wbcsd business ecosystems training

BET Module 4

Managing and Mitigating Impacts

Main Presentation

February 2012

Business Ecosystems Training – Contributors

All content is based on WBCSD material and publically available reports.

BET curriculum and structure was designed by KPMG

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.

Session 1
Icebreaker and Introduction

[Option 1]

Module 4: Managing and Mitigating Impacts

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Session 1
Introduction

[Option 2]

Module 4: Managing and Mitigating Impacts

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Icebreaker and Introduction (cont.)

[Option 1]

a) Your current role and scope of work

b) Your knowledge of how to measure ecosystem impact

c) What you want to learn from the course and Module 4

5 minutes

Icebreaker and Introduction

[Option 2]

- Catch the ball!!!

Introduction

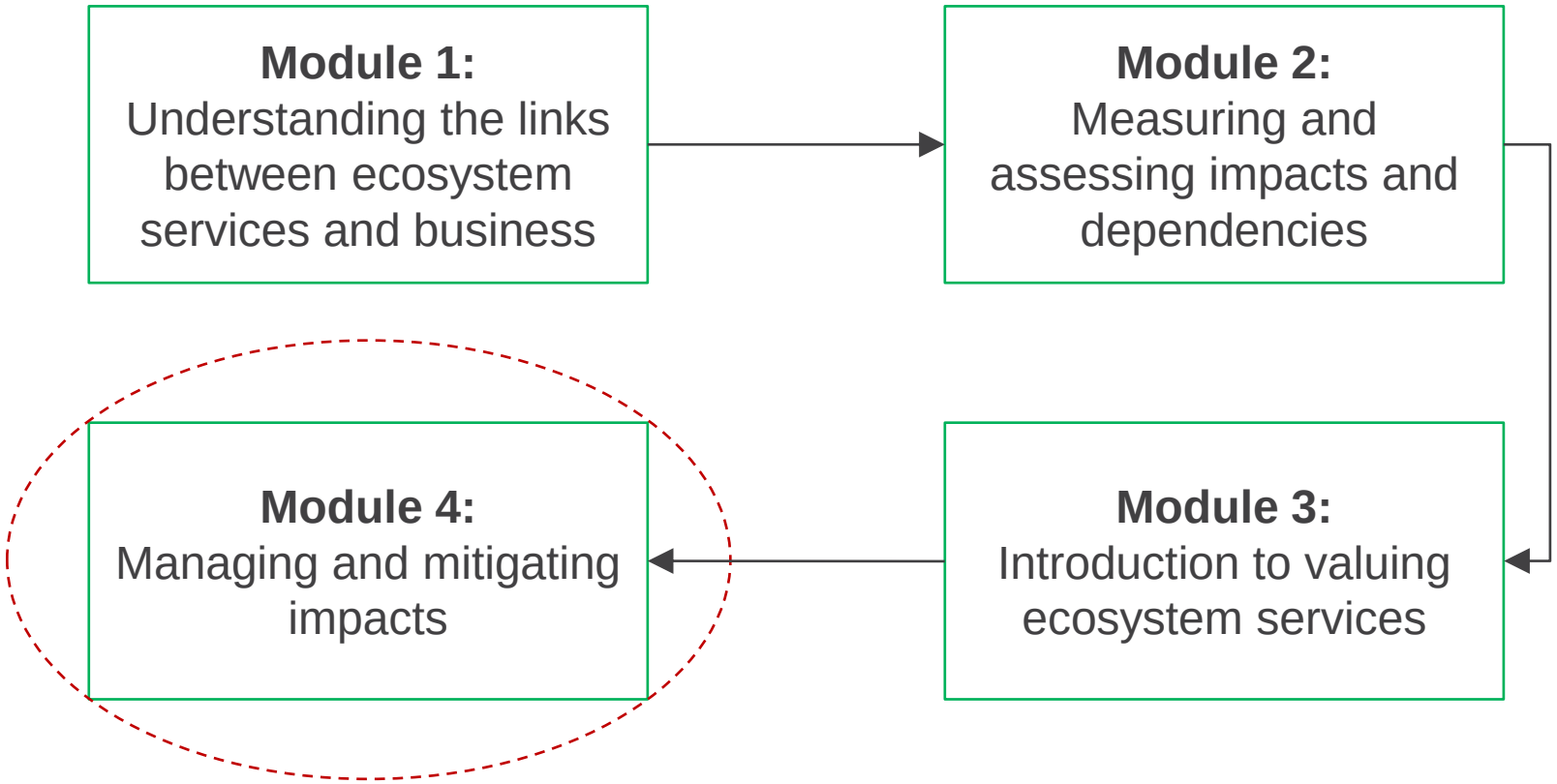
[Option 3]

Please discuss:

- What you hope to learn from Module 4?

5 minutes

Where does Module 4 sit within the broader training available?



Module 1 – Recap [optional module re-cap]

- Understand the basics
- Drivers for change and business impacts and dependencies
- Links with sustainability
- Business case for action
- Policy and regulatory frameworks

Module 2 – Recap [optional module re-cap]

- Understand the basics
- Policy and regulatory frameworks
- The business case for action
- Introduction to Ecosystem Services Review (ESR)
- Introduction to tools, frameworks and methodologies

Module 3 – Recap [optional module re-cap]

- Understand the basics
- Policy and regulatory frameworks
- The business case for action
- Introduction to Corporate Ecosystem Valuation (CEV)
- CEV screening and supporting tools and methodologies

Module 4 – Objectives

By the end of the module, delegates should be able to:

1. Define key policies and policy mechanisms for addressing and mitigating environmental impact, and enhancing business practice for better management.
2. Identify the business case for managing and mitigating impacts.
3. Apply the mitigation hierarchy, i.e. develop ideas on how their company can mitigate, offset and provide compensation for their impacts
4. Identify how regulatory frameworks and policy mechanisms relate to delegates' employers through action planning.

Module 4 – Summary

- Understand the basics
- Policy and regulatory trends
- The mitigation hierarchy
- Compensation and offsetting
- Reporting and indicators
- Current policies and regulations

Module 4

Time	Duration (mins)	Session	Trainer
	10-40	Session 1: Icebreaker and introduction	
	20	Session 2: Basic concepts	
	10	Session 3: Introduction to policy trends	
	45	Session 4: Applying the mitigation hierarchy	
	30	Coffee Break	
	10	Session 5: Knowledge check	
	40	Session 6: Compensation and offsetting	
	25	Session 7: Reporting and Indicators	
	20	Session 8: Policy framework	
	15	Session 9: Knowledge share	
	10-25	Session 10: Wrap up	
End training			

Company commitments

Rio Tinto :

" Our goal is to have a net positive impact on biodiversity by minimizing the negative impacts of our activities and by making appropriate contributions to conservation in the regions in which we operate."

Source: http://www.riotinto.com/documents/ReportsPublications/RTBidoversitystrategyfinal.pdf

PepsiCo:

"Striving for "positive water balance" in our operations in water-distressed areas"

Source: http://www.pepsico.com/Download/Positive_Water_Impact.pdf

Walt Disney :

"Long term objective of having a net positive impact on ecosystems"

Source: http://corporate.disney.go.com/citizenship2010/environment/overview/ecosystems/

Company commitments

Sony:

"Sony strives to achieve a zero environmental footprint throughout the lifecycle of our products and business activities."

Source: http://www.sony.net/SonyInfo/csr/environment/management/gm2015/index.html

Walmart:

"A pledge: to protect one acre of conservation land for every acre occupied by Walmart's US facilities."

Source: http://walmartstores.com/Sustainability/5127.aspx

The Coca-Cola company:

"Work to safely return to nature and communities an amount of water equivalent to what we use in our beverages for their production" (by 2020).

Source: http://www.thecoca-colacompany.com/citizenship/water_main.html

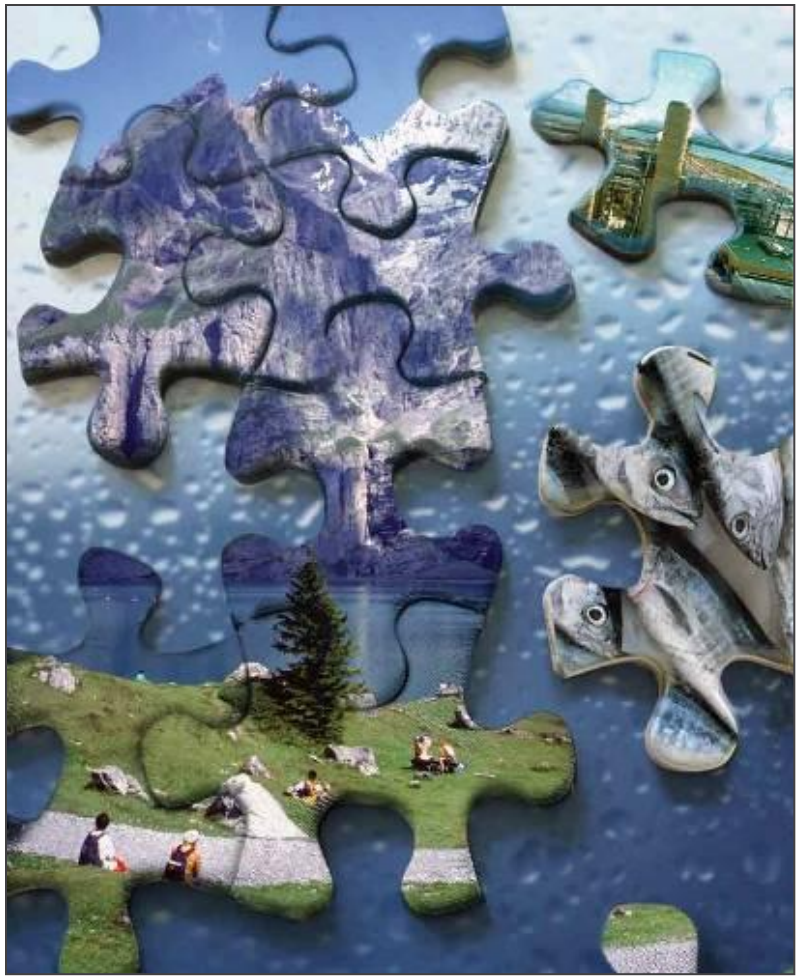
Kimberly-Clark:

"100% of the virgin wood fiber to be sourced from certified supplier by 2015 (FSC Certification)"

Source:

http://www.cms.kimberly-clark.com/UmbracoImages/UmbracoFileMedia/2010SustainabilityReport_umbracoFile.pdf

Ecosystems as an economic part of infrastructure



Business should think of ecosystems as:

- Valuable assets and natural capital
- Elements of basic infrastructure
- Supporting production, consumption, trade and investment

Conventional definitions of infrastructure often omit natural ecosystems.

It pays to value and invest in ecosystems as economic infrastructure.

Source: WBCSD, Connecting the dots

Session 2
Basic Concepts

Module 4: Managing and Mitigating Impacts

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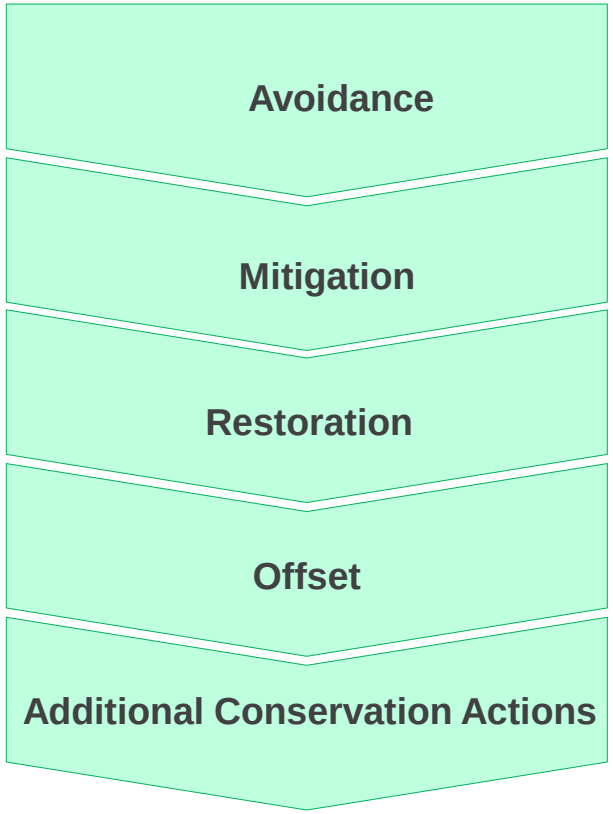
The mitigation hierarchy

- Mitigation = actions to manage expected environmental impacts in a responsible way
- The ‘mitigation hierarchy’ concept suggests 5 steps
- Biodiversity offsetting system in the US and some other countries



Source: WBCSD, CEV helpdesk presentation July 2011

Biodiversity offsets

Measurable conservation outcomes resulting from:

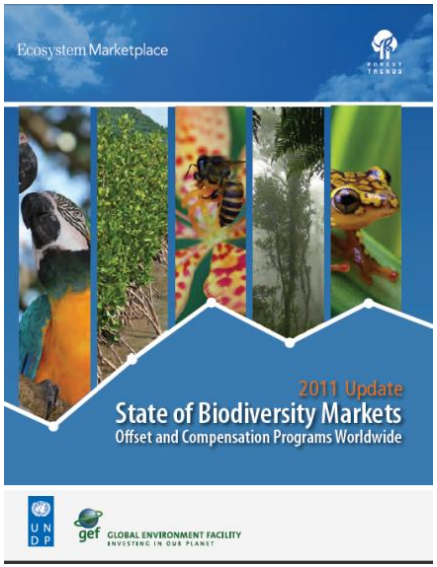
- Compensation for significant residual adverse biodiversity impact
- In particular, those that persist even after appropriate prevention and mitigation measures

The goal of biodiversity offsets is to achieve:

- No net loss, or preferably net gain, of biodiversity

Biodiversity markets - overview

- 45 compensatory mitigation programs (banks and offsets), 27 in development.
- Numerous individual offset sites (over 1,100 banks).
- Global annual market size min. US$ 2.4-4.0 billion. Likely much more (80% of programs not transparent enough to estimate market size).
- Conservation impact >187,000 hectares annually.
- North America dominates: US$ 2.0-3.4 bn. >15,000 ha annually. 0.5m ha cumulatively.



Source: Madsen et al, *Ecosystem Marketplace* (June 2011)

Biodiversity offsets - Example

Australia – BushBroker scheme

- BushBroker – a government operated broker
- Government start-up funding, now in cost recovery
- First trade in May 2007
- Regulation of native vegetation clearing
- The scheme generates offsets, with over $34 million traded to date
- The scheme also allows for ‘banking’ of credits for future use

Photo Credit: Bush Brokers

Source: BBOP, Within The Mitigation Hierarchy

Payments for Ecosystem Services (PES)

Key messages

- PES can help mitigation or management of risks where dependencies on ecosystem services are identified
- PES can provide opportunities for new revenue streams if businesses identify where they are providing ecosystem service benefits to others
- Proactive engagement in PES-like schemes can help to avoid unforeseen costs of regulation

Payments for Ecosystem Services (cont.)

Example of PES

The Equitable Payments for Watershed Services Program (EPWS) – Tanzania

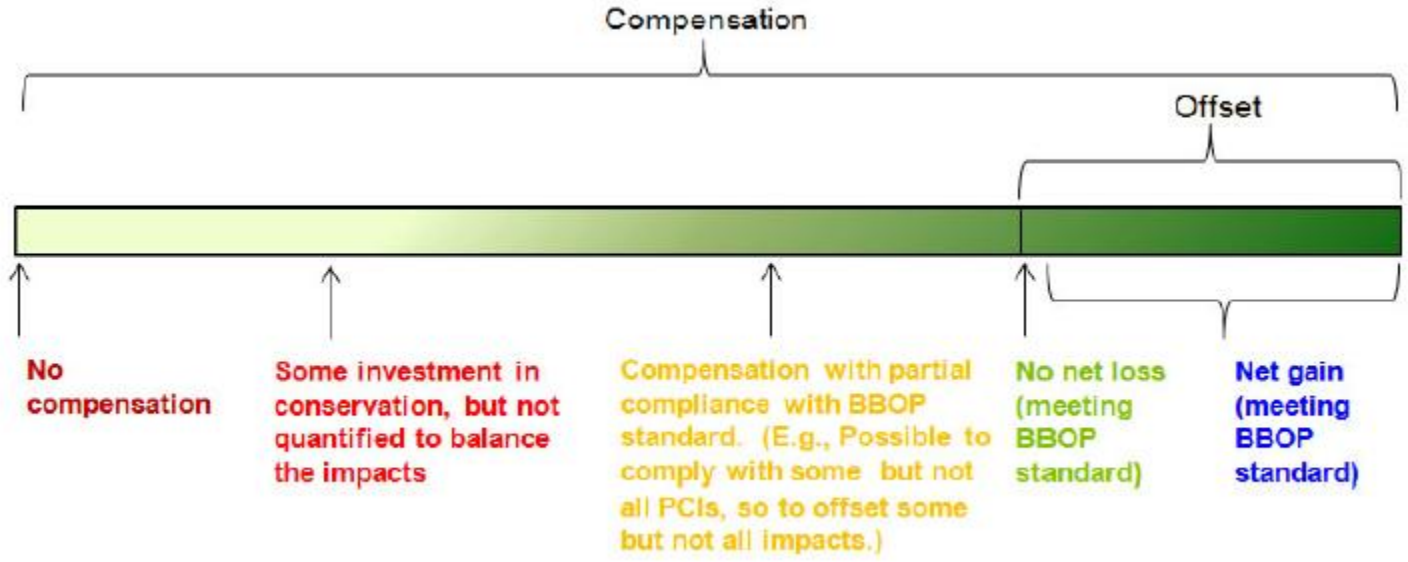
- Uluguru and East Usambara mountains – Ruvu and Sigi River basins are major water source to cities the cities of Dar es Salaam and Tanga
- Dar es Salaam provides water to 4 million inhabitants and 80 per cent of industries
- Public water utility spends nearly US $2 million a year on water treatment due to increased sediment load in Ruvu River
- EPWS aims to improve supply for downstream users by compensating upstream users (e.g. farmers) to manage their land-use, which in turn controls soil erosion and has other sustainability benefits.
- As of 2008, DAWASCO and Coca-Cola have enrolled over 450 farmers

Photo Credit: PRESA

Compensatory measures

In terms of biodiversity

"Compensation involves measures to restore, create, enhance, or avoid loss or degradation of a community type, in order to compensate for residual impacts on it and/or its associated species."



Sources:
BBOP glossary, http://bbop.forest-trends.org/guidelines/glossary.pdf
BBOP Standard on Biodiversity Offsets, http://bbop.forest-trends.org/guidelines/Standard.pdf

Example of international mechanism under development

The Green Development Initiative (GDI)

- Originally the Green Development Mechanism (renamed October 2011)
- Response to 10th Conference of the Parties of the Convention on Biological Diversity (CBD COP10)
- “Innovative international finance for biodiversity”
- Aims to establish an international standard and certification scheme for CBD-compliant land management.

Procurement policies (managing supply chain)

Sustainable procurement is the process by which organizations buy supplies and services taking into consideration the best value for money and the environmental and social aspects that the product/service has over its whole life cycle.

Some examples:

- Belgian Government Procurement Policy
- German Procurement Policy
- Greenpeace's Responsible Procurement Policy
- International Finance Corporation (IFC) Procurement Policy
- Kimberly-Clark
- Sompo Japan
- Unilever

Green Development

The Green Economy

"A Green Economy is one that results in improved human well-being and social equity, while significantly reducing environmental and ecological scarcities." **UNEP**

Green Growth

"Green growth means fostering ***economic growth*** *and development, while ensuring* ***that natural assets continue to provide the resources and environmental services*** *on which our well-being relies."* **OECD**

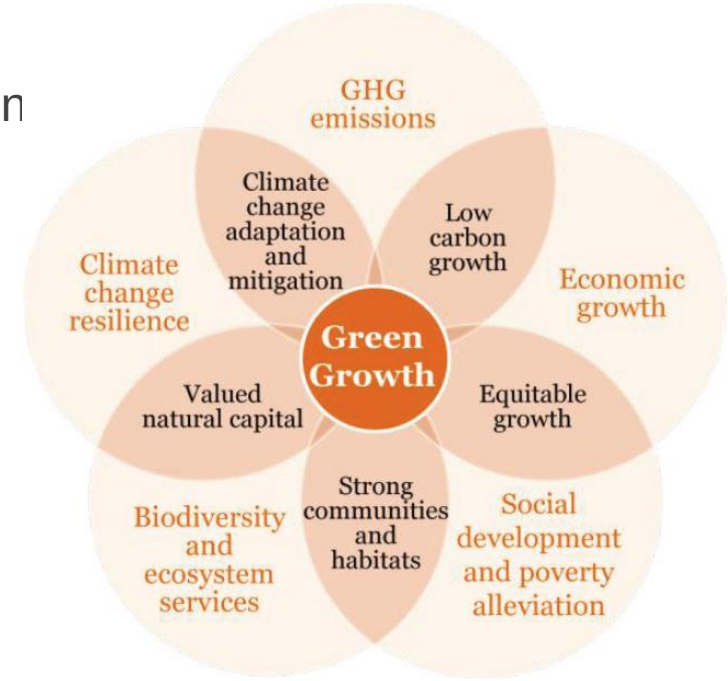
Green Growth builds on the concept of ***sustainable development***, but the emphasis is more on the environmental aspect as opposed to the social.

Source: WBCSD, CEV helpdesk call (September 2011)

Green Development (cont.)

5 Dimensions for Green Growth

- Climate change adaptation and mitigation
- Low-carbon growth
- Equitable growth
- Strong communities and habitats
- Valued natural capital



Source: PwC and WWF

Session 3
Introduction to policy trends

[Optional session]

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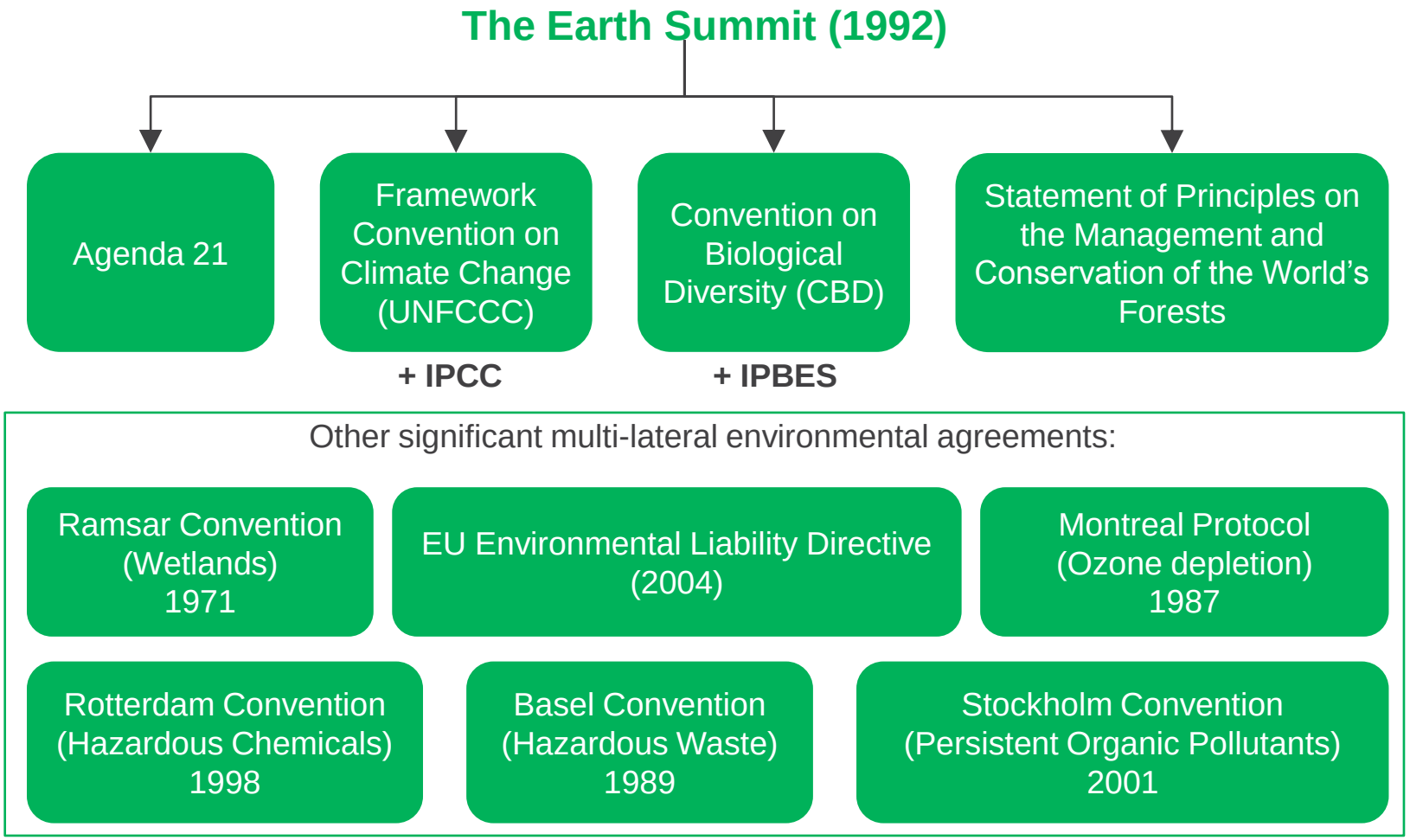
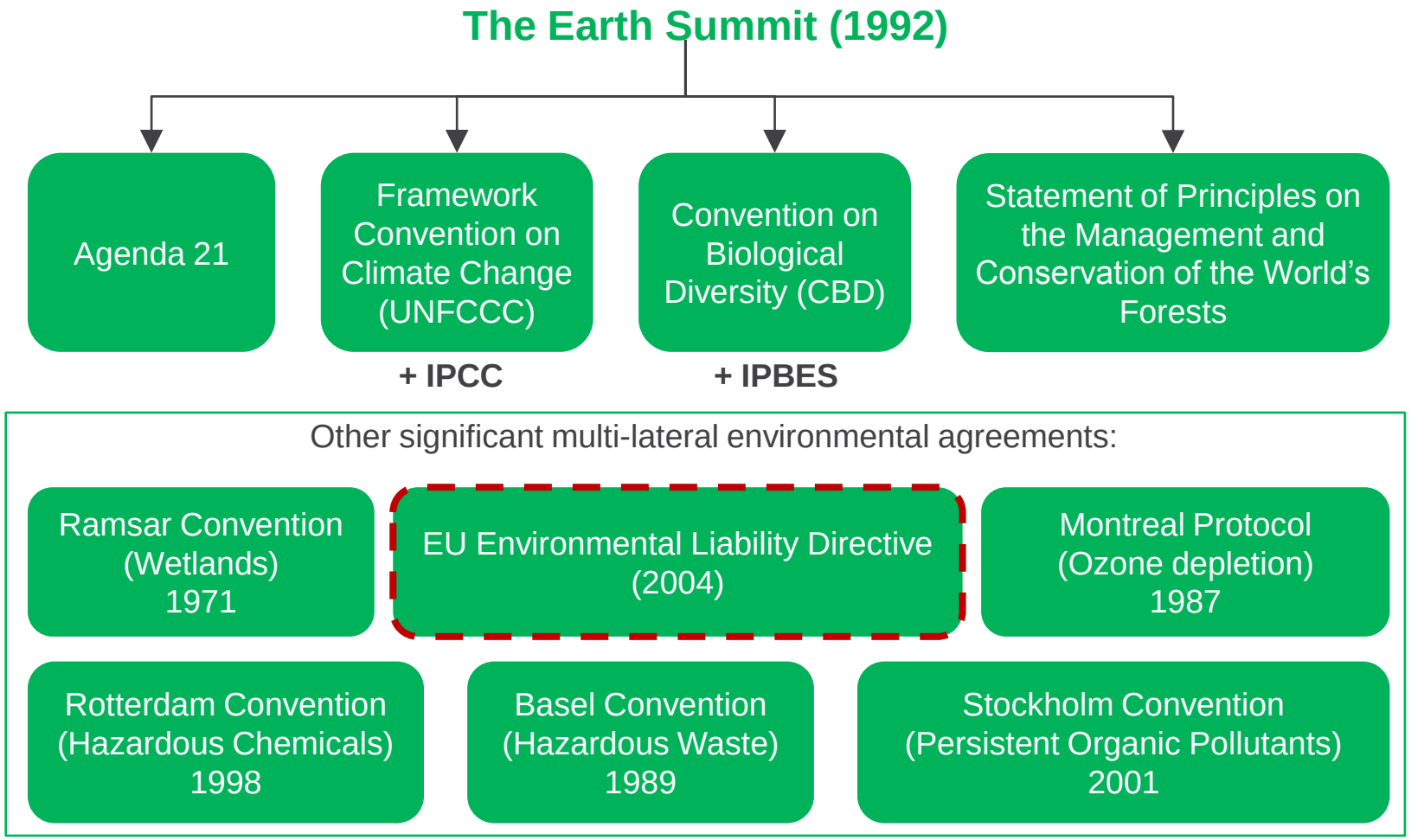
Background to ecosystem policy

- **Long history of environmental policy**
  A. 1388 water pollution guidance
  B. UK Alkali Act of 1863 limits industrial pollution
- **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'**

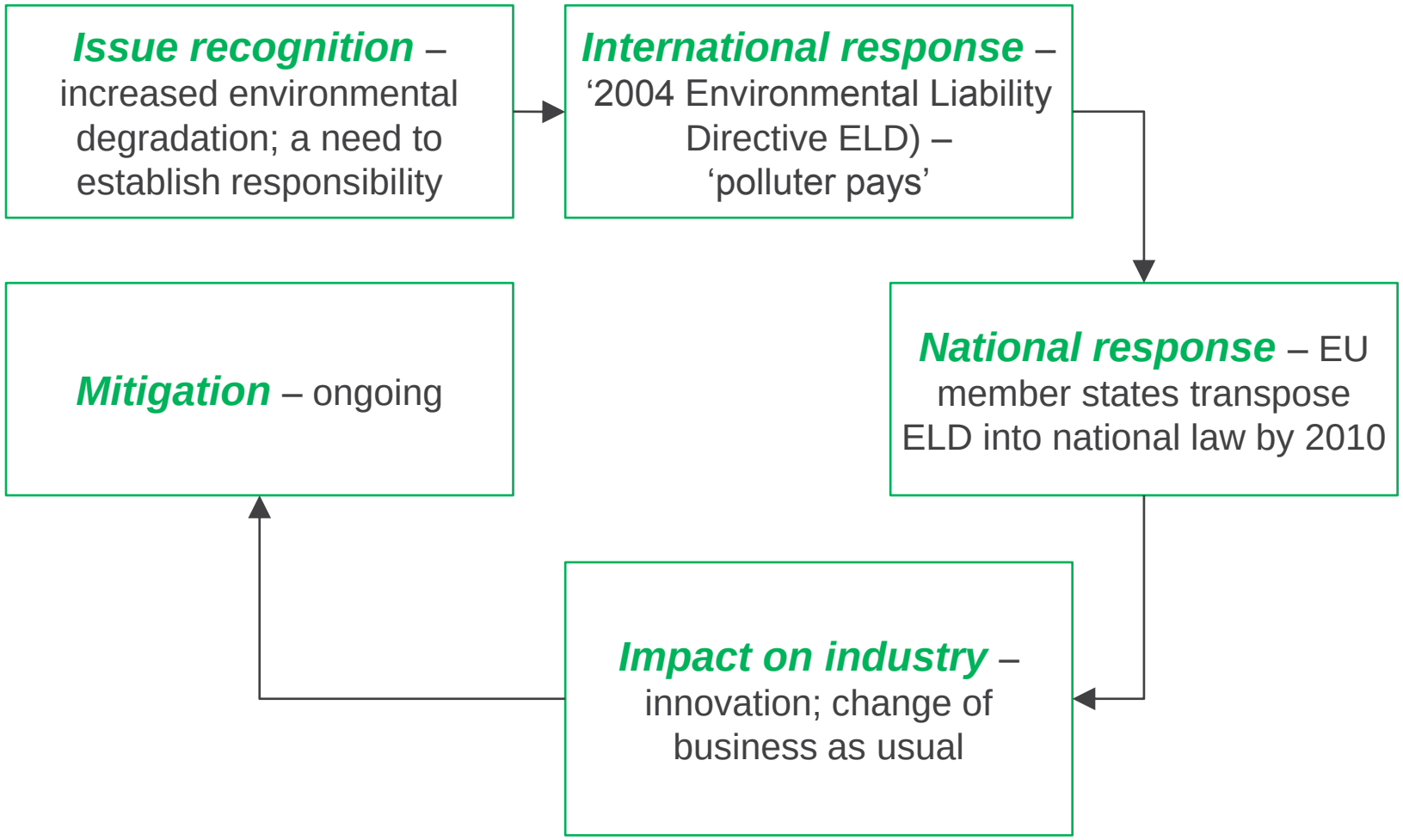
Background to ecosystem policy (cont.)



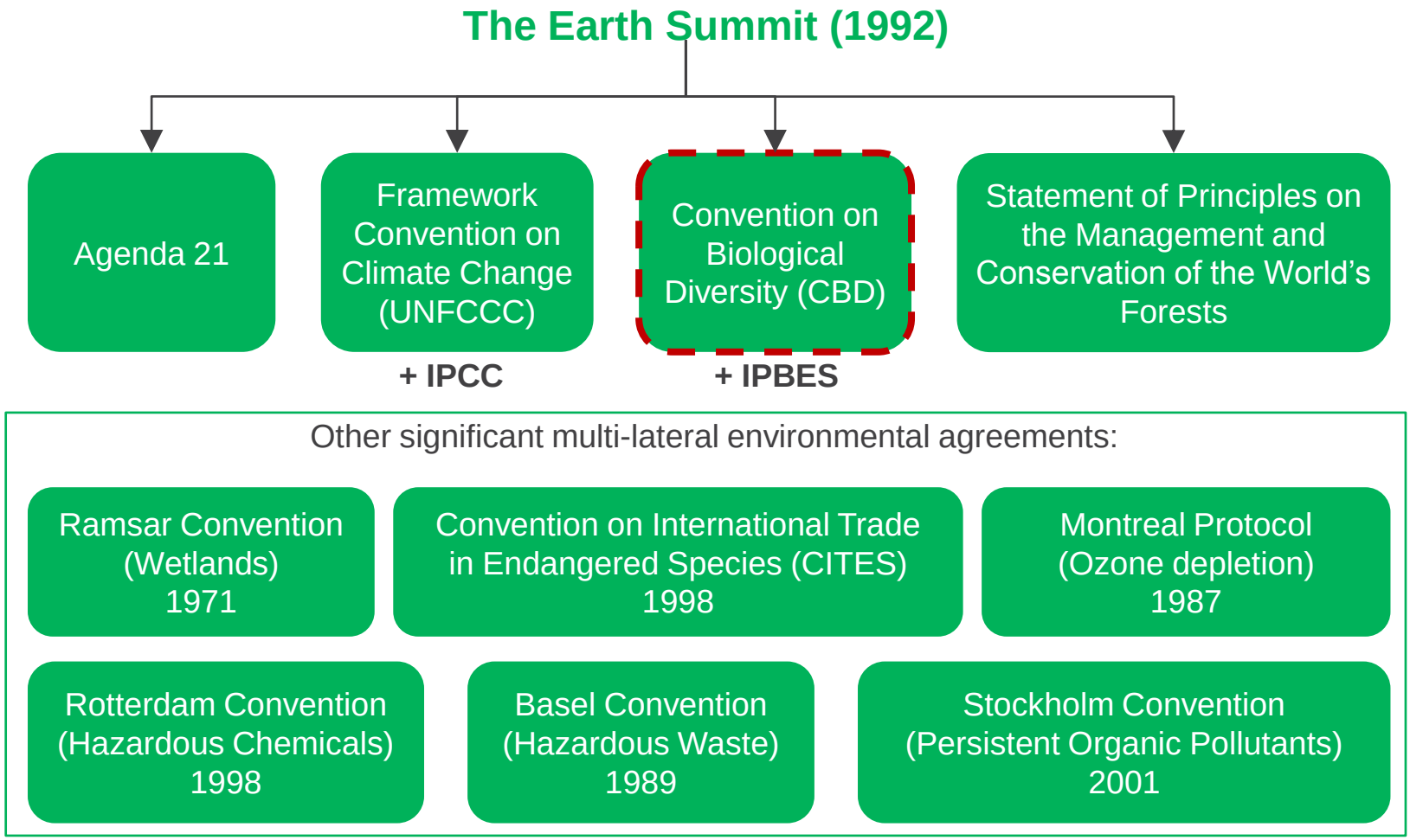
Background to ecosystem policy (cont.)



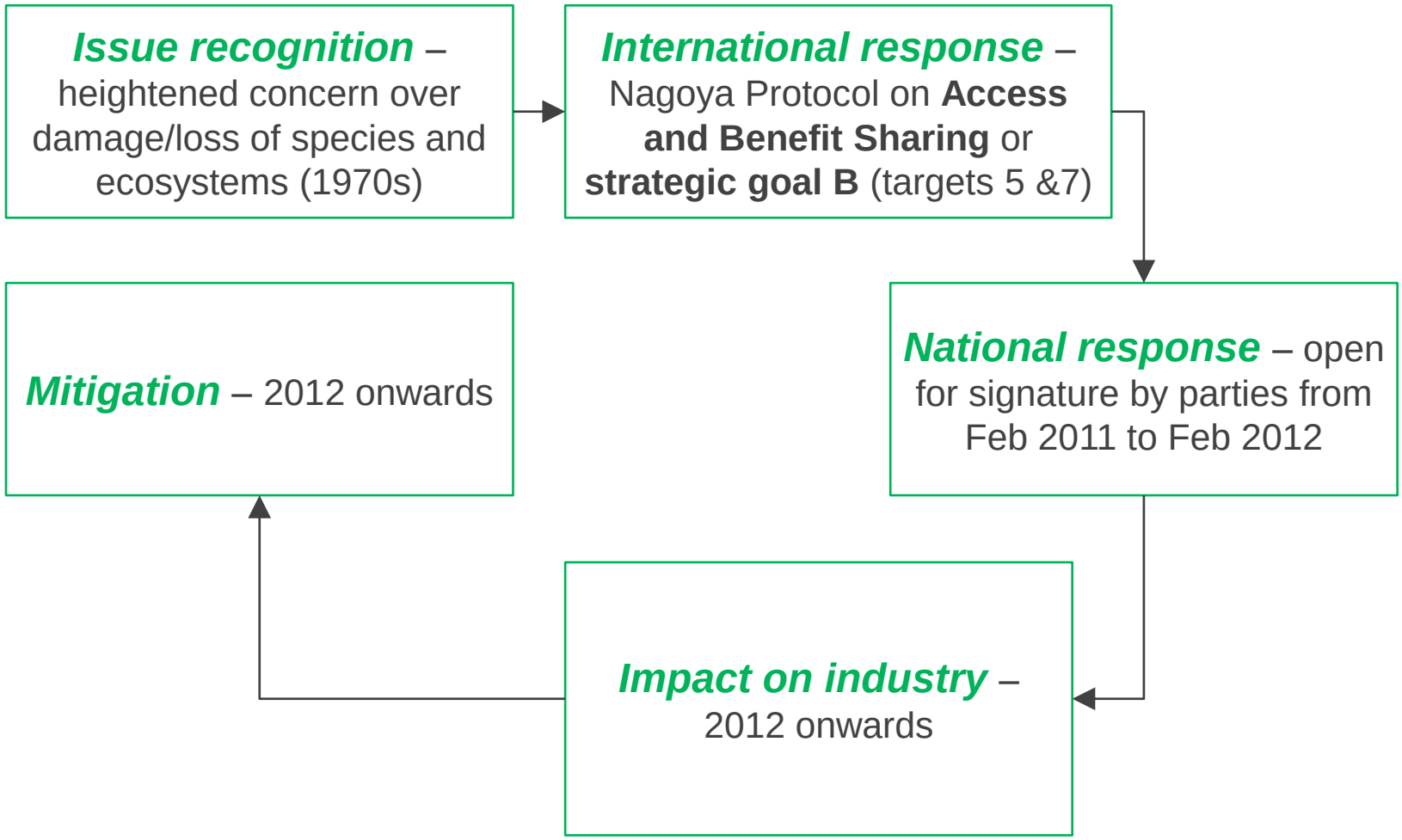
International policy trends – Environmental Liability Directive example



Background to ecosystem policy (cont.)



International policy trends – Introduction to the CBD



Module 4 – Summary

- Understand the basics ✓
- Policy and regulatory frameworks ✓
- The mitigation hierarchy
- Compensation and offsetting
- Reporting and Indicators
- Current policies and regulations

Session 4
Applying the Mitigation Hierarchy

Module 4: Managing and Mitigating Impacts

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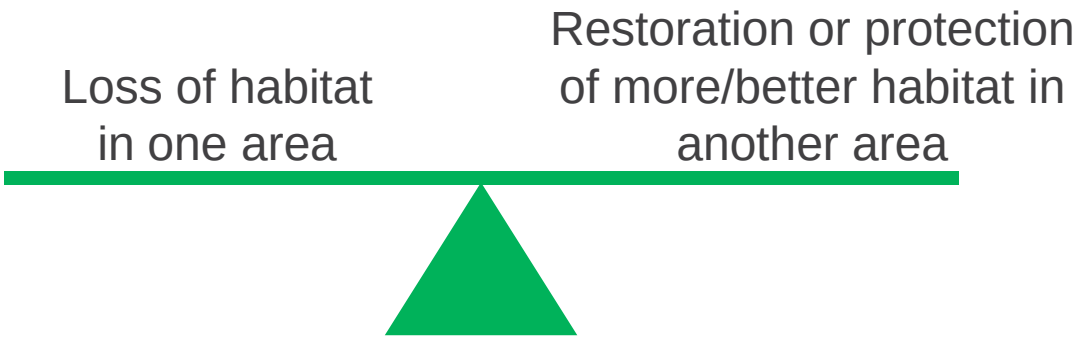
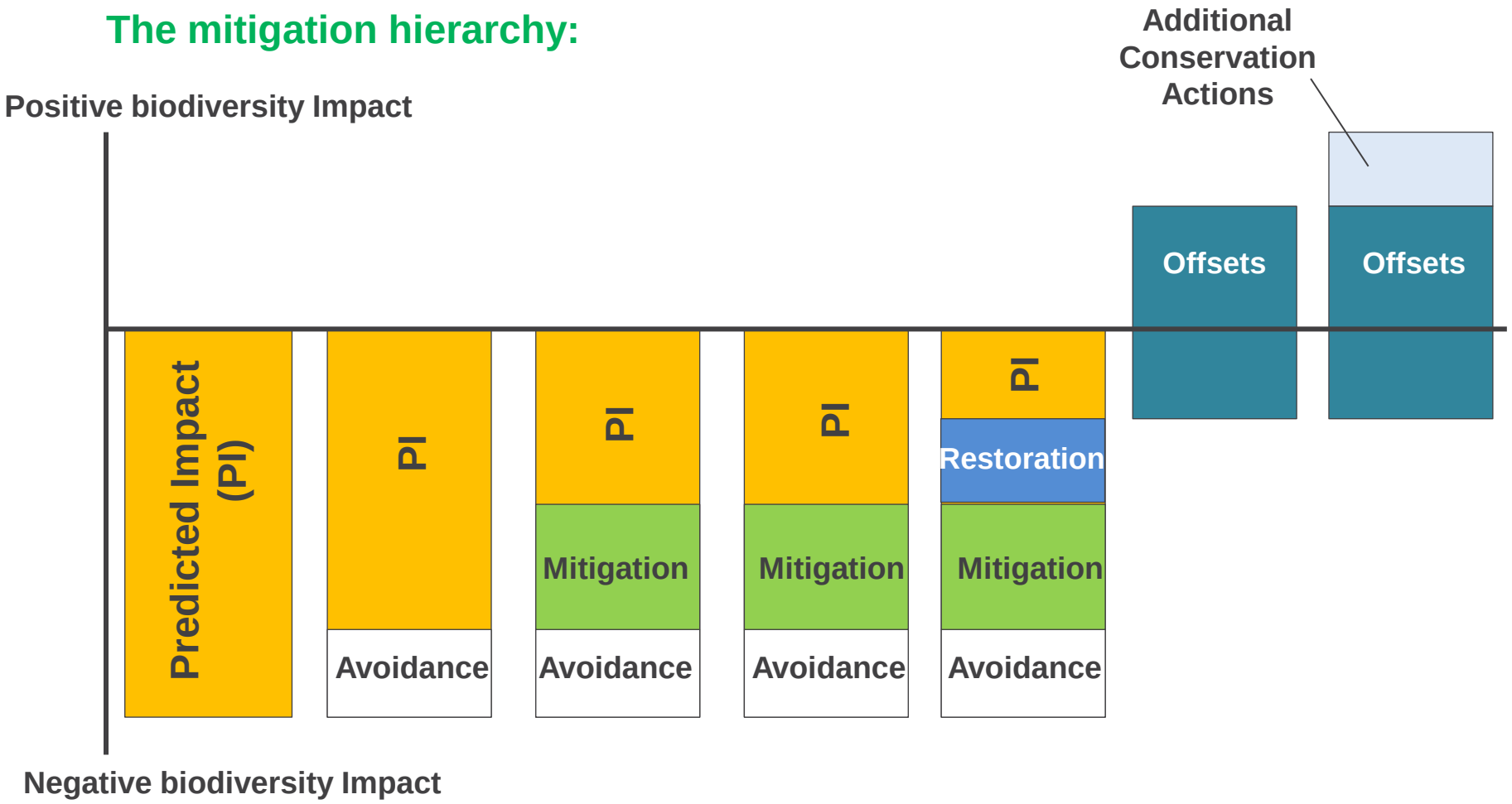
‘No Net Loss’



- **No Net loss** = impacts on biodiversity caused by the project are balanced or outweighed by measures taken to avoid and minimize the project’s impacts, to undertake on-site restoration and finally to offset the residual impacts, so that no loss remains
- Some businesses have taken this one stage further by aiming for a **Net Positive Impact** (e.g. across their operations or for all new developments)

Biodiversity offsets and impact mitigation – recap

The mitigation hierarchy:

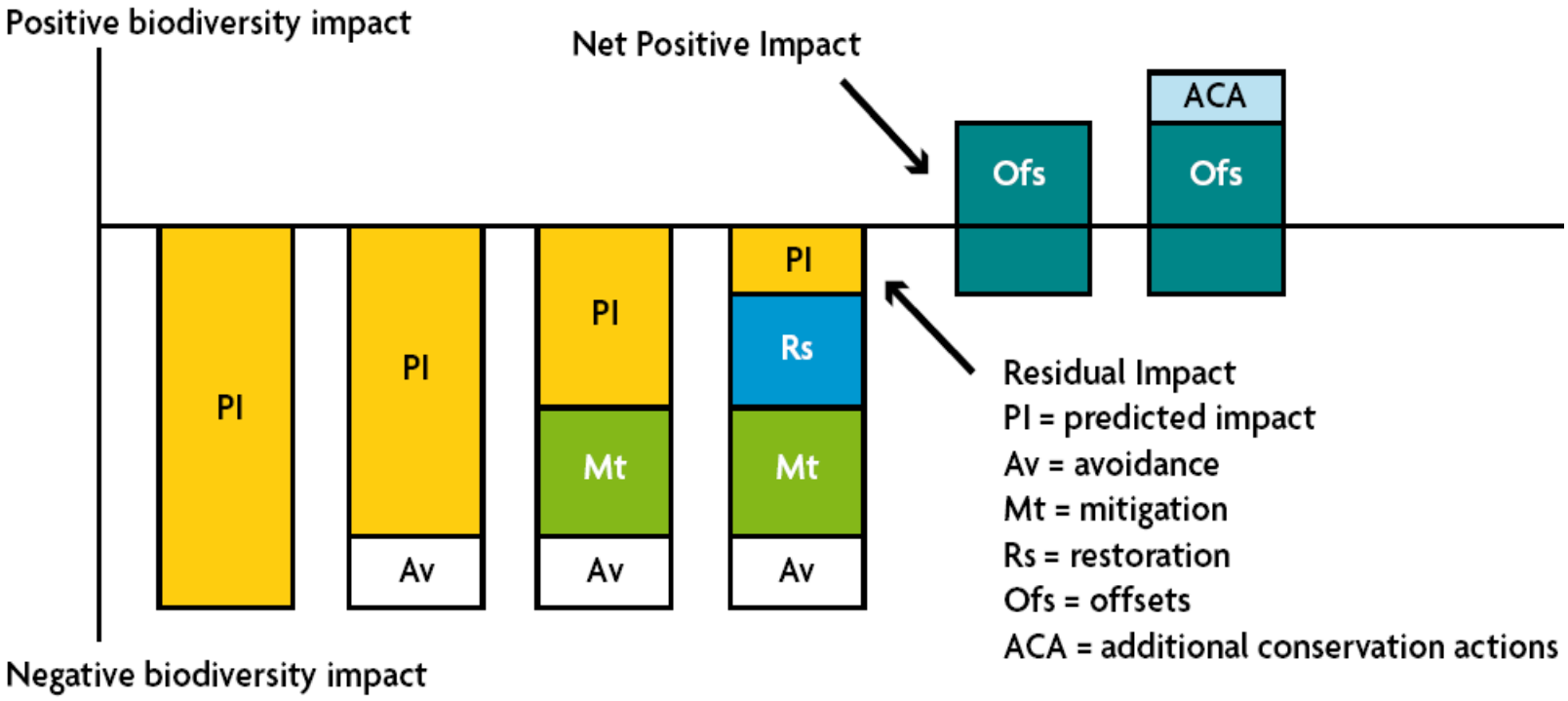


Source: Adapted from Rio Tinto and Western Australia EPA

Case Study: Rio Tinto

- Rio Tinto's long-term goal is to have a **Net Positive Impact** on biodiversity
- Positive actions outweigh inevitable negative effects associated with mining and mineral processing by using:
  - Mitigation hierarchy (avoid, mitigate, restore)
  - Offsets and other conservation actions

Rio Tinto's Goals



Sources: adapted from Rio Tinto and Western Australia EPA

Case study exercise – Suncor Energy

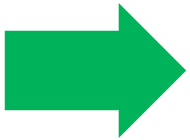
The issue

A reclamation objective

- Canada's largest integrated energy company.
- Leader in oil sands production.
- Complementary operations in refining and marketing, natural gas production and conventional oil production.
- Oil sands activities in Alberta, in the Canadian boreal forest
- Company is committed to:
  returning all lands disturbed by mining operations to a state as close to pre-disturbance conditions as possible
- Reclamation is a regulatory requirement and a key stakeholder expectation

Group exercise: flipchart layout

Ecosystems Services Impacted?



Approach?

Feedback...

Case study exercise – Suncor Energy

The response

A methodology based on constant research and innovation

- Before constructing a new mine or facility, Suncor develops a reclamation plan with local stakeholders and government regulators
- Plans include land preparation and reclamation with respect to land impacted by the in-situ operations as well
- Reclamation plans are approved by Alberta government, with several distinct components:
  - Transformation of oil sands tailings ponds into solid material that can support ecosystem services;
  - Re-vegetation so that reclaimed landscape can support vegetation and wildlife.

Case study exercise – Suncor Energy

The results

Pond 1

- First surface reclamation of former oil sands tailings pond, “Pond 1”
- Ultimately plan to transform the 220-hectare pond, established in the 1960s, into a mixed wood forest and a small wetland
- Reclamation began in 2007 (ongoing)
- Over 150,000 trees were planted on the site in the first 6 months of 2010 alone
- Suncor became the first oil sands company to have a tailings pond with a trafficable surface with reclamation underway
- By combining innovative reclamation and stakeholder consultations, the company aims to increase its “social license” to operate.

Case study exercise – Suncor Energy

The results (cont.)

Module 4 – Summary

- Understand the basics ✓
- Policy and regulatory frameworks ✓
- The mitigation hierarchy ✓
- Compensation and offsetting
- Reporting and indicators
- Current policies and regulations

Coffee break

30 minutes

Session 5
Knowledge check

Module 4: Managing and Mitigating Impacts

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Interactive

- Key concepts
- Do you know...

Session 6
Compensation and Offsetting

Module 4: Managing and Mitigating Impacts

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Offsetting

Can anyone give me an explanation of offsetting?

The Business and Biodiversity Offsets Programme (BBOP) definition:

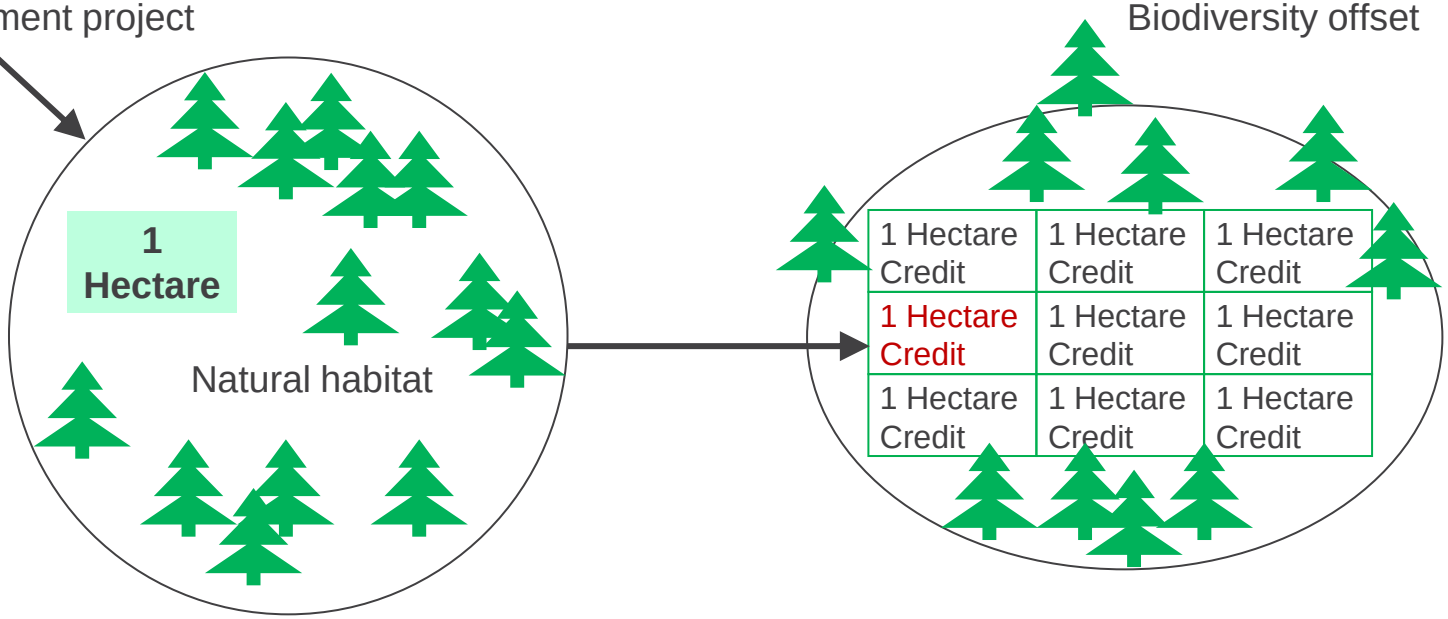
"Measurable conservation outcomes resulting from actions designed to compensate for significant residual adverse biodiversity impacts arising from project development and persisting ***after appropriate prevention and mitigation measures have been implemented.***

The goal of biodiversity offsets is to achieve ***no net loss*** *and preferably a* ***net gain*** *of biodiversity on the ground with respect to species composition, habitat structure, ecosystem function and people's use and cultural values associated with biodiversity."*

What is biodiversity offsetting?

Development project

Biodiversity offset



Source: BBOP

BBOP Standard on Biodiversity Offsets

Objectives

- To help auditors assess conformance with the BBOP standard.
- To help companies design & implement offsets.

- **Principles**: Fundamental statements about a desired outcome.
- **Criteria**: The conditions that need to be met to comply with a Principle.
- **Indicators**: Measurable states to tell whether or not a particular Criterion has been met.

IFC Performance Standard 6

“Biodiversity Conservation and Sustainable Management of Living Natural Resources”

- Measurable conservation outcomes reasonably expected to result in no net loss and preferably a net gain of biodiversity.
  - Natural habitats: no net loss, where feasible
  - Critical habitats: net gains
- The design of a biodiversity offset must adhere to the “like-for-like or better” principle.
- Must be carried out in alignment with best available information and current practices.
- External experts with knowledge in offset design and implementation must be involved.

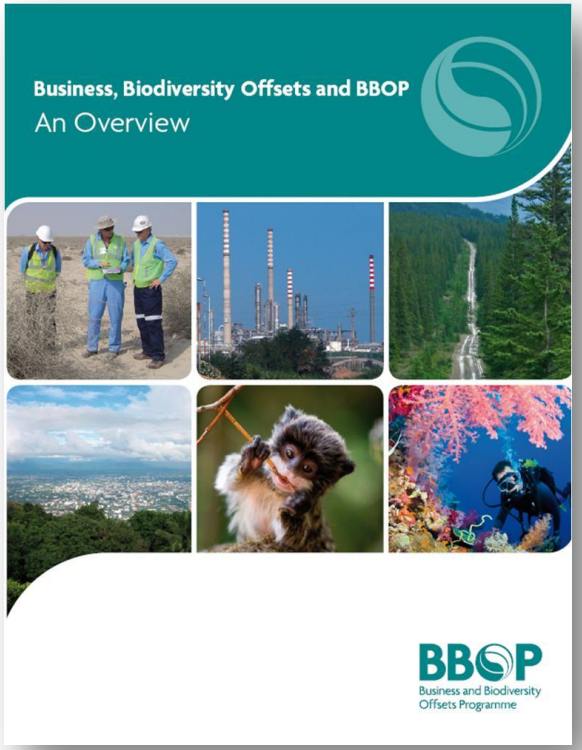
The Drivers for Offsetting

Broad categories of drivers of biodiversity markets are:

- Regulatory compliance;
- Access to finance;
- Government-mediated payments; and
- Voluntary provisioning.

Key challenges in offset development (BBOP)

- Trade offs
- Risk management and assurance of outcomes
- Indigenous peoples' rights
- Boundaries of acceptable impacts
- Availability of land and marine areas for offsets
- Scientific uncertainty and data gaps
- Multiple definitions and methods regarding no net loss and lack of a common currency for quantifying biodiversity loss and gain
- Multiple benefit offsets
- Capacity



Challenges and practical solutions for biodiversity offsetting

Challenge
1. Political, environmental and social concerns
2. Difficulty in defining biodiversity metrics or currencies
3. Lack of fungibility of biodiversity – more complex than carbon
4. Maintenance of access to natural resource rights
5. Offset failure

Note: (a) Points 1 & 2 adapted from Ekstrom, J (2011). Biodiversity Offsets. Everything you ever need to know in 10 minutes. Presentation to WBCSD, Montreux, 5th April 2011.

Compensation case study – EDP

The issue

The environmental impact of invoicing

- EDP distributes around **34 million paper invoices per year** in Portugal, a quantity that has non-negligible environmental impacts.
- To mitigate these impacts, EDP has first committed to **reduce the number of invoices mailed out** every month through on-line invoice services
- Started in 2007 and by the end of 2009, more than 500,000 clients had joined the initiative.
- The company was willing to go further and to **compensate all the impacts resulting from its paper invoicing process.**

Compensation case study – EDP (cont.)

The response

Life Cycle Assessment methodology to assess impacts on ecosystems

- The approach, called **"Zero Impact"** has been developed at the Lisbon school of engineering – Instituto Superior Técnico.
- "Zero Impact" aims to **quantify and cover all negative environmental externalities of the life cycle of paper invoices**.
- Software used : **Life Cycle Assessment** (Sigma Pro 6.0)
  - Accounts for the resources, energy and equipment used for generating invoices (paper, plastic and printing process), as well as for invoices delivery (fuel).

Compensation case study – EDP (cont.)

The response (cont.)

- The compensation initiative consists mostly in **agro-forestry good practices**, which are implemented in rural areas. The approach is as follows:
  1. Compensation of environmental impacts is carried out in the same ecosystem service category and, whenever possible, in the same location.
  2. When not possible, compensation is carried out in another ecosystem service category.
- The compensation initiative **cover most of the impacts on ecosystem services**
- The **remaining negative impacts** not covered by the agro-forestry initiative are compensated through the **CO_2 markets** (approx.1120 tons of CO_2 credits).

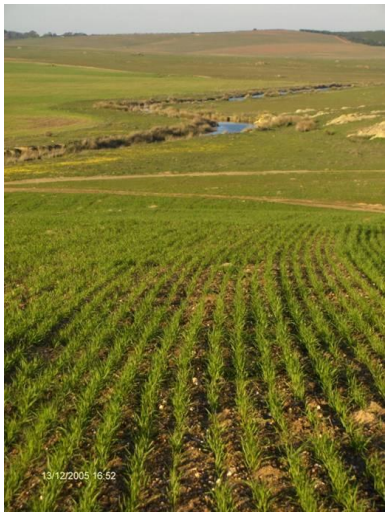


Photo Credit: EDP

Extraction project – Africa (Handout 1)

Company

The extraction project is for a mining company the mine itself has a capacity of approx. 200,000 tonnes of different minerals.

Context

Production in Africa began in 2008, with full capacity is expected by 2015. The project's assessed reserve life is 35 years, with potential for extension beyond this.

Issue

The main impacts on biodiversity will occur at the mine site and in the upper portion of the 200 km slurry pipeline through the progressive clearing of a forest. The mine footprint (approximately 2000 ha), is located within an ecologically sensitive natural forest.

Case study: Extraction Project – Africa

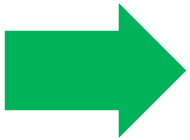
Response

- Commitment to no net loss of biodiversity for the Project according to the BBOP Principles (voluntary and to meet IFC Performance Standard 6).
- A Biodiversity Management Programme is being implemented to avoid and mitigate impacts, to undertake restoration and to offset the residual impacts.
- The mitigation measures cover flora, fauna and aquatics.
- To offset the residual impacts, options include the following:

1. Offset
2. Reforestation
3. Conservation forest
4. Forest corridor
5. Protected area
6. Reforestation corridor
7. Replacement forest

Extraction project case study – Flip chart

Case study impacts



Pick from the management options and give your reasons for your choice

Feedback...

Module 4 – Summary

- Understand the basics ✓
- Policy and regulatory frameworks ✓
- The mitigation hierarchy ✓
- Compensation and offsetting ✓
- Reporting and indicators
- Current policies and regulations

Session 7
Reporting and Indicators

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Reporting frameworks

Business analytical approaches: Monetary

- Financial accounting
- Management accounting
- Full (environmental) cost accounting

Business analytical approaches: Sustainability non-monetary

- Company reporting
- Environmental management systems

Reporting

Common issues

- Lack of reporting on biodiversity and/or ecosystems in annual report
- Sometimes located in separate sustainability report
- No mandated standards

Integrated reporting:

- Integration of financial and non-financial reporting provides a balanced and meaningful picture of a company.
- Biodiversity/ecosystems challenge is managing and tracking information to ensure economic values are properly reflected.

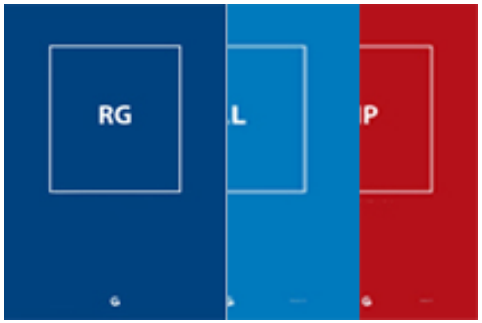
Full (environmental) cost accounting:

- Accounting approach that recognizes costs and benefits associated with an activity.
- Usually only includes internal costs and benefits, but can also include externality costs and benefits (either monetized or non-monetized).

Global Report Initiative (GRI)

GRI is a network-based organization that produces a comprehensive sustainability reporting framework:

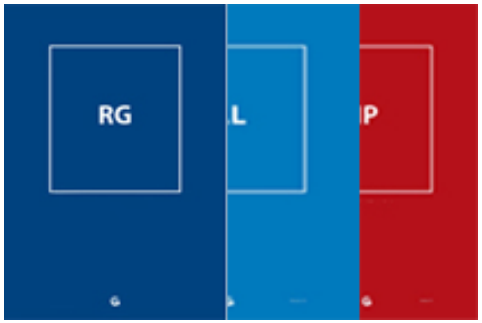
- Widely used around the world.
- Developed through a consensus-seeking, multi-stakeholder process. Participants are drawn from global business, civil society, labour, academic and professional institutions.
  - GRI's core goals include the mainstreaming of disclosure on environmental, social and governance performance.



Global Report Initiative (GRI) (cont.)

The Sustainability Reporting Framework provides guidance on how organizations can disclose their sustainability performance. It consists of:

- Sustainability Reporting Guidelines
- Sector Supplements
- Technical Protocol – Applying the Report Content Principles.
  - The Framework is applicable to organizations of any size or type, from any sector or geographic region, and has been used by thousands of organizations worldwide as the basis for producing their sustainability reports.



GRI indicators

There are six categories: environmental, human rights, labour practices and decent work, society, product responsibility, and economic.

They are formed of individual indicators, which can be:

- Core Indicators (55 in total): indicators identified in the GRI Guidelines to be of interest to most stakeholders and assumed to be material unless deemed otherwise on the basis of the GRI Reporting Principles.
- Additional Indicators (27 in total): those indicators identified in the GRI Guidelines that represent emerging practice or address topics that may be material to some but not generally for a majority.

GRI indicators and biodiversity

In GRI's environmental section, biodiversity is covered by the following indicators:

EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.
EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.
EN13	Habitats protected or restored.
EN14	Strategies, current actions, and future plans for managing impacts on biodiversity.
EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.

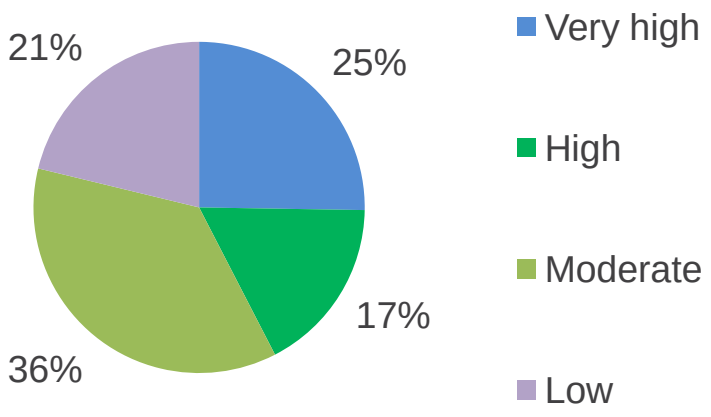
Core indicator
Additional indicator

Biodiversity reporting by Rio Tinto

Biodiversity values assessment

- Developed the group-wide biodiversity values assessment protocol in 2007 to assess the biodiversity values of Rio Tinto's land holdings and surrounding areas to help prioritise action.
- Operations are ranked as having either 'very high', 'high', 'moderate' or 'low' biodiversity values.
- Biodiversity values were assessed on the basis of:
  - land in proximity to biodiversity rich habitats
  - species of conservation significance
  - additional site specific context
  - the external conservation context

Biodiversity values assessment (2010)



British American Tobacco

Managing Biodiversity:

The British American Tobacco Biodiversity Partnership includes:

- Fauna & Flora International
- The Tropical Biology Association
- Earthwatch Institute

The Partnership produces annual progress reports, separate from BAT's main sustainability report

British American Tobacco (cont.)

- Report on GRI biodiversity indicators EN11 – EN15
- Goals for managing biodiversity:
  - Review + revise risk and opportunity assessment tool
  - Use risk and opportunity assessments to identify and, where necessary, mitigate possible biodiversity risks
  - Raise awareness of biodiversity issues
  - Conduct research to verify the apparent return of wildlife to trial areas of re-established natural forest in Sri Lanka

Environmental Management Systems

- A structured framework for managing an organization's significant environmental impacts.

- Includes an assessment of a company's activities, products, processes and services that might affect the environment, and an environmental improvement program.

Environmental Management Systems (cont.)

Example: Holcim/IUCN Biodiversity Management System (BMS)

Biodiversity Risk Matrix used as part of three stage implementation of BMS:

- **Stage 1:** Know the potential impact
- **Stage 2:** Match the level of effort to risk
- **Stage 3:** Monitor results to demonstrate progress towards targets

Biodiversity risk matrix (© 2010 Holcim)

Biodiversity Importance	Potential Impact			
	Very High	High	Medium	Unlikely
Global	Critical	Significant	Medium	Low
National	Critical	Significant	Medium	Low
Local	Significant	Medium	Low	Low
Low	Low	Low	Low	Low

Source: IUCN-Holcim independent expert panel adapted by Holcim 2010

Environmental Management Systems (cont.)

Example: Holcim/IUCN BMS (cont.)

- Full inventories of all 500+ extraction Holcim sites (70+ countries) have been collected and categorized on the risk matrix.
- By 2013, 80% of sensitive sites will have a biodiversity action plan in place.

Biodiversity risk matrix (© 2010 Holcim)

Biodiversity Importance	Potential Impact			
	Very High	High	Medium	Unlikely
Global	Critical	Significant	Medium	Low
National	Critical	Significant	Medium	Low
Local	Significant	Medium	Low	Low
Low	Low	Low	Low	Low

Sensitive sites require Biodiversity Action Plan

Source: IUCN-Holcim independent expert panel adapted by Holcim 2010

Session 8
Policy Frameworks

Module 4: Managing and Mitigating Impacts

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Current Biodiversity/Ecosystem Services Legislations

In the EU:

- Water Framework Directive
- Marine Strategy Framework
- Environmental Liability Directive

In the US:

- The Lacey Act
- Endangered Species Act

[Customize: company to add any legislation that impacts their business in particular]

Current Biodiversity/Ecosystem Services Legislations (cont.)

In South Africa

- Example: South Africa Water Law, 1996.
- Water viewed as a common resource, policy review aimed at redistributing resources to maximize equality and fairness.
- Revoked inequitable private ownership, appointing the National Government as custodian of water resources.
- Minimum requirements for drinking water and ecosystem functioning set aside in the reserve, which has free access.

[Customize: company to add any legislation that impacts their business in particular]

Current Biodiversity/Ecosystem Services Legislations (cont.)

China

- The Chinese Government has made water a major priority
- The 12th Five-Year Plan includes a range of targets and policies to improve water supply
- Growth in number of municipal waste water treatment plants increasing from 18% between 2005 – 2009 to 32% between 2009 to 2012, with 5,200 plants built every year

[Customize: company to add any legislation that impacts their business in particular]

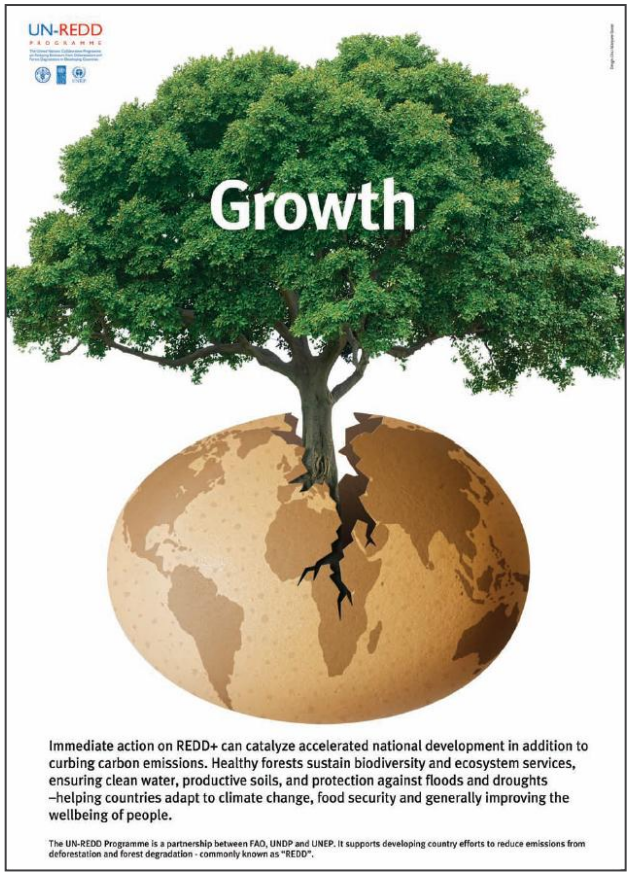
REDD

- Reducing Emissions from Deforestation and Forest Degradation
- Accounts for nearly 20% of global GHG emissions
- Has expanded to REDD+ measures, possibility of expanding to agriculture, forest and other land use (AFOLU) measures
- A market/financial mechanism to split the costs between developed and developing countries
- Donor countries: Norway currently largest contributor.

Source: http://www.un-redd.org/

REDD – Challenges and Uncertainties

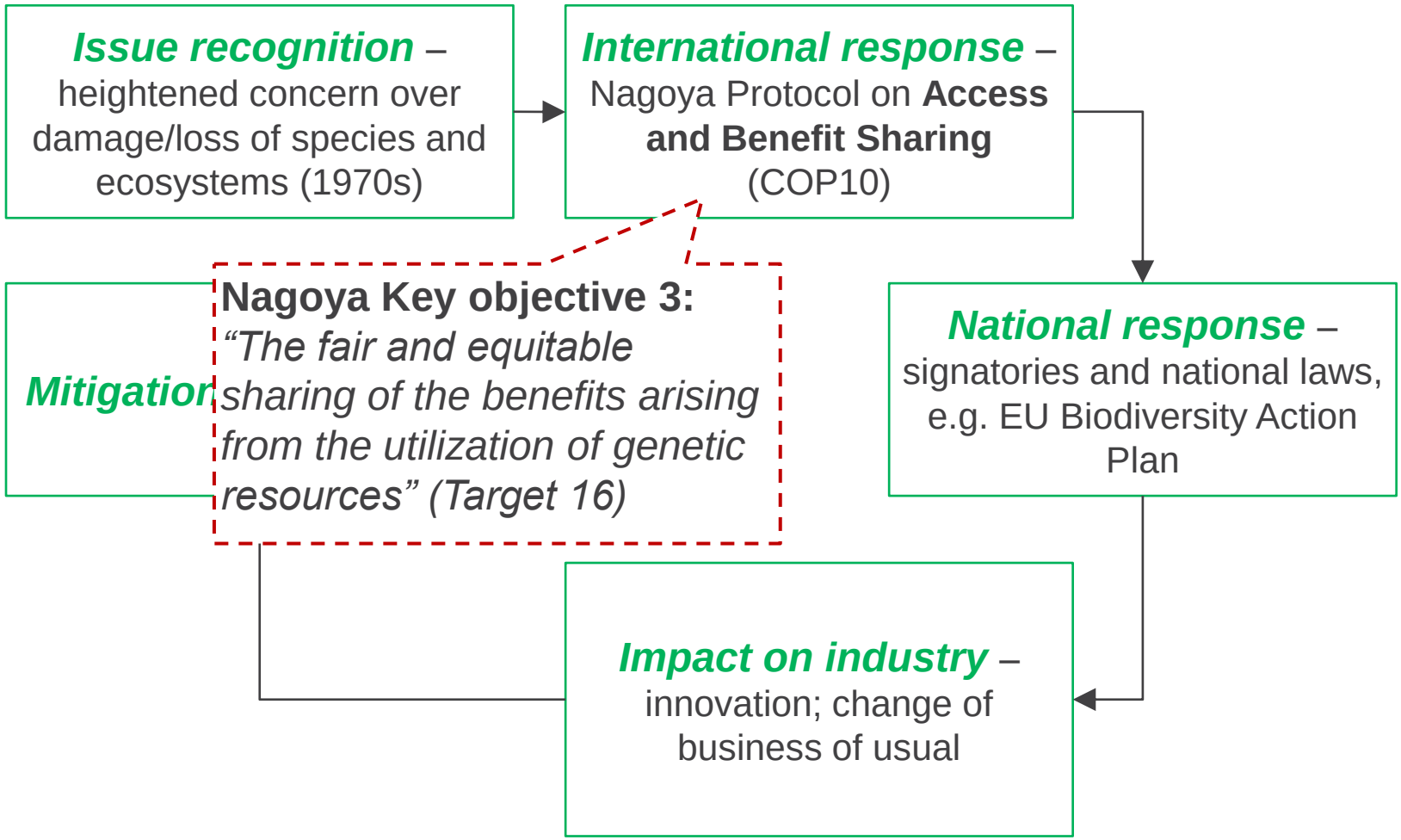
- Difficulties in reducing emissions from deforestation: leakage, additionality, permanence, measurement
- How will finance work? Offsets, carbon trading, binding targets
- Reference levels and measurements
- Distribution of benefits



Source: http://www.un-redd.org/

Source: http://www.redd-monitor.org/

International policy trends – Introduction to the CBD



Convention on Biological Diversity (CBD) – Nagoya Protocol (2010)

The 2011-2020 strategic plan includes:

- Resource mobilisation: Government aid versus ‘innovative financing mechanisms’
- The encouragement of sustainable use and links to biodiversity, development, and poverty alleviation
- Protected areas and conservation
- Focus on **Access and Benefit sharing**

Other targets to define policy and action

By 2020:

- **Target 2:** Biodiversity values integrated into planning processes, national accounting, and reporting systems.
- **Target 3:** Phase out of incentives and subsidies negatively impacting biodiversity, and implementation of positive incentives.
- **Target 5:** Halving rate of loss of all natural habitats, including forests, and where feasible brought close to zero.
- **Target 7:** Agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.
- **Target 11:** Protection of at least 17 percent of terrestrial and inland water, and 10 percent of coastal and marine areas.
- **Target 15:** Restoration of at least 15 percent of degraded ecosystems.

By 2015:

- **Target 16: Nagoya Protocol on Access and Benefit sharing is in force and operational, consistent with national legislation.**

Access and Benefits Sharing Principles

- One of three key objectives from the CBD: conservation, sustainability, **fairness and equity**
- Expanded to:
  - Enhance the benefits to all from biodiversity and ecosystem services
  - Enhance implementation through participatory planning, knowledge management and capacity building
  - 20 headline targets – the Aichi targets – within the 5 strategic goals
- Relates to the use of genetic resources & traditional knowledge – a central aim of CBD
- Price to access these resources should be an incentive to protect them
- Need to recognize that commercial value of genetic resources generally results from costly R&D by private sector

Access and Benefits Sharing Principles (cont.)

What is ABS about?

- How genetic resources may be accessed
- How users and providers reach agreement on the sharing of benefits that may result from their use

Users seek access to genetic resources for:

- Scientific research (e.g. taxonomy)
- Development of commercial products (e.g. pharmaceuticals)

Providers of genetic resources grant access:

- In exchange for a share of the benefits that result from their use

Source: CBD http://www.cbd.int/abs/infokit/powerpoint/revised/all-slides-en.pdf

Access and Benefits Sharing Principles (cont.)

Users seeking access to genetic resources must:

- Get permission from the provider country (known as prior informed consent or PIC)

Both provider and user must:

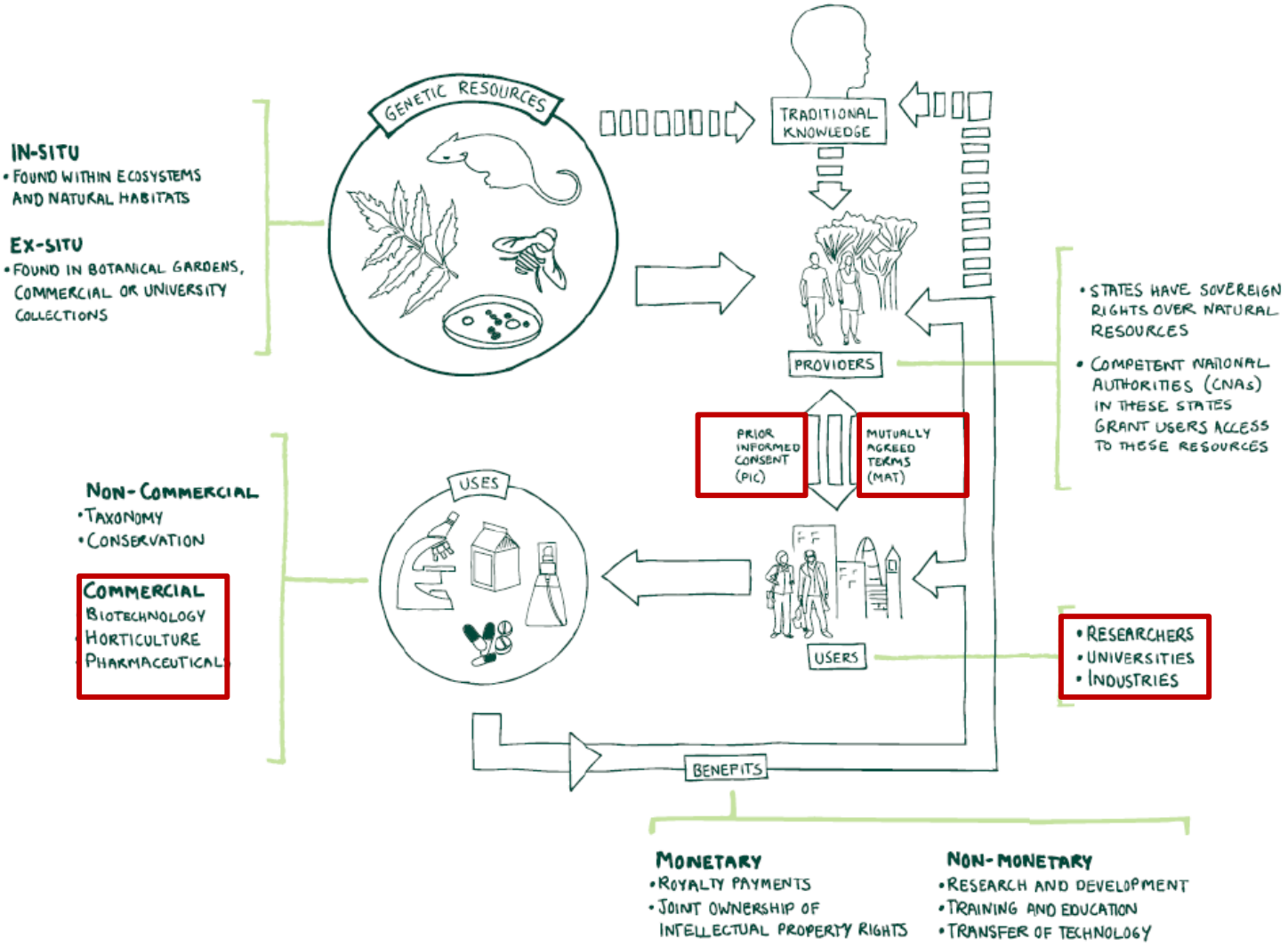
- Negotiate an agreement to share resulting benefits (known as mutually agreed terms or MAT)

Benefits arising from the use of genetic resources may be:

- Monetary when research and developments leads to a commercial product (e.g. royalties, milestone payments, licensing fees)
- Non-monetary (e.g. technology transfer, enhancement of research skills)

Source: CBD http://www.cbd.int/abs/infokit/powerpoint/revised/all-slides-en.pdf

Access and Benefits Sharing Principles (cont.)



Source: CBD http://www.cbd.int/abs/infokit/powerpoint/revised/all-slides-en.pdf

Access and benefits sharing case study – Natura

The issue

Sustainability as a business platform

- Brazilian cosmetic, fragrance and personal hygiene products company
- Adopted the sustainable use of Brazilian biodiversity as a business platform since 2000
- Leverage traditional knowledge to develop products that allow differentiated qualities for the consumer, while resulting in socio-environmental gains through partnerships with communities.
- Most exemplified in the Natura 'Ekos' line, consisting of around 100 products

Photo Credit: Natura

Access and benefits sharing case study – Natura (cont.)

The response

Respecting the criteria of the Convention on Biological Diversity

Natura 'Ekos' line:

- Establishes partnerships with indigenous communities to source raw materials when developing new products
- Adopts CDB principles, seeking to promote fair trade, sustainable use, social development and biodiversity conservation
- Has developed 26 community partnerships: in return for providing access to the natural ingredients and sharing traditional knowledge, local communities receive payments and benefits from Natura investment in local development

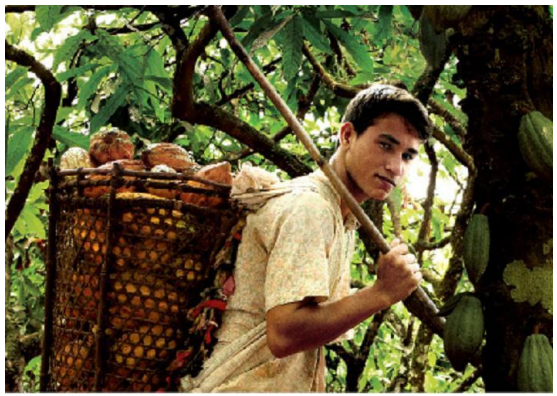


Photo Credit: Natura

Access and benefits sharing case study – Natura (cont.)

The response (cont.)

Values received by traditional communities in 2010:

	2010 *'000 USD*
Supply	2,481
Benefit Sharing	840
Local Development Funds	880
Use of Image	43
Training	105
Certification and Management	120
Studies, Consultancy and Support	469
Total	**4,938**

Access and benefits sharing case study – Natura (cont.)

The results

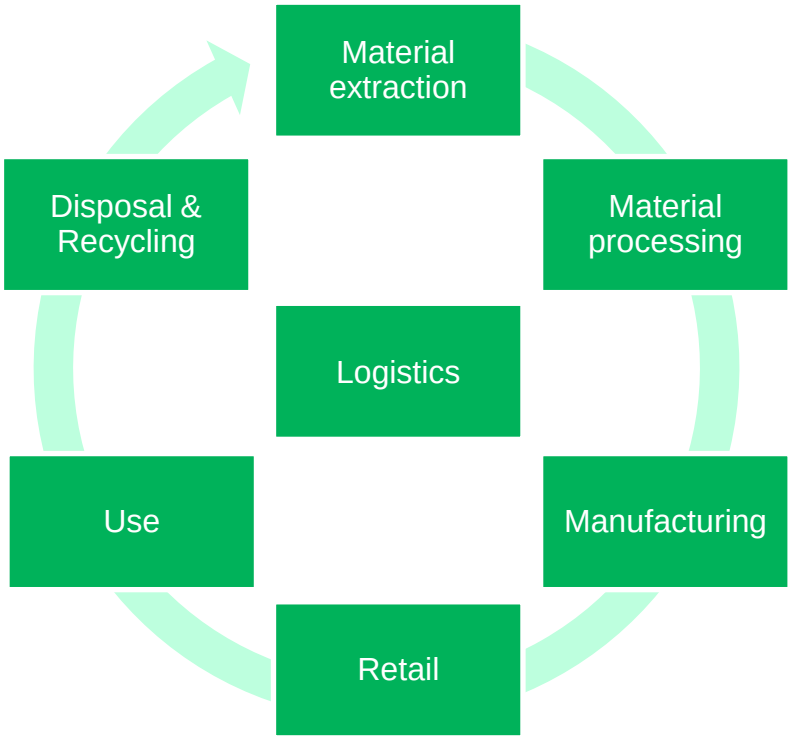
A 'win-win' partnership

- Business model creates a virtuous cycle, generating and sharing income whilst returning value to the place of origin:
  - Activities benefit partners' families and communities
  - Natura benefits from its business platform by increased revenue from products higher value to consumers
  - Consumers are proposed products with high quality natural ingredients
  - Environmental benefits: the community preserves forests to ensure a better quality of life for present and future generations
- Example: the Maracatu Project

Sustainable Procurement Policies

Recap basic concepts:

- Value chains and sustainability
- 6 factors in developing a sustainable value chain
- Sustainable procurement

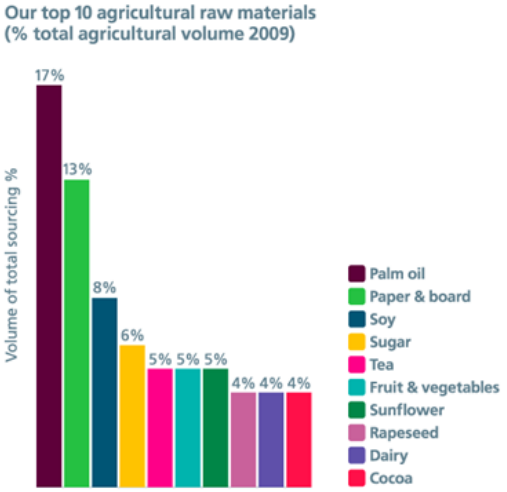


Source: *Collaboration, innovation, transformation. Ideas and inspiration to accelerate sustainable growth – A value chain approach,* WBCSD (2012)

Sustainable Procurement Policies (examples)

Unilever

- "*Today we source 10% of our agricultural raw materials sustainably. By 2012 we will source 30%; by 2015 50%; and by 2020 100%*"
- Sustainable Agricultural Code and 11 key indicators
- Measuring sustainable procurement through certification and self-verification



Sompo Japan

- Green procurement policies disseminated throughout the value chain
- Partnership with the Green Purchasing Network
- Voluntary procurement system adopted by over 4,000 entities

Sustainable Procurement Guide for Wood and Paper-Based Products

10 Things You Should Know

Sourcing and legality aspects	
Origin	Where do the products come from?
Information accuracy	Is information about the products credible?
Legality	Have the products been legally produced?

Environmental aspects	
Sustainability	Have forests been sustainably managed?
Special places	Have special places, including sensitive ecosystems, been protected?
Climate change	Have climate issues been addressed?
Environmental protection	Have appropriate environmental controls been applied?
Recycled fiber	Has recycled fiber been used appropriately?
Other resources	Have other resources been used appropriately?

Social aspects	
Local communities and indigenous peoples	Have the needs of local communities or indigenous peoples been addressed?

Source: WBCSD, Sustainable Procurement of Wood and Paper-Based Products

Green Procurement Policies: EU Green Public Procurement

- Public authorities are major consumers, spending approximately **2 trillion Euros annually, equivalent to 19% of the EU's GDP**
- Mandatory Government Buying Standards for all EU member states to harness governments' purchasing powers
- Voluntary Green Public Procurement instrument

[Option for customisation: presenter may wish to discuss alternative country example. Links and details of all EU member states' GPPs can be found at: http://ec.europa.eu/environment/gpp/pdf/national_gpp_strategies_en.pdf]

Green Procurement Policies: EU Green Public Procurement (cont.)

- UK Government Buying Standards
- Covers the same key products as EU GPP:
  - Cleaning products
  - Construction
  - Electricity / Electrical Goods / Energy-using products
  - Food
  - Furniture
  - Gardening Services / Horticulture
  - Office ICT Equipment
  - Paper
  - Textiles
  - Transport

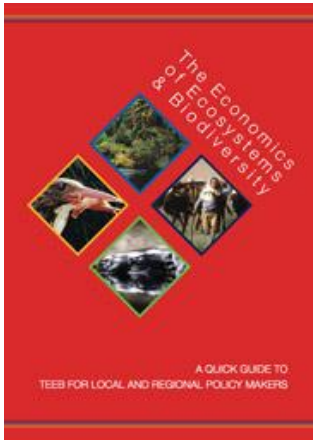
Opportunities for business engagement

- Partnerships with other stakeholders key to achieving common biodiversity/ecosystems goals.
  - Business engagement in national/international policy initiatives:
  - Business coalitions with NGOs and civil society
  - OECD Green Growth Roundtables
- WBCSD's project "Sustainable Consumption and Value Chain System Solution"
- Other groups: IUCN, GRI and so on.

Wide range of solutions by business and examples of application in each area

- WBCSD “responding to the biodiversity challenge”
  - 28 case studies, from 16 different countries and 15 sectors.
  - Many case studies respond to several of the new targets – only one has been illustrated for each case
  - *www.wbcsd.org/work-program/ecosystems.aspx*

- The TEEB reports specifically TEEB for business and the National Ecosystem Assessment in the UK
  - *www.teebweb.org*



- The above allows to increase employee awareness

Session 9
Knowledge share – regulations/policy for managing and mitigating ecosystem impacts

Module 4: Managing and Mitigating Impacts

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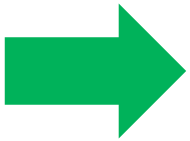
Group exercise: flipchart

List legislation of interest



List corporate/department commitments

[Customize: with the questions chosen within the list of facilitator's guide]

Feedback...

Session 10: Wrap up

Module 4: Managing and Mitigating Impacts

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Module 4 – Objectives

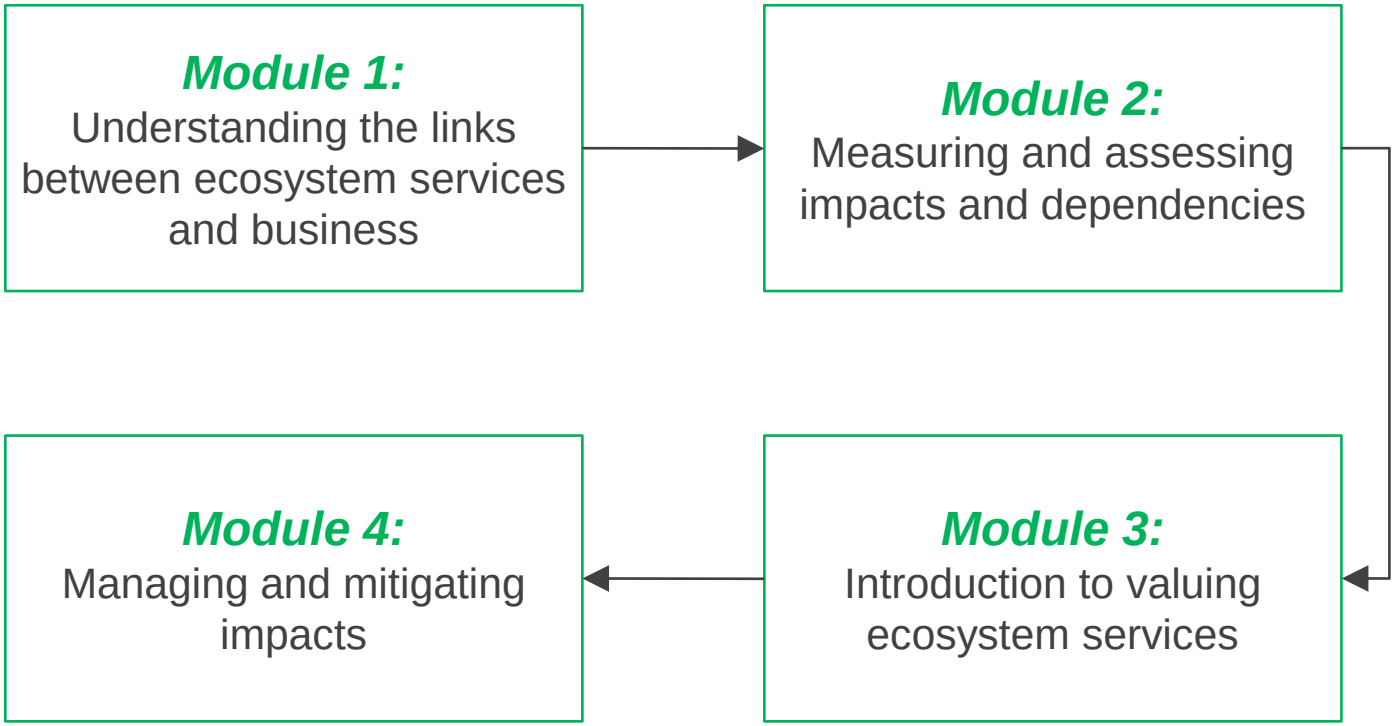
By the end of the module, trainees should be able to:

1. Define key policies and policy mechanisms for addressing and mitigating environmental impact, and enhancing business practice for better management.
2. Identify the business case for managing and mitigating impacts.
3. Apply the mitigation hierarchy, i.e. develop ideas on how their company can mitigate, offset and provide compensation for their impacts.
4. Identify how regulatory frameworks and policy mechanisms relate to participants' employers through action planning.

Module 4 – Summary

- Understand the basics ✓
- Policy and regulatory frameworks ✓
- The mitigation hierarchy ✓
- Compensation and offsetting ✓
- Reporting and indicators ✓
- Current policies and regulations ✓

What have we covered? [optional]
Modules 1- 4: Overview



Module 1 – Recap [optional]

- Understand the basics
- Drivers for change and business impacts and dependencies
- Links with sustainability
- Business case for action
- Policy and regulatory frameworks

Module 2 – Recap [optional]

- Understand the basics
- Policy and regulatory frameworks
- The business case for action
- Introduction to Ecosystem Services Review (ESR)
- Introduction to tools, frameworks and methodologies

Module 3 – Recap [optional]

- Understand the basics
- Policy and regulatory frameworks
- The business case for action
- Introduction to Corporate Ecosystem Valuation (CEV)
- CEV screening and supporting tools and methodologies

Review…

Have we achieved our objectives?

Action planning

Identify how ecosystem services relate to your own company's situation.

References

- WBCSB May CEV helpdesk presentation
- WBCSD, Responding to the Biodiversity Challenge
- WBCSD, Effective biodiversity and ecosystem policy and regulation
- WBCSD. Connecting the dots
- WBCSD, case studies
- WBCSD. Sustainable Procurement of Wood and Paper-based Products Guide and Resource Kit. Available from: http://www.wbcsd.org/Pages/EDocument/EDocumentDetails.aspx?ID=183&NoSearchContextKey=true
- WBCSD, CEV helpdesk September 2011
- WBCSD, CEV helpdesk presentation July 2011
- WBCSD, Effective Biodiversity and Ecosystem Policy and Regulation
- BBOP website:
- http://bbop.forest-trends.org/site/misc/Slide1.ppt
- http://bbop.forest-trends.org/offsets.php
- http://bbop.forest-trends.org/guidelines/glossary.pdf
- http://bbop.forest-trends.org/guidelines/principles.pdf
- TEEB for National and International Policy Makers
- TEEB for business – http://www.teebweb.org/LinkClick.aspx?fileticket=26aoFB8xrwU%3d&tabid=1021&language=en-US

References (cont.)

- IFC: http://www.ifc.org/ifcext/footprint.nsf/Content/Environment_Procurement
- European Commission – http://ec.europa.eu/agriculture/capexplained/sustain/index_en.htm
- Green Development Initiative – http://gdi.earthmind.net/
- Rio Tinto and Biodiversity, http://www.riotinto.com/documents/ReportsPublications/RTBidoversitystrategyfinal.pdf
- Ecosystem market place report, http://www.envliability.eu/docs/REReviewUS_D6A_Stratus_FINAL.pdf
- http://www.wbcsd.org/DocRoot/bR7dwpBEOAEx2dbLKFF8/EDPBiodiversityFund.pdf
- GRI portal – http://www.globalreporting.org
- GRI portal. G31Guidelines including Technical Protocol Final – http://www.globalreporting.org

References (cont.)

Policy trends chapter:

- http://www.environmentlaw.org.uk/rte.asp?id=108
- http://www.povertyenvironment.net/files/IUCN%20-%20Implementing%20TEEB%20for%20Business%20-%20public.pdf
- http://www.st-andrews.ac.uk/~dib2/atmos/control.html
- http://www.clubofrome.org/?p=326
- http://www.un.org/esa/sustdev/csd/csd15/media/backgrounder_brundtland.pdf
- http://www.un.org/geninfo/bp/enviro.html
- http://www.un.org.geninfo/bp/envirp2/html
- http://ozone.unep.org/Publications/MP_Acheivements-E.pdf
- http://www.cites.org/
- http://www.cites.org/common/prog/african-cherry/11-CUNNINGHAM.pdf
- http://www.doc.govt.nz/upload/documents/about- doc/role/international/cites-crocs.pdf
- http://www.un-redd.org/
- http://www.un-redd.org/AboutREDD/tabid/582/Default.aspx
- http://www.redd-monitor.org/
- http://www.environment.gov.au/epbc/publications/consultation-draft-biodiversity-policy.html
- http://www.wwf.org.za/what_we_do/outstanding_places/fynbos/biodiversity___wine_initiative
- http://www.conservation.org/sites/celb/fmg/articles/Pages/070199_energy_biodiversity_initiative.aspx

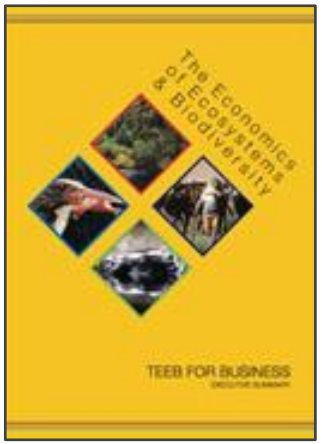
Action Planning

Step 1: Build awareness

- Consider the use of BET either within your company or as an industry initiative in partnership with other companies

Step 2: Use other publicly available resources

- Review WBCSD case study examples and publications, which include:
  - Case studies: more than 28 examples, from 16 different countries and 15 sectors complemented by specific Corporate Ecosystem Valuation Road testers
  - Publications: *Guide to Corporate Ecosystem Valuation, Corporate Ecosystem Valuation: Building the Business Case, The Corporate ESR, Responding to the Biodiversity Challenge, Connecting the Dots: The nexus between business & ecosystems.*
- Other key resources: *The Economics of Ecosystems and Biodiversity (TEEB) reports (specifically TEEB for business), The Millennium Ecosystem Assessment and the UK National Ecosystem Assessment*



Action Planning (cont.)

Step 3: Join networks and contact experts

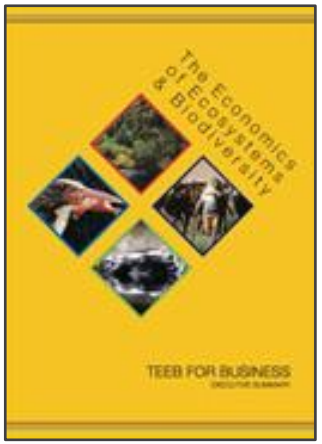
- Consider joining the WBCSD Ecosystems Focus Area (http://www.wbcsd.org/work-program/ecosystems.aspx)
- Make use of the WRI's Ecosystem Services Experts Directory (http://projects.wri.org/ecosystems/experts)

Step 4: Piloting

- Pilot biodiversity risk and opportunity assessments internally
- Pilot the Corporate Ecosystem Valuation or Ecosystem Services Review for a selected project, site or stage of your supply chain

Step 5: Implementation

- Contact the WBCSD Ecosystem Focus Area team and plan a full implementation strategy with the assistance of international experts



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February 2012

wbcsd business ecosystems training