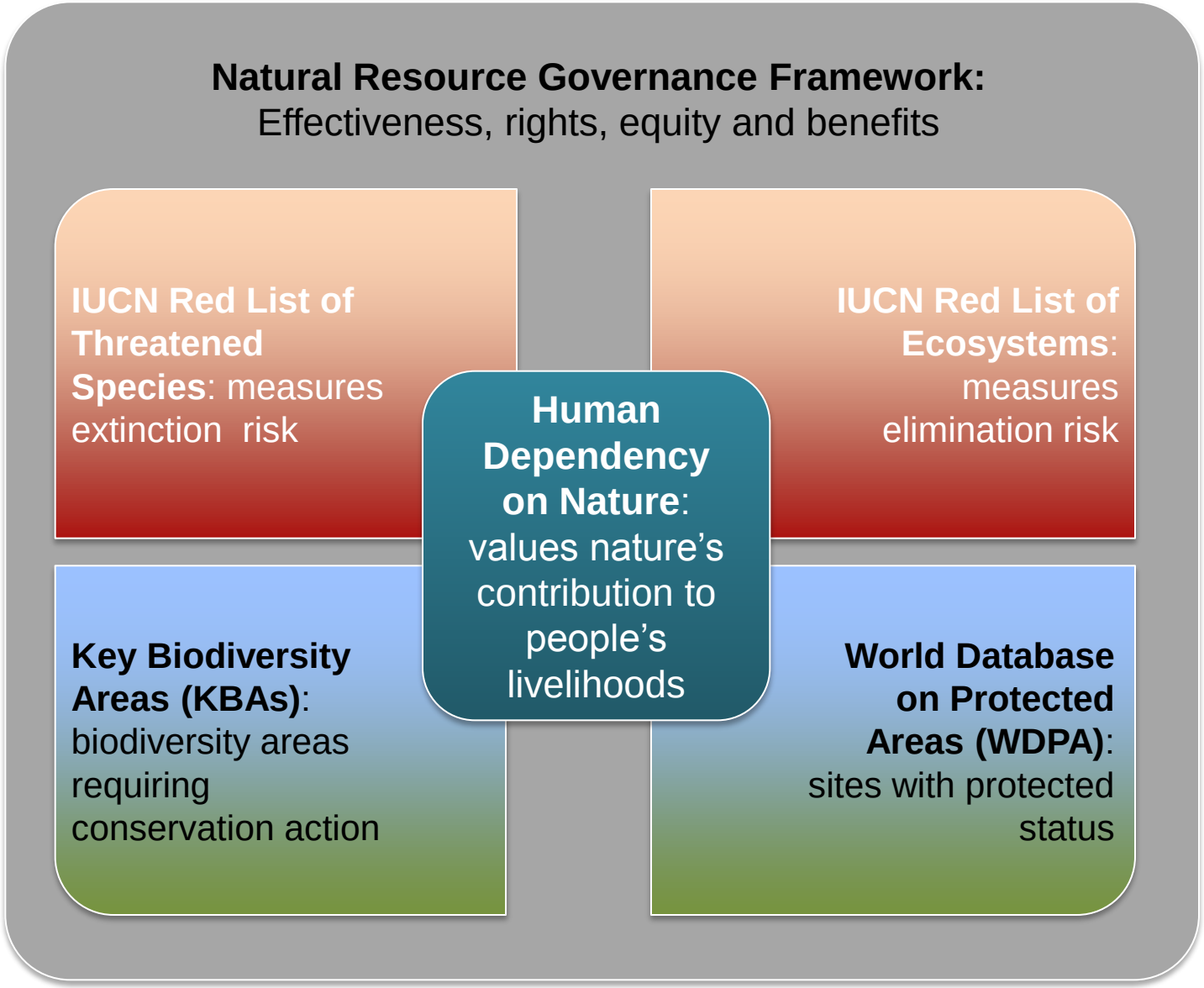
Introduction to iBAT

Mitigation hierarchy and NPI/NNL

Closing remarks

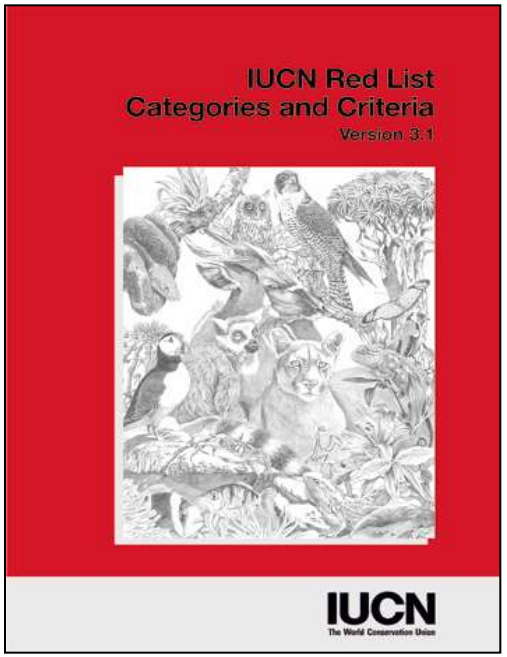
Key sources of biodiversity information

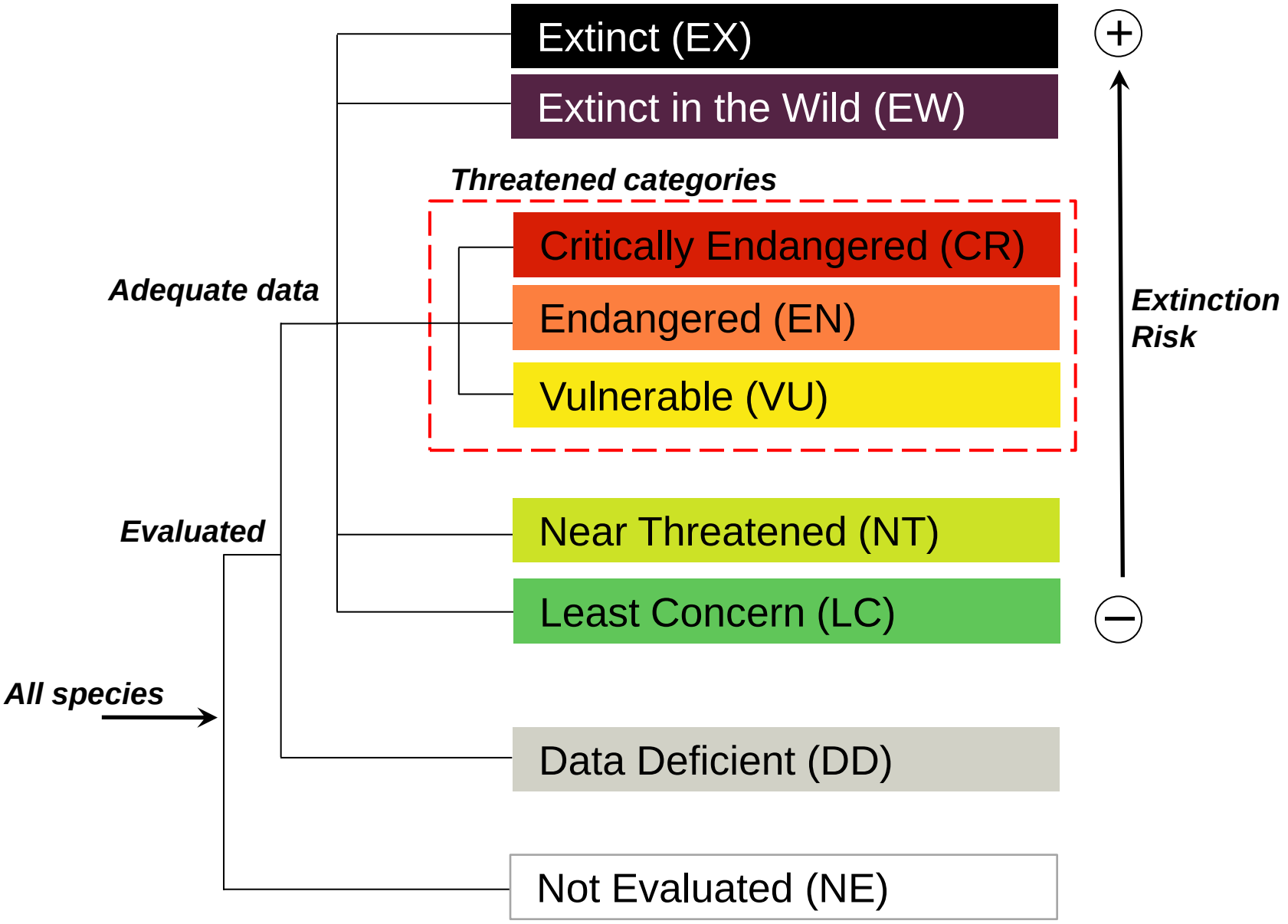
IUCN Knowledge Products



The IUCN Red List of Threatened species
An estimate of extinction risk

What is the likelihood of a species becoming extinct in the near future, given current knowledge about population trends, range, and recent, current or projected threats?




Extinct (EX)
Extinct in the Wild (EW)
Threatened categories
Critically Endangered (CR)
Endangered (EN)
Vulnerable (VU)
Near Threatened (NT)
Least Concern (LC)
Data Deficient (DD)
Not Evaluated (NE)
Adequate data
Evaluated
All species
Extinction Risk
+
−


The IUCN Red List of Threatened Species™
2013.2
Login | FAQ | Contact
::About
::Initiatives
::News
::Photos
::Partners
::Sponsors
::Resources
Discover more
OTHER SEARCH OPTIONS
Enter Red List search term(s)
GO
RED LIST
Guiding Conservation for 50 Years
Home > Panthera tigris (Tiger)
Panthera tigris
NOT EVALUATED
NE
© IUCN Photo Library/Steve Winter
VIEW MAP
Taxonom
Kingdo
ANIMA
CRITICALLY ENDANGERED
HOME
SPECIES RANGE
OBSERVATION
PROTECTED AREAS
Scientific or Common name
GO
CHANGE BASEMAP
INSET MAP
Mammalia > Carnivora > Felidae
Panthera tigris
Tiger
Download Spatial data
(Linnaeus, 1758)
>Back to Red List Page
EN
Extant (resident)
Probably Extant (resident)
BROWSE IMAGES
ARKive (159 found)
Wildlife Conservation Society 2011. Panthera tigris. In: IUCN 2013. IUCN Red List of Threatened Species. Version 2013.2
INDIA
BANGLADESH
Dhaka
MYANMAR
BURMA
Bay of Bengal
Andaman Sea
Gulf of Thailand
SRI LANKA
Mumbai (Bombay)
Kolkata (Calcutta)
Chennai (Madras)
Bangalore (Bengaluru)
Hyderabad
Ho Chi Minh City
esri

Key Biodiversity Areas

Sites that contribute significantly to the global persistence of biodiversity, on lands, in water or in the seas. They are mainly identified through national processes by local stakeholders using a set of globally-agreed scientific criteria.

KBA Criteria

To be identified as a KBA, a site must meet at least one of the following criteria, as a site contributing significantly to the global persistence of:

- A: threatened biodiversity
- B: geographically restricted biodiversity
- C: biodiversity because they are exceptional examples of ecological integrity and naturalness
- D: outstanding biological processes
- E: biodiversity as identified through a comprehensive quantitative analysis of irreplaceability

Important Bird Areas – www.birdlife.org/datazone/site

IN071 Ranthambore National Park and Tiger Reserve

Location	India
Central coordinates	76° 28.83' East 26° 2.23' North
IBA criteria	A1, A3
Area	39,200 ha
Altitude	215 - 500m
Year of IBA assessment	2004

Bombay Natural History Society

BNHS

Site description The Ranthambore National Park, at the junction of the Aravalli and the Vindhyachal Ranges, is a unique combination of natural and historical richness, standing out conspicuously in a vast arid and denuded tract of eastern Rajasthan. Ranthambore is c. 14 km from the town of Sawai Madhopur (Monga 2002). Inside the core area are a few natural ponds and depressions, notable among them being Man Sagar, Lahpur Pond, Milak Talao near Jogi Mahal and Galai Sagar near Khandar. Ranthambore ranges over a high undulating topography, from flat topped hills (Indala, Doodh-Bhat and Chiroli) to the conical hillocks and sharp ridges, from wide and flat valleys (Lahpur, Nalghati, Khachida, Anantpur) to narrow, rocky gorges (Sharma 2000). Inside the core area, there are remnants of the old villages like Anantpur, Chiroli, Kachida and Bherda in the north, Lakarda and Lahpur in the middle and Guda in the south. The ruins of the old buildings and the Shikargahs (hunting grounds) of the Maharajas of erstwhile Jaipur State still exist. Two protected areas, Kailadevi WLS and Sawai Mansingh WLS, are linked by narrow corridors to the core of Ranthambore NP and all these together comprise the Tiger Reserve. The terrain of Sawai Mansingh WLS is flat and rocky, and the Devpura irrigation dam in the Sanctuary is a useful source of water for wildlife and a good habitat for aquatic flora and fauna, especially for migratory water birds. The Kailadevi WLS is the northern extension of the Ranthambore NP in Karauli and Sawai Madhopur districts.The Sanctuary is bound to the west by the River Banas and to the south by the River Chambal. The forest cover is fairly sparse and spread out in the other parts. Main flora of the site are *Anogeissus pendula* mixed with *Acacia catechu*, *Acacia leucoploea*, *Dichrostachys cinerea*, *Ficus religiosa*, *F. bengalensis*, *F. glomerata*, *Cassia fistula*, *Albizzia lebbeck* and *Diospyros melanoxylon*.

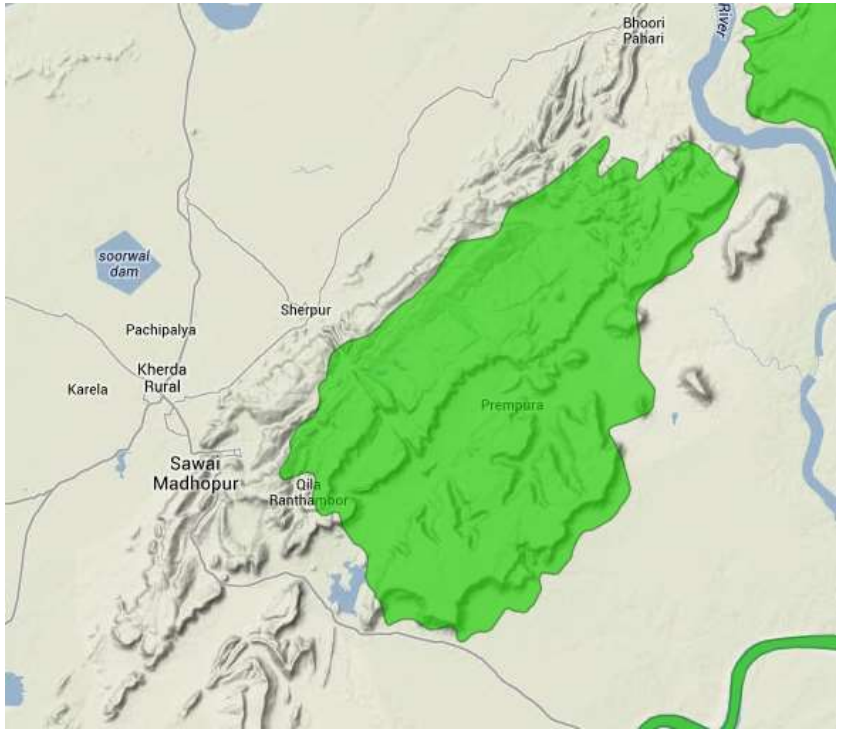
Populations of IBA trigger species

Species	Season	Period	Population estimate	Quality of estimate	IBA Criteria	IUCN Category
Lesser Adjutant *Leptoptilos javanicus*	-	2004	present [units unknown]	-	A1	Vulnerable
White-rumped Vulture *Gyps bengalensis*	-	2004	present [units unknown]	-	A1	Critically Endangered
Eastern Imperial Eagle *Aquila heliaca*	-	2004	present [units unknown]	-	A1	Vulnerable
Indian Vulture *Gyps indicus*	-	2004	present [units unknown]	-	A1	Critically Endangered
Sarus Crane *Grus antigone*	-	2004	present [units unknown]	-	A1	Vulnerable
White-browed Bushchat *Saxicola macrorhynchus*	-	2004	present [units unknown]	-	A1	Vulnerable

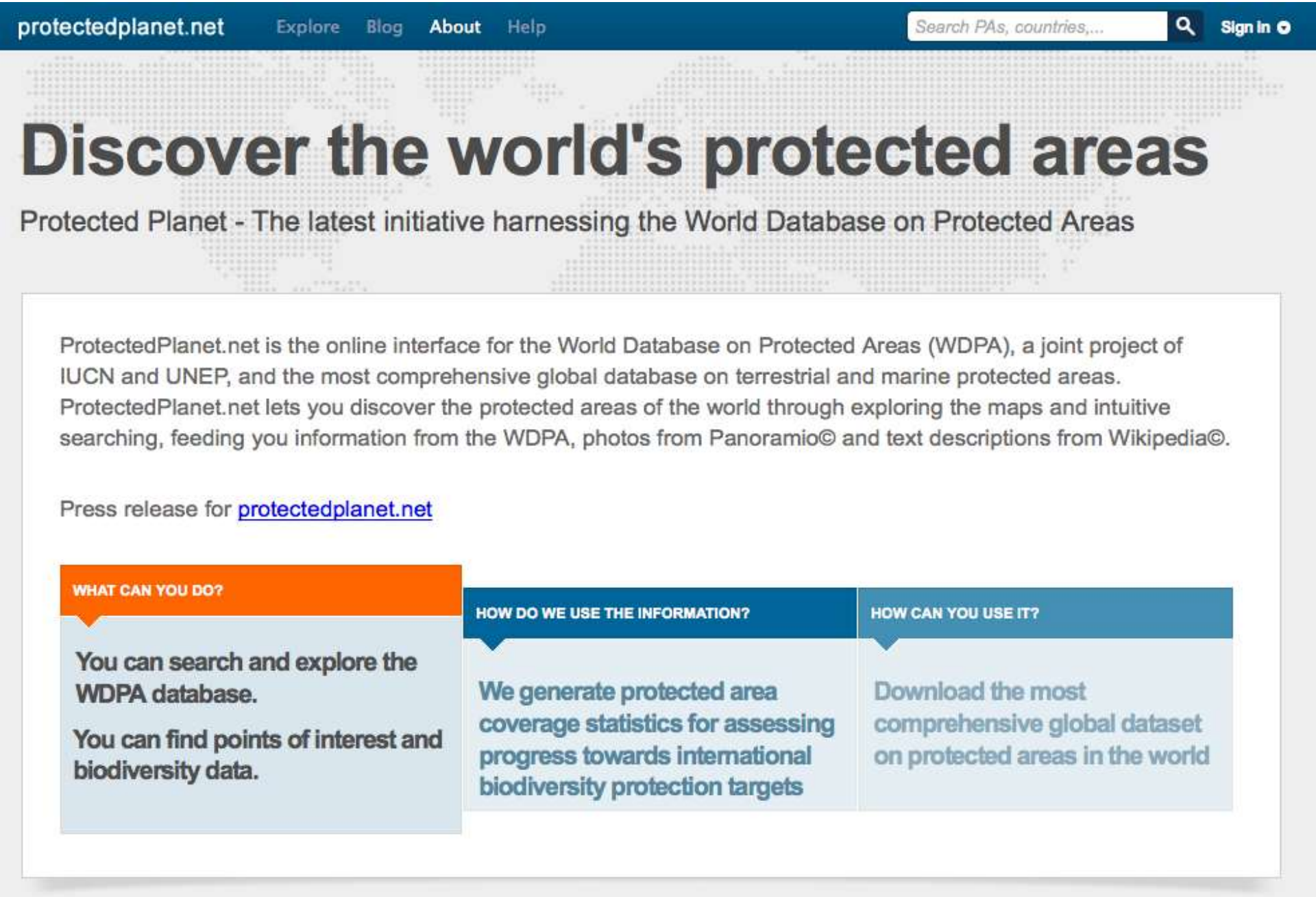
Protected areas

Protected area	Designation	Area (ha)	Relationship with IBA	Overlap with IBA (ha)	
Ranthambore	National Park	39,200	is identical to site	39,200	ⓘ

Habitats



Protected Planet - www.protectedplanet.net



Ranthambore National Park

Ranthambore, India

Information | Discussion | Species

All Photos are provided by Panoramio. Photos are under the copyright of their owners.

1 2 3

Official Record

100% COMPLETE

WDPA ID
1808

NAME
Ranthambore

ORIGINAL NAME
Ranthambore

World Database on Protected Areas

A clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values.

IUCN protected area management categories:

- 1a Strict nature reserve
- 1b Wilderness park
- II National park
- III Natural monument
- IV Habitat / Species management area
- V Protected landscape / seascape
- VI Protected Area with sustainable use of natural resources

BIODIVERSITY a-z

The Biodiversity A-Z is a cluster of online glossaries about biodiversity

a-z biodiversity terms

A glossary of biodiversity terms and acronyms, with in-depth explanations to a number of key concepts.

Browse the Biodiversity Terms

a-z areas of biodiversity importance

A glossary of different classifications used to describe areas of biodiversity importance.

Browse Areas of Biodiversity Importance

POWERED BY UNEP WCMC

Introduction to iBAT

Making an informed biodiversity impact evaluation/risk assessment

- Which are the important species in an area?
- Where are the threatened species found?
- Which sites are important – environmentally, socially – and why?
- Which areas are protected?

- Added to which, information should have the following qualities:
  - ☑ Credible (globally recognised; standards)
  - ☑ Trusted
  - ☑ Accurate
  - ☑ Current
  - ☑ Updated over time
  - ☑ Reliably available
  - ☑ Easily understood by non-scientific audience

The IBAT Alliance

Mobilising conservation knowledge to inform decisions – Integrated Biodiversity Assessment Tool

*Decisions affecting critical natural habitats are **informed** by the **best scientific information** and in turn decision makers **support the generation and maintenance** of that scientific information*

Biodiversity (Species)

Sites/KBAs (where species live)

Protected Areas

- ☑ Simple to use
- ☑ Online mapping tool
- ☑ Initial screening
- ☑ Easy access to credible data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Russian
Arctic Council to convene business
The Faroe Islands (Denmark)
Republic of Korea names
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Key definitions
Recent data articles
The Faroe Islands (Denmark) designates three new Ramsar sites
Republic of Korea names small urban wetland as Ramsar site

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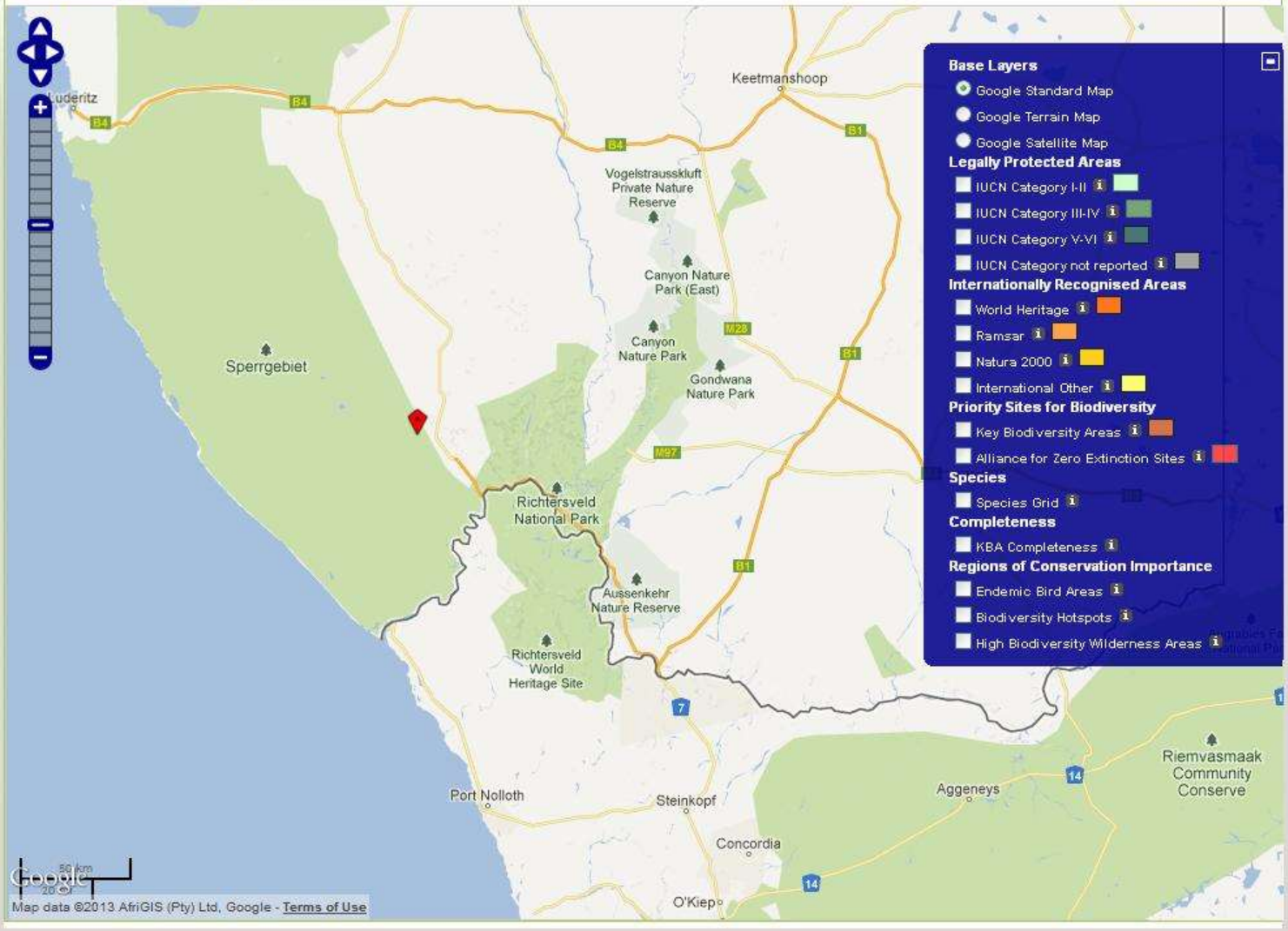

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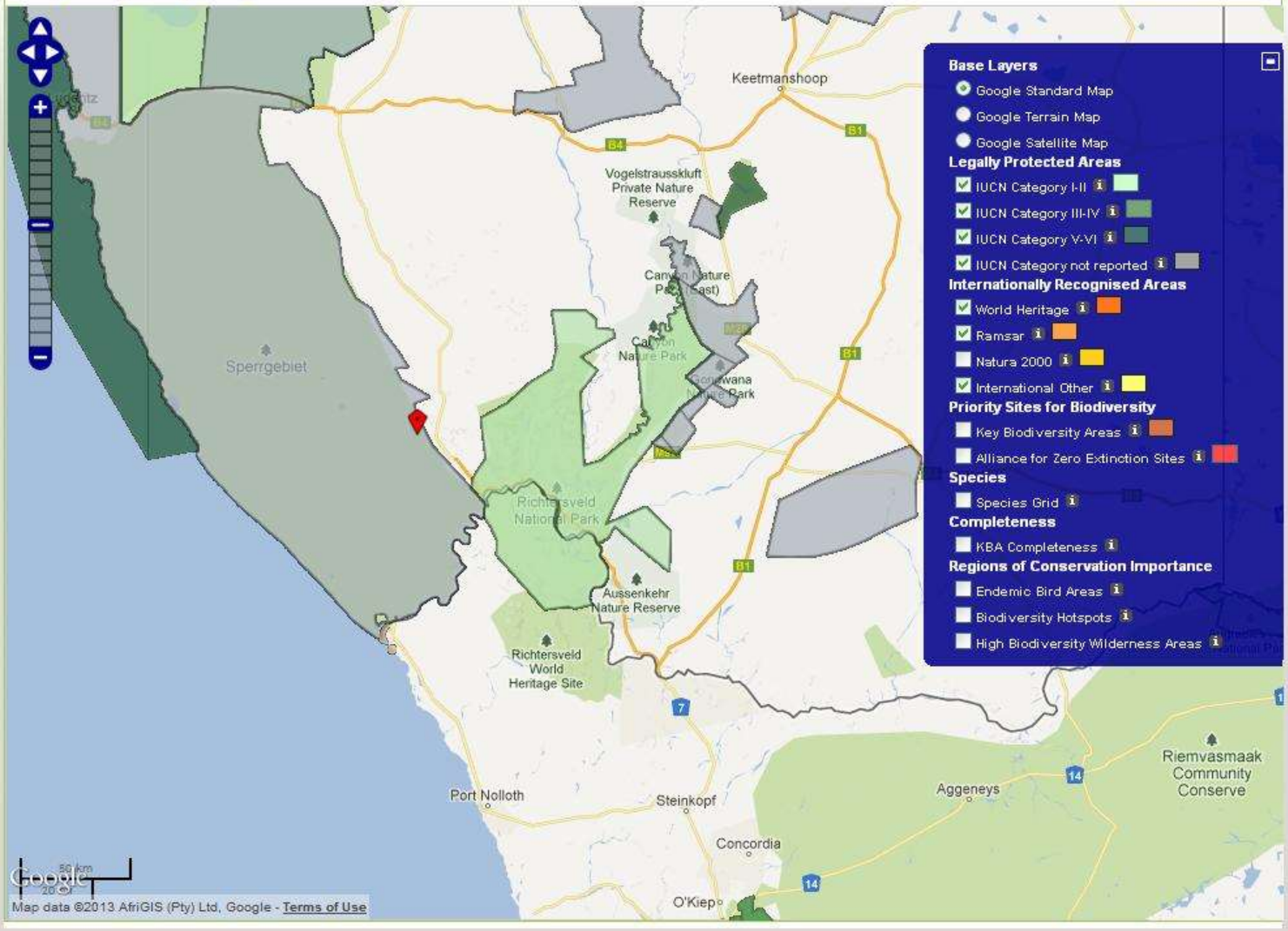

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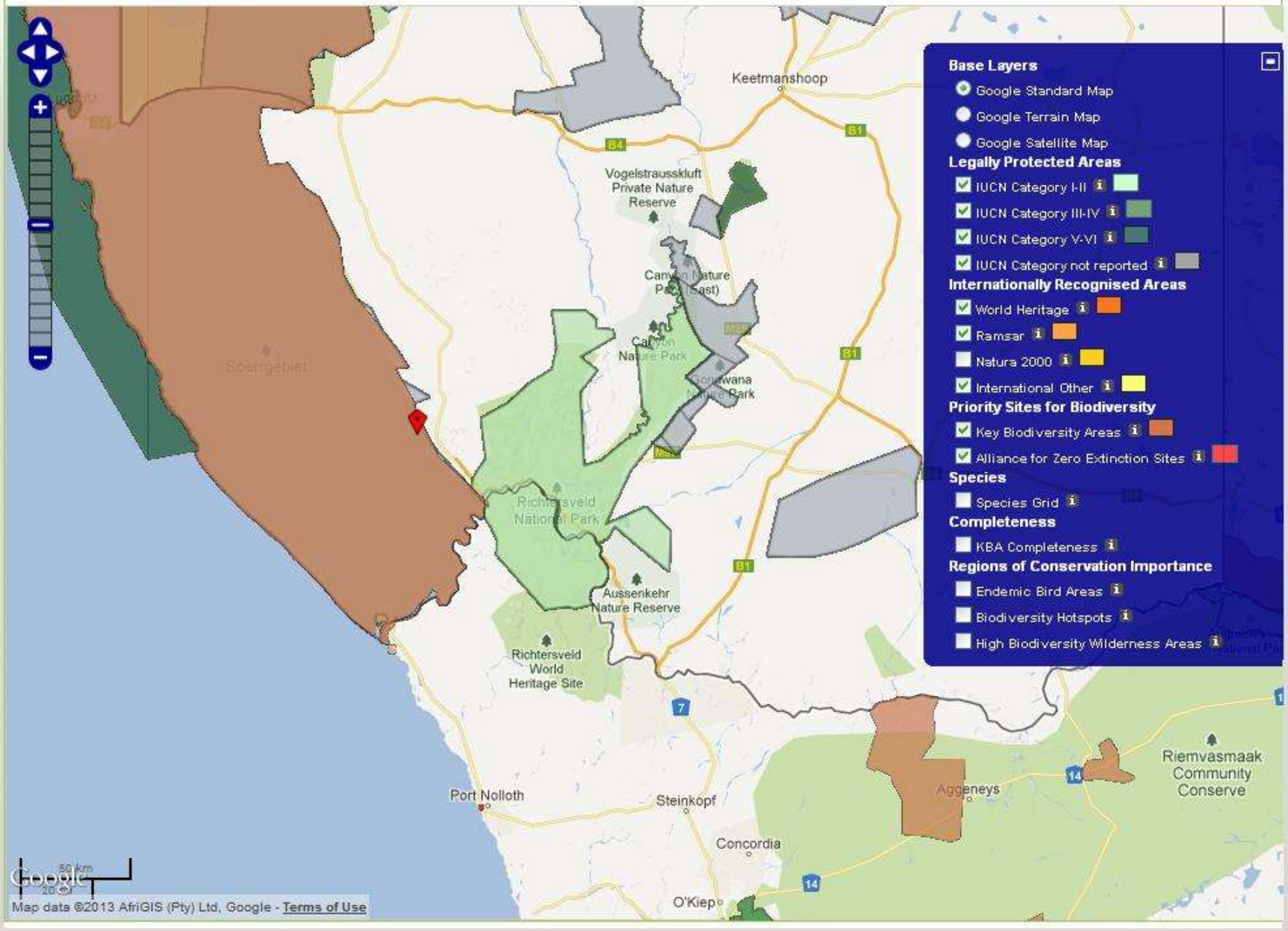

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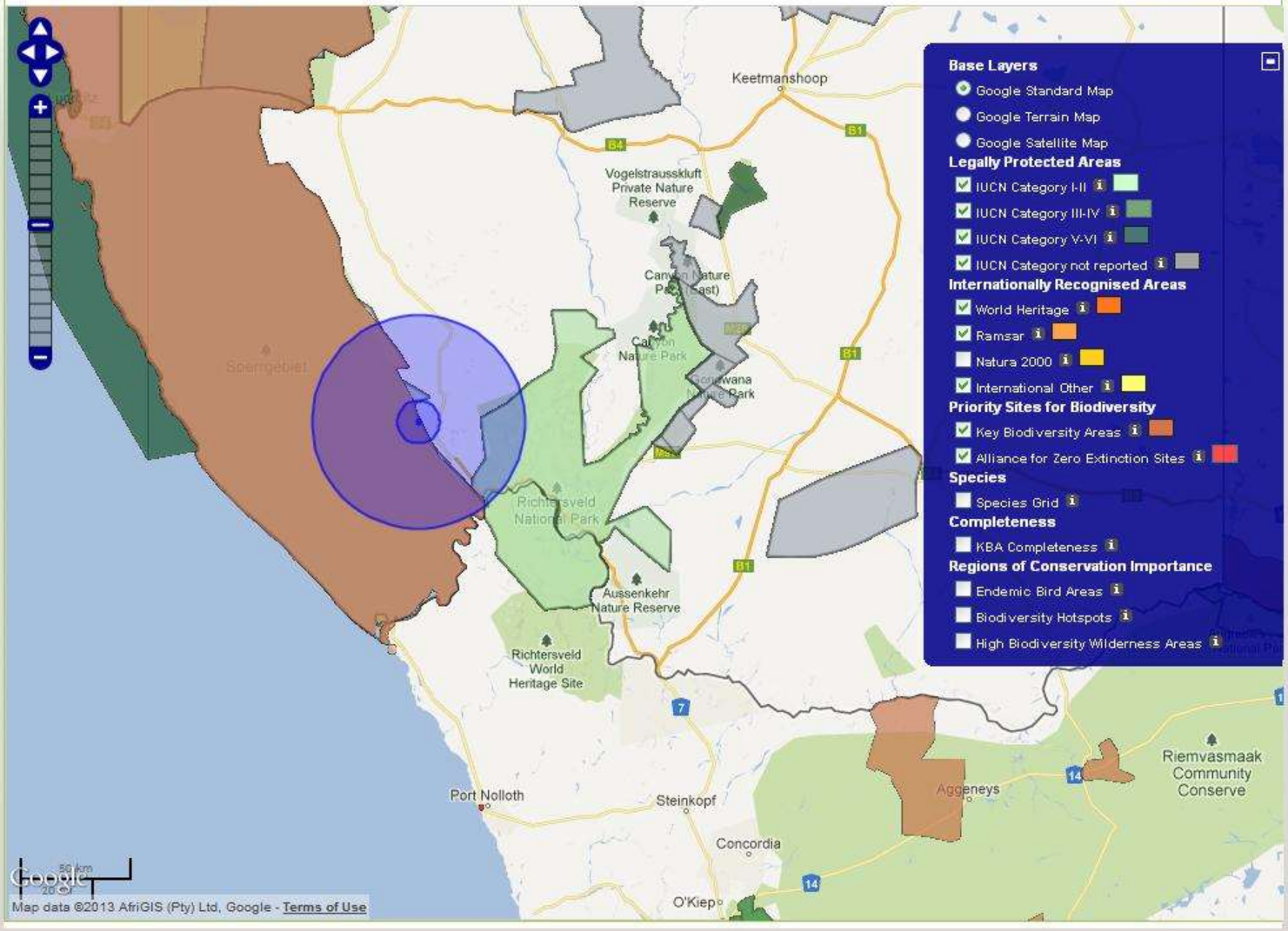

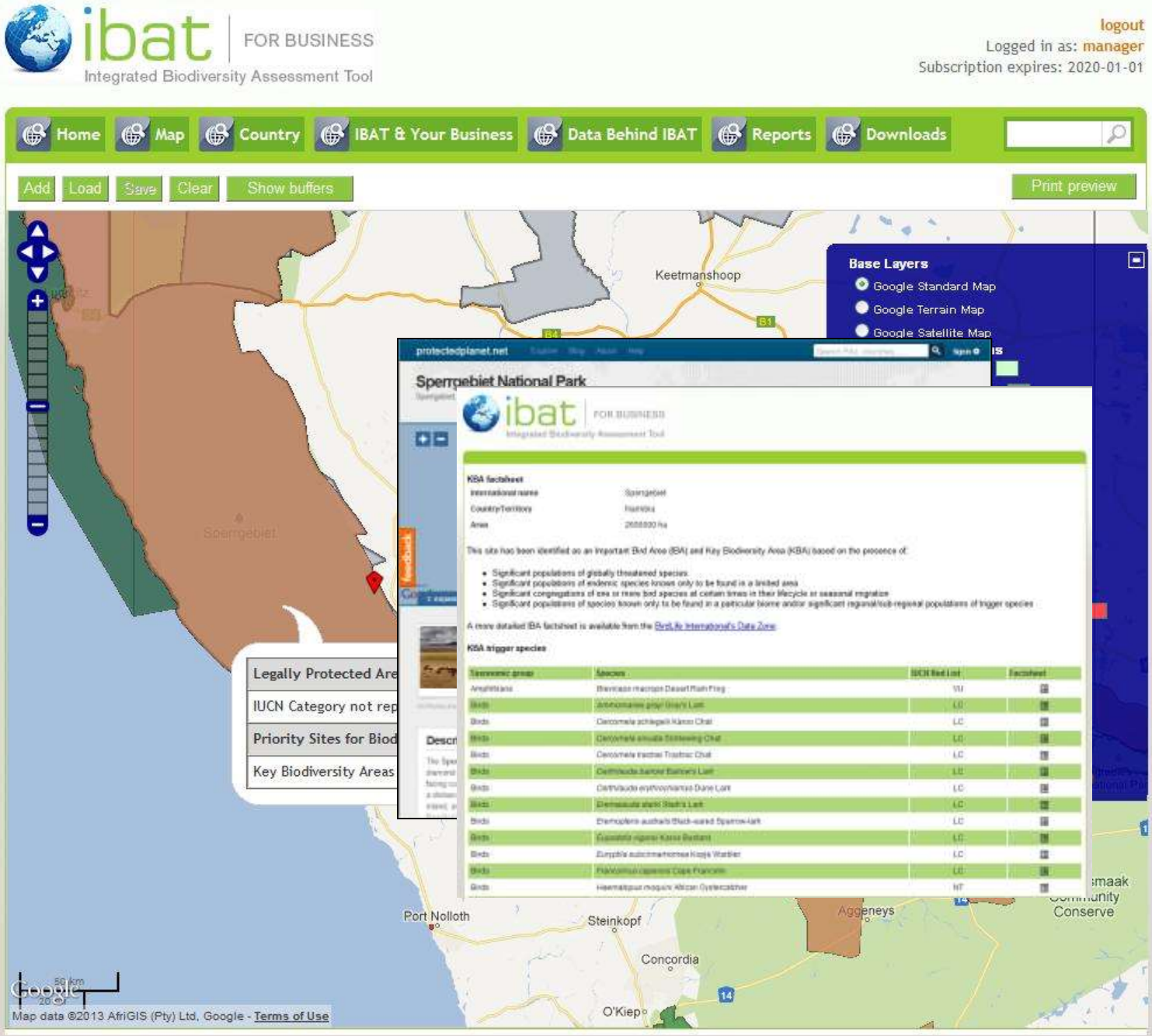
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Sperrgebiet
Sperrgebiet National Park
protectedplanet.net
KBA factsheet
Legally Protected Are
IUCN Category not rep
Priority Sites for Biod
Key Biodiversity Areas
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Steinkopf
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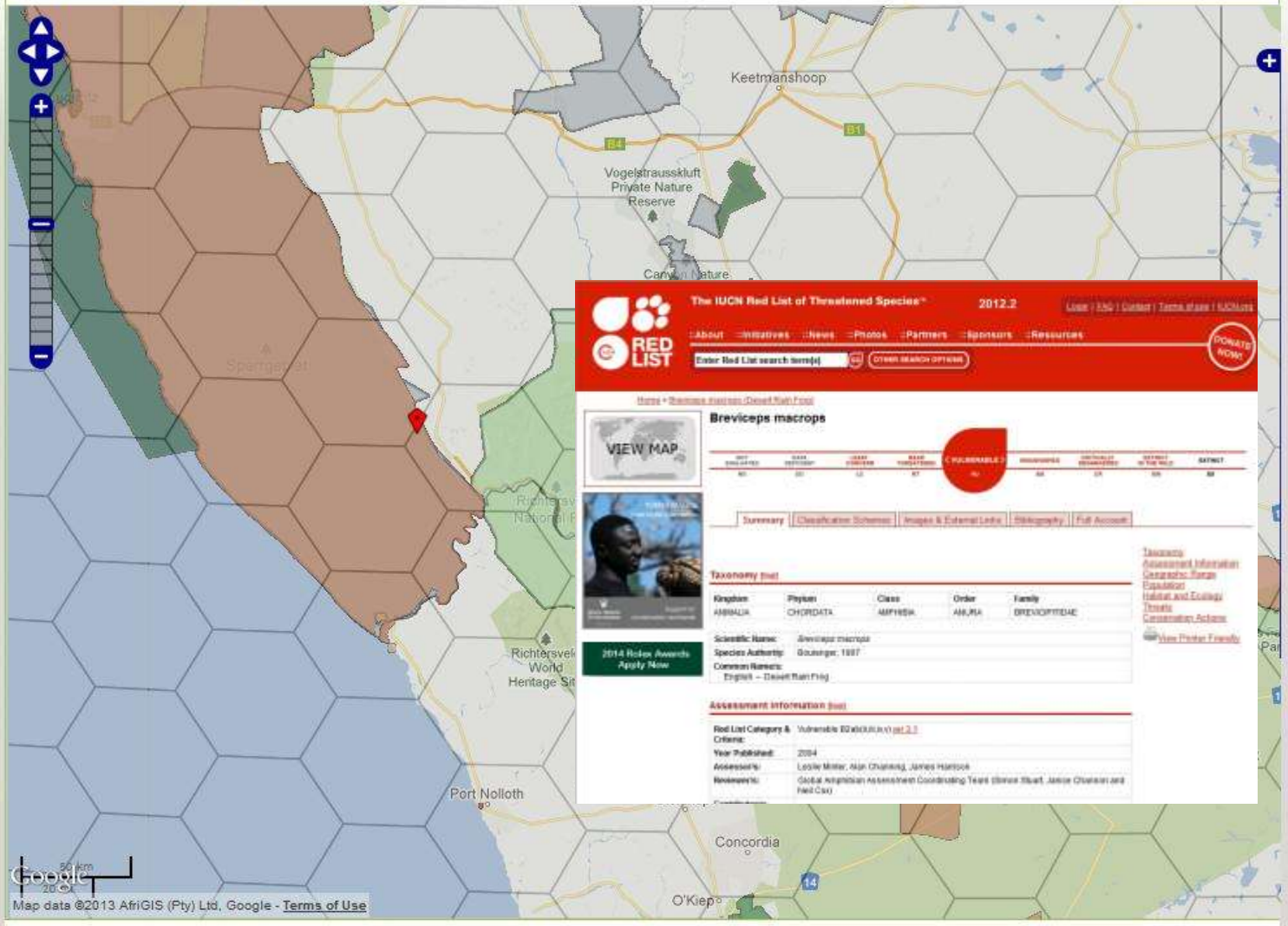

Overview report of biodiversity features

Overview Report Of Biodiversity Features

Location Conference Centre Jeju

Latitude/Longitude 33° 14' 26" North 126° 25' 27" East

About this report

This IBAT point-based intersection report identifies the Legally Protected Areas, Internationally Recognised Areas and Priority Sites for Biodiversity that are located within 1 km, 10 km and 50 km of the location.

The report provides an indication of the potential biodiversity-related features close to the location, and does not provide details of potential indirect, downstream or cumulative impacts. The user should consider this tool as an Early Warning System that can provide valuable guidance in making decisions. This information could also be used to compare with biodiversity data provided in an EIA or related assessment.

How to interpret this report

PLEASE NOTE: The distance calculations are performed by reprojecting the spatial data to an equal distance projection, and so may not match precisely the results shown on the map.

FEATURES WITHIN 1 km

Legally Protected Areas		
IUCN Category IV	Warm Temperate Forest of Cheonjeyeon Waterfall in Jeju	-

FEATURES WITHIN 10 km

Legally Protected Areas		
IUCN Category Ia	Munseom Island and Beomseom Island	10 ha
IUCN Category IV	Evergreen Forest of Andeok Valley in Jeju	-
Internationally Recognised Areas		
UNESCO-MAB Biosphere Reserve	Jeju Island	8 ha

FEATURES WITHIN 50 km

Legally Protected Areas		
IUCN Category Ia	Cha-gwido Island	7 ha
IUCN Category II	Hallasan	153 ha
IUCN Category Ia	Marado Island	7 ha
IUCN Category Ia	Mount Hallasan	67 ha

- ✓Protected areas and KBAs within 1 km, 10 km and 50 km
- ✓List of species, given suitable habitat, could potentially occur
- ✓Includes explanation and definition of all features

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ConocoPhillips
RioTinto
BARRICK
bp
Chevron
MÆRSK
eni
REPSOL
TOTAL
Statoil
PETROBRAS
bhpbilliton
Votorantim
Cimentos
LAFARGE
ExxonMobil
NEWMONT
TITAN
Mitsubishi Corporation
VEOLIA
ENVIRONNEMENT
vedanta
HEIDELBERGCEMENT
Cargill
maplecroft
Risk, responsibility and reputation
TULLOW OIL plc
Holcim
GRUPO BIMBO


IFC
International
Finance Corporation
World Bank Group


KFW


CREDIT SUISSE


Standard
Chartered

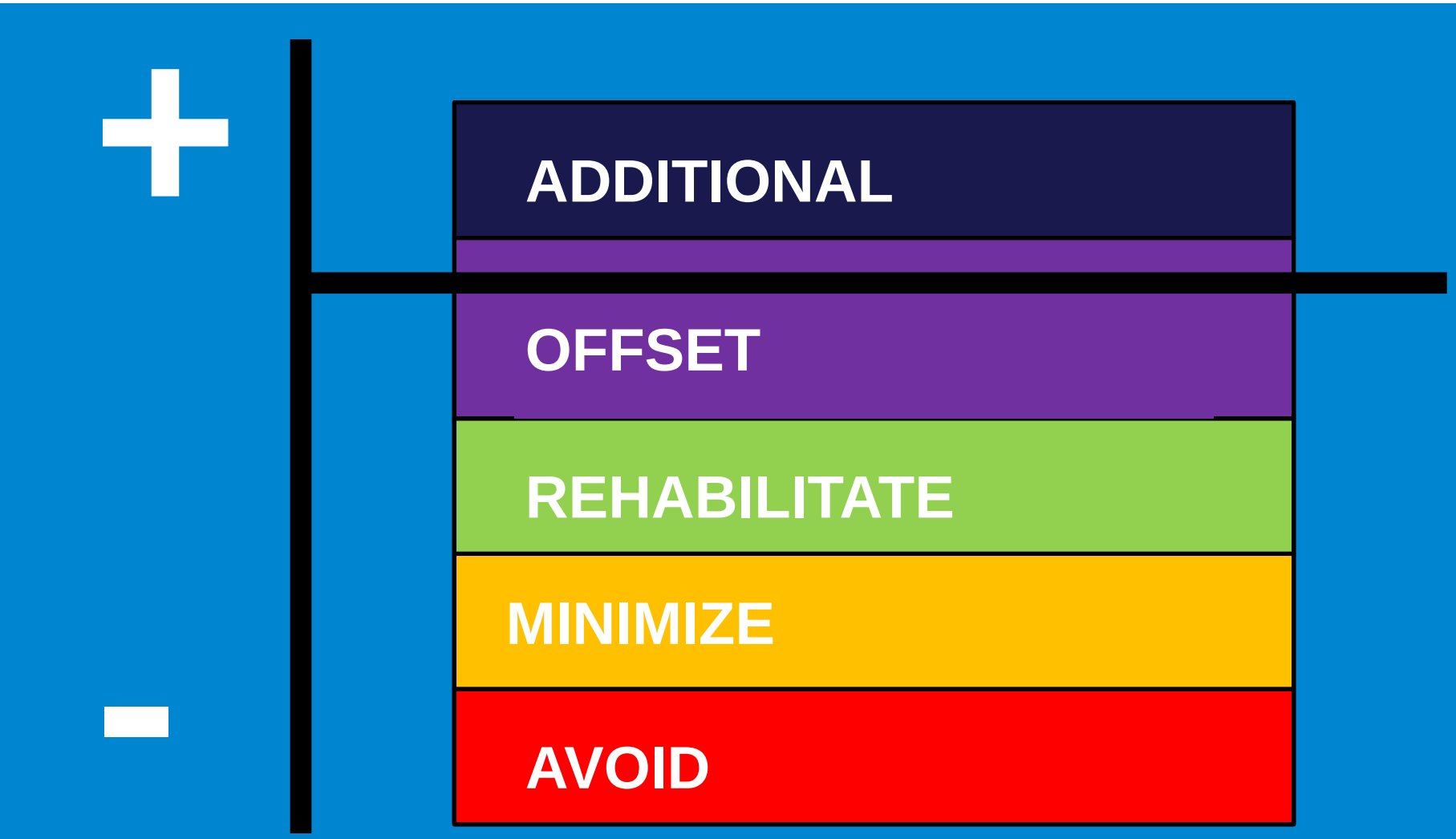

Bradesco


JPMORGAN CHASE & CO.


SOCIETE GENERALE
Corporate & Investment Banking


THE WORLD BANK
Working for a World Free of Poverty

Mitigation hierarchy and NNL/NPI



MITIGATION HIERARCHY

Government Policies on Biodiversity Offsets

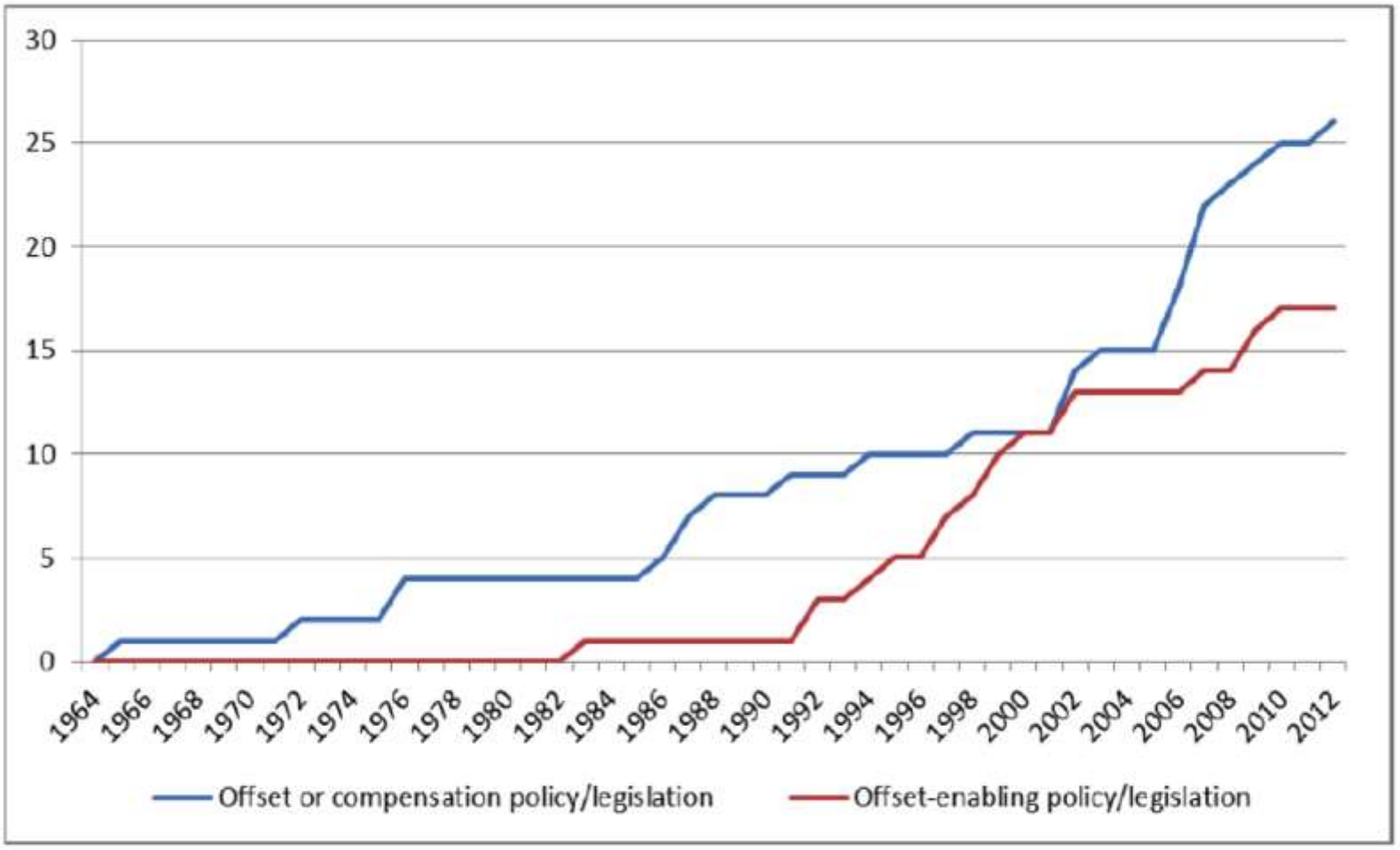


Figure 2: Rise in government policies (i) guiding or requiring offsets, and (ii) enabling offsets (e.g. within EIA laws).

Source: The Biodiversity Consultancy, 2012 (www.biodiversityconsultancy.com)

Government Policies on Biodiversity Offsets

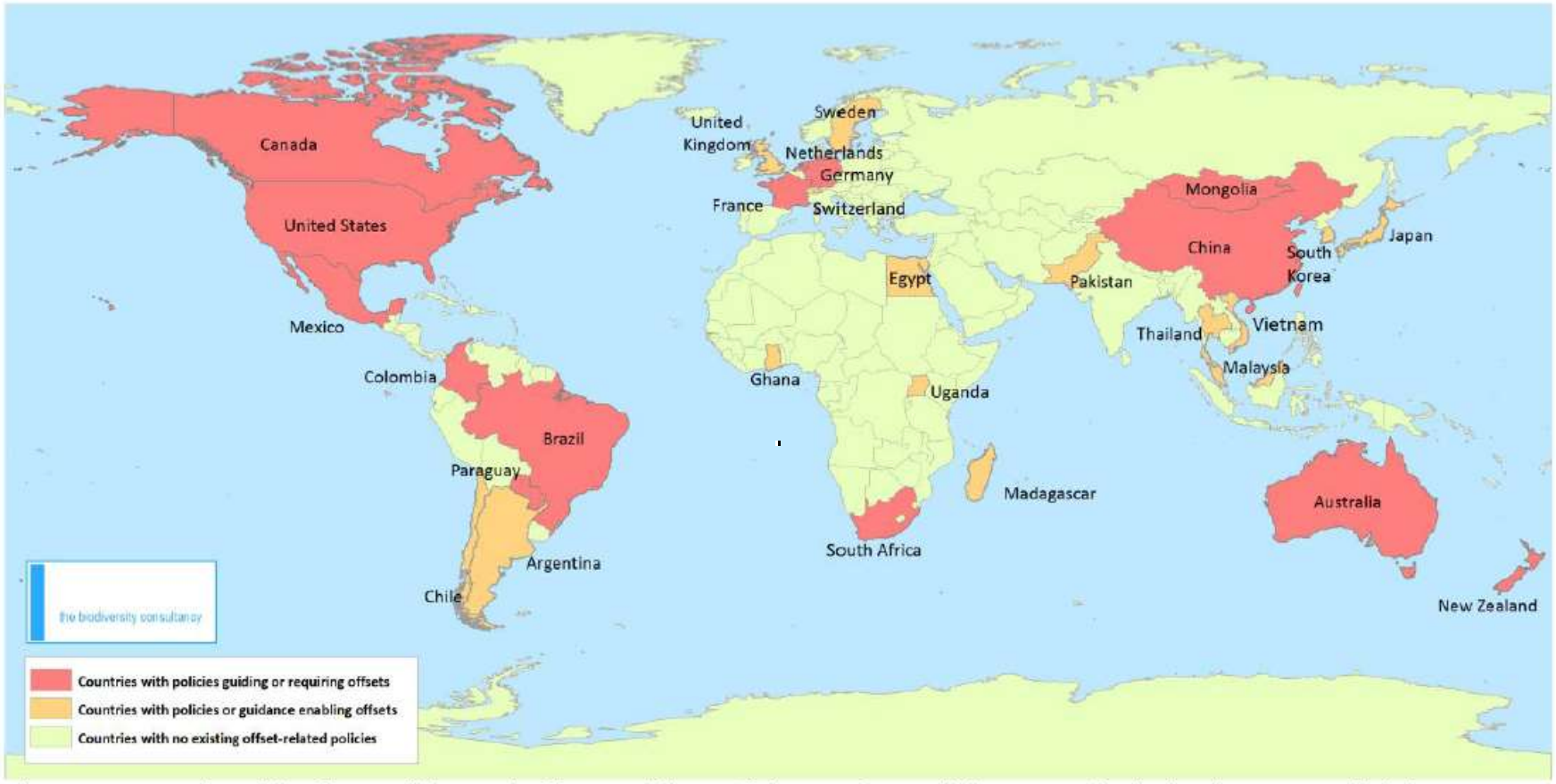


Figure 1: Countries with offset policies and offset enabling policies. Further policies may exist in development which have not been identified in the current research programme.

Source: The Biodiversity Consultancy, 2012 (www.biodiversityconsultancy.com)

No Net Loss Commitments

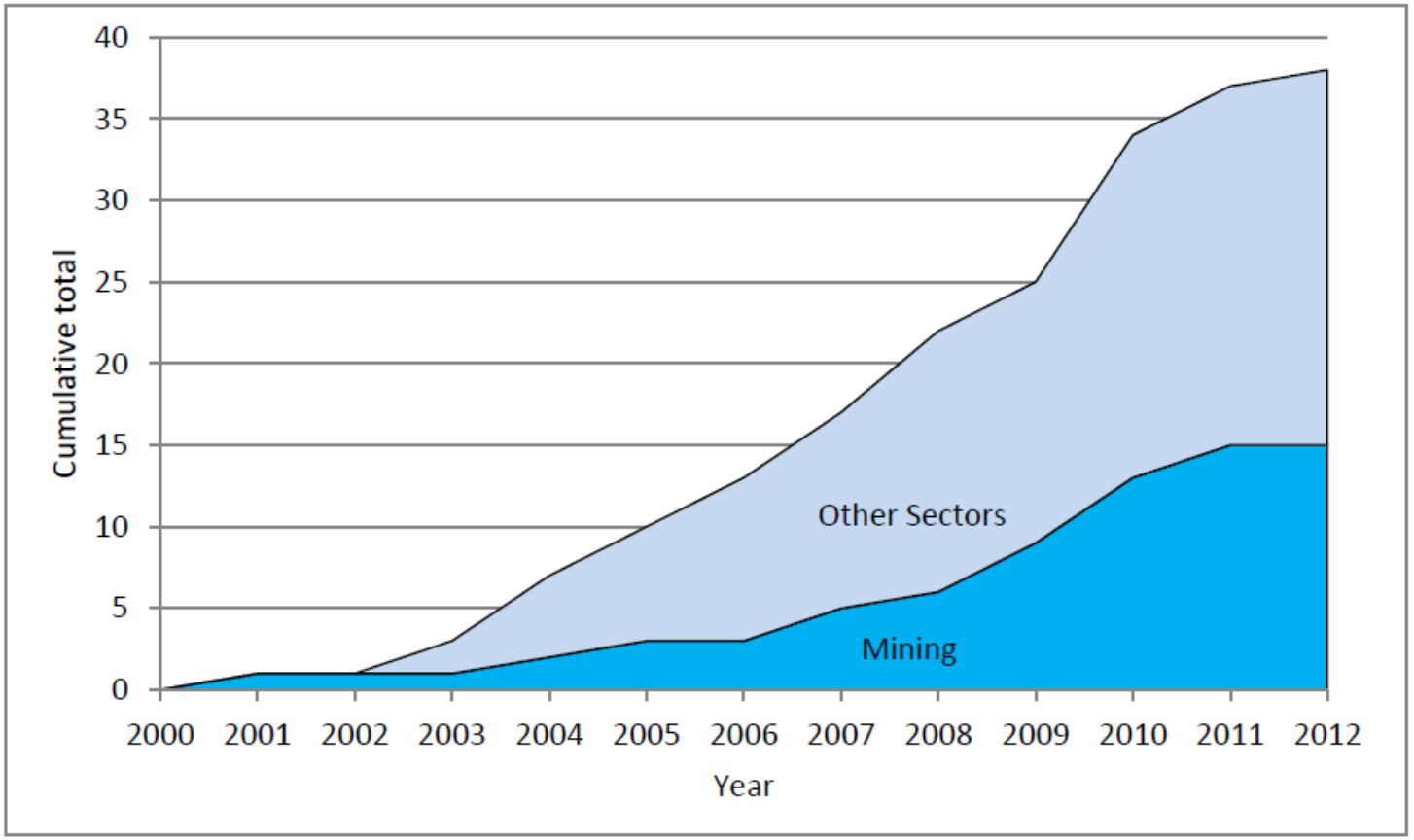


Figure 1: Growth in the number of companies with public company-wide commitments/aspirations to No Net Loss of biodiversity.

Source: The Biodiversity Consultancy, 2012 (www.biodiversityconsultancy.com)

Closing remarks

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Integrated Biodiversity Assessment Tool

- ☑ Access credible, trusted, up-to-date key data
- ☑ Screen investments for environmental risks
- ☑ Proactively manage & minimise environmental risks
- ☑ Reach sustainability goals
- ☑ Fulfil CSR commitments & reporting requirements (GRI)
- ☑ Inform critical decisions

For more information please contact Martin Sneary (martin.sneary@iucn.org)

Lunch

Programme

Time	Duration	Topic
13.00	60	Lunch
14.00	30	Developing partnerships
14.30	60	Interactive system analysis
15.30	30	Tea break
16.00	30	Introduction of Leaders for Nature & Natural capital roadmap
16.30	45	Developing action plans
17.15	45	Wrap up and evaluation
18.00		End

COMPANIES DISCUSSING BIODIVERSITY RELATED WORK AND CHALLENGES IN SMALL GROUPS

Ms. Bette Harms, Coordinator LfN Academy, IUCN NL

	Business	value chain partners Governmental bodies	IUCN and its members
Knowledge			
Legislation and regulation			
Values & norms			
Interaction			
Market structure			

THE NATURAL CAPITAL ROADMAP

Ms. Romie Goedicke, Advisor Business & Biodiversty

Mother Nature’s Invoice

Natural Capital Road Map

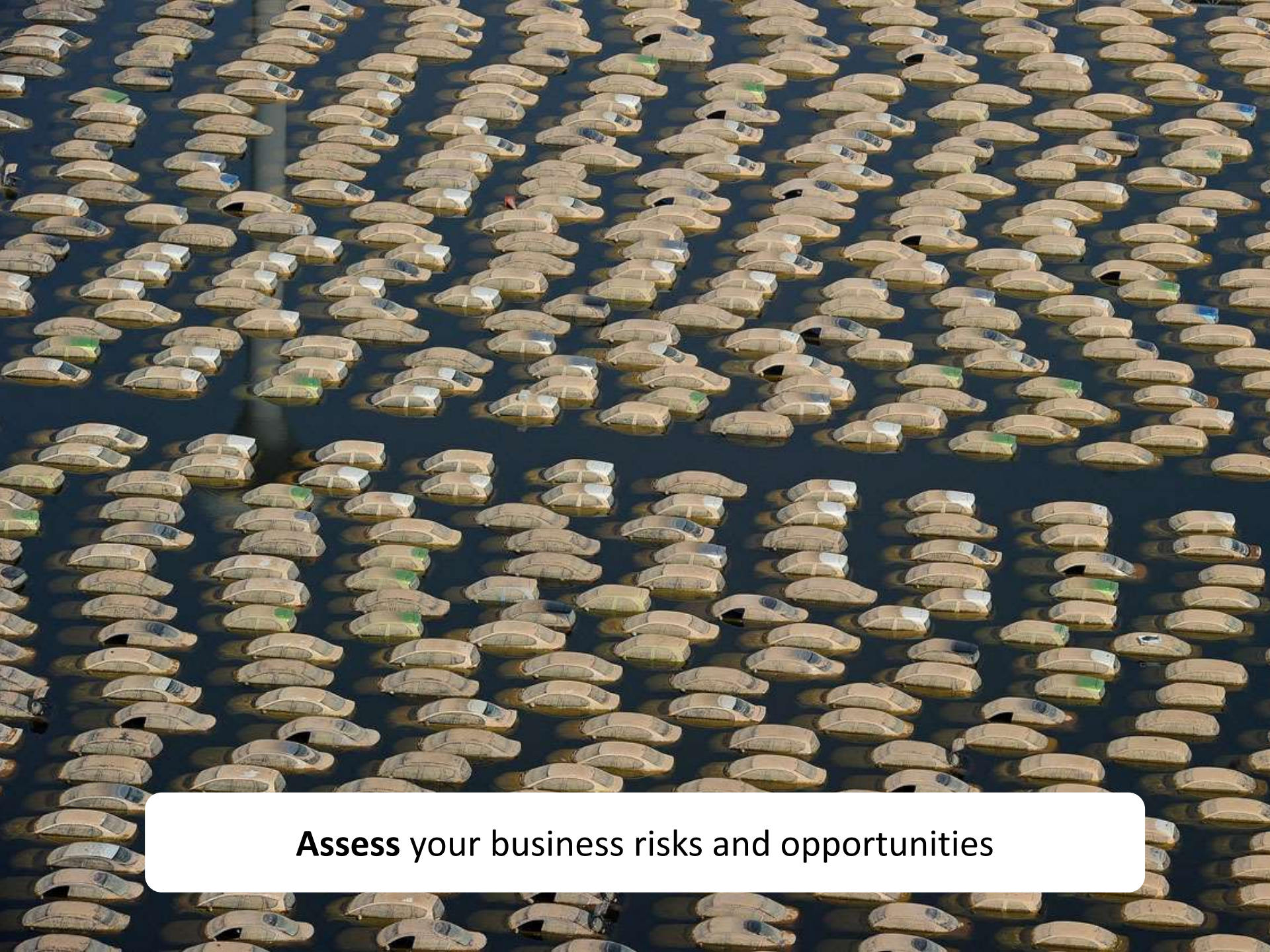
1. **Identify**
2. **Assess**
3. **Measure**
4. **Take action**
5. **Integrate**
6. **Engage**

Six steps to future-proof your business

Leaders for Nature

IUCN National Committee of The Netherlands

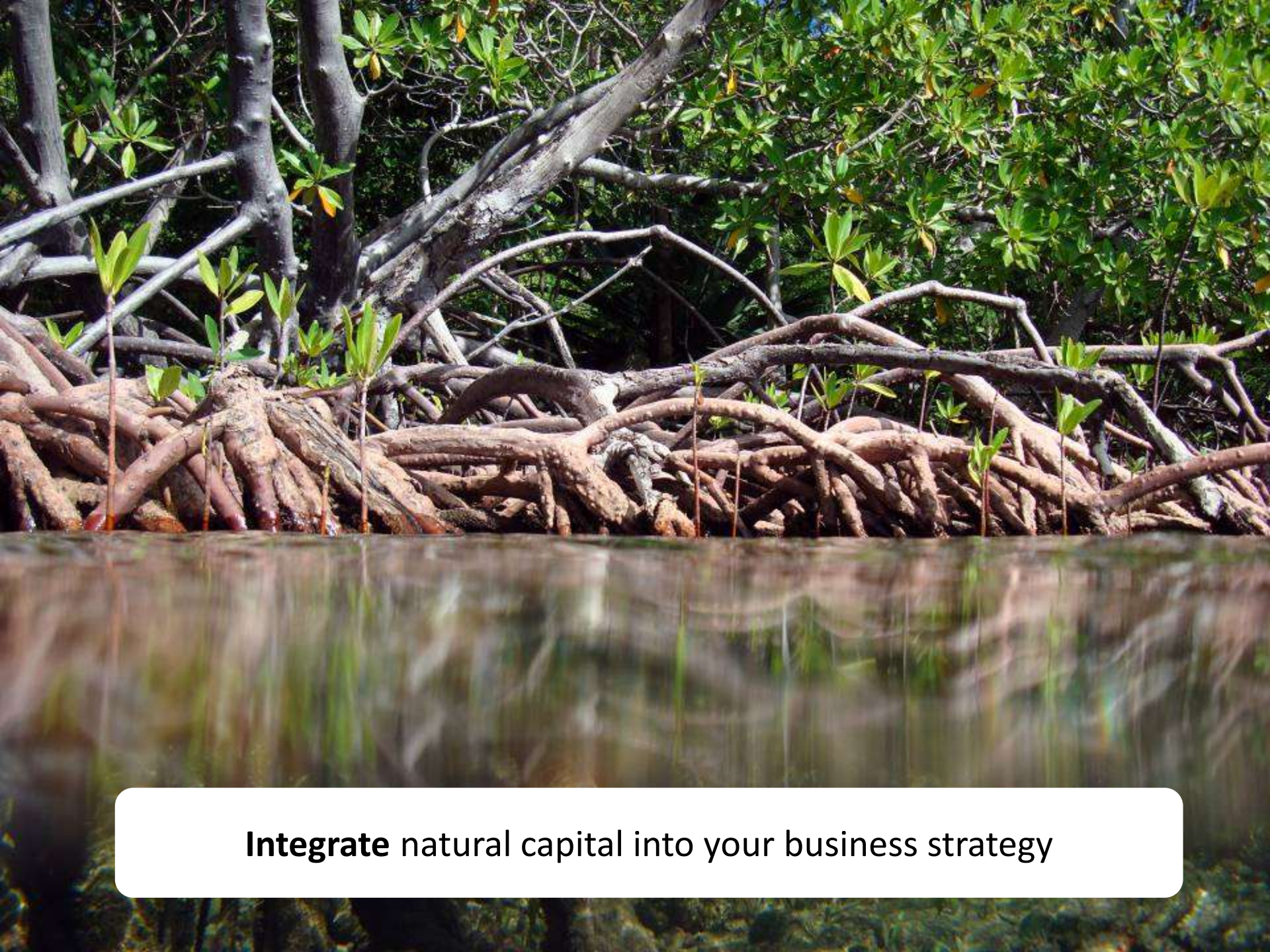
Identify your impacts and dependencies on natural capital



Assess your business risks and opportunities

Measure and report on your impacts and dependencies

Take action to reduce your risks and capture opportunities



Integrate natural capital into your business strategy

"Coming together is a beginning; keeping together is progress; *working together* is success."

Engage and jointly realize the transition towards a green and sustainable economy

INTRODUCTION LEADERS FOR NATURE

What does LfN offer

- Network and platform: to exchange experiences, to ensure peer-to-peer learning and thereby creating new collaborations and (joint) projects:
  - ✓ Forum and tailored meetings
  - ✓ Online platform
  - ✓ Facilitating policy advise
  - ✓ Connecting IUCN NL members, civil society partners worldwide, natural capital experts, and LfN members.

What does LfN offer

- <u>Project support and advice:</u>
  - ✓ Supporting the set-up and execution of (joint) projects, from identifying impact to monitoring and evaluating progress.
  - ✓ IUCN NL provides leading expertise on natural capital in these projects and partners in many area's around the world where impacts & dependencies are linked to area's of key biodiversity value.

What does LfN offer

- <u>Knowledge and training:</u> supporting the integration of natural capital within core business strategy and operations by offering

  - ✓ The key knowledge products of IUCN and its members
  - ✓ Leading expertise and experts on natural capital, governance and resource efficiency from our LfN and international network.

What does LfN offer

- Inspiration:
  - ✓ connecting its members with like minded-companies and thought leaders in the field
  - ✓ regularly and effectively communicating about relevant developments and best practices
  - ✓ the creation of flagship projects and the direct exposure to the work of IUCN and its members to conserve nature at local and global level.

Steering Committee Members

IUCN

Confederation of Indian Industry

Hivos people unlimited

Wildlife Trust of India

Leaders for Nature

IUCN National Committee of The Netherlands

ACTION PLANS

Exercise for developing your companies action plan

- What is the relevance of natural capital for your sector?
- Asses your sector’s developments on each of the steps
- Identify the main opportunities & priorities for your sector with the help of the system analysis
- What steps could you and CSI undertake next?

Wrap up and evaluation

Objectives for the training

- ✓ Introduction to concepts of biodiversity, ecosystems, ecosystem services, environment and sustainability
- ✓ Understanding of global biodiversity trends and drivers of change
- ✓ Knowledge of the business case for managing ecosystems
- ✓ Learning to assess the impacts and dependency of companies on biodiversity and ecosystem services
- ✓ Demonstration of tools to measure impacts and dependencies
- ✓ Draft a action plan on natural capital

Write a letter to yourself…

- What will you do with the lessons you have learned?
- When?
- With whom?
- Why?
- What will be the result?
- Who will help you evaluate?

Evaluation

- Have we achieved your objectives?

Key References

- IUCN Business and Biodiversity Program http://www.iucn.org/about/work/programmes/business/ and http://cmsdata.iucn.org/downloads/nature_is_our_business_web_version.pdf
- IUCN Asia Business and Biodiversity http://www.iucn.org/about/union/secretariat/offices/asia/elg/bbp/
- IUCN NL Leaders for Nature http://www.leadersfornature.nl/ and http://vimeo.com/67058556
- IUCN and Holcim Biodiversity relationship http://www.iucn.org/about/work/programmes/business/bbp_work/by_engagement/bbp_holcim/
- WBCSD. BET - Business Ecosystems Training - http://www.wbcsd.org/bet.aspx
- WBCSD; IUCN; WRI, ERM, PWC Guide to Corporate Ecosystem Valuation (CEV) http://www.wbcsd.org/work-program/ecosystems/cev.aspx
- WRI; WBCSD, Meridian: Corporate Ecosystem Services Review http://www.wri.org/project/ecosystem-services-review
- WBCSD. Responding to the Biodiversity Challenge: Business contributions to the Convention on Biological Diversity – http://www.wbcsd.org/work-program/ecosystems/ecosystems-training-tools.aspx
- WBCSD. Vision 2050 and Pathways to 2050
- Millennium Ecosystem Assessment. 2005. Ecosystems and Human Well-being: Opportunities and Challenges for Business and Industry – http://www.maweb.org/documents/document.353.aspx.pdf
- Millennium Ecosystem Assessment, 2005. Ecosystems and Human Well-being: Synthesis – http://www.maweb.org/documents/document.356.aspx.pdf
- TEEB – http://www.teebweb.org/
- TEEB for business – http://www.teebweb.org/Portals/25/Documents/TEEB%20for%20Business/TEEB%20for%20Bus%20Exec%2

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Thank you!
bette.harms@iucn.nl