wbcsd business ecosystems training

BET Module 4

Managing and Mitigating Impacts

Facilitator Notes

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.

Facilitators' guide: how it works

This Facilitators' guide is set up to provide all the information needed to present the BET course – **Module 4: Managing and Mitigating Impacts** to a group of delegates

The contents of the guide are:

- Introduction to the course and course timetable
- Facilitator's notes

Within the facilitator's notes, there are three different types of information provided.

1) Session overview and timeline

Overview of each section and suggested times for delivering the session

2) Facilitators' notes

Facilitators' notes – shown on left hand side of each page, these include:

- Detailed notes as to how to run the session, including how long to spend on each slide
- Background notes
- Crib notes for the facilitator to present from

Facilitators' guide: how it works (cont.)

3) Media/activity/handout guidance

Media/activity/handout guidance – shown on the right hand side of each page, these include:

- A copy of the PowerPoint slide the delegates are seeing as you present
- Guidelines as to how to run group sessions and exercises

Further information

For more information about BET, please refer to the BET Implementation Guide

- A separate glossary document is provided for this module
- A separate Frequently Asked Questions (FAQs) document is also provided for this course

BET Module 4: Managing and mitigating impacts Introduction to the course

Audience

The audience will have an environmental and sustainability background, but a background in environmental economics is not necessary. Delegates could include:

- Sustainability managers
- CSR managers
- EHS managers
- Lifecycle analysis professionals
- Operations managers, or
- Those with a background of integration social performance and investment

Please note this list is not exhaustive.

This module is suitable for participants who have completed modules 1, 2 and 3. It provides an introduction to the different policy mechanisms that may be used to address their ecosystems impact.

The course may be conducted as internal training or an external course for delegates from a number of companies, therefore this module will be an opportunity for delegates to understand how different companies or departments are currently accounting for biodiversity and ecosystem services.

BET Module 4: Managing and mitigating impacts Introduction to the course (cont.)

Key Topics

Key topics for module 4 include:

- An introduction to mitigation concepts, along with case studies and walkthroughs
- A review of some international and local legislation
- A review of case studies applying compensatory and offsetting frameworks

Learning Objectives

By the end of this module, delegates will be able to:

- Define key policies and policy mechanisms for addressing and mitigating environmental impact, as well as enhancing business practice for better management
- Identify the business case for managing and mitigating impacts
- Apply the mitigation hierarchy i.e., develop ideas on how their company can mitigate, offset and provide compensation for their impacts
- Identify how regulatory frameworks and policy mechanisms relate to a delegate's employer through action planning

BET Module 4: Managing and mitigating impacts Introduction to the course (cont.)

Pre-work

- Training pre-work: Instructions should specify that delegates will be required to write a half a page on where they are currently affected by environmental legislation in their work, and any challenges they are facing in this area. This will be part of a knowledge sharing session

Delegate binders distributed on arrival at the course

- All delegates will be given the links to course material and references for further research
- Additional handouts are provided throughout the module, these are located in the Annex for this pack
- The Facilitators Notes should NOT be made available to the delegates in soft copy

Facilitators

- Two facilitators will be used throughout the training. These should include one specialist with a background in environmental / sustainability and the other with a background in learning and development
- Presenting and facilitating will be shared between both

BET Module 4: Managing and mitigating impacts Timetable

Time	Duration (mins)	Session	Facilitator
	10-40	Session 1: Icebreaker and introduction	
	20	Session 2: Basic concepts	
	10	Session 3: Introduction to policy trends	
	45	Session 4: Case study example: 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	

Key: Presentation
Exercise

Session 1: Icebreaker and Introduction
Time guidelines

Time guidelines	Time
Introduction	10-40 minutes

Session objective

To establish delegates' level of knowledge, skills to be acquired, and identify learners' needs. To allow the delegates to be introduced to each other.

Session format

This session will be run by the two course facilitators – it is your opportunity to make the delegates feel welcome and at ease and to start interactions with other course delegates.

Handouts

Delegates' course material desk pack – hardcopies will be laid out on delegate desks in advance of their arrival at the course. This pack contains copies of all of the slides used throughout this course together with relevant handout materials required for each session.

A glossary of terms used during the module will also be available in the course material desk pack.

Session overview

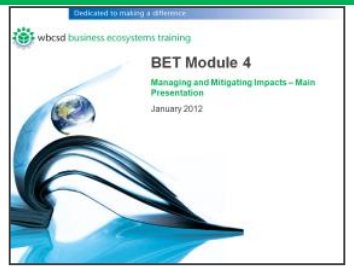
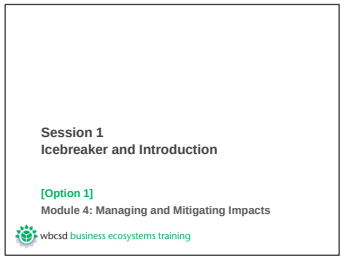
The primary focus of this session should be giving delegates a warm welcome and ensuring that they feel at ease.

This session allows the course facilitators to introduce themselves and give delegates an overview of their career history.

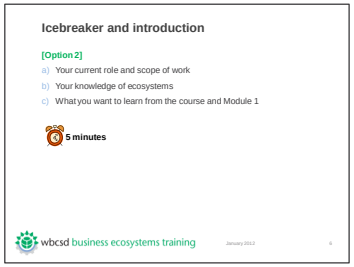
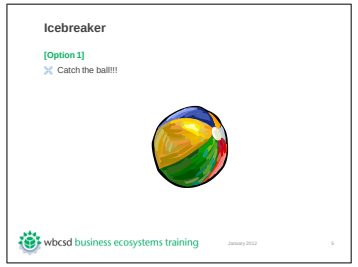
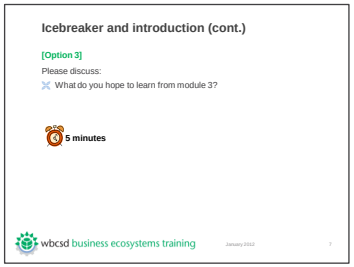
Delegates can also introduce themselves to each other as part of an icebreaker exercise.

It also explains the structure, content and objectives of the course.

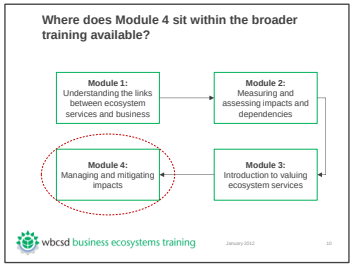
Session 1
Icebreaker and Introduction

Facilitators' notes	Media/activity/handout guidance
Slide 1: 1 minute Welcome delegates to the BET course **Slide 2: 1 minute (instructions displayed during the exercise)** Tell delegates that the course has been developed by the WBCSD in collaboration with KPMG and an advisory committee made up of several WBCSD member companies, Regional Network partners, academic and UN institutions and NGOs. **[Optional, depending on training structure: Facilitator to vary use of these introductions and icebreaker exercises depending on audience/module structure – exercise can be skipped if module 4 is being delivered directly after a previous module. Facilitator should use the day 1 and 2 recaps and interactive slide as appropriate.]** **Slide 3/4: <1 minute** **Instructions:** Tell delegates that, since you will be working together closely over the next few hours, you would like to start the course by providing them with an opportunity to quickly learn more about each other. This session is to be run by both facilitators, with both taking part in the icebreaker and introducing themselves.	 

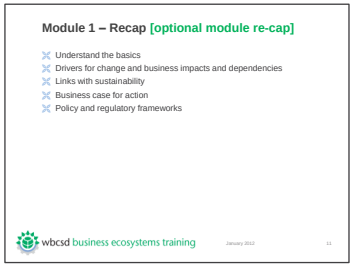
Session 1
Icebreaker and Introduction

Facilitators' notes	Media/activity/handout guidance
Slides 5-7: 10-15 minutes (depending on number of delegates) Icebreaker (Facilitator to vary the use of these activities in accordance with the mix of delegates) **[Option 1 slide 5: Interactive]** Module facilitator will put delegates into pairs, who are then given 5 minutes to discuss the following three questions: - Current scope of work - Knowledge of how to measure ecosystem impact; and - What they want out of the course Delegates then report back to the group, introducing their partner using the information they have learned. **[Option 2 slide 6: Catch the Ball]** Throw a soft ball to one of the delegates who then introduces themselves by answering the three questions below: - Current scope of work - Knowledge of how to measure ecosystem impact; and - What they want out of the course The delegate then throws the ball to someone else (who has not yet answered). **[Option 3 slide 7: What would delegate like to get out of this module]** Ask delegates what they would like to get out of this course specifically	   **Instructions:** The facilitator will take note of expectations and specific learning objectives, including indicators/measures on a flip chart. This will be referenced throughout the day and items checked off. It could also be referred back to at the end of the day ensuring that the training has addressed the expectations and needs of the delegates.

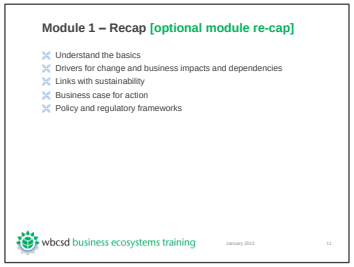
Session 1
Icebreaker and Introduction (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 8: 1 minute **Background** Facilitator to explain where Module 4 sits within the broader training course. Facilitator to talk through this slide, introducing this and earlier topics, i.e. Modules 1, 2 and 3. Module 4 of this course is the last of four modules covering specific topics, including: - Module 1: Understanding the links between ecosystems and business; - Module 2: Measuring and assessing impacts and dependencies; - Module 3: Introduction to ecosystem services valuation; and - Module 4: Managing and mitigating impacts. The modules are independent of each other and can be taken independently or in succession. This training is designed to be facilitator led but the material is available on the WBCSD website, and is therefore accessible to individual learners. This module includes a recap of Modules 1, 2 and 3. This module is an introduction to different sorts of policy and intervention mechanisms – the module will also cover an introduction to a number of policy frameworks currently in place.	

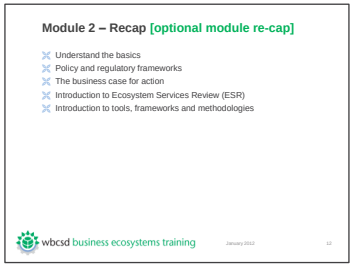
Session 1
Icebreaker and Introduction (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 9: 5 minutes + 5 minutes Q+A [optional] **Recap Module 1** **[Optional, depending on training structure: if modules are being prepared in one block then no need for recaps]** **Instructions** Facilitator to **recap specific concepts** from module 1, including definitions of: - Biodiversity - Ecosystems, and - Ecosystem services, i.e. Provisioning, regulating, cultural and supporting This module looks more closely at how these concepts are relevant in the context of companies managing and mitigating their impacts. **Definitions** **Biodiversity:** is the variability among living organisms within species, between species, and between ecosystems. It is this genetic variability (phenotype, genotype and environment) which gives organisms within ecosystems the ability to respond to stress. By having a range of organisms adapted to thrive in different circumstances, the ecosystem is more resilient.	 **Ecosystem:** a dynamic complex of plant, animal, and micro-organism communities and their nonliving environment interacting as a functional unit. Examples of ecosystems include deserts, coral reefs, wetlands, rain forests, boreal forests, grasslands, urban parks, and cultivated farmlands. Ecosystems can be relatively undisturbed by people, such as virgin rain forests, or can be modified by human activity, such as farms. **Ecosystem services:** sometimes called 'environmental services' or 'ecological services' – are the benefits that people obtain from ecosystems. Examples include freshwater, timber, climate regulation, protection from natural hazards, erosion control, and recreation.

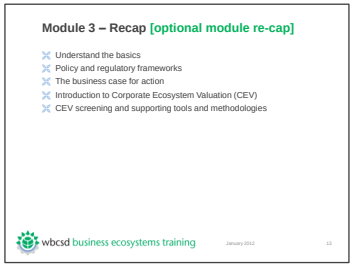
Session 1
Icebreaker and Introduction (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 9: 5 minutes + 5 minutes Q+A [optional] (cont.) **Recap Module 1** **[Optional, depending on training structure: if modules are being prepared in one block then no need for recaps]** **Instructions** Facilitator to **ask delegates:** The main challenges facing business were described in Module 1: can anybody name them? **Answers** - Water scarcity - Climate change - Habitat change - Biodiversity loss and invasive species - Overexploitation of the ocean - Nutrient overloading leading to pollution Can anyone name the drivers of these changes? **Answers** - Population growth - Lifestyle changes - Governance issues	 Finally, we looked at the business case for action, can anyone tell me some of the risks associated with ecosystem dependency? **Answers** - Operational (e.g. Increased scarcity and cost of raw materials) - Regulatory and legal (e.g. Public policies like taxes and moratoria on extractive activities) - Reputational (e.g. Relationships and image from media and NGOs) - Market and product (e.g. Consumer preferences) - Financing (e.g. Availability of capital)

Session 1
Icebreaker and Introduction (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 10: 5 minutes + 5 minutes Q+A [optional] **Recap Module 2** **[Optional, depending on training structure: if modules are being prepared in one block then no need for recaps]** **Instructions** Facilitator to **recap specific concepts,** including: - Footprinting concepts (carbon, water, environmental) - Ecological change versus changes of relevance to business Facilitator to **ask delegates**: in Module 2, we looked at the business case for measuring and assessment, can anyone remember some of the main benefits for businesses? Answers include: - Effective communication of information - More informed decisions - Risk identification and management, resulting in decreased vulnerability to risk - Cost savings - Competitive advantage - Improved relationships with stakeholders, including regulators, investors, and shareholders - Streamlined permitting processes - Customer retention	 Facilitator to **remind delegates** of some of the relevant tools for measuring and assessing, including: - **Ecosystem Services Review (ESR):** a structured methodology that allows managers proactively develop strategies to manage business risks and opportunities arising from their company's dependence and impact on ecosystems - Global Water Tool - GHG protocol - WBCSD Measuring Impact Framework - Other relevant tools from Module 2

Icebreaker and Introduction (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 11: 5 minutes + 5 minutes Q+A [optional] **Recap Module 3** **[Optional, depending on training structure: if modules are being prepared in one block then no need for recaps]** **Instructions** Facilitator to **recap specific concepts**, including: - Public versus private goods - Total Economic Value (TEV) - The evolution of ecosystems service frameworks - Screening and planning for valuation **Ask delegates,** can anyone remember the reasons that a business might conduct corporate ecosystem valuation? Answers include: - Improving business decision making - Capturing and pricing new income streams - Saving costs - Reducing taxes - Sustaining revenues - Revaluating assets - Investigating new goods and services - Assessing liability and compensation - Measuring company and share value - Reporting performance	 There are **two stages of CEV** – can anyone remember/describe how they **breakdown into different steps**? Answers include: - Stage 1: Screening - Stage 2: Scoping, Planning, Valuation, Application, Embedding

Session 1
Icebreaker and Introduction (cont.)

Facilitators' notes	Media/activity/handout guidance

Slide 12: 2 minutes

Objectives

The facilitator will describe the objectives of this training module and provide linkages between these and the learning objectives described by the delegates.

Slide 13 < 1 minute

Agenda

The facilitator will briefly go through the agenda for the sections that will be covered in this training module and provide linkages with the above objectives and the learning objectives described by the delegates.

Slide 14 < 1 minute

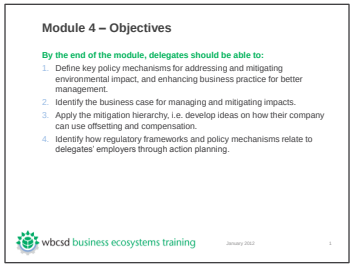
The facilitator will leave the course timetable displayed throughout the course as a **poster**

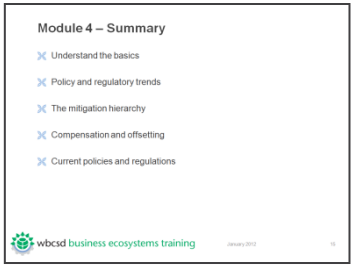
Slides 15-16: 1 minute

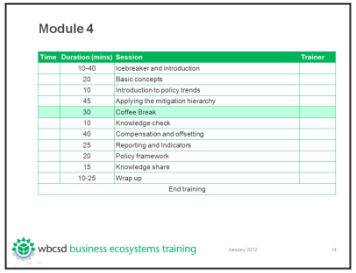
The facilitator will run through a few high impact examples of companies addressing this issue and where commitments have been made.

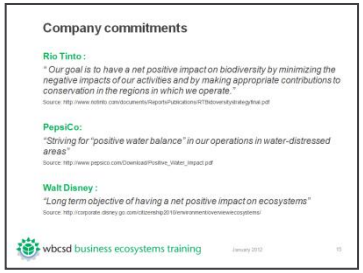
Examples that show how companies are addressing issues of compensation, no net loss and supply chain management.

Source: *Communicating and implementing TEEB for Business: A proposal for action-research* , Joshua Bishop, IUCN (Dec 2010) *http://www.povertyenvironment.net/files/IUCN%20-%20Implementing%20TEEB%20for%20Business%20-%20public.pdf*









Icebreaker and Introduction (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 17: 1 minute **Source:** WBCSD, *Connecting the dots* (2005), Slide 61 http://www.wbcsd.org/pages/edocument/edocumentdetails.aspx?id=23 (link to connecting the dots at the bottom of the page). **Instructions** Facilitator to set the scene following on from the quotes of commitment by briefly summarising this background text. **Background** Rather than thinking of ecosystem services as having little or no economic value, we should think of them as being an important asset, source of natural capital or element of the basic infrastructure that is required for production, consumption, trade and investment, so that we can reap the payoffs that this natural infrastructure gives. Business should think of ecosystems as: - Valuable assets and natural capital - Ultimately as elements of the basic infrastructure that supports production, consumption, trade and investment Conventional definitions of infrastructure often omit natural ecosystems, yet there are large payoffs to valuing and investing in ecosystems as economic infrastructure. This module explores how companies can manage and mitigate their impacts on ecosystems to help maximise the value of natural capital. This begins with a summary of basic concepts in the next session.	

Session 2: Basic Concepts
Time guidelines

Time guidelines	Time
Basic Concepts – presentation	20 minutes

Session objective

Audience to understand the benefits to business of managing their impacts on society.

Session format

This session will be run by one course facilitator, who will talk through key concepts and definitions with delegates.

Handouts

Delegates course material desk pack – hardcopies will be laid out on delegate desks in advance of their arrival at the course. This pack contains copies of all of the slides used throughout this course together with relevant handout materials required for each session.

A glossary of terms used during the module will also be available in the course material desk pack.

Session overview

The primary focus of this session should be to provide delegates with the base language and terminology they will use for the rest of the module.

It will allow delegates to learn the basic concepts or clarify/strengthen any previous knowledge.

Session 2
Basic Concepts

Facilitators' notes	Media/activity/handout guidance

Slide 18: <1 minute

Slides 19-20: 3 minutes

Sources:
WBCSD, *CEV helpdesk presentation* (July 2011), (WBCSD Members only. Accessible at: http://www.wbcsd.org/Pages/EDocument/EDocumentDetails.aspx?ID=13752&NoSearchContextKey=true)
Business and Biodiversity Offset Program (BBOP), http://bbop.forest-trends.org/site/misc/Slide1.ppt

Instructions

Facilitator to talk through the key concepts and terminology, supported by the background notes below. This provides the basic foundation that delegates will need for the other sessions throughout the module. The facilitator can introduce the session using the following language:

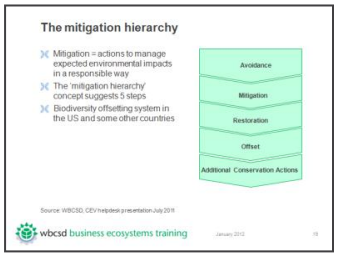
'We are now going to look at key concepts you'll need throughout this module'

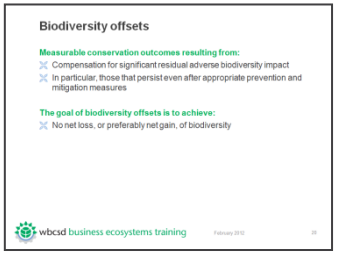
The background notes are required reading for the facilitator, but are not intended to be used as a script. The facilitator should review the material in advance and tailor the amount of information provided to the audience.

Background

Mitigation hierarchy – This is a set of steps taken to reduce and alleviate residual environmental harm as much as possible, through mitigation, reduction, restoration, and avoidance. Offsetting and compensation are the last two steps of the hierarchy when all other steps have been taken (see later session).

Biodiversity offsets – There are numerous approaches to what are broadly termed 'biodiversity offsets'; some with strict and complex criteria others based on simple quantity metrics (e.g. area of land or number of breeding pairs).





The Business and Biodiversity Offsets Programme (BBOP) definition:

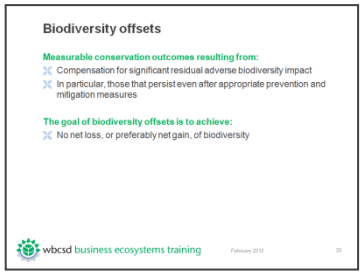
"Measurable conservation outcomes resulting from actions designed to compensate for significant residual adverse biodiversity impacts arising from project development and persisting ***after appropriate prevention and mitigation measures have been implemented.****"*

"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."

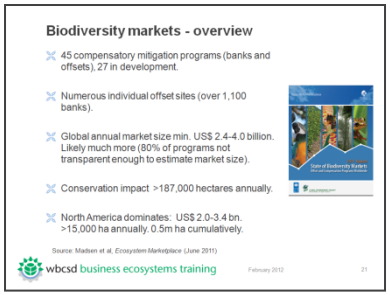
Q&A: Ask the audience if they know any other terms for biodiversity offsetting

Answers: *conservation credits/habitat, species or conservation banking*

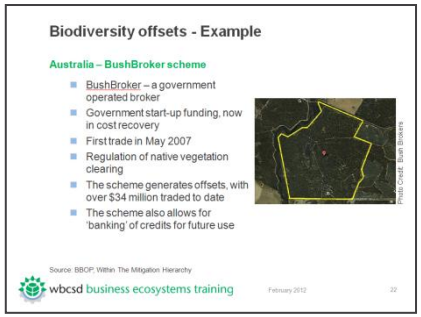
Session 2
Basic Concepts (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 20: 3 minutes (cont.) **Sources:** BBOP – Within The Mitigation Hierarchy http://bbop.forest-trends.org/site/misc/Slide1.ppt http://bbop.forest-trends.org/offsets.php **Background (cont.)** Currently the world is witnessing an unprecedented loss of biodiversity in ecosystems around the globe. Some 10-30% of all mammal, bird, and amphibian species are threatened with extinction. A major cause of this loss is the destruction of natural habitats by developments in the agriculture, forestry, oil and gas, mining, transport, and construction sectors, among others. At the same time, countries rely on these developments for economic growth and for products, services, and jobs. A growing number of companies, governments and NGOs are now aware that biodiversity offsets could achieve more, better and higher priority conservation and livelihood outcomes. Biodiversity offsets not only rehabilitate sites but also address the company's full impact on biodiversity at the landscape scale. Biodiversity offsets can also support sustainable livelihoods by addressing the underlying causes of biodiversity loss and can assist companies to manage their risks, liabilities and costs. **Source:** BBOP for WBCSD Information Call on biodiversity offsets (Oct2011) (WBCSD Members only. Accessible at: http://www.wbcsd.org/Pages/EDocument/EDocumentDetails.aspx?ID=13749&NoSearchContextKey=true)	 Three different types of offsets: - Individual offset - Aggregated offset - Conservation bank **Background (cont.)** Each offset must demonstrate additional, measurable conservation outcomes. While appropriate offset activities will vary from site to site, a range of different land (and marine) management interventions could typically be involved in biodiversity offsets. **Types of offset activities** Developers should pursue biodiversity offsets only at the end of the mitigation hierarchy, after they have reduced and alleviated residual environmental harm as much as possible. Biodiversity offsets can be used to compensate for the residual impact to biodiversity that cannot be mitigated onsite and therefore balance the impact of the project.

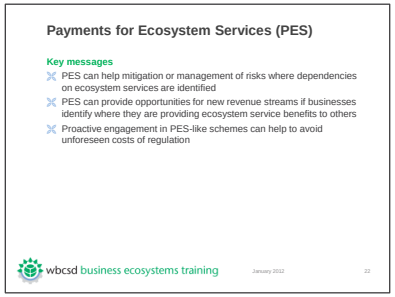
Session 2
Basic Concepts (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 21: 1 minute (cont.) **Sources:** Madsen et al, *Ecosystem Marketplace* (June 2011) http://www.forest-trends.org/documents/files/doc_2848.pdf **Background on biodiversity markets** - 45 compensatory mitigation programs (banks and offsets) and 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. - **US** mitigation banking still increasing: 1,044 active and sold-out wetland, stream and conservation banks. - **Europe**: Germany: banking. UK, France, Sweden : initial steps. - **Africa**: South Africa state and national level under development. - **Asia**: Vietnam, Japan, Mongolia. - **Australia & NZ**: Several states (NSW, Victoria, Northern Territories, Queensland, Western Australia). New Zealand underway.	

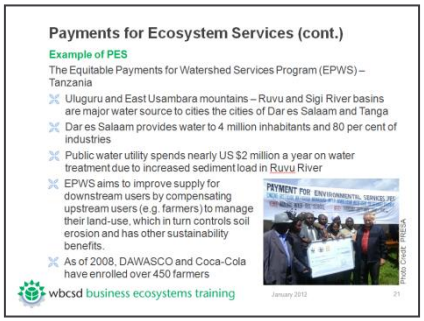
Session 2
Basic Concepts (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 22: 1 minute (cont.) **Sources:** BBOP – Within The Mitigation Hierarchy http://bbop.forest-trends.org/site/misc/Slide1.ppt http://bbop.forest-trends.org/offsets.php **Example of an offset activity:** ***"Australia – BushBroker:*** *The clearing of native vegetation in the State of Victoria is regulated under the Victorian Planning and Environment Act of 1987. In 2006, the Victorian Government introduced the BushBroker scheme, which requires that clearing of native vegetation be compensated by an appropriate offset.* *Permit applicants can source these offsets through the BushBroker register. Offsets are gains in native vegetation extent and/or condition that are permanently protected and linked to a particular clearing site. Applicants can either generate offsets on their own property or purchase these offsets as native vegetation credits from third party providers. To date, over $4 million worth of trades have been facilitated by the programme.* (Note: in 2011 it represented $34 millions) *The system also allows the 'banking' of credits for future use. For instance, a construction company could donate land for the conservation reserve system and register the resulting credits for future offset use. The major revenue generation opportunity for business is through the generation of native vegetation credits through improved land management, re-vegetation of previously cleared areas, and protection of existing stands of trees. This relatively low-cost process can generate significant additional income from land that might otherwise have low commercial value. Average prices for credits under the BushBroker scheme have ranged from AUD $42,000 to $157,000 per hectare."* **Source**: TEEB for Business, Chapter 5 page 17 (Updated figures) http://www.teebweb.org/LinkClick.aspx?fileticket=EY1cJCTSe2U%3D&tabid=1021&language=en-US	

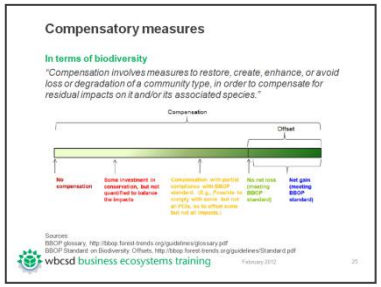
Session 2
Basic Concepts (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 23: 3 minutes **Source:** WBCSD, *Connecting the dots* (2005), Slide 76 http://www.wbcsd.org/pages/edocument/edocumentdetails.aspx?id=23 (link to connecting the dots at the bottom of the page). WBCSD, *CEV helpdesk presentation* (Jun 2011) (WBCSD Members only: http://www.wbcsd.org/Pages/EDocument/EDocumentDetails.aspx?ID=13753&NoSearchContextKey=true) **Instructions:** Facilitator to continue introducing the key concepts and terminology presented in the slide, supported by background information. **Payments for Ecosystem Services (PES)** – "*PES can be defined as voluntary transactions where a well-defined ecosystem service (ES) (or land-use likely to secure that service) is 'bought' by at least one ES buyer from at least one ES provider, if and only if the ES provider secures ES provision (conditionality)*". **Quote source:** TEEB for National and International Policy Makers, Chapter 5, page 6 http://www.teebweb.org/LinkClick.aspx?fileticket=vYOqLxi7aOg%3d&tabid=1019&language=en-US Linking beneficiaries with providers of services to directly incentivise behavioural change. In its strictest terms PES is: - A voluntary transaction - A well-defined environmental service, or land-use likely to deliver that service - A service is 'bought' by at least one buyer - From at least one provider - Conditional on the provider securing continued provision	 Direct payments include buying and selling the delivery of specific ecosystem services or, more commonly, payments for maintaining or adopting land uses that are thought to provide such ecosystem services. Governments in several countries have developed subsidies and tax incentives to encourage resource conservation. For example, payment for watershed protection: conserving natural forests in watersheds and reducing pollutant loads in run-off from upland areas can be a cost-effective means of providing reliable supplies of clean water for hydroelectric power generation, irrigation, industrial, domestic and recreational uses. **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

Session 2
Basic Concepts (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 24: 3 minutes **Source:** BBOP, *Introduction to Payments for Ecosystem Services. A Reference Book for Uganda*, p21 http://www.forest-trends.org/documents/files/doc_2438.pdf **Instructions:** Facilitator to talk through example of a payment for ecosystem services. **Background:** **The Equitable Payments for Watershed Services Program (EPWS) – Tanzania** *"CARE International in Tanzania, in partnership with the World Wildlife Fund (WWF), the International Institute for Environment and Development (IIED), and the Poverty Reduction & Environmental Management Program (PREM) initiated a new project in 2006, Equitable Payment for Water Services (EPWS). The program is based in the Uluguru and East Usambara mountains, focusing on Ruvu and Sigi River basins, which are the major sources of water to the cities of Dar es Salaam and Tanga, respectively. The City of Dar es Salaam provides water to some four million inhabitants and roughly 80 percent of industries. The public water utility, Dar es Salaam Water Supply and Sewerage Corporation (DAWASCO), currently spends nearly US$2 million per year in water treatment costs due to increased sediment load in the Ruvu river, which feeds the city.*	 *The Equitable Payments for Watershed Services (EPWS) program aims to improve the quality and flow of water for downstream users by compensating upstream farmers to engage in various land-use practices to control soil erosion. This is typically brought on by unsustainable farmland expansion and irrigation practices, deforestation and illegal mining activities in river systems and within forest reserves. The project aims to establish long-term financial investment in modifying land use to conserve and improve watersheds for reliable flow and quality of water. The project will also establish a compensation mechanism that recognizes the needs and priorities of marginalized and poor people, and to improve quality of life of communities through substantial benefits to the rural poor hence contributing to poverty reduction. As of 2008, DAWASCO and the Coca-Cola Company had enrolled more than 450 farmers."*

Session 2
Basic Concepts (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 25: 1 minute **Source:** BBOP Glossary http://bbop.forest-trends.org/guidelines/glossary.pdf **Instructions:** Facilitator to talk through the concept of compensatory measures. **Background:** **Compensation:** "*Generally, compensation is a recompense for some loss or service, and is something which constitutes an equivalent to make good the lack or variation of something else. It can involve something (such as money) given or received as payment or reparation (as for a service or loss or injury). Specifically, 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.*"	

Session 2
Basic Concepts (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 26: <1 minute **Source:** Green Development Initiative – http://gdi.earthmind.net/ **Instructions:** Facilitator to talk through the concept of the Green Development Initiative (GDI), and Green Development Mechanism (GDM). These two initiatives are good examples of multilateral action to manage/mitigate impacts on ecosystems **'Innovative international finance for biodiversity'** This initiative began in 2009 with the aim to raise interest and support for further discussion and development of a Green Development Initiative (GDI) by the 10th Conference of the Parties of the Convention on Biological Diversity (CBD) which took place in October 2010 in Nagoya, Japan. **Note**: Originally call the **Green Development Mechanism (GDM)** renamed to **Green Development Initiative (GDI)** (October 2011) The GDI is an international response to the 10th Conference of the Parties of the Convention on Biological Diversity (CBD COP10), particularly with respect to the strategies for resource mobilisation and business engagement. It aims to establish an international green development certification scheme for land management.	

Session 2
Basic Concepts (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 27: 5 minutes for examples **Sources:** WBCSD, *Sustainable Procurement of Wood and Paper-based Products Guide and Resource Kit* (2011) Available from: http://www.wbcsd.org/Pages/EDocument/EDocumentDetails.aspx?ID=183 IFC: http://www.ifc.org/ifcext/footprint.nsf/Content/Environment_Procurement **Instructions:** Facilitator to talk through the key terminology to audience. **Background:** **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 (Environmentally and Socially Responsible Procurement Working Group, 2007). Beyond the immediate and obvious consequences of their purchases, concerned consumers, retailers, investors, communities and other groups want to know how their buying decisions impact the environment and forest-based communities. They also want to know whether the products they buy are produced sustainably. Will buying them today adversely affect the availability of similar products or environmental values for future generations? **Facilitator to walk through one/two of the following examples** **Belgian Government Procurement Policy:** The Policy is applicable to wood-derived products, except paper. The Policy is compulsory for all entities of the federal government, and it focuses on wood from sustainably harvested timbers.	 **Belgian Government Procurement Policy (cont.):** The definition includes provisions related to traceability, legality, and specific requirements for sustainable forest management certification systems. **German Government Procurement Policy:** Procurement policy for wood and wood products only from verifiably legal and Sustainable Forest Materials (SFM).

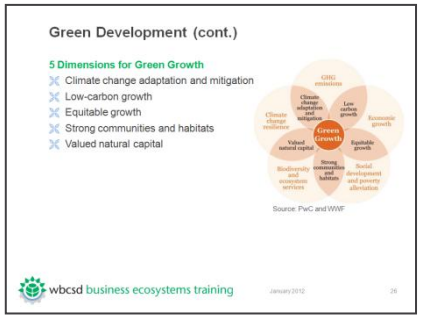
Session 2
Basic Concepts (cont.)

Facilitators' notes	[Media/activity/handout guidance]
Slide 27: 5 minutes (cont.) **Sources:** WBCSD, *Sustainable Procurement of Wood and Paper-based Products Guide and Resource Kit* (2011) Available from: http://www.wbcsd.org/Pages/EDocument/EDocumentDetails.aspx?ID=183 IFC: http://www.ifc.org/ifcext/footprint.nsf/Content/Environment_Procurement **Greenpeace's Responsible Procurement Policy:** Provides advice and assistance to solid-wood retailers devising and implementing a responsible procurement policy using Greenpeace's Timber Standard. The Timber Standard is a benchmark and it outlines a step-wise transition towards buying products that are sustainable. Sustainable products are defined as FSC-certified and/or are made of 100% recycled materials. **International Finance Corporation (IFC) Procurement Policy:** "*IFC's goal is to choose environmentally and socially responsible products and services for our daily operations. This not only improves our footprint, but sends an important message to our suppliers.* *Certain vendors, including the suppliers to our headquarters in Washington, DC, of food services, office supplies, and travel, are selected by the Corporate Procurement Unit of the World Bank Group. The World Bank Group is committed to corporate responsibility, and therefore evaluates vendors' commitments to fair wages and benefits, safety, environmental programs, and diversity of its supply chain."* **[Customize: Either the appropriate national strategy should be added as an example, if one is available and/or the company's current procurement policy]**	 **Kimberly-Clark:** developed a Guide for Suppliers, which covers: - Working with Kimberly-Clark - Commitment to Ethical Business Practices - Safety and Health - Environmental Stewardship: "To help achieve our vision we look to do business with suppliers whose environmental programs are compatible to our own, and who can provide us with products and solutions that move us closer to our goals." **Source:** Kimberly-Clark, Guide for Suppliers (2012) http://www.cms.kimberly-clark.com/umbracoimages/UmbracoFileMedia/Guide_For_Suppliers_umbracoFile.pdf **Sompo and Unilever examples will be discussed in session 8.**

Session 2
Basic Concepts (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 28: 2 minutes **Source:** WBCSD, *CEV helpdesk call* (Sept 2011) (WBCSD Members only :http://www.wbcsd.org/Pages/EDocument/EDocumentDetails.aspx?ID=13750&NoSearchContextKey=true) **Instructions** Facilitator to talk through the concept of 'a 'green economy' and green growth' from the WBCSD perspective **Interactive: option for a quick Q & A with delegates, i.e., what are your views on a green economy, what would it include? Facilitator to note answers on a flip chart before moving to explain the WBCSD perspective.** **Background** Green Economy was been identified as primary theme for the Rio+20 Conference, and the prevailing **definition is from UNEP:** *"A Green Economy is one that results in improved human well-being and social equity, while significantly reducing environmental and ecological scarcities."* **WBCSD's perspective** is outlined: *"A planet of around 9 billion people, all living well – with enough food, clean water, sanitation, shelter, mobility, education and health to make for wellness – within the limits of what this small, fragile planet can supply and renew, every day."* ...which could be interpreted as a target state for Green Growth – a 'Green Prosperity"	 **Green Growth:** The prevailing definition of Green Growth comes from the OECD: *"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. To do this, it must catalyse **investment** and **innovation** which will underpin sustained growth and give rise to **new economic opportunities**."* The facilitator should highlight that Green Growth builds on the concept of sustainable development, but the emphasis is more on the environmental aspect as opposed to the social.

Session 2
Basic Concepts (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 29: <1 minute **Source:** WBCSD, *CEV helpdesk call* (Sept 2011) (WBCSD Members only :http://www.wbcsd.org/Pages/EDocument/EDocumentDetails.aspx?ID=13750&NoSearchContextKey=true) **Instructions:** Facilitator to talk through the 5 dimensions of green growth, as outlined by PwC and WWF. **Dimensions of green growth** PwC and WWF have identified five dimensions to green growth. - *"Economic growth is important for social development and prosperity and must be considered in conjunction with other environmental and social factors, and business activities.* - *Social development and poverty alleviation is a central objective of green growth, and is highly correlated with economic growth and environmental quality.* - *Biodiversity and ecosystem services provide valuable contributions to economic growth and human welfare but are often omitted from decision making. Green growth seeks to address these market failures.* - *Climate change resilience is about adapting to the physical impacts of a changing climate.* - *Greenhouse gas emissions need to be limited to contribute to global and national efforts to mitigate climate change and minimise future adverse impacts on local and international society."* **Source:** *Road Map for a green economy in the heart of Borneo. A scoping study* (2011), PwC and WWF.	 Economic growth must be decoupled from carbon emissions and the degradation and depletion of ecosystems and biodiversity and be resilient to the changing climate. Growth must also strengthen communities and help to address problems of social development and poverty alleviation. Underlying the concept of green growth is **the need to recognize and quantify the value of natural capital** so that short-term economic activity is not incorrectly valued over long-term investments Most economies fail to value the services that nature provides such as carbon sinks, water and air purification, flood protection and pollination. As a consequence, the world's 'natural capital' is being consumed faster than it can be restored. This reduces its availability to support economic activity and increases society's exposure to natural disasters and climate change.

Optional Session 3: Introduction to policy trends
Time guidelines

Time guidelines	Time
Introduction to broader policy trends and examples of regulations	10 minutes

Session objective

To give delegates a simple overview of the process of addressing global environmental concerns.

Session format

This session will be run by one course facilitator, who will talk through key concepts and definitions with delegates.

Handouts

Delegates course material desk pack – hardcopies will be laid out on delegate desks in advance of their arrival at the course. This pack contains copies of all of the slides used throughout this course together with relevant handout materials required for each session.

A glossary of terms used during the module will also be available in the course material desk pack.

Session overview

The session will be presentation based. The session will use the examples of international conventions to walk through how decisions from an international perspective can filter through to impact on companies.

Session 3
Introduction to policy trends

Facilitators' notes	Media/activity/handout guidance

Slide 30: <1 minute

In this session, delegates will be introduced to the policy background general trends and processes by which issues are passed into legislation (and thus impact on businesses), with specific regard to biodiversity and ecosystem based policies.

Slide 31: 2 minutes

Long history of environmental policy

A. **Option: ask delegates to guess the year the UK introduced their first water policy –** 1388 UK water pollution policy. This was one of the earliest environmental policies. Please refer to: *http://www.environmentlaw.org.uk/rte.asp?id=108*

B. 1973 EU Action Programme on Environment. Please refer to: *http://www.environmentlaw.org.uk/rte.asp?id=108*

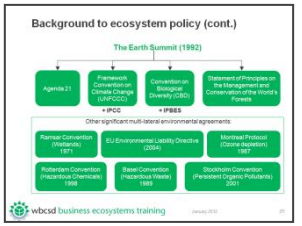
The limits to growth (1972)

Limits to Growth is a study about the future of our planet. It involved designing a computing model which took into account the relations between various global developments and produced computer simulations for alternative scenarios. Part of the modelling were different amounts of possibly available resources, different levels of agricultural productivity, birth control or environmental protection.

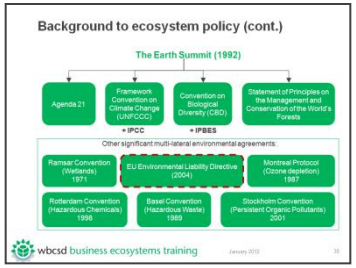
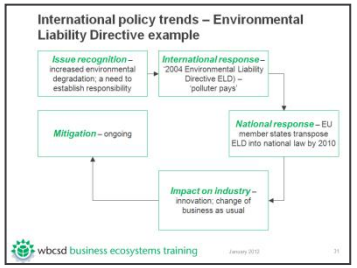
Source: Club of Rome, *http://www.clubofrome.org/?p=326*

Session 3

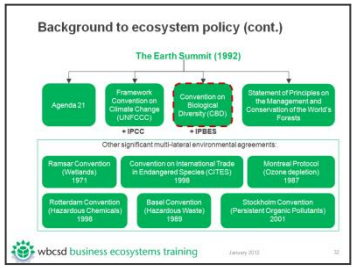
Introduction to policy trends

Facilitators' notes	Media/activity/handout guidance
Slide 31: 2 minutes (cont.) **Brundtland Report (1987): original** ***Source:*** *United Nations, http://www.un.org/esa/sustdev/csd/csd15/media/backgrounder_brundtland.pdf* Updated 20 years on, the Brundtland Report defined sustainable development and called for increased international cooperation. **Conventions, treaties, protocols, agreements…** Over 250 multilateral environmental agreements exist – slide 3 shows just a few as examples. **The Earth Summit (1992) – start of 'The Rio Process'** *http://www.un.org/geninfo/bp/enviro.html* **Slide 32: <1 minute** **Instructions** Facilitator to show some of the policies that have been put in place since the Rio Earth Summit. **[Customize 1: Facilitator to choose either the EU Environmental Liability Directive or the Convention on Biological Diversity as examples of a policy trend from issue recognition to mitigation, depending on audience.]** **[Customize 2: Facilitator can also use any other relevant legislation to illustrate this section, E.g. for a US audience: Natural Resource Damage Assessment example from the US EPA. More information at:** http://www.epa.gov/superfund/programs/nrd/nrda2.htm**]**	 

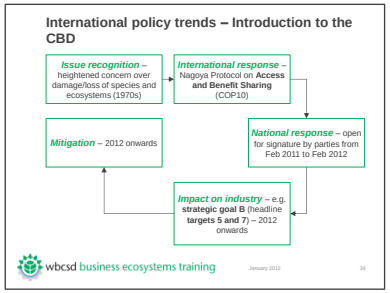
Session 3
Introduction to policy trends

Facilitators' notes	Media/activity/handout guidance
Slides 33-34: 3 minutes **Instructions:** Facilitator to discuss the EU Environmental Liability Directive as an example of how issues are mitigated on an international policy level. **Source:** European Commission *http://ec.europa.eu/environment/legal/liability/index.htm* **Issue recognition:** "*There are currently many contaminated sites in the [EU] Community, posing significant health risks, and the loss of biodiversity has dramatically accelerated over the last decades. Failure to act could result in increased site contamination and greater loss of biodiversity in the future.*" **International response:** EU Environmental Liability Directive (ELD): the Directive's main objective is to prevent and remedy "environmental damage". Environmental damage is defined as damage to protected species and habitats (nature), damage to water and damage to soil. The liable party is in principle the "operator", i.e. the one (natural or legal person) who carries out an occupational activity. The operator, who carries out certain dangerous activities as listed in the Directive, is strictly liable (without fault) for the environmental damage he/she causes. Environmental damage also includes damage caused by airborne elements as far as they cause damage to water, land or protected species or natural habitats used.	  **National response:** All EU member states were given 3 years to transpose the Directive into domestic laws. The process was delayed by several years, the transposition of ELD was completed by the last member state in 2010, but the Directive is already having an impact, with some 50 cases documented in Europe. **Impact on Industry:** By invoking the 'polluter pays' principle, the directive has an impact on various industries: "The prevention and remedying of environmental damage should be implemented through the furtherance of the 'polluter pays' principle, as indicated in the Treaty and in line with the principle of sustainable development. The fundamental principle of this Directive should therefore be that an operator whose activity has caused the environmental damage or the imminent threat of such damage is to be held financially liable, in order to induce operators to adopt measures and develop practices to minimise the risks of environmental damage so that their exposure to financial liabilities is reduced." **Mitigation** of this issue is ongoing.

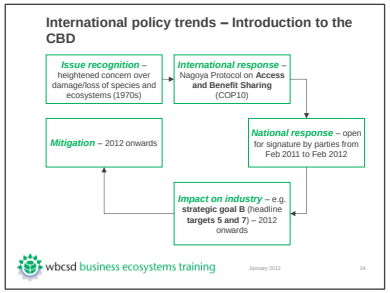
Session 3
Introduction to policy trends (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 35: 1 minute **Sources:** United Nations *http://www.un.org/geninfo/bp/envirp2.html* WBCSD, *Responding to the Biodiversity Challenge: Business contributions to the Convention on Biological Diversity (2010)* [online]. Available from: *http://www.wbcsd.org/web/nagoya/RespondingtotheBiodiversityChallenge.pdf* **Instructions:** Facilitator to refer to source and present the Convention on Biological Diversity and its three objectives, briefly mentioning the headline and Aichi targets. **Background:** The Convention on Biological Diversity (CBD) states that the ecosystem approach is a strategy for the integrated management of land, water, and living resources that promotes conservation and sustainable use in an equitable way. This approach recognizes that humans, with their cultural diversity, are an integral component of many ecosystems. In order to implement the ecosystem approach, decision-makers need to understand the multiple effects on an ecosystem of any management or policy change. By way of analogy, decision-makers would not make a decision about financial policy in a country without examining the condition of the economic system, since information on the economy of a single sector such as manufacturing would be insufficient. The same need to examine the consequences of changes for multiple sectors applies to ecosystems.	 For instance, subsidies for fertilizer use may increase food production, but sound decisions also require information on whether the potential reduction in the harvests of downstream fisheries as a result of water quality degradation from the fertilizer runoff might outweigh those benefits.

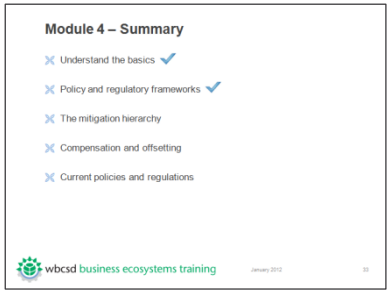
Session 3
Introduction to policy trends (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 36: 2 minutes **Issue recognition**: heightened concern over damage/loss of species and ecosystems (1970s) **Source**: WBCSD, *CEV Helpdesk Call presentation* (2011), (WBCSD Members only: ttp://www.wbcsd.org/Pages/EDocument/EDocumentDetails.aspx?ID=13754&NoSearchContextKey=true) **Instructions:** Facilitator to talk through COP 10 and emphasize its key objectives **Background:** **International response**: Convention on Biological Diversity established at UN 'Earth Summit' (Rio 1992); the 10th Conference of the Parties (COP 10) in **Nagoya 2010** set out the key objectives: 1. The conservation of biological diversity 2. The sustainable use of the components of biological diversity 3. The fair and equitable sharing of the benefits arising from the utilization of genetic resources (see below) Underlying these objectives are the 5 strategic goals, which dictate the 20 headline targets (Aichi targets for 2020). **National response:** signatories translate these targets into national laws, e.g. EU Biodiversity Action Plan, Brazilian National Targets for Biodiversity, etc. Facilitator to briefly discuss one national response not used in previous modules. Full list available at: https://www.cbd.int/nbsap/about/targets/ Facilitator to discuss strategic goal B and headline targets as examples of how the Nagoya Protocol will be translated into impacts on industry.	 **Strategic goal B – reduce the direct pressures on biodiversity and promote sustainable use.** **Access and benefit sharing:** *The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity is an international agreement which aims at sharing the benefits arising from the utilization of genetic resources in a fair and equitable way, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding, thereby contributing to the conservation of biological diversity and the sustainable use of its components*. (**source**: CBD, *http://www.cbd.int/abs/*) **Target 5** – halving rate of loss of all natural habitats, including forests, and where feasible brought close to zero. **Target 7** – by 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity. These targets specifically relate to management and mitigation of impacts and invoke concepts such as 'no net loss'

Session 3
Introduction to policy trends (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 36: 2 minutes (cont.) **Issue recognition**: heightened concern over damage/loss of species and ecosystems (1970s) **National response example:** **[Customization: Facilitators to customize this part using the relevant country examples introduced in the *State of Biodiversity Markets Report* publication.]** **Japan: "***A 2010 report by Japan's Central Environmental Council called for better tracking of new types of biodiversity conservation measures including biodiversity offsets. Following this recommendation, the Ministry of Environment Japan began investigations into overseas biodiversity compensation schemes in 2010.Under Japan's existing national Environmental Impact Assessment Law (enacted in 1997), impact mitigation measures may include avoidance, reduction, and compensation. Several compensation examples exist to date but most of these are not full-scale biodiversity offsets as implemented in many countries"* **Source**: Madsen, Becca; Carroll, Nathaniel; Moore Brands, Kelly; 2011. *State of Biodiversity Markets Report: Offset and Compensation Programs Worldwide*. p29-30. Available at: http://www.ecosystemmarketplace. com/documents/acrobat/sbdmr.pdf **Impact on Industry:** impact on industry will be more clear post-2012. **Mitigation**: most national responses will be implemented post-2012.	

Session 3
Introduction to policy trends (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 37: <1 minute **Instructions:** Facilitator to recap what has been covered in the module so far.	

Session 4: Applying the Mitigation Hierarchy
Time guidelines

Time guidelines	Time
Applying the mitigation hierarchy – case study	45 minutes

Session objective

Delegates to take part in an exercise to apply the mitigation hierarchy.

Session format

This session will be run by one course facilitator, who will talk through key concepts and definitions with delegates.

Handouts

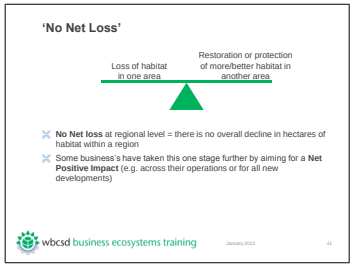
Delegates course material desk pack – hardcopies will be laid out on delegate desks in advance of their arrival at the course. This pack contains copies of all of the slides used throughout this course together with relevant handout materials required for each session.

A glossary of terms used during the module will also be available in the course material desk pack.

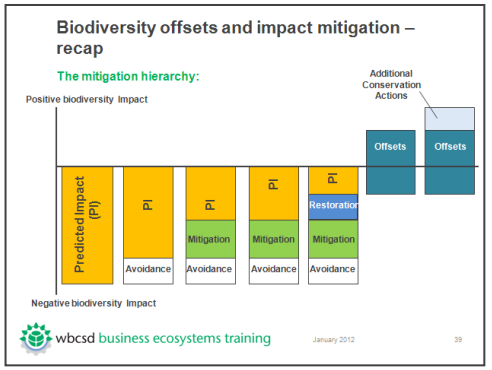
Session overview

Delegates are given a thorough introduction to the mitigation hierarchy through a presentation and case study walk through. The second part of the session is an exercise requiring delegates to apply the mitigation hierarchy to a particular case study example.

Session 4
Applying the Mitigation Hierarchy – case study (cont.)

Facilitators' notes	Media/activity/handout guidance
Case Study (Net Positive impact anecdotal example) and Interactive Group Activity **Slide 38: <1 minute** Facilitator to state session objective, (i.e. to take part in an exercise to apply a key concept introduced earlier in the module, the Mitigation Hierarchy). **Slide 39: 2 minutes** **Interactive** **Ask the delegates to define Net Positive Impact (NPI) [if not covered in Introduction and Icebreaker session – if so then refer back]** Facilitator to discuss the definition and various names for No Net Loss (NNL) and NPI **NNL: "***No net loss is defined as the point at which project-related impacts on biodiversity are balanced by measures taken to avoid and minimize the project's impacts, to undertake on-site restoration and finally to offset significant residual impacts, if any, on an appropriate geographic scale (e.g., local, landscape-level, national, regional).*" **'Net gains': "***Net gains are additional conservation outcomes that can be achieved for the biodiversity values for which the critical habitat was designated. Net gains may be achieved through the development of a biodiversity offset and/or through programs that can be implemented in situ (on-the-ground) to enhance habitat, and protect and conserve biodiversity.*" **Source:** IFC Performance Standard 6 http://www1.ifc.org/wps/wcm/connect/bff0a28049a790d6b835faa8c6a8312a/PS6_English_2012.pdf?MOD=AJPERES	  **Net positive impact (as defined in TEEB through the Rio Tinto example):** Ensuring, where possible, that the company's actions have positive effects on biodiversity features and their values that not only balance but are broadly accepted to outweigh the inevitable negative effects of the physical disturbances and impacts associated with the company's operations. **Source:** TEEB for business, Chapter 4 page 11 http://www.teebweb.org/LinkClick.aspx?fileticket=tcneop1kys4%3d&tabid=1021&language=en-US

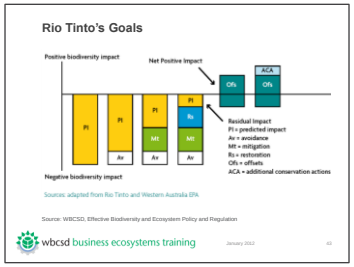
Session 4
Applying the Mitigation Hierarchy – case study (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 40: 3 minutes **Instructions** This slide reviews the different levels of the mitigation in detail as preparation to help participants understand the prioritization of different approaches. The facilitator should talk through the slide supported by the background notes below **Background** **Avoidance**: Activities that either change or stop actions before they take place, preventing their expected impacts on biodiversity. Avoidance involves a decision to change the expected or normal course of action. E.g. A haulage road may be redesigned during project development or expansion to avoid the clearance of habitat with high conservation significance, changing the normal course of action and resulting in longer haul distances. **Mitigation:** Reducing the severity of impacts on biodiversity that result from actions already under way; reducing the likelihood/magnitude of biodiversity impacts (though not completely preventing them). E.g. The confined deposition of benign tailings material to create beaches on which wetlands can be established. **Restoration**: Sites must be restored to a state where biodiversity values are equal or higher to the originally disturbed habitat. E.g. Restoration of littoral forest habitat on brown field sites. **Offsets**: Designed to compensate for the unavoidable impacts on biodiversity caused by a company's actions. Not to be employed in place of appropriate on-site avoidance/minimisation measures, but seek to address the residual gap.	 Either 'averted disturbance" (offset demonstrates that the disturbance was inevitable without their intervention) or restoration of degraded habitat. Preventing unsustainable forest use through community based conservation, or establishing a protected conservation reserve. **Additional Conservation Actions**: measures where benefits are more difficult to measure. These benefits can be measured using some of the valuation frameworks and techniques discussed within Module 3. **Source**: BBOP Gossary http://bbop.forest-trends.org/guidelines/glossary.pdf

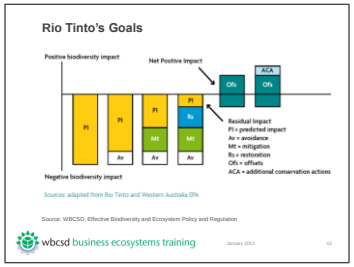
Session 4
Applying the Mitigation Hierarchy – case study

Facilitators' notes	Media/activity/handout guidance
Session 5 – Applying the Mitigation Hierarchy: Case Study **Case Study (Net Positive impact anecdotal example) and Interactive Group Activity** **Slide 41 1 minute** **Case study: Rio Tinto** ***Sources:*** WBCSD, *Effective Biodiversity and Ecosystem Policy and Regulation* (2010) *http://www.wbcsd.org/Pages/EDocument/EDocumentDetails.aspx?ID=21&NoSearchContextKey=true* Rio Tinto and Biodiversity (2008) *http://www.riotinto.com/documents/ReportsPublications/RTBidoversitystrategyfinal.pdf* - British-Australian multinational mining and resources company. - Rio Tinto's goal is to have a 'net positive impact' (NPI) on biodiversity. Their strategy was launched in 2004 at the IUCN World Conservation Congress in Bangkok. - They find that "biodiversity can present opportunities to build business value – opportunities to build better relationships with our stakeholders, understand emerging ecosystem services markets and achieve our sustainable development goals". - To achieve NPI, they first need to reduce their impacts on 'biodiversity values' through applying the mitigation hierarchy.	

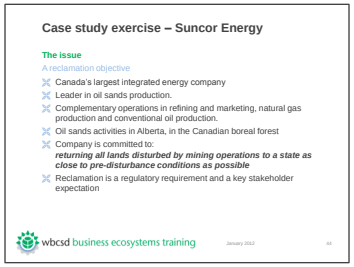
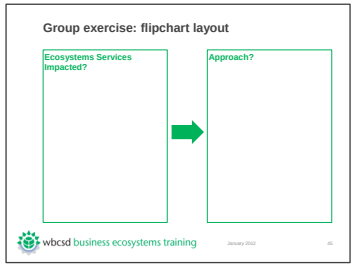
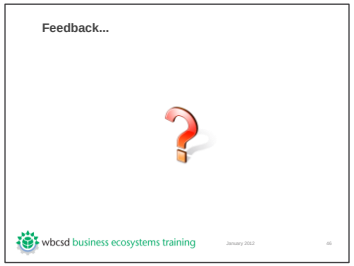
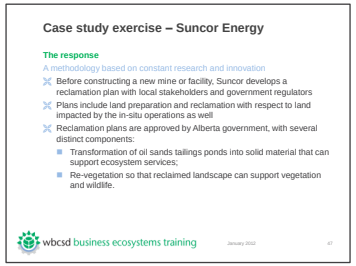
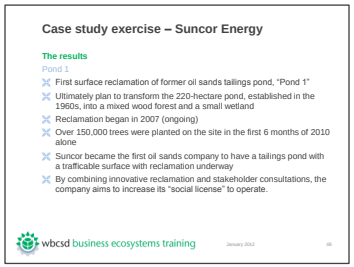
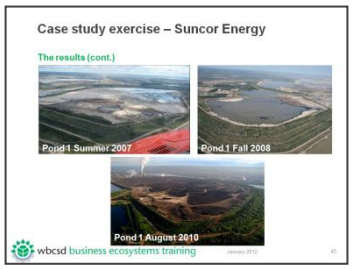
Session 4
Applying the Mitigation Hierarchy – case study (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 39: 2 minutes ***Sources:*** WBCSD, *Effective Biodiversity and Ecosystem Policy and Regulation* (2010) *http://www.wbcsd.org/Pages/EDocument/EDocumentDetails.aspx?ID=21&NoSearchContextKey=true* Rio Tinto and Biodiversity (2008) *http://www.riotinto.com/documents/ReportsPublications/RTBidoversitystrategyfinal.pdf* **Instructions:** Facilitator to discuss Rio Tinto's approach and commitments **Background:** In Rio Tinto's biodiversity strategy each of its operations must be able to: - **Identify** important biological values on and off site at the species, habitat and ecosystem service level. - **Understand** what impacts mining activities and infrastructure have on these features. - **Plan**.Have a plan to mitigate the impact (considering the mitigation hierarchy). Rio Tinto have their own biodiversity action planning (BAP) tool to complete these steps in a standardised way. The guidance for the BAP was developed in partnership with Fauna & Flora International (FFI) through trials at four Rio Tinto sites with different needs, complexity and resources to ensure robustness: Rössing, Namibia; Palabora, South Africa; QIT Madagascar Minerals (QMM), Madagascar; and, Corumbá, Brazil.	

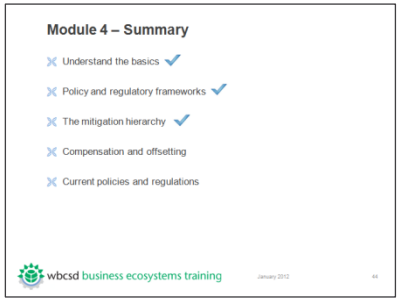
Session 4
Applying the Mitigation Hierarchy – case study (cont.)

Facilitators' notes	Media/activity/handout guidance
Case Study (Net Positive impact anecdotal example) and Interactive Group Activity **Slide 42: 2 minutes (continued)** **Case study: Rio Tinto's commitments** **Sources:** WBCSD, *Effective Biodiversity and Ecosystem Policy and Regulation* (2010) *http://www.wbcsd.org/Pages/EDocument/EDocumentDetails.aspx?ID=21&NoSearchContextKey=true* Rio Tinto and Biodiversity (2008) *http://www.riotinto.com/documents/ReportsPublications/RTBidoversitystrategyfinal.pdf* This slide outlines Rio Tinto's priorities in relation to biodiversity, stated as: • The identification of biodiversity values impacted by their activities • The prevention, minimisation, and mitigation of biodiversity risks throughout the business cycle • Responsible stewardship of the land they manage • The identification and pursuit of biodiversity conservation opportunities • The involvement of communities and other constituencies in their management of biodiversity issues Rio Tinto's Goal: *To have a **"net positive impact (NPI) on biodiversity by minimising the negative impacts of our activities and by making appropriate contributions to conservation in the regions in which we operate".***	 **Image source:** BBOP http://bbop.forest-trends.org/guidelines/overview.pdf

Session 4
Applying the Mitigation Hierarchy – case study (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 43-48: 35 minutes **Objective:** delegates to take part in an exercise to apply the mitigation hierarchy **Source:** WBCSD, *Responding to the Biodiversity Challenge* (2010) *http://www.wbcsd.org/Pages/EDocument/EDocumentDetails.aspx?ID=22&NoSearchContextKey=true* **Instructions** **Facilitator to go through the Suncor case study** Facilitator to describe the case study context and the objective for the exercise (3 minutes). A handout including the mitigation hierarchy and summarizing the key points will be handed out to delegates. Facilitator to ask for a quick hands up to see who has had to put conservation measures in place for their company (2 minutes – facilitator to note down the number) Facilitator to put delegates into groups of 4-5 Delegates will be given 20 minutes in their groups to discuss: 1. The ecosystem services impacted in the case study example 2. Based on the information available the approach they would use to minimise impacts Facilitator to collect feedback from each group as it is shared with the group, with key points summarised on a flip chart (5-10 minutes). The facilitator may wish to run through the company's actual response and results, depending on audience.	     

Session 4
Applying the Mitigation Hierarchy – case study (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 49: <1 minute **Instructions:** Facilitator to recap what has been covered in the module so far.	

Coffee break

30 minutes

Session 5: Knowledge check
Time guidelines

Time guidelines	Time
Knowledge check – activity	10 minutes

Session objective

Reinforce the explicit or implicit learning of the course, and provide an overview of the learning gaps in the group.

Session format

This session will be run by one course facilitator, who will talk through key concepts and definitions with delegates.

Handouts

Delegates course material desk pack – hardcopies will be laid out on delegate desks in advance of their arrival at the course. This pack contains copies of all of the slides used throughout this course together with relevant handout materials required for each session.

A glossary of terms used during the module will also be available in the course material desk pack.

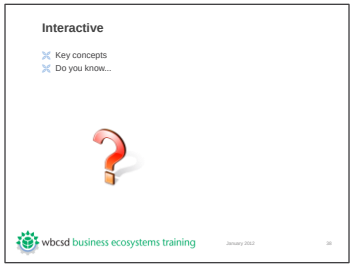
Session overview

The session reminds the delegates of the module so far, followed up by a quick quiz of key concepts and terminology.

Session 5
Knowledge check

Facilitators' notes	Media/activity/handout guidance
Slide 51: 1 minute **Objective:** Knowledge check **Total time for exercise:** 10 minutes **Instructions:** Facilitator to quickly review the key knowledge gained through the previous sessions (slide 2). Then move to the next slide (3). Note to facilitator: do not stop to explain a specific concept, only list the sessions and the overall objective of each one. Gaps in knowledge should be identified after the delegates have responded to the 'knowledge check' questions.	

Session 5
Knowledge check (cont.)

Facilitators' notes	Media/activity/handout
Slide 52: 8 minutes **Objective:** Knowledge check **Instructions:** Facilitator will explain to delegates the purpose and approach used within the session. They will be asked a series of questions and asked to write down their answers individually and discuss with the group during debrief. 1. Delegates will have a couple of minutes to answer the questions on a piece of paper 2. Facilitator to ask delegates to provide their answer 3. Facilitator will debrief and answer questions from delegates **Answers:** The facilitator should explore different types of answers and respond to question from delegates below. **Guidance on how to respond if delegates have not achieved their learning objectives** - If there is time revisit specific points and definitions in session 2, - Revisit one specific case study - Point delegates to the references in their pack which include sources of further reading **Questions:** 1. What is the difference between offsetting and payments for ecosystem services? 2. What are the levels of the mitigation hierarchy?	 **[Option: to run the session as a catch the ball activity, i.e., the person in the audience that catches the ball attempts the answer]**

Session 6
Time guidelines

Time guidelines	Time
Compensation and offsetting	40 minutes

Session objective

Delegates to consider how compensation works and the options for offsetting.

Session format

This session will be run by one course facilitator, who will talk through key concepts and definitions with delegates.

Handouts

Delegates course material desk pack – hardcopies will be laid out on delegate desks in advance of their arrival at the course. This pack contains copies of all of the slides used throughout this course together with relevant handout materials required for each session.

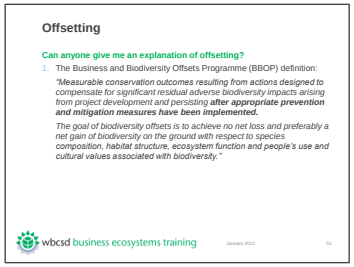
A glossary of terms used during the module will also be available in the course material desk pack.

Handouts for the case study showing context and options.

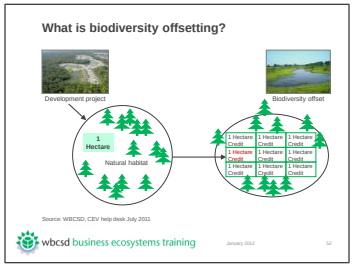
Session overview

Delegates are given a thorough introduction to offsetting and its challenges through a presentation. The delegates will also take part in a group case study exercise.

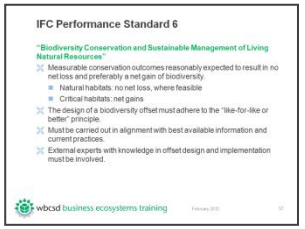
Session 6
Compensation and offsetting

Facilitators' notes	Media/activity/handout guidance
Slide 53: < 1 minute **Instructions** Facilitator to state the objective of the session **Slide 54: 2 minutes** **Source:** session 2 **Instructions** ***Q&A:* Facilitator to ask the audience for an explanation of offsetting** Following audience participation, facilitator to reveal the definition used within the basic concepts session. 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."* **NOTE: Participants tend to forget the new conceptual ESR framework in this section, remind them that social compensation does not add to an offset.**	 

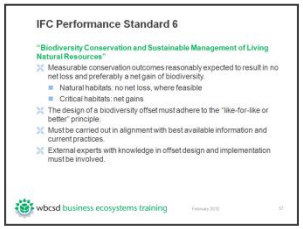
Session 6
Compensation and offsetting (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 55: 2 minutes **Source:** WBCSD, *CEV Helpdesk Call* (Jul 2011) (WBCSD Members only: http://www.wbcsd.org/Pages/EDocument/EDocumentDetails.aspx?ID=13752&NoSearchContextKey=true) **Instructions** Facilitator to talk though the following slide showing an extremely simple example of how offsetting works. **Example:** A developer impacts **one hectare** of natural habitat, but pays a third party to protect or restore **more than one hectare.** (Credits can also be defined by other quantities and qualities e.g. breeding pairs, ecosystem services, habitat quality). **Conservation bank:** "*A conservation bank is a parcel of land managed for its conservation values. In exchange for permanently protecting the land, the bank owner is allowed to sell credits to parties who need them to satisfy legal requirements for compensating environmental impacts of development projects. (See Carroll et al. 2008)*" **Source:** BBOP Glossary http://bbop.forest-trends.org/guidelines/glossary.pdf Important to make distinction between biodiversity 'offsets' (the units) and biodiversity 'banking' (collated offsets – usually ex ante) **Offsets vs. Compensation (according to BBOP definitions)** A biodiversity offset is: - Designed to achieve "no net loss" or "net gain" - Meets BBOP Principles and draft Standard	 Compensatory conservation do not meet the BBOP principles when they: - The conservation actions were not planned to achieve no net loss. - The residual losses of biodiversity caused by the project and gains achievable by the offset are not quantified. - No mechanism for long term implementation has been established. - It is impossible to offset the impacts (for instance, because they are too severe or pre-impact data are lacking, so it is impossible to know what was lost as a result of the project). - The compensation is through payment for training, capacity building, research or other outcomes that will not result in measurable conservation outcomes on the ground. **Sources:** Conference call on biodiversity offsets, BBOP for WBCSD (3 Oct 2011) (WBCSD members only: http://www.wbcsd.org/Pages/EDocument/EDocumentDetails.aspx?ID=13749&NoSearchContextKey=true) BBOP, Standard on Biodiversity Offsets. (2012), http://bbop.forest-trends.org/guidelines/Standard.pdf

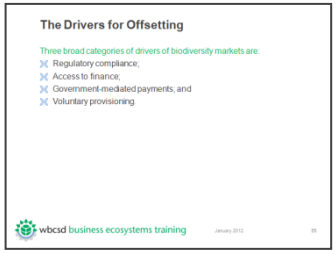
Session 6
Compensation and offsetting (cont.)

Facilitators' notes	Media/activity/handout guidance
Slides 56-57: 2 minutes **Sources:** BBOP Standard on Biodiversity Offsets (Jan 2012) http://bbop.forest-trends.org/guidelines/Standard.pdf IFC Performance Standard 6 (Jan 2012), http://www1.ifc.org/wps/wcm/connect/bff0a28049a790d6b835faa8c6a8312a/PS6_English_2012.pdf?MOD=AJPERES **Instructions** Facilitator to talk though the following slide, explaining briefly the basic principles of the BBOP standard on biodiversity offsets and requirements of the IFC Performance Standard 6. **Background** <u>BBOP Standard on Biodiversity Offsets</u> "[The] *standard on biodiversity offsets,* [is] *intended to help determine whether an offset has been designed and subsequently implemented in accordance with the BBOP Principles. BBOP agreed its ten Principles in 2009, and this standard is presented as a hierarchy of Principles, Criteria and Indicators (PCI): an architecture similar to that used in a number of other standards, such as the Forest Stewardship Council, the Marine Stewardship Council, the Roundtable for Sustainable Palm Oil, Round Table on Responsible Soy, and others.* *'Principles' are interpreted as the fundamental statements about a desired outcome. 'Criteria' are the conditions that need to be met in order to comply with a Principle. 'Indicators' are the measurable states which allow the assessment of whether or not a particular Criterion has been met.* "	  <u>IFC Performance Standard 6:</u> *"The Performance Standards are directed towards clients, providing guidance on how to identify risks and impacts, and are designed to help avoid, mitigate, and manage risks and impacts as a way of doing business in a sustainable way, including stakeholder engagement and disclosure obligations of the client in relation to project-level activities. In the case of its direct investments (including project and corporate finance provided through financial intermediaries), IFC requires its clients to apply the Performance Standards to manage environmental and social risks and impacts so that development opportunities are enhanced. IFC uses the Sustainability Framework along with other strategies, policies, and initiatives to direct the business activities of the Corporation in order to achieve its overall development objectives. The Performance Standards may also be applied by other financial institutions."*

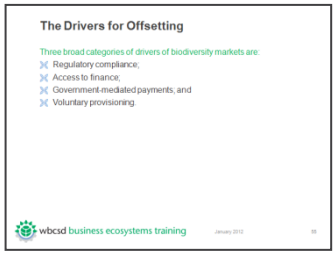
Session 6
Compensation and offsetting (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 57: 2 minutes **Sources:** IFC Performance Standard 6 (Jan 2012), http://www1.ifc.org/wps/wcm/connect/bff0a28049a790d6b835faa8c6a8312a/PS6_English_2012.pdf?MOD=AJPERES **Background (cont.)** <u>IFC Performance Standard 6 (con.). Extracts related to the mitigation hierarchy and offsetting</u> *"7. As a matter of priority, the client should seek to avoid impacts on biodiversity and ecosystem services. When avoidance of impacts is not possible, measures to minimize impacts and restore biodiversity and ecosystem services should be implemented. Given the complexity in predicting project impacts on biodiversity and ecosystem services over the long term, the client should adopt a practice of adaptive management in which the implementation of mitigation and management measures are responsive to changing conditions and the results of monitoring throughout the project's lifecycle. "* *"10. For the protection and conservation of biodiversity, the mitigation hierarchy includes biodiversity offsets, which may be considered only after appropriate avoidance, minimization, and restoration measures have been applied. A biodiversity offset should be designed and implemented to achieve measurable conservation outcomes that can reasonably be expected to result in no net loss and preferably a net gain of biodiversity; however, a net gain is required in critical habitats. The design of a biodiversity offset must adhere to the "like-for-like or better" principle and must be carried out in alignment with best available information and current practices. When a client is considering the development of an offset as part of the mitigation strategy, external experts with knowledge in offset design and implementation must be involved."*	 *"12. This Performance Standard applies to those areas of modified habitat that include significant biodiversity value, as determined by the risks and impacts identification process required in Performance Standard 1. The client should minimize impacts on such biodiversity and implement mitigation measures as appropriate."* *"15. In areas of natural habitat, mitigation measures will be designed to achieve no net loss9 of biodiversity where feasible."* <u>Note regarding "like for like or better":</u> *"The principle of "like-for-like or better" indicates that biodiversity offsets must be designed to conserve the same biodiversity values that are being impacted by the project (an "in-kind" offset). In certain situations, however, areas of biodiversity to be impacted by the project may be neither a national nor a local priority, and there may be other areas of biodiversity with like values that are a higher priority for conservation and sustainable use and under imminent threat or need of protection or effective management. In these situations, it may be appropriate to consider an "out-of-kind" offset that involves "trading up" (i.e., where the offset targets biodiversity of higher priority than that affected by the project) that will, for critical habitats, meet the requirements of paragraph 17 of this Performance Standard."*

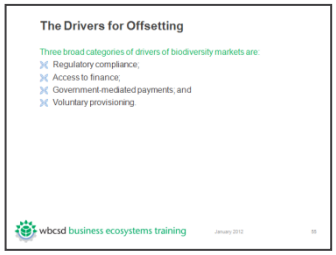
Session 6
Compensation and offsetting (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 58: 3 minutes **Sources:** WBCSD, *CEV Helpdesk Call* (Jul 2011) (WBCSD Members only: http://www.wbcsd.org/Pages/EDocument/EDocumentDetails.aspx?ID=13752&NoSearchContextKey=true) Notes taken from "*State of Biodiversity Markets Report: Offset and Compensation Programs Worldwide*" http://www.ecosystemmarketplace.com/documents/acrobat/sbdmr.pdf **Instructions:** Facilitator to talk though the drivers for offsetting. **Background:** **Regulatory compliance setting** "*The government sets a limit on the impact to a species or habitat and then allows the market to resolve the cost of offsetting impacts above the limit or 'cap.' For example, in the United States (US), the Endangered Species Act limits harm to federally-listed endangered species and requires a mitigation hierarchy: first avoidance, then minimization of harm, and finally mitigation for impacts to species. Mitigation obligations could be fulfilled by purchasing a credit from a private conservation bank that has restored and/or managed or preserved habitat for the species ... Governments may also require mitigation on a case-by-case basis, as regulated by Environmental Impact Assessment (EIA) or other regulations integrated in planning Permissions.*" **Source:** Regulatory compliance continued notes taken from http://www.csc.noaa.gov/coastal/economics/habitatequ.htm	 Further legal protections in the US include: The National Oceanic and Atmospheric Administration (NOAA) acts as a federal trustee for natural resources under the following - Acts: Comprehensive Environmental Response, - Compensation, and Liability Act (CERCLA) - National Marine Sanctuaries Act 1990 Oil Pollution Control Act. **Example**: the **US Clean Water Act (CWA)** Passed in 1972, the Act introduced 'wetland permits' to encourage protection of wetland resources through market-based means. This is considered one of the most 'mature' offset frameworks, having been in place since the 1970s. The objective is to offset adverse impacts to wetlands through compensatory mitigation that replaces wetland functions and values. Federal guidance on wetland mitigation banking was issued in 1995, which was superseded by new regulatory standards, introduced in 2008 by the EPA/US Corps, promoting NO NET LOSS and improved wetland restoration and protection – [Source: http://bbop.forest-trends.org/guidelines/odh-appendicies.pdf]

Session 6
Compensation and offsetting (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 58: 3 minutes (cont.) **Source:** WBCSD, *CEV Helpdesk Call* (Jul 2011) (WBCSD Members only: http://www.wbcsd.org/Pages/EDocument/EDocumentDetails.aspx?ID=13752&NoSearchContextKey=true), Notes taken from "*State of Biodiversity Markets Report: Offset and Compensation Programs Worldwide*" http://www.ecosystemmarketplace.com/documents/acrobat/sbdmr.pdf **Examples of policy/regulation as driver** (from Ecosystem Marketplace) : Facilitator to describe 1 or 2 of these examples (refer to "Ecosystem Marketplace" source for more examples), but mention that other relevant frameworks will be discussed in later sessions. **USA**: Biodiversity offsets and compensation programs are well-developed in North America, particularly with the United States wetland and species compensation programs. North America hosts the most mitigation banks of any region in the world. Programs are driven by national, state, and/or regional policy. Species banks have been developed in many states, led by California, with the goal of recovering endangered species. The banks transform endangered species from liabilities to assets. Species bank market worth as much as $370 million a year, protecting around 75,000 acres. **Germany**: well-developed biodiversity compensation system. The Impact Mitigation Regulations (IMRs) is a mandatory, precautionary law to ensure "no net loss", by avoiding damage and implementing restoration and replacement compensation for unavoidable impacts.	 All **Australian/New Zealand** offsets are compliance-based, mostly determined on a case-by-case basis during planning processes. Developers or business/industry purchase offsets from government to compensate for impacts on biodiversity. *Example: New South Wales Biobanking* is a state program driven by regulatory requirements to offset impacts from urban development. Only officially live since 2009. Credit prices ranged from AUD $2,563 (2010) to AUD $8,000 (2011). The total value of credits transferred in 2010 was AUD $1,555,741 (or US $1,498,614, in 2010 dollars).

Session 6
Compensation and offsetting (cont.)

Facilitators' notes"	Media/activity/handout guidance
Slide 58: 3 minutes (cont.) **Sources:** WBCSD, *CEV Helpdesk Call* (Jul 2011) (WBCSD Members only: http://www.wbcsd.org/Pages/EDocument/EDocumentDetails.aspx?ID=13752&NoSearchContextKey=true) Notes taken from "*State of Biodiversity Markets Report: Offset and Compensation Programs Worldwide*" http://www.ecosystemmarketplace.com/documents/acrobat/sbdmr.pdf **Access to Finance** One example is the International Finance Corporation (IFC) Performance Standards. IFC requires its clients to apply the Performance Standards to manage environmental and social risks and impacts so that development opportunities are enhanced. Performance Standard 6 is on "Biodiversity Conservation and Sustainable Management of Living Natural Resources ", and states that: "*As a matter of priority, the client should seek to avoid impacts on biodiversity and ecosystem services. When avoidance of impacts is not possible, measures to minimize impacts and restore biodiversity and ecosystem services should be implemented. Given the complexity in predicting project impacts on biodiversity and ecosystem services over the long term, the client should adopt a practice of adaptive management in which the implementation of mitigation and management measures are responsive to changing conditions and the results of monitoring throughout the project's lifecycle.* " **Source:** IFC Performance Standard 6 (Jan 2012), http://www1.ifc.org/wps/wcm/connect/bff0a28049a790d6b835faa8c6a8312a/PS6_English_2012.pdf?MOD=AJPERES	 **Government-mediated payments** "*Government-mediated payments can also be a driver of biodiversity goods and services. The government (and/or a non-profit organization) acts as a sole 'buyer' when it fulfils public demand for biodiversity goods and services by purchasing land or conservation easements or creating payment programs for biodiversity stewardship activities. For example, a partnership between the non-profit organizations World Wildlife Foundation (WWF) and Fondo Mexicano para la Conservación de la Naturaleza established a Monarch Butterfly Conservation Fund to pay local landowners for butterfly habitat conservation*." **'Voluntary' markets** "'*Voluntary' markets have a variety of drivers from ethics and philanthropy to profit and consumption motives. Examples include: certified biodiversity-friendly products, donations for biodiversity conservation or research, positive public relations, ecotourism and recreation, and others.*"

Session 6
Compensation and offsetting (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 59: 2 minutes **Source:** BBOP, *Business, Biodiversity Offsets and BBOP. An overview* (2008) http://bbop.forest-trends.org/guidelines/overview.pdf **Instructions:** Facilitator to talk through the key challenges for biodiversity offset development, as outlined in BBOP. Facilitator should be selective as to which to focus on. **Background:** The following list of challenges have been extracted from the Business and Biodiversity Program (BBOP) 's *Business, Biodiversity Offsets and BBOP. An overview*. publication. BBOP Phase 2 is aiming to tackle these different challenges (For more information, please refer to the detailed description in the publication). "***Trade offs:*** *Decisions on project approvals – including decisions whether to proceed with a project (the so called 'Go/No-Go' decision) and the conditions attached to projects – always involve trade offs between areas of cost or impact and areas of benefit or gain. In practice, however, challenges arise through different perceptions of acceptable trade offs among companies, government agencies, conservationists, and local communities involved in complex decision-making processes. BBOP's intention is to propose a set of practical methodologies to account for biodiversity value and for conservation actions that include options to compensate for loss of biodiversity through an offset. The vision is that biodiversity values are systematically accounted for alongside other environmental, social and economic impacts – both positive and negative – in the context of development projects, and that the option of a biodiversity offset is considered as one possible management action to achieve the goal of no net loss or preferably a net gain of biodiversity.*"	 "***Risk management and assurance of outcomes****: There has been little societal debate and as yet limited societal agreement on the fundamental issue of how the cost of managing risks of biodiversity loss from projects should be shared among different stakeholders, including the risk that biodiversity offsets fail to achieve no net loss of biodiversity. There are many different perspectives on key questions such as whether and how offset planners should use multipliers, time discounting, conservation banks, adaptive management systems, and other means to account for and insure against the uncertainty that offset goals will be achieved within a defined time frame. As with all actions planned and taken by society through its decision-making processes, the conservation outcomes from biodiversity offsets can never be guaranteed with 100 percent certainty.* *Even if an offset is designed using the best available science and predictive models, unanticipated factors arising during the course of the implementation of the development project and biodiversity offset might hamper progress towards achieving no net loss of biodiversity. The BBOP principles endorse an adaptive management approach to dealing with deviations from expected results*."

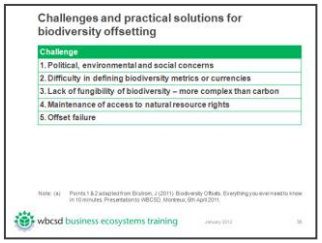
Session 6
Compensation and offsetting (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 59: 2 minutes (cont.) "***Indigenous peoples' rights***: *The circumstances under which indigenous peoples have the right to 'free, prior and informed consent' (FPIC) are addressed under instruments such as the 2007 UN Declaration on the Rights of Indigenous Peoples. The scope of FPIC – and how it is translated into national law and also applied voluntarily by businesses and NGOs – is an emerging field that remains the subject of debate. BBOP guidance and other publications are not intended to replace or duplicate existing expertise or forums related to the FPIC issue*." "***Boundaries of acceptable impacts:*** *The BBOP principles reflect consensus that certain development impacts should be considered inappropriate for biodiversity offsets due to considerations of the irreplaceability or vulnerability of the biodiversity concerned. Perhaps most obviously, the extinction of a species cannot be offset, and 'no net loss' outcomes cannot be achieved for some other types of severe impact. However, broadly accepted guidance has yet to be developed on how the thresholds of impacts that can be offset should be determined and used in practice."* "***Availability of land and marine areas for offsets:*** *Although making an offset does not always depend on a developer securing a new site, locating a specific unmanaged or poorly managed area that can be managed better to pursue conservation targets and objectives does facilitate the offset process. A challenge facing developers in many countries is the availability of land for offset activities over which they have influence and for which there is clear land tenure*."	 "***Scientific uncertainty and data gaps:*** *High quality data on components of biodiversity and associated threats are important to the design of biodiversity offsets. However, available biodiversity information is often incomplete, or the scale of the information available too coarse. A sustained public and private sector research commitment to address key areas of scientific uncertainty and to fill data gaps will be essential to the long-term success of biodiversity offsets as a conservation tool.*"

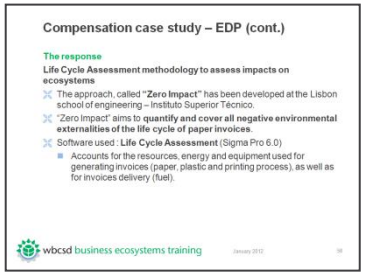
Session 6
Compensation and offsetting (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 59: 2 minutes (cont.) "***Multiple definitions and methods regarding 'no net loss' and lack of a common currency for quantifying biodiversity loss and gain***: *More than 100 different methodologies are currently used around the world to quantify the loss and gain of species, natural habitats and ecosystem services. Numerous laws and public policies explicitly promote or require 'no net loss' or 'net gain', but rarely provide clarity on how the term should be interpreted and applied in the field. From the variety of methodologies available, no common currency has emerged as the most appropriate to quantify and compare loss and gain of biodiversity. Different approaches may be appropriate for determining no net loss in different settings. In addition, the scope of biodiversity loss and gain to be quantified is often unclear. Further piloting and analysis on various metrics in a range of practical settings will be necessary to broaden the limited experience to date and to formulate consistent guidance on methods for design and implementation of biodiversity offsets in line with the BBOP principles*. " "***Multiple benefit offsets***: *Biodiversity offsets are one of several voluntary schemes and practices emerging in the field of payment for environmental services that include carbon offsets and water offsets. Arguments for designing offsets that can deliver multiple benefits for communities, conservation and economies through the provision of livelihoods, the preservation of important biodiversity and maintaining ecological processes and services at a single site are compelling.*"	 "***Capacity:*** *For biodiversity offsets to be a norm of best environmental practice at development sites, a greater capacity than is currently present will be needed in government and civil society organisations to oversee, support and approve well designed, sustainable offset activities. In particular, environmental and social impact assessment (ESIAs) processes are rarely designed to accommodate biodiversity offsets and officials reviewing ESIAs are poorly informed about biodiversity offsets, if they are aware of the concept at all*."

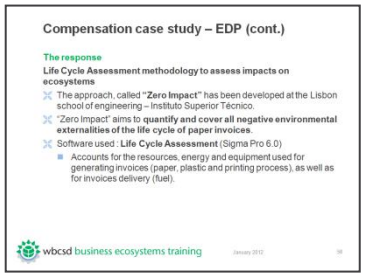
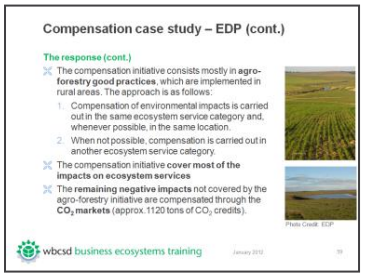
Session 6
Compensation and offsetting (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 60: 2 minutes **Source:** BBOP, *Principles on Biodiversity Offsets* http://bbop.forest-trends.org/guidelines/principles.pdf **Instructions:** Facilitator to talk though the challenges of offsetting, e.g., *"We have defined what offsetting is and looked at the challenges of environmental remediation in general, here we concentrate on the specific issues associated with offsetting."* **Background: Quotes from BBOP** ***"Limits to what can be offset: There are situations where residual impacts cannot be fully compensated for by a biodiversity offset because of the irreplaceability or vulnerability of the biodiversity affected."*** *"Offsetting is widely debated and in some cases contested e.g. 'licence to trash' and reduction in local access to ecosystem services. This reinforces the need for appropriate consultation and consent from government, NGOs, communities and the private sector before offsets are planned."* *"Consensus and use of transparent, objective currencies for biodiversity 'area and quality of natural habitat' e.g. US Wetland Mitigation Banking uses acres, BBOP uses 'Habitat Hectares' approach."*	 *"Adherence to the principal of 'Like-for-like-or-better' e.g. offsets must hold same or very similar ecological characteristics to impact site."* *"Formal recognition of community rights to natural resources in the design of biodiversity offsets. Incorporation of access rights to biodiversity offsets for communities to participate in sustainable extractive and economic activity."* *"Restoration offsets may fail to achieve 'ecological equivalency' and conservation offsets may not provide sufficient protection against degradation. Offset design requires input and partnership with ecologists and local experts along with a sufficient 'buffer' against offset failure e.g. at least 3 hectares 'offset' for every hectare impacted."*

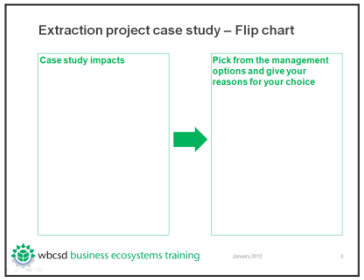
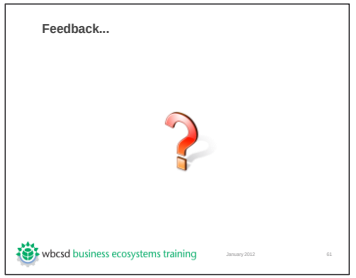
Session 6
Compensation and offsetting (cont.)

Facilitators' notes	Media/activity/handout guidance
Slides 61-63: 3 minutes **Source:** WBCSD, *Responding to the Biodiversity Challenge* (2010), http://www.wbcsd.org/Pages/EDocument/EDocumentDetails.aspx?ID=22&NoSearchContextKey=true **Compensation case study – EDP** **Instructions** Facilitator to walk through the EDP case study as an example of where compensation has been used. **The issue** ***The environmental impact of invoicing*** EDP – Energias de Portugal, an electrical utility company, 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. In 2007, it started to promote on-line invoice services, 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, through an innovative environmental compensation methodology. **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. It goes beyond the offset of CO_2 emissions in voluntary markets (already common worldwide), as it aims to quantify and cover all negative environmental externalities of the life cycle of paper invoices.	  The software used for this 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). 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 initiatives cover most of the impacts on ecosystem services, as for example: water used for paper production, or soil protection provided by the agro-forestry good practices implemented in the vicinity of EDP's activities. The remaining negative impacts not covered by the agro-forestry initiative are compensated through the CO_2 markets, representing approximately 1120 tons of CO_2 credits

Session 6
Compensation and offsetting (cont.)

Facilitators' notes	Media/activity/handout guidance
Slides 61-63: 3 minutes (cont.) **The results** ***Ecosystem services approach at the basis of success*** The methodology used has proved to have clear biodiversity conservation results. Compensation activities included not only 9.800 m^3/year of water savings through irrigation process optimization, 585 ha of agriculture best practice use, but also incorporated biodiversity conservation projects such as soil nest protection (691 ha) or protection of riverbed vegetation (2,1 km). It also helped reinforce relations with stakeholders and in particular local communities. Its first implementation was a success and has led to its extension for another 3 years, allowing EDP to evaluate the perspective of making this approach a new business opportunity in the future by using biodiversity market mechanisms.	 

Session 6
Compensation and offsetting (cont.)

Facilitators' notes	Media/activity/handout guidance
Slides 64-67: 20 minutes **Instructions** **Total time for exercise: 20 minutes** Facilitator to split delegates into small groups of 4-5, asking them to move seats to sit together. Facilitator to explain the objectives of the exercise and run through the materials provided. **Materials handouts of:** - Context summary sheet - Description of different management options **Case study example: Extraction project in Africa** **Instructions** Facilitator to explain the instructions to the group, highlighting that they have **10 minutes** to read the case study (handouts to be distributed) and consider the following questions: 1. List services impacted in the case study 2. Pick from the management options available to you and give your reasons for your choice Each group will be asked to have one member give feedback on the results of the discussion to the Facilitator and the wider group – **10 minutes**. Following the exercise the delegates should be referred to the BBOP web site where some examples of 'real' case studies are available	   The Facilitator will be on hand throughout to help answer questions and facilitate discussion. Slide 65 should be left on the projector throughout the discussion.

Session 7
Reporting and Indicators

Time guidelines	Time
Reporting and indicators – presentation	20 mins

Session objective

Introduce the business case for internal and external reporting, through examples.

Session format

This session will be run by one course facilitator, who will talk through key concepts and definitions with delegates.

Handouts

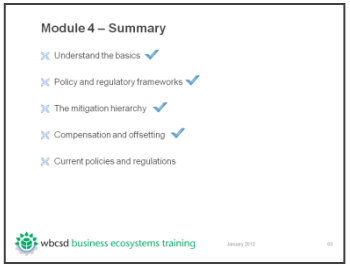
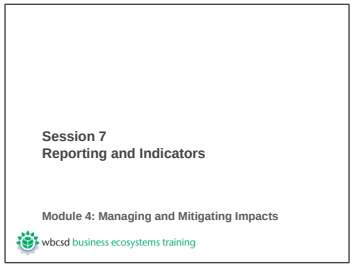
Participants course material desk pack – hardcopies will be laid out on participant desks in advance of their arrival at the course. This pack contains copies of all of the slides used throughout this course together with relevant handout materials required for each session.

A glossary of terms used during the module will also be available in the course material desk pack.

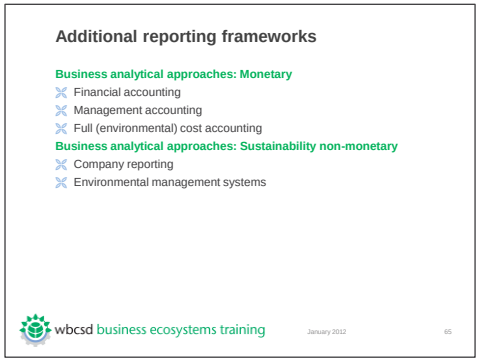
Session overview

This session will familiarize the audience with the different examples that cover indicators and reporting for biodiversity.

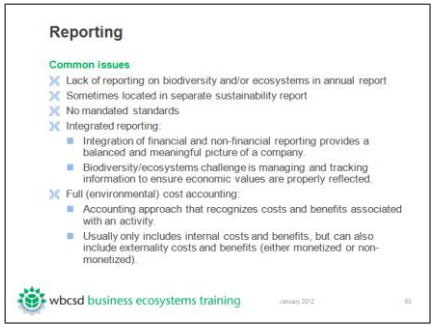
Session 7
Reporting and Indicators (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 68: <1 minute **Instructions** Facilitator to recap what has been covered in the module so far. **Slide 69: <1 minute** **Instructions:** Facilitator to state the objective of the session, i.e., Introduce the business case for internal and external reporting, through examples.	 

Session 7
Reporting and Indicators (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 70: 2 minutes **Source:** WBCSD, *Guide to Corporate Ecosystem Valuation* (long and detailed presentation). Available from :http://www.wbcsd.org/web/ecosystems/RTSummaries/PPT/WBCSD_CEV_long_final.ppt **Instructions:** Facilitator to briefly explain other available frameworks to report and measure biodiversity and ecosystem services **Background:** There are numerous monetary-based analytical approaches for corporate decision-making. Accounting processes range from **financial** and **management accounting**, which assess costs and benefits that have a direct financial implication for a company's bottom line for external and internal uses respectively, to **full (environmental) cost accounting**, which recognizes all costs and benefits associated with an activity, including economic, environmental, health and social costs. In addition, numerous non-monetary decision-making approaches are also adopted. Increasingly, the outputs of CEVs are being linked to these approaches too. Examples include **company reporting**, which provides annual financial and sustainability updates to shareholders. **Environmental Management Systems** are internal frameworks designed to manage a company's environmental impacts.	

Session 7
Reporting and Indicators (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 71: 2 minutes **Source:** *all information is publicly available* TEEB for Business Chapter 3 http://www.teebweb.org/LinkClick.aspx?fileticket=26aoFB8xrwU%3d&tabid=1021&language=en-US **Instructions:** Facilitator will explain to the audience some common issues with biodiversity reporting. The facilitator will then introduce the concept of integrated reporting and full environmental cost accounting. **Background:** "*Whilst few organisations in the public or private sectors report comprehensively (or at all) on biodiversity and/or ecosystems in their annual report and accounts, a few more do so in separate annual sustainability or corporate responsibility reports. Here, unlike in financial reporting, there are no mandated standards that all companies or organisations must follow.* *Increasingly, many stakeholders are exploring how to integrate financial and non-financial information in a single report that provides a balanced and meaningful picture of a company. Early examples from companies such as Natura and Telefonica are based around providing annual reports and CSR/sustainability reports as a single package.* *Some companies produce these as paired documents and others as a single volume. Alongside the pioneering efforts of individual companies, other networks and standards bodies are also exploring how to promote more integrated reporting. With respect to Biodiversity and ecosystem services (BES), the challenges are based around how to manage and track information within a company and how to ensure that the economic values of BES are properly reflected at a level of detail that can influence corporate financial analysis."*	 **Full (environmental) cost accounting:** An accounting approach that recognizes all costs and benefits associated with an activity, including economic, environmental, health and social costs. The assessment sometimes only includes internal costs and benefits, but it can also include externality costs and benefits too (either monetized or non-monetized). **NOTE: for a more in depth understanding of reporting and management systems relating to ecosystem services, facilitators can also refer to the latest publication from WRI on the topic: *Nature in Performance: Initial Recommendations for Integrating Ecosystem Services into Business Performance Systems* (2011)** (http://www.wri.org/publication/nature-in-performance)

Session 7
Reporting and Indicators (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 72: 2 minutes **Source:** *all information is publicly available and taken from* GRI portal, available from: http://www.globalreporting.org **Instructions** Facilitator will explain the Global Reporting Initiative (GRI) indicators and the work done by GRI regarding new indicators. Also, facilitator will introduce the work done by companies to link Net Positive Impacts and impact indicators. **Background:** "*The Global Reporting Initiative (GRI) is a network-based organization that produces a comprehensive sustainability reporting framework that is widely used around the world. GRI is committed to the Framework's continuous improvement and application worldwide. GRI's core goals include the mainstreaming of disclosure on environmental, social and governance performance.*" *"GRI's Reporting Framework is developed through a consensus-seeking, multi-stakeholder process. Delegates are drawn from global business, civil society, labor, academic and professional institutions."* *"The Sustainability Reporting Framework provides guidance on how organizations can disclose their sustainability performance. It consists of the Sustainability Reporting Guidelines, Sector Supplements and the 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."*	 **NOTE: Facilitator to highlight the fact that the details of this framework and the biodiversity/ecosystem indicators are contingent on the release of the GRI G4 guidelines, currently in development.**

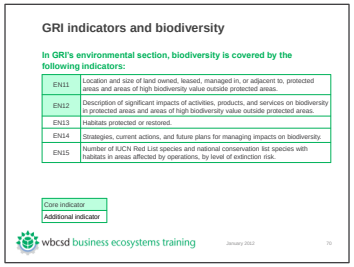
Session 7
Reporting and Indicators (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 73: 3 minutes **Source:** *all information is publicly available and taken from* GRI portal, available from: http://www.globalreporting.org **Instructions** facilitator to introduce the sustainability reporting framework and it's guidelines. **Background** "*The Sustainability Reporting Framework provides guidance on how organizations can disclose their sustainability performance. It consists of the Sustainability Reporting Guidelines, Sector Supplements and the 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."* **The Sustainability Reporting Guidelines** "*The Guidelines are the foundation of the Framework and are now in their third generation (G3). They feature Performance Indicators and Management Disclosures that organizations can adopt voluntarily, flexibly and incrementally, enabling them to be transparent about their performance in key sustainability areas."* *"The G3.1 Guidelines are the latest and most complete version of GRI's G3 Sustainability Reporting Guidelines. These Guidelines are based on G3 but contain expanded guidance on local community impacts, human rights and gender. While G3-based reports are still valid, GRI recommends that reporters use G3.1, the most comprehensive reporting guidance available today.*" GR3.1 Guidelines can be accessed at: https://www.globalreporting.org/reporting/latest-guidelines/g3-1-guidelines/Pages/default.aspx	 **Sector Supplements** "*Sector Supplements are tailored versions of the Sustainability Reporting Guidelines that cover sector specific issues*." Sector supplements can be accessed at: https://www.globalreporting.org/reporting/sector-guidance/Pages/default.aspx **The Technical Protocol** *"The Technical Protocol – Applying the Report Content Principles, provides process guidance on how to define the content of a sustainability report. It helps organizations to produce relevant reports more easily and can be used with the G3.1, G3 Guidelines and with Sector Supplements."* The Technical Protocol can be accessed at: https://www.globalreporting.org/reporting/guidelines-online/TechnicalProtocol/Pages/default.aspx

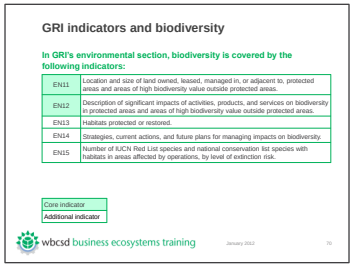
Session 7
Reporting and Indicators (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 74: 2 minutes **Source:** *all information is publicly available* GRI portal. *G3.1 Guidelines including Technical Protocol Final*. Available from: http://www.globalreporting.org **Instructions:** Facilitator to introduce the indicators available within the GRI framework **Background:** The section on sustainability Performance Indicators is organized by economic, environmental, and social categories. Social Indicators are further categorized by Labour, Human Rights, Society, and Product Responsibility. "*Each category includes a Disclosure on Management Approach ('Management Approach') and a corresponding set of Core and Additional Performance Indicators."* *"Core Indicators have been developed through GRI's multi-stakeholder processes, which are intended to identify generally applicable Indicators and are assumed to be material for most organizations."* *"An organization should report on Core Indicators unless they are deemed not material on the basis of the GRI Reporting Principles."* *"Additional Indicators represent emerging practice or address topics that may be material for some organizations, but are not material for others. Where final versions of Sector Supplements exist, the Indicators should be treated as Core Indicators."*	 **[Interactive options: (2 minutes) delegates asked to think up and shout out examples of performance indicators, and recording these on a flip chart]** "*Reporting on the Performance Indicators, the following guidance on data compilation applies:* - *Reporting on Trends* - *Use of Protocols* - *Presentation of Data* - *Data aggregation* - *Metrics"*

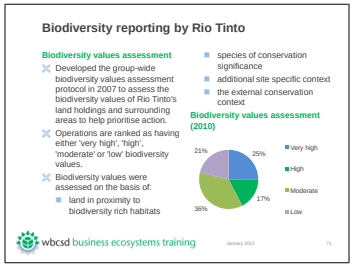
Session 7
Reporting and Indicators (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 75: 3 minutes **Source:** *all information is publicly available* GRI portal. G3.1 Guidelines including Technical Protocol Final. Available from: http://www.globalreporting.org **[Interactive option: delegates given a few minutes to explain the importance of each indicator and asked to feedback to the group]** **Instructions:** Facilitator to introduce biodiversity related indicators available from the GRI **Background:** **"*EN11 Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas."*** *Relevance:* *"By reporting on the potential impact on land that lies within, contains, or is adjacent to legally protected areas, as well as areas of high biodiversity value outside protected areas, an organization can identify and understand certain risks associated with biodiversity. Monitoring which activities are taking place in both protected areas and areas of high biodiversity value outside protected areas makes it possible for the reporting organization to reduce the risks of impacts."* *"It also makes it possible for the organization to manage impacts on biodiversity or avoid mismanagement. Failure to adequately manage such impacts may result in reputational damage, delays in obtaining planning permission, and the loss of a social license to operate."*	 **"*EN12 Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas."*** *Relevance:* *"This Indicator provides information on the significant direct and indirect impacts of the reporting organization on biodiversity in protected areas and areas of high biodiversity value outside protected areas. It also provides the background for understanding (and developing) an organizational strategy to mitigate these impacts. By asking for structured, qualitative information, the Indicator enables comparison across organizations and over time of the relative size, scale, and nature of impacts."*

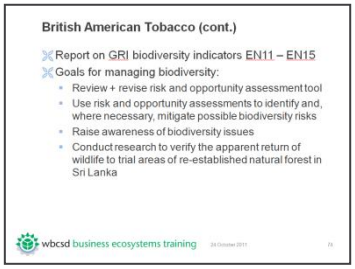
Session 7
Reporting and Indicators (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 75: 3 minutes (cont.) ***EN13 Habitats protected or restored.*** Relevance *"A biodiversity strategy contains a combination of elements related to the prevention, management, and remediation of damage to natural habitats resulting from the organization's activities. This Indicator measures the implementation of a specific strategy for preventing or redressing negative impacts associated with activities. Ensuring the integrity of natural habitats can enhance the reputation of the organization, the stability of its surrounding natural environment and resources, and its acceptance by surrounding communities."* ***EN14 Strategies, current actions, and future plans for managing impacts on biodiversity.*** Relevance *"Performance against biodiversity policies, objectives, and commitments depends on having structured programs in place for managing impacts. The presence and structure of programs is particularly important when national regulations do not provide clear reference points for an organization planning its biodiversity management."* *"Members of local communities often have unique knowledge of bio-diverse areas and their value to local communities that is important for managing impacts on biodiversity."* *"This Indicator enables both internal and external stakeholders to analyze how well the reporting organization's strategies, current actions, and future plans address potential impacts on biodiversity. The quality of the organization's approach to managing impacts on biodiversity (as identified in EN11 and EN12) will affect its exposure to risks such as reputational damage, fines, or rejection of planning or operating permissions. Actions to protect or restore habitats and species are of particular relevance."*	 ***EN15 Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.*** Relevance *"This Indicator helps the reporting organization to identify where its activities can pose a threat to endangered plant and animal species. By identifying these threats, the organization can initiate appropriate steps to avoid harm and to prevent the extinction of species. The IUCN Red List and national conservation list species can serve as authorities on the sensitivity of habitat in areas affected by operations, and on the relative importance of these habitats from a management perspective."*

Session 7
Reporting and Indicators (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 76: 2 minutes **Source:** *all information is publicly available* *TEEB for business* .Chapter 3 , p 32 – example of Reporting by Rio Tinto, http://www.teebweb.org/LinkClick.aspx?fileticket=26aoFB8xrwU%3d&tabid=1021&language=en-US **Instructions** Facilitator to give an example of an organisation reporting on biodiversity e.g. Rio Tinto. **Background** *"Rio Tinto is a major international mining company with operations in more than 50 countries, employing approximately 102,000 people.* *In 2004, Rio Tinto launched its biodiversity strategy which includes the over-arching goal to have a 'net positive impact' (NPI) on biodiversity.* *The company has developed practical tools and methodologies to assess the biodiversity values of their land holdings and has commenced, in association with its conservation partners, the application of offset methodologies in Madagascar, Australia and North America.* *In 2009, Rio Tinto completed a methodology for developing Biodiversity Action Plans (BAPs) in collaboration with Fauna and Flora International (FFI).* *Rio Tinto reports on the biodiversity value of its sites, the amount of land in proximity to biodiversity rich habitats, and the number of plant and animal species of conservation significance within these land holdings. This information is reported on their corporate website."*	

Session 7
Reporting and Indicators (cont.)

Facilitators' notes	Media/activity/handout guidance
Slides 77-78: 2 minutes **Sources:** BAT managing biodiversity strategy: http://www.bat.com/groupfs/sites/BAT_89HK76.nsf/vwPagesWebLive/DO8D3ED7?opendocument&SKN=1 BAT Biodiversity Partnership: http://www.batbiodiversity.org/ Latest BAT Biodiversity Partnership progress report: http://www.batbiodiversity.org/groupms/sites/BAT_8A7ED8.nsf/vwPagesWebLive/DO8A9FHA?opendocument&SKN=1 Goals for managing biodiversity: http://www.bat.com/groupfs/sites/BAT_89HK76.nsf/vwPagesWebLive/DO8D3EC9?opendocument&SKN=1 **Instructions:** Facilitator to discuss British American Tobacco's biodiversity strategy, highlighting specific targets, indicators and partnerships. **Background:** Since 2001, BAT have worked with Fauna & Flora International, the Tropical Biology Association and the Earthwatch Institute, forming the BAT Biodiversity Partnership. BAT funds projects that are focused on: - Reducing unsustainable use of forests for fuel and restoring natural forests; - Enhancing freshwater ecosystems, through improved vegetation cover and water management; and - Promoting agricultural practices that enhance soil health and biodiversity.	  The BAT Biodiversity Partnership produces annual progress reports, separate from BAT's main sustainability report.

Session 7
Reporting and Indicators (cont.)

Facilitators' notes	Media/activity/handout guidance

Slides 77-78: 2 minutes (cont.)

GRI indicators:

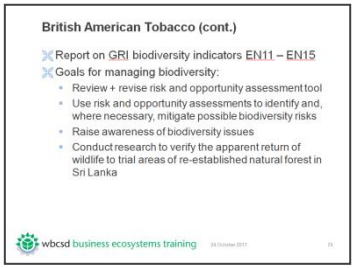
Within their main sustainability report, BAT disclose information on all GRI biodiversity indicators:

- **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 vaue 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 convservation species with habitats in areas affected by operations by level of extinction risk.

The facilitator can refer to BAT's latest sustainability report for details on their reporting, available online at: http://www.bat.com/groupfs/sites/bat_89hk76.nsf/vwPagesWebLive/DO7QJMQZ/$FILE/medMD8FANND.pdf?openelement

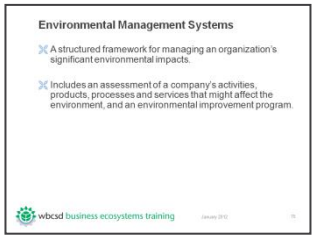
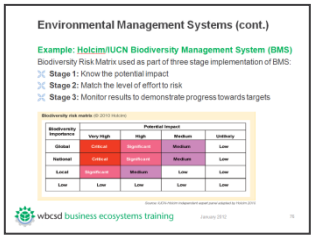
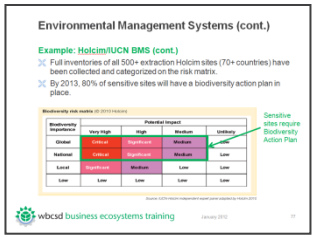
Goals for managing biodiversity:

- Review and revise our biodiversity risk and opportunity assessment tool for use in our next round of assessments of tobacco leaf growing operations by end 2011;

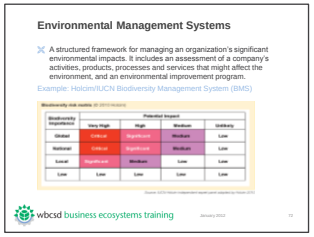
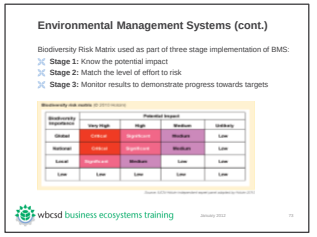
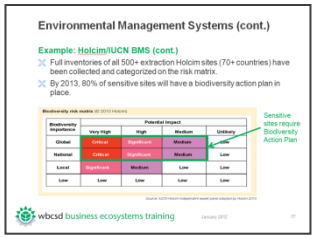


- Use our biodiversity risk and opportunity assessments to help us identify and, where necessary, mitigate possible biodiversity risks associated with our leaf operations;
- Continue to raise awareness of biodiversity issues through training workshops, engagement with farmers and our leaf managers and our online biodiversity learning module; and
- Conduct research to verify the apparent return of wildlife to trial areas of re-established natural forest in Sri Lanka by end 2013.

Session 7
Reporting and Indicators (cont.)

Facilitators' notes	Media/activity/handout guidance
Slides 79-81: 1 minute **Instructions** Facilitator to give definition of environmental management systems and discuss the Holcim/IUCN biodiversity management system as an example. **Environmental management systems** A structured framework for managing an organization's significant environmental impacts. It includes an assessment of a company's activities, products, processes and services that might affect the environment, and an environmental improvement program. **Source:** WBCSD, *Corporate Ecosystem Valuation, Additional Notes A,* Selected Ecosystem Valuation Concepts and Issues. http://www.wbcsd.org/pages/adm/download.aspx?id=5923&objecttypeid=7 "*In 2007, Holcim made the strategic choice to engage proactively with IUCN on the theme of biodiversity to better understand the opportunities and risks linked to biodiversity and ecosystem conservation. The relationship has helped Holcim structure a corporate approach and prioritize biodiversity related activities at site level over the full life cycle of its operations. This engagement has resulted in an operational Biodiversity Management System (BMS) that enables better management of biodiversity in new projects and implements the appropriate corrective actions in sites of varying sensitivity.* *An important first step in the BMS is the establishment of a biodiversity risk matrix followed by the introduction of measures appropriate for the risk level encountered at each site (see table in presentation slide). The risk level is determined first by the biodiversity importance (proximity to high biodiversity value areas) and second by the potential direct impact level. This methodology also takes into account the biodiversity value given by relevant local stakeholders."*	   *"The matrix is used as part of three implementation steps in the BMS:* - *Stage 1. Know the potential impact – annual environmental questionnaire collects (self reported) biodiversity information per site used for risk mapping. Where risk or impacts are unknown, there is a need to close knowledge gap.* - *Stage 2. Match the level of effort to risk – sensitive sites are required to implement full Biodiversity Action Plans and monitor progress. Collaboration with expert partners can assist sites to develop needed biodiversity inventories, set appropriate targets, and determine actions."*

Session 7
Reporting and Indicators (cont.)

Facilitators' notes	Media/activity/handout guidance
Slides 79-81: 1 minute (cont.) "*Stage 3. Monitor results to demonstrate progress towards targets – At most sites, monitoring can be conducted by internal staff. For sensitive sites, external expert monitoring can provide additional credibility to the results. Biodiversity activities need to be integrated into existing operations management processes, such as rehabilitation planning and environmental management systems.* *A full inventory of all 500+ extraction sites owned by Holcim in over 70 countries has been conducted and all sites are categorized on the risk matrix. Top management has been informed of the sites which need attention first and a global biodiversity target has been set in order to monitor progress: by 2013, 80% of sensitive sites will have a biodiversity action plan in place. Results and progress made will be published in Holcim's sustainability report.* *Holcim recognizes it lacks the capacity to adequately monitor and conduct the required biodiversity assessments.* *Therefore, Holcim will continue to work with external partners where appropriate whilst building capacity internally. There is also an opportunity to define smarter and more pragmatic performance indicators to measure the long term impact on biodiversity.* *The outputs of Environmental and Social Impact Assessments, walkover surveys and more detailed biodiversity assessments have to serve as a basis for the operational environmental management of each site and as the point of departure for rehabilitation plans of the extraction sites. These tasks will remain the responsibility of the local operations."* **Source:** TEEB For Business Chapter 4, pp 8-9 http://www.teebweb.org/LinkClick.aspx?fileticket=tcneop1kys4%3d&tabid=1021&language=en-US	  

Session 8: Policy Frameworks
Time guidelines

Time guidelines	Time
Policy Frameworks	20 mins

Session objective

To give delegates an overview of the current policy frameworks in place and provide them with some examples and guidance on how they can be engaged in the policy process.

Session format

This session will be run by one course facilitator, who will talk through key concepts and definitions with participants.

Handouts

Participants course material desk pack – hardcopies will be laid out on participant desks in advance of their arrival at the course. This pack contains copies of all of the slides used throughout this course together with relevant handout materials required for each session.

A glossary of terms used during the module will also be available in the course material desk pack.

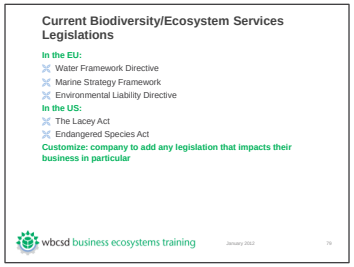
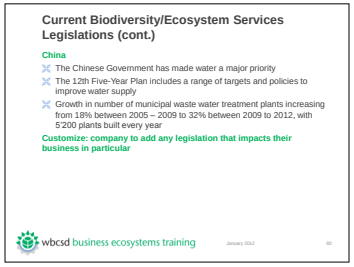
Session overview

A presentation on the different regulatory frameworks in place and under development.

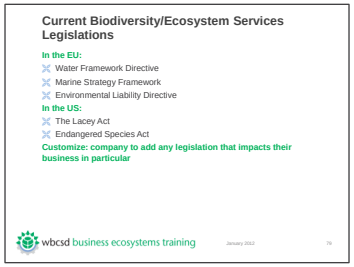
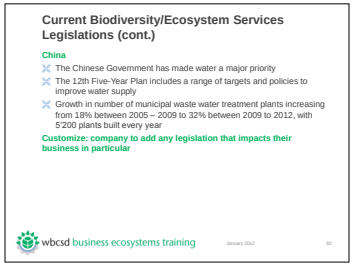
Session 8
Policy Frameworks

Facilitators' notes	Media/activity/handout guidance
Session 7: Policy Frameworks **Total time: 20 minutes** This session will give delegates an overview of the responses that are starting to emerge globally to address ecosystem decline and environmental protection and the resulting policy frameworks **Slide 82: <1 min** **Source:** WBCSB CEV Helpdesk Call presentation (May 2011) (WBCSD Members only: http://www.wbcsd.org/Pages/EDocument/EDocumentDetails.aspx?ID=13754&NoSearchContextKey=true) **NOTE: The Facilitator should vary discussion depending on audience, and consider adding examples with specific country/industry relevance to the audience.**	

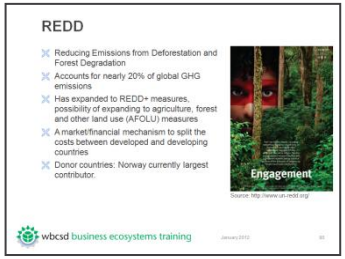
Session 8
Policy Frameworks (cont.)

Facilitators' notes	Media/activity/handout guidance
Slides 83-85: 3 minutes **Instructions** Facilitator to talk through some of the current legislation that is relevant to biodiversity and ecosystems **Source:** European Commission http://ec.europa.eu ***In the EU*** • **Water Framework Directive:** commits the European Member States to a qualitative and quantitative improvement of bodies of water. This includes marine waters up to 1 nautical mile offshore. This directive has resulted in the publishing of many important documents, such as the River Basin Management Plan. • **Marine Strategy Framework Directive:** intended to enforce the protection of the European marine environment to ensure that it is healthy, productive and safeguarded for the use of future generations. It outlines an ecosystems-based approach for managing human activities, supporting the sustainable use of marine goods and services. It binds member states to develop marine strategies for their waters. • **Environmental Liability Directive:** this was put into force in 2009, and converts non-legislative policies such as the Pollution Prevention Guidelines into stricter compliance laws, where the failure to meet requirements results in heavy fines. This is representative of a 'polluter pays' principle, and covers contamination of land and water that puts human or environmental health at risk.	 

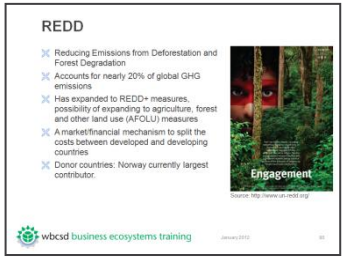
Session 8
Policy Frameworks (cont.)

Facilitators' notes	Media/activity/handout guidance
Slides 83-85: 3 minutes ***In the US:*** **The Lacey Act:** passed in 1900, this act created civil and criminal penalties for any violation against plants and wildlife. It covers a range of acts, such as illegal hunting and fishing, and illegal trade of plant and animal resources. **The Endangered Species Act:** passed in the 1970s, this act was designed to protect plant and animal species that are deemed to be near extinction or highly vulnerable, specifically to the effects of economic growth and development. The act has been a significant driver of conservation efforts in the US. ***In SA:*** Legislation relating to ecosystem services are also maturing in **developing countries**. One such example is the **South African Water Act**: there was recognition of water as a scarce and unevenly distributed natural resource, and so this bill was enacted to facilitate the necessary policy reforms to the South African water system, in terms of accessibility, sustainability, and an integrated management system that decentralized control over the resource. ***In 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	 

Session 8
Policy Frameworks (cont.)

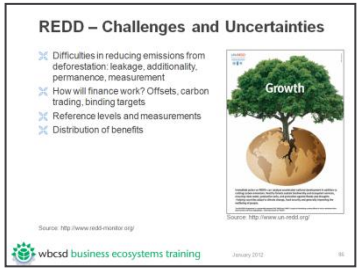
Facilitators' notes	Media/activity/handout guidance
Slide 86: 3 minutes **Source:** UN REDD Programme http://www.un-redd.org/ **Instructions:** Facilitator to talk through the slide: **Background:** - *"REDD was launched by the United Nations Framework Convention on Climate Change (UNFCCC) in 2007 at Bali (COP-13), with an initial focus on deforestation and degradation, but at Cancun 2010 was updated to the REDD+, to include: forest conservation, sustainable forest management and enforcement of forests as carbon stocks.* - *The long term vision of REDD/REDD+ is to develop to incorporate agriculture, forest and other land use (AFOLU) measures.* - *As a significant proportion of the world's forests are located in developing countries, where governments and industries cannot necessarily afford to protect them, the mechanism works to transfer funds into these countries to split the burden between developing and developed countries. Developing countries participate by engaging in projects that contribute to reducing emissions (from deforestation, degradation etc...) and developed countries participate by reimbursing developing countries for these efforts."* There are parallels between REDD and offsetting covered earlier in this module.	 - *"Deforestation and forest degradation, through agricultural expansion, conversion to pastureland, infrastructure development, destructive logging, fires etc., account for nearly 20% of global greenhouse gas emissions, more than the entire global transportation sector and second only to the energy sector."* (**Source**: UN REDD Programme : http://www.un-redd.org/AboutREDD/tabid/582/Default.aspx). - *"This demonstrates the intimate connection between biodiversity/ecosystem services and emissions/climate change, i.e. saving forested areas to reduce carbon emissions can be beneficial for biodiversity conservation, although this will be dependent on the forest ecosystem under consideration."*

Session 8
Policy Frameworks (cont.)

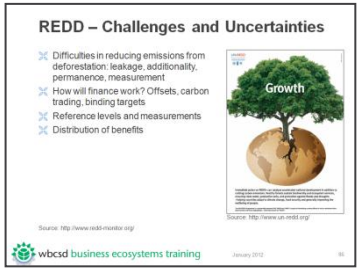
Facilitators' notes	Media/activity/handout guidance
Slide 86: 3 minutes (cont.) **Source:** UN REDD Programme *http://www.un-redd.org/* - *"The programme started with 9 initial pilot countries, but now has 36 partner countries spanning Africa, Asia-Pacific and Latin America, of which 13 are receiving support to National Programme activities. These 13 countries are:* ***Bolivia, Cambodia, Democratic Republic of the Congo (DRC), Ecuador, Indonesia, Panama, Papua New Guinea, Paraguay, the Philippines, Solomon Islands, Tanzania, Viet Nam and Zambia.*** *To-date, the UN-REDD Programme's Policy Board has approved a total of US$55.4 million for its nine initial pilot countries and four new countries (Cambodia, Ecuador, the Philippines and Solomon Islands)."* ***Donor countries*** - ***"Norway*** *continues to be the UN-REDD Programme's first and largest donor. Since the Programme was launched in September 2008, Norway has committed US$52.2 million for 2008-2009, US$31 million for 2010, and at least US$40 million for 2011-2012.* ***Denmark*** *became the second donor country to join the UN-REDD Programme, committing US$2 million in June 2009 and another US$6 million in November 2010."* - *"At the end of 2009,* ***Spain*** *announced its pledge of US$20.2 million to the UN-REDD Programme over a period of three years, and confirmed US$1.4 million for 2010. In March 2011,* ***Japan*** *made its first funding commitment to the Programme of US$3 million for the UN-REDD Global Programme and the* ***European Commission*** *pledged approximately US$14 million (€10 million)."*	

Session 8
Policy Frameworks (cont.)

Facilitators' notes	Media/activity/handout guidance

Slide 87: 3 minutes
 	
REDD – challenges and uncertainties
 	
Source: REDD Monitor *http://www.redd-monitor.org/*
 	
Instructions:
 	
Facilitator to walk through each of the points on the slide
 	
Background:
 	
- *"The issues associated with reducing emissions from deforestation were acknowledged in the Kyoto Protocol negotiations:*
  - *Leakage refers to the fact that while deforestation might be avoided in one place, the forest destroyers might move to another area of forest or to a different country.*
  - *Additionality refers to the [difficulty] of predicting what might have happened in the absence of the REDD project.*
  - *Permanence refers to the fact that carbon stored in trees is only temporarily stored. All trees eventually die and release the carbon back to the atmosphere.*
  - *Measurement refers to the fact that accurately measuring the amount of carbon stored in forests and forest soils is extremely complex – and prone to large errors."*
	

Session 8
Policy Frameworks (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 87: 3 minutes (cont.) **Source:** REDD Monitor *http://www.redd-monitor.org/* **[Interactive option – the issues listed below could be posed as questions to the group and used within a discussion]** A number of issues are yet to be resolved: ***"The financing mechanism*** - *Will countries and private firms be able to buy/sell offsets?* - *Will the credits from these transactions be able to feed into a larger global carbon market?* - *Will private firms be able to undertake their own conservation projects and sell the accumulated credits?* - *How would these REDD credits differ from regular carbon credits in terms of pricing and transferability?* - *What will be the process for determining how projects are classified under REDD/REDD+ systems?"* ***"Reference levels and measurements*** - *Will countries with lower historical emissions from deforestation and degradation be able to access the same benefits?* - *How will varying levels of forest cover effect the process?* - *What if conservation of forests represents different opportunity cost values in different regions, e.g. only timber in one region, but timber and oil in another?* - *Will offsets through REDD contribute to donor countries' national emissions targets? (it is largely accepted that such offsets should not be includable in national emissions measurements)"*	 ***"Distribution of benefits*** - *How will the interests of local and indigenous peoples be represented and protected?* - *How will the intrinsic value of forested areas be accounted for?* - *Will other ecosystem services and environmental benefits be accounted for in pricing, e.g. the benefits of biodiversity?"*

Session 8
Policy Frameworks (cont.)

Facilitators' notes	Media/activity/handout guidance

Slides 88-90: 2 minutes

Source: WBCSD, *CEV Helpdesk Call presentation* (May 2011) (WBCSD Members only: http://www.wbcsd.org/Pages/EDocument/EDocumentDetails.aspx?ID=13754&NoSearchContextKey=true)

Instructions:

Facilitator to talk through CBD COP 10.

Slide 84: please refer to the facilitator's notes from Module 3 Session 3 "Introduction to policy trends".

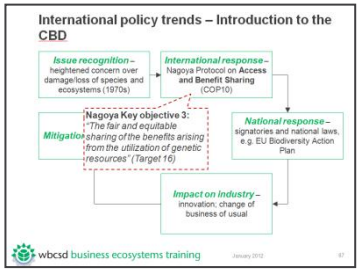
Background:

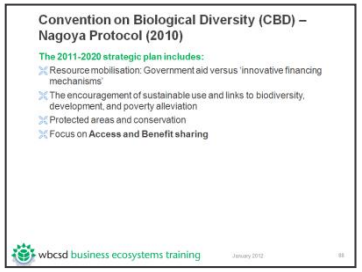
A number of different decisions were made during the 10th Conference of the Parties to the Convention on Biological Diversity in Nagoya during 2010

Facilitator to highlight the following points:

The agreement of a 2011-2020 strategic plan:

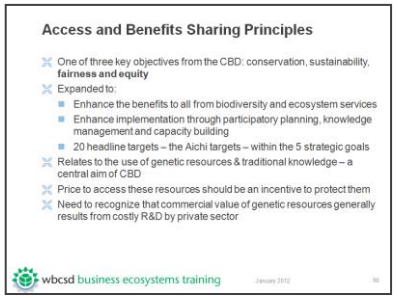
- The protocol on Access and Benefit Sharing was agreed and is now open for signing until Feb 2012 – facilitator to remark that this will be covered further in the next slide
- Resource mobilisation: Government aid versus 'innovative financing mechanisms'
- The encouragement of Sustainable use and links to biodiversity, development, and poverty alleviation
- Protected areas: tough targets as seen in the slide – facilitator to read out target 5 and 11



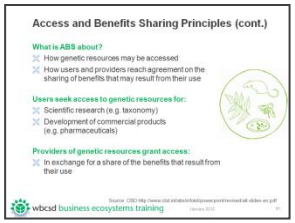
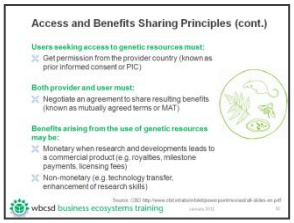
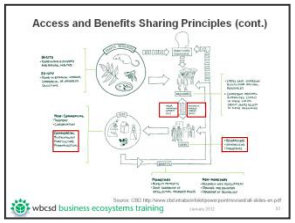


Session 8
Policy Frameworks (cont.)

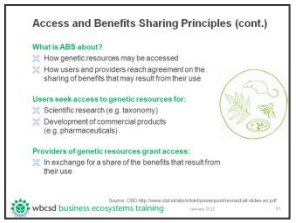
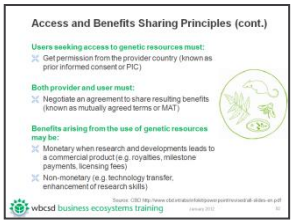
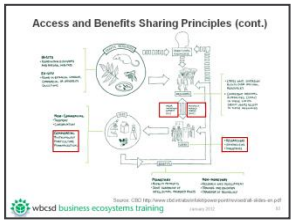
Facilitators' notes	Media/activity/handout guidance

Slide 91: 2 minutes
 	
Source:
WBCSD, *Effective biodiversity and ecosystem policy and regulation (*2010), *http://www.wbcsd.org/Pages/EDocument/EDocumentDetails.aspx?ID=21&NoSearchContextKey=true*
 	
Instructions
 	
Facilitator to walk through the Convention on Biological Diversity (CBD) principles and highlight Access and Benefits Sharing
 	
Background:
 	
- The three key objectives of the Convention on Biological Diversity (CBD) are: The **conservation** of biological diversity; **the sustainable use** of the components of biological diversity; and **the fair and equitable sharing** of the benefits arising from the utilization of genetic resources
- The third principle of **fair and equitable sharing of benefits** has the most immediate social implications. The 2011-2020 plan sets out the 5 strategic goals (introduced in session 3):
  A. Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society.
  B. Reduce the direct pressures on biodiversity and promote sustainable use.
  C. Improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity
  D. Enhance the benefits to all from biodiversity and ecosystem services.
  E. Enhance implementation through participatory planning, knowledge management and capacity building.
	
	
	- Goals D and E both refer to **access and benefit sharing.** Goal D represents the importance of fair and equitable access to benefits, where as E refers more specifically to the benefits of engaging with local and traditional people, not only for preservation of cultures but also for the importance of local knowledge.

Session 8
Policy Frameworks (cont.)

Facilitators' notes	Media/activity/handout guidance
Slides 92-94: 2 minutes **Source:** CBD, *Access and Benefit Sharing Fact Sheet,* *http://www.cbd.int/abs/doc/protocol/factsheets/abs-en.pdf* **Instructions** Facilitator to walk through the Access and Benefits Sharing principles **Background:** • *"The CBD, in its article 15, sets out principles and obligations of Parties related to access to genetic resources and the fair and equitable sharing of benefits arising out of the utilization of genetic resources, on the basis of prior informed consent and mutually agreed terms.* • *The CBD establishes that a person or institution seeking access to genetic resources in a foreign country should seek the **prior informed consent** of the country in which the resource is located.* • *Moreover, the person or institution must also negotiate and agree on the **terms and conditions of access and use** of this resource. This includes the sharing of benefits arising from the use of this resource with the provider as a prerequisite for access to the genetic resource and its use."* • *"Genetic resources, whether from plant, animal or micro-organisms, are used for a variety of purposes ranging from basic research to the development of products. Users of genetic resources include research and academic institutions, and private companies operating in various sectors such as pharmaceuticals, agriculture, horticulture, cosmetics and biotechnology."*	   • *"In some cases, **traditional knowledge** associated with genetic resources that comes from indigenous and local communities (ILCs) provides valuable information to researchers regarding the particular properties and value of these resources and their potential use for the development of, for example, new medicines or cosmetics.* • *According to article 8j of the CBD: Parties shall respect, preserve and promote the knowledge, innovations and practices of ILCs relevant to biological diversity, with the approval and involvement of the holders of such knowledge and encourage the equitable sharing of benefits arising from its use."* • *"Benefits derived from the use of genetic resources may include the **sharing of the results of research and development** carried out on genetic resources, the **transfer of technologies** which make use of those resources, and p**articipation in biotechnological research activities**. Benefits may also be **monetary** when products based on genetic resources are commercialised."*

Session 8
Policy Frameworks (cont.)

Facilitators' notes	Media/activity/handout guidance
Slides 92-94: 2 minutes **Source:** CBD, *Access and Benefit Sharing Fact Sheet,* *http://www.cbd.int/abs/doc/protocol/factsheets/abs-en.pdf* **Instructions** Facilitator to walk through the Access and Benefits Sharing principles **Background:** **Example of use** • *"The development of compounds called Calanolides, derived from the latex of a tree (Calophyllum species) found in the Malaysian rainforest, as a potential treatment for HIV (type 1) and certain types of cancer."* **Example of benefit sharing:** • *"Payment of royalties: royalties generated from the commercialization of a product based on genetic resources are shared between the provider and the user of genetic resources and associated traditional knowledge.* • *Preferential access for the provider country to any medicine derived from genetic resources and associated traditional knowledge: preferential rates to purchase medicine."*	  

Session 8
Policy Frameworks (cont.)

Facilitators' notes	Media/activity/handout guidance

Slides 95-98: 4 minutes

Access and benefits sharing: Case study – Natura

Sources: WBCSD, *Responding to the Biodiversity Challenge (2010), http://www.wbcsd.org/Pages/EDocument/EDocumentDetails.aspx?ID=22&NoSearchContextKey=true*

Instructions:

Facilitator to walk through the case study example

Background:

The issue

Sustainability as a business platform

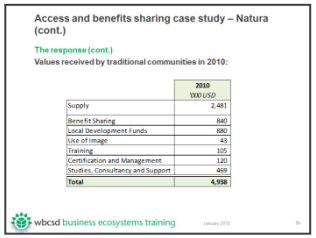
Natura is a Brazilian cosmetic, fragrance and personal hygiene products company that has adopted the sustainable use of Brazilian biodiversity as a business platform since 2000, combining scientific research and the wisdom of traditional communities. The communities' traditional knowledge is leveraged to develop technologies and cosmetic solutions that allow creation of products with differentiated qualities for the consumer, while resulting in socio-environmental gains through partnerships with communities.

The greatest expression of the sustainable use of Brazilian biodiversity is the cosmetic line Natura Ekos, consisting of around 100 products.

The response

Respecting the criteria of the Convention on Biological Diversity

When developing new products, Natura Ekos establishes partnerships with indigenous communities to source raw materials to be used in the brand's product. To underpin this relationship, it adopts the principles of the Convention on Biological Diversity, seeking to promote fair trade, sustainable use, social development and biodiversity conservation.



Natura has developed partnerships with 26 communities, who, in return for providing access to the natural ingredients and their traditional knowledge, receive direct payments and benefits from other investments made by Natura in local development.

Session 8
Policy Frameworks (cont.)

Facilitators' notes	Media/activity/handout guidance

Slides 95-98: 4 minutes (cont.)

The results

A 'win-win' partnership

- Natura Ekos is a business model that creates a virtuous cycle, generating wealth for all, whilst returning value to the place of origin:
- The community benefits from Natura's activities because the partnership generates income for families;
- Natura benefits from its business platform because it generates higher revenues through products with greater appeal to consumers;
- Consumers benefit from Natura's initiative because they are proposed products with high quality natural ingredients; and Nature benefits from Natura's activities because the community takes care of its forests to ensure a better quality of life for itself and for future generations.

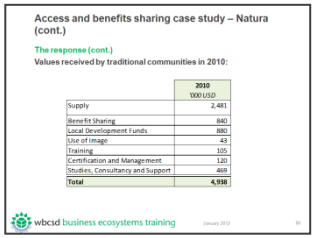
The example of Maracatu project

Depending on time, facilitator may discuss this product as an example of how Natura have integrated the principles into their product development.

In March 2010, Natura launched a new toilet soap line under the Ekos brand, which includes in its formula from 20% to 50% of pure oils extracted from Brazilian fruits, such as cupuaçu, cacao, passion fruit and murumuru. Named the Maracatu Project, it marked the expansion of Natura's proposal for the sustainable use of Brazilian biodiversity as a technological platform.

Sustainable use of the product to preserve biodiversity and promote social inclusion

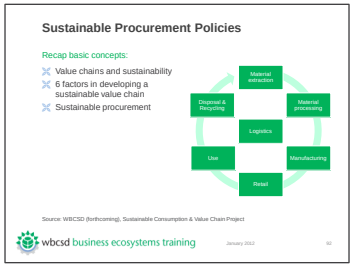
Natura's project raised awareness of the value of this species through its stewardship by the communities and, consequently, the potential for generating income by the families through the harvesting of murumuru.



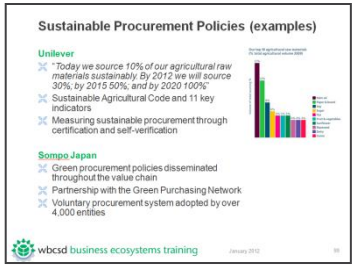
Through this model, Natura supported the development of a supply chain that encompasses everything from forest-mapping for identifying the species, to socio-economic and cultural evaluation, as well as the training of communities.

This process generated work, promoted social inclusion in a region that faces many social challenges, and helped keep the forest standing strong. Natura estimates that the project provided the preservation of approximately 3,000 trees. From a business perspective, the project allowed Natura to innovate, using an original natural ingredient, while securing its future ingredients supply.

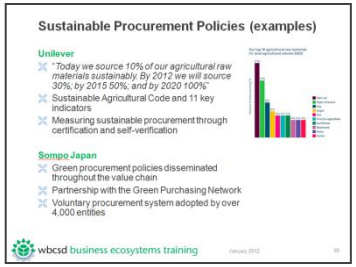
Session 8
Policy Frameworks (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 99: 2 minutes **Graphic source:** WBCSD , *Collaboration, innovation, transformation. Ideas and inspiration to accelerate sustainable growth – A value chain approach,* (2012) http://www.wbcsd.org/work-program/systems-solutions/sustainable-consumption-and-value-chain.aspx **Sustainable Procurement Policies** **Instructions:** Facilitator to recap the concepts of sustainable supply and value chains (introduced in module 2) in order to have a more in depth description of sustainable procurement policies and initiatives. **Background:** **Value chains** are an integral part of strategic planning for many businesses today. A value chain refers to the full life cycle of a product or process, including material sourcing, production, consumption and disposal/recycling processes **Sustainability** is a means of securing the future of the planet. In conditions of heightened competition and economic instability, businesses that develop more sustainable value chains can gain a competitive edge, augmenting the bottom line, while increasing productivity and growth A sustainable value chain approach enables both business and society to better understand the environmental challenges associated with the life cycle of products and services.	 **Sustainable procurement** In what is often described as "sustainable procurement", organizations are looking beyond price, quality, availability and functionality to consider other factors in their procurement decisions including environmental (the effects that the products and/or services have on the environment) and social aspects (labor conditions, indigenous peoples' and workers' rights, etc.) (Environmentally and Socially Responsible Procurement Working Group, 2007). Sustainable procurement can help maintain a company's social license to operate (Kemp, 2001). It can help reduce reputation risks and, ultimately, help secure sustainable supplies (Kennard, 2006). Sustainable procurement can also be used to align companies with their stakeholders' values and make organizations along the supply chain (from forest owners and producers to retailers) more resilient to changing business conditions. **Source:** WBCSD, *Sustainable Procurement of Wood and Paper-Based Products,* http://www.sustainableforestprods.org/node/4

Session 8
Policy Frameworks (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 100: 2 minutes **Source**: Unilever website, http://www.sustainable-living.unilever.com/our-approach/sustainable-sourcing/ **Instructions:** Facilitator to walk through some examples of sustainable procurement policies **Background:** **Unilever** *"Today we source 10% of our agricultural raw materials sustainably. By 2012 we will source 30%; by 2015 50%; and by 2020 100%."* **Their metric** *"Raw or packaging material sourced from verifiable sustainable renewable sources or made from recycled materials (% by weight)."* **Working with suppliers** *"Half our raw materials come from farms and forests. For us, sustainable sourcing means meeting the needs of people today without compromising the ability of future generations to meet their needs. In practice this means working closely with our suppliers to help them improve their farming practices and minimise their environmental impacts."* **Best practice** *"In 1998 we established our Sustainable Agriculture Programme. With the help of an external advisory board and expert agronomists, we developed the Unilever Sustainable Agriculture Code (the Code) – a detailed guideline for agricultural best practice. The Code is based on the following 11 indicators:"*	 *"Soil health; soil loss; nutrients; pest management; biodiversity; farm economics; energy; water; social and human capital; local economy; and animal welfare.* ***Measuring sustainable sourcing and tracking progress*** ***Certification**: there are certain bodies such as Fairtrade, the Rainforest Alliance and the Forest Stewardship Council, whose certification schemes match the principles and practices of the Code. We count suppliers certified by one of these standards as a 'sustainable source'.* ***Self-verification:** not all the raw materials in all the geographies from which we source are covered by such organisations. We therefore supplement our certified partnerships with a system based on self-verification. Using our software tool, suppliers carry out self-assessments against the Code. The tool helps identify areas of best practice and areas for improvement. It also provides a basis for us to work with the supplier to create a plan for continuous improvement. Any sources that are self-verified are audited by a third party, whose process is endorsed by an independent external advisory board."*

Session 8
Policy Frameworks (cont.)

Facilitators' notes	Media/activity/handout guidance
Slide 100: 2 minutes **Source:** WBCSD, *Collaboration, innovation, transformation. Ideas and inspiration to accelerate sustainable growth – A value chain approach,* (2012) http://www.wbcsd.org/work-program/systems-solutions/sustainable-consumption-and-value-chain.aspx **Sompo Japan** This case study shows how a service company created and spread a green procurement online system through its value chain. The new system is not only reducing the insurance sector's environmental impact and promoting its stakeholders' environmental consciousness, but also helping Sompo Japan differentiate itself in the market due to its sustainability initiatives. Green procurement has been prevailing among large companies in Japan, but, as yet, not among medium and small sized companies, especially in local areas. Sompo Japan, which had been tackling green procurement since 1997, decided to disseminate it amongst insurance agencies, which are a core part of its value chain, and indirectly to 5.9 million corporate and individual customers across the country. With the help of the Green Purchasing Network (an extra-governmental organization with more than 2,900 corporations and local governments in Japan), and the cooperation of its office supplies service provider, Sompo Japan developed an online and centralized green purchasing system, offering eco-friendly stationary products for its nationwide agency organizations, the AIR. This consisted mainly of automobile shops, and the J-SA, an organization of professional insurance agencies.	 A communication campaign was launched, not only to disseminate knowledge of the system and provide agencies with sensitization messages about purchasing more eco-friendly products, but also to advise on the sustainable use and disposal of these products. Also, Sompo Japan made tools such as comics, to encourage agencies in an easily understood manner. In less than three years, the voluntary procurement system has been adopted by about 70% of AIR and J-SA agencies, i.e. about 4,000 entities. Sompo Japan is actively working to increase this number, and to ensure a more frequent use of the platform. The benefit for the agencies has been twofold. Through the use of eco-friendly stationary products and bulk discounts offered, agencies have been able to reduce their environmental footprint and costs. Increasing purchasing amounts leads to further profits for the stationary sales company offering eco-friendly products. This initiative has also helped to differentiate Sompo Japan from other insurance companies, and to strengthen the link between the company and its agencies.

Session 8
Policy Frameworks (cont.)

Facilitators' notes	Media/activity/handout guidance

Slide 101: 2 minutes

Source: WBCSD, *Sustainable Procurement of Wood and Paper-Based Products* (2011), http://www.sustainableforestprods.org/node/4

Examples of sustainable procurement guides and advice

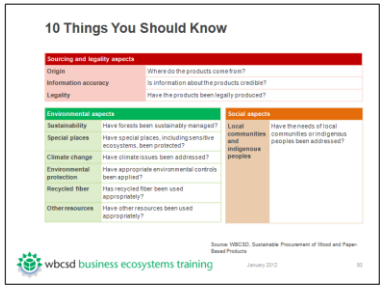
Instructions:

Facilitator to refer to the slide and discuss the 10 key issues surrounding sustainable procurement for wood and paper.

Background:

Sustainable Procurement Guide for Wood and Paper-Based Products
This guide focuses on 10 key issues, formulated as essential questions, central to the sustainable procurement of wood and paper-based products. Wood and paper-based products can be an environmentally and socially sound purchasing option.
The essence of sustainable procurement is to select these products with acceptable and even beneficial environmental and social impacts. While sustainable procurement is an investment in a better world, it is also an investment in a better bottom line.
Good environmental claims that accurately convey the environmental attributes of products help consumers to make informed choices. Misleading, false, meaningless or unclear information can result in consumers losing confidence in environmental claims and labels in general, lead to unfair business competition and discourage companies from making truthful claims. So this guidance aims to:

- Support business in making robust environmental claims;
- Give firms confidence that their claims meet good practice standards in the domestic market, Europe and internationally;



- Improve the standard of environmental claims found in the domestic market; and
- Reduce unfair competition by minimising claims that may be unfair or misleading.

Other procurement examples: Environmentally Preferable Purchasing (EPP) Source: EPA., http://www.epa.gov/epp/

Environmentally Preferable Purchasing (EPP) helps the federal government "buy green," and in doing so, uses the federal government's enormous buying power to stimulate market demand for green products and services. Geared first to help federal purchasers, this site can help green vendors, businesses large and small – and consumers. Use the easy index to:

- Find and evaluate information about green products and services;
- Identify federal green buying requirements;
- Calculate the costs and benefits of purchasing choices;
- Manage green purchasing processes.

Session 8
Policy Frameworks (cont.)

Facilitators' notes	Media/activity/handout guidance
Slides 102-103: 1 minute **Instructions:** Facilitator to describe the EU Green Public Procurement instrument, and discuss how individual member states are implementing or developing plans. **Presenter may wish to discuss alternative country or policy. Links and details of all EU member state initiatives can be found at:** http://ec.europa.eu/environment/gpp/pdf/national_gpp_strategies_en.pdf **Background:** **Source:** DEFRA, http://sd.defra.gov.uk/advice/public/buying/background/green-public-procurement/ *"Like all Member States of the EU, the UK is encouraged to follow the principles of Green Public Procurement – "an initiative where environmental considerations are taken into account within the procurement process."* *"Green Public Procurement (GPP) aims to direct the combined spending power of government across the EU member toward environmentally friendly products and services. Together, public authorities spend around 16% of the Gross Domestic Product (GDP) of the whole EU – a huge amount of expenditure which can be used to encourage the development of greener products and reduce environmental impact."*	 *"The UK – like other Member States – has agreed to the EU's proposal that* *"…50% of all tendering procedures should be green, where "green" means "compliant with endorsed common "core" GPP criteria… The percentage would be expressed in both number and value of green contracts as compared to the overall number and value of contracts concluded in the sectors for which common "core" GPP criteria have been identified"*

Session 8
Policy Frameworks (cont.)

Facilitators' notes	Media/activity/handout guidance
Slides 102-103: 1 minute (cont.) The UK Government Buying Standards prioritises the same key products as the EU GPP: - Cleaning products - Construction - Electricity / Electrical Goods / Energy-using products - Food - Furniture - Gardening Services / Horticulture - Office ICT Equipment - Paper - Textiles - Transport Examples of how EU member states and local administrations are implementing the GPP in purchasing these products can be found at: http://ec.europa.eu/environment/gpp/case_en.htm The facilitator should select relevant examples to discuss and may wish to print the case studies out as a handout.	

Session 8
Policy Frameworks (cont.)

Facilitators' notes	Media/activity/handout guidance
Slides 104-105: 1 minute **Source:** WBCSD, *CEV Helpdesk Call presentation* (May 2011) (WBCSD Members only: http://www.wbcsd.org/Pages/EDocument/EDocumentDetails.aspx?ID=13754&NoSearchContextKey=true) **Instructions** Facilitator to describe to the delegates the various ways that they can interact with the policy process and/or how they can ensure involvement. **EU Common Agricultural Reform**: The European Union Common Agricultural Policy (CAP) reform process will not only impact on those directly involved in agriculture, but also on those downstream industries whose supply chains rely on them. Agriculture has a heavy impact on biodiversity, through water consumption, pesticides, land use etc., and the EU policy is being reformed towards sustainability and environmental protection, particularly of biologically diverse wetlands. Various industries were involved in the public consultation for this reform. (**Source:** http://ec.europa.eu/agriculture/capexplained/sustain/index_en.htm) **Australian government biodiversity policy consultation**: The Australian government carried out an extensive consultation in the development of their Biodiversity Conservation Strategy. In producing their consultation document, they engaged with actors from various sectors, including business and industry in the region. (**Source:** Australian Government Biodiversity Policy http://www.environment.gov.au/epbc/publications/consultation-draft-biodiversity-policy.html)	

Session 8
Policy Frameworks (cont.)

Facilitators' notes	Media/activity/handout guidance

Slides 104-105: 1 minute (cont.)

Non-government organisations and civil society groups are often key drivers of biodiversity/conservation initiatives. They often engage with the relevant actors in business and industry to achieve common objectives. Below are some recent examples.

Biodiversity and Wine Initiative: In 2004, the South African wine industry formed partnerships with the Botanical Society of South Africa, Conservation International and The Green Trust, which led to the establishment of the Biodiversity and Wine Initiative (BWI). This initiative takes a 'no net impact' approach – conserving one acre of natural growth for every hector of land committed to vineyard (and moving towards a net positive impact).

(**Source**: WWF South Africa http://www.wwf.org.za/what_we_do/outstanding_places/better_land_management/stewardship/?1101/The-Biodiversity--Wine-Initiative)

Energy and Biodiversity Initiative: The Centre for Environmental Leadership in Business (Conservation International) convened this initiative, bringing together "leading energy companies and conservation organizations to develop and promote a framework of best practices for integrating biodiversity conservation into upstream oil and gas development. The partners have created a set of practical guidelines and tools to minimize impacts to biodiversity and maximize contributions to conservation wherever oil and gas resources are developed. The guidelines address all stages of the project lifecycle – from pre-bid to decommissioning – and are designed to be integrated into existing company management systems."

(**Source**: Conservation International http://www.conservation.org/sites/celb/fmg/articles/Pages/070199_energy_biodiversity_initiative.aspx)

Session 9: Knowledge share and Q&A
Time guidelines

Time guidelines	Time
Knowledge share – activity	15 mins

Session objective

Reinforce the explicit or implicit learning of the course, and provide an opportunity to address questions relating to the delegates' experiences and challenges of dealing with legislation/policy mechanisms.

Session format

This session will be run by one course facilitator, who will chair the questions and help to facilitate discussion.

Handouts

Participants course material desk pack – hardcopies will be laid out on participant desks in advance of their arrival at the course. This pack contains copies of all of the slides used throughout this course together with relevant handout materials required for each session.

A glossary of terms used during the module will also be available in the course material desk pack.

Session overview

The session will draw on the previous sessions and aim to build on delegates' previous experience within the field (this is expected to be limited – hence the short timeframe for this activity).

Session 9

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

Facilitators' notes	Media/activity/handout guidance
Slide 106-: 2 minutes **Objective:** knowledge share Q & A session **Total time for exercise:** 15 minutes **Introduction** This section of the module explores the delegates' experiences and the challenges in dealing with legislation/policy mechanisms related to managing and mitigating impacts on ecosystems. The aim is to share experiences between the delegates and translate the theory that has been covered in the previous modules into a more tangible scenario to help them absorb the information. **[This session could be linked to a pre-work exercise: delegates to write a half a page on where they are currently affected by environmental legislation in their work, and challenges faces in this area]** The session is designed to be an interactive Question & Answer group, with delegates sharing their questions and answering under the guidance of the facilitator over 10 minutes. **Instructions:** The facilitator should explain the aims of the session to the group and highlight that this is a facilitated Q&A session.	

Session 9

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

Facilitators' notes	Media/activity/handout guidance

Slides 107-108: 13 minutes

Instructions

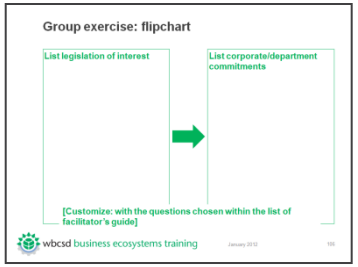
The facilitator can use some of the following questions to get the session started or refer to the categories given for the flip chart layout .

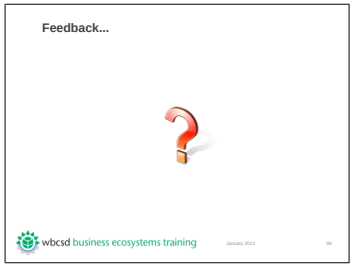
Example questions to start the group discussion:

- What are the legislations currently affecting your company?
- Take a vote (raise hands) on the legislation most relevant to the delegates' companies
- Identify initiatives that their companies currently support and/or are involved in
- Any company goals in the field of No Net loss, reporting, or the use of offsets

Other question options

- Planning processes for corporate infrastructure projects
- Identification of new legislation that impact your business
- Policy-maker engagement strategies
- Environmental reporting
- Corporate goals in the area of no net loss
- Examples of projects you have worked on that have used are considering 'offsetting'





Session 10: Wrap up
Time guidelines

Time guidelines	Time
Wrap up – interactive	15-25 mins

Session objective

Session will focus on reviewing the key points of the module, comparing these with the original needs of delegates (flip chart from icebreaker) and planning next steps for the delegates.

Session format

This session will be run by the two course facilitators – one will be leading the session and the second should facilitate material and/or addressed questions/queries from delegates/groups.

Handouts

Delegates course material desk pack – includes a handout with references for later study.

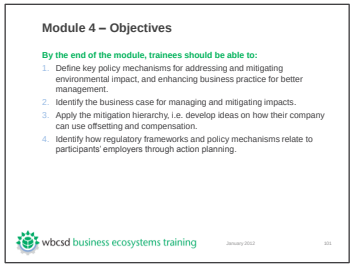
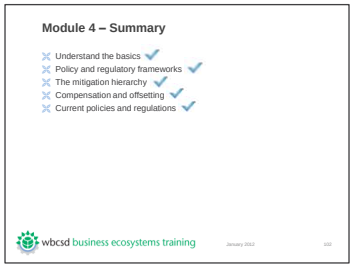
Session overview

Delegates will be reminded of the module's agenda, which will enable them to recognise the knowledge acquired throughout the different sessions (set the scene).

The session will then continue with a high level evaluation of the module's objectives and whether they have been achieved.

Finally, the session will conclude with delegates developing steps going forward, considering actions needed by them and/or their company/business.

Session 10
Wrap up

Facilitators' notes	Media/activity/handout guidance
Slides 109-111: 5 min **Objective:** review the key points of the module, compare with original delegate needs (flip chart from icebreaker), plan for next steps **Total time for exercise:** 15 minutes **Instructions:** Facilitator to: - **Recap:** review the key learning points. - List key take home messages	  

Session 10
Wrap up

Facilitators' notes	Media/activity/handout guidance

Slides 112-115: 5 minutes

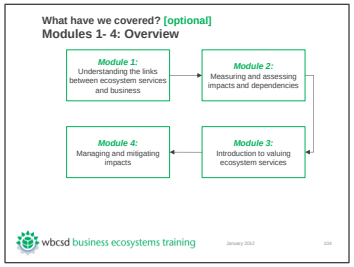
Instructor to provide a general wrap-up of all four modules.

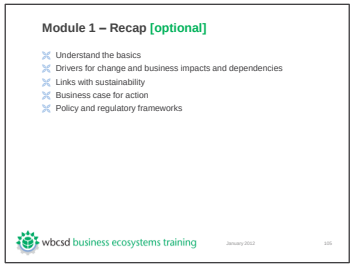
Module 1 – Understanding the links between ecosystem services and business

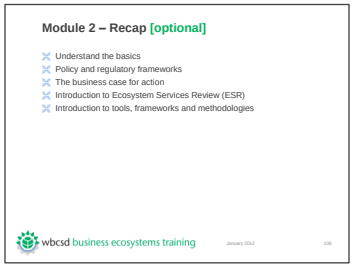
- Key concepts used for ecosystem services
- Linking concepts and regulatory frameworks
- Ecosystems: identifying key ecosystem services
- The global ecosystem challenge
- Brainstorming the business case
- The business case for action

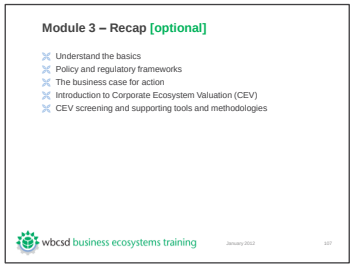
Module 2 – Measuring and assessing impacts and dependencies

- Key concepts used for measuring and assessing impacts and dependencies
- Policy trends
- Measuring change in ecosystem cervice provision
- The business case for action
- Introduction to Ecosystem Services Review
- Introduction to tools for measuring and assessing impacts and dependencies









Module 3 – Introduction to valuing ecosystem services

- Introduction to regulatory frameworks
- Definition of key terms and concepts
- Identification of the business case for valuing ecosystems
- Knowledge share about the business case
- Undertaking ecosystem valuation
  - Screening for valuation and valuation techniques
- Complementary tools

Session 11
Wrap up (cont.)

Facilitators' notes	Media/activity/handout guidance
Slides 116-117: 5-10 minutes **Instructions:** The facilitator should evaluate the extent to which learning objectives and outcomes have been achieved, referring back to the learning objectives captured on the flip chart at the beginning of the session. **Guidance on how to respond if delegates have not achieved their learning objectives** - If there is time revisit specific points and definitions in session 2, - Revisit one specific case study, - Point delegates to the references in their pack which include sources of further reading **Interactive session: action planning** Facilitator to ask participants to document 3 actions which they could take in relation to the potential impacts of legislation relevant to their own organisation. These actions should be as specific and time bound as possible. For example: - Arrange meetings with site managers from our three largest facilities over the next 2 months to discuss potential risks and opportunities, - Schedule a meeting this month with the Group Head of Risk to highlight impacts and dependencies on Ecosystems within our supply chain and review our management responses, - Review the WBCSD Responding to the Biodiversity Challenge report this week and prepare a briefing note for the team the following week. The facilitator could gather responses from the participants and consolidate them on a whiteboard/flipchart to share ideas for next steps.	 **Source:** WBCSD, http://www.wbcsd.org/Pages/EDocument/EDocumentDetails.aspx?ID=22

Session 11
Wrap up (cont.)

Facilitators' notes	Media/activity/handout guidance

Slides 118-122: 5 minutes

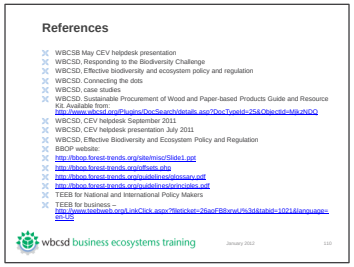
Instructions:

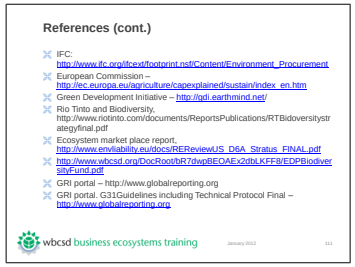
Facilitator to refer to references provided in the main presentation. The facilitator can also signpost to alternatives/other materials that will help continue their learning journey. This is supported by the action planning slides in the main presentation.

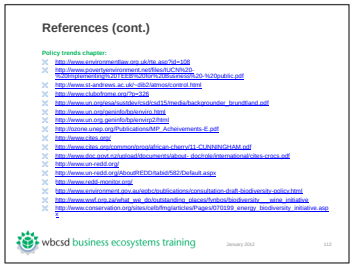
Facilitator to talk through what participants can do next to integrate biodiversity and ecosystem services thinking into their company and working life:

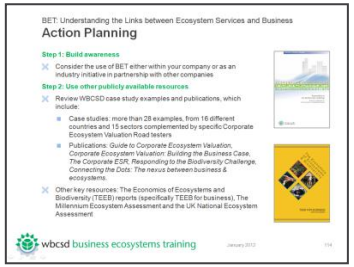
1. Build awareness within your company
2. Review WBCSD case study examples, publications and other publications
3. Consider joining the WBCSD's Ecosystems Focus Area and Water Project working groups, and making use of the WRI's ecosystems experts directory
4. Piloting the use of a specific tool e.g. The CEV and/or ESR for measuring impacts within a small project,
5. Contact the WBCSD's Ecosystems Work Program team for further information about implementing BET

Facilitator will refer to the Action Planning slides within the delegates slide packs (as shown opposite)









A1 Wall charts

Module 4: Managing and Mitigating Impacts

wbcsd business ecosystems training

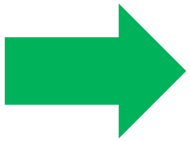
BET Module 4: Managing and mitigating impacts Timetable

Time	Duration (mins)	Session	Facilitator
	10-40	Session 1: Icebreaker and introduction	
	20	Session 2: Basic concepts	
	10	Session 3: Introduction to policy trends	
	45	Session 4: Case study example: 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	

Key: Presentation
Exercise

Group exercise: flipchart layout

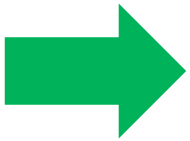
Ecosystems Services Impacted?



Approach?

Extraction project case study – Flip chart

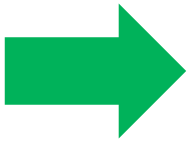
Case study impacts



Pick from the five management options available to you and give your reasons for your choice

Group exercise: flipchart

List legislation of interest



List corporate/department commitments

A4 HANDOUTS
(LONGER VERSION CASE STUDIES)

Module 4: Managing and Mitigating Impacts

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Compensation case study – EDP

The issue

The environmental impact of invoicing

- EDP – Energias de Portugal, an electrical utility company, 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. In 2007, it started to promote on-line invoice services, 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, through an innovative environmental compensation methodology.

Compensation case study – EDP

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. It goes beyond the offset of CO2 emissions in voluntary markets (already common worldwide), as it aims to quantify and cover all negative environmental externalities of the life cycle of paper invoices. The software used for this 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).

Offsetting case study – EDP

The response (cont.)

Life Cycle Assessment methodology to assess impacts on ecosystems

- 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 initiatives cover most of the impacts on ecosystem services, as for example: water used for paper production, or soil protection provided by the agro-forestry good practices implemented in the vicinity of EDP's activities.
- The remaining negative impacts not covered by the agro-forestry initiative are compensated through the CO2 markets, representing approximately 1120 tons of CO2 credits.

Offsetting case study – EDP (cont.)

The results

Ecosystem services approach at the basis of success

- The methodology used has proved to have clear biodiversity conservation results. Compensation activities included not only 9.800 m3/year of water savings through irrigation process optimization, 585 ha of agriculture best practice use, but also incorporated biodiversity conservation projects such as soil nest protection (691 ha) or protection of riverbed vegetation (2,1 km). It also helped reinforce relations with stakeholders and in particular local communities.
- Its first implementation was a success and has led to its extension for another 3 years, allowing EDP to evaluate the perspective of making this approach a new business opportunity in the future by using biodiversity market mechanisms.

Case study exercise – Suncor Energy

The issue

A reclamation objective

- Suncor Energy Inc. is Canada's largest integrated energy company. Suncor combines a leading position in oil sands with complementary operations in refining and marketing, natural gas production and conventional oil production internationally and offshore East Coast Canada.
- Suncor's oil sands business unit operates in the Athabasca region of Alberta located in the Canadian boreal forest. In order to address the obvious environmental impacts of oil sands mining, the company is committed to ultimately returning all lands disturbed by mining and in-situ operations to a natural state as close to pre-disturbance conditions as possible.
- Reclamation is not only a regulatory requirement, but is also a key stakeholder expectation that impacts corporate reputation.

Case study exercise – Suncor Energy (cont.)

The response

A methodology based on constant research and innovation

Prior to the construction of a new mine or in-situ facility, Suncor develops a conceptual reclamation plan in consultation with local stakeholders and government regulators. It develops plans for land preparation and ultimate reclamation with respect to land impacted by the in-situ operations as well. The Alberta government must approve detailed reclamation plans for all new projects.

Reclamation is a carefully monitored process with several distinct components:

- Transformation of oil sands tailings ponds into solid material that can support vegetation, wildlife and landscape restoration, which includes landform design and soil placement;
- Re-vegetation in a way that the reclaimed landscape can support vegetation and wildlife as self-sustaining ecosystems.

Case study exercise – Suncor Energy (cont.)

The results

Pond 1 – the first reclamation of an oil sands tailing pond

- Suncor is currently approaching a milestone – with its first surface reclamation of its former oil sands tailings pond, “Pond 1”. The plan is to ultimately transform the company’s 220-hectare pond, established in the 1960s, into a mixed wood forest and a small wetland capable of supporting a variety of plants and wildlife.
- Reclamation began in 2007 and continues to date. In the first 6 months of 2010 alone, over 150,000 trees were planted on the site. In 2010, Suncor became the first oil sands company to have a tailings pond with a trafficable surface that has progressive reclamation underway. By combining research on innovative reclamation methodologies and multi-stakeholder consultations during all stages of its operations, the company is aiming to increase acceptance of its operations and to consequently maintain its “social license” to operate.

Extraction project – Africa (Handout 1)

Context

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

Extraction project – Africa (Handout 1) (cont.)

Impacts

- The 300 km of buried slurry pipelines will involve the clearing of a mix of native and non-native secondary vegetation considered of low biodiversity value. However, two sections of the pipeline cross sensitive habitats: the first 10 km is near virgin forest and is accounted for in the mine footprint. The second section of the pipeline has been routed to avoid current infra-structure and as a result passes through 20 km of undisturbed forest.
- The processing plant occupies 5 km^2 of an industrial zone. In addition an existing pier at the harbour will be extended by over 150 m to accommodate for logistical needs. The processing plant and pier extension have been assessed in the Environmental and Social Impact Assessment (ESIA) to have negligible residual impacts on biodiversity.

Extraction project – Africa (Handout 2)

Actions

To offset the residual impacts, a composite offset is being planned

1. **Offset**: establishing an 12,000 ha endangered forest off-site offset, with similar abiotic and biotic conditions to those found at the mine site and ensuring long term protection through legal arrangements and community consensus.
2. **Reforestation**: establishing two-three on-site (mine) forest habitats conservation areas that occur partially over the mine footprint and ensuring long term protection through legal and managerial commitments.
3. **Conservation forest:** establishing a 6,000 ha conservation forest area around the mine footprint and ensuring long term conservation as part of the priority species management programme and maintenance for the local community.

Extraction project – Africa(Handout 2)

Actions (cont.)

4. **Forest corridor**: the establishment of a forest corridor between the mine area forests to secure long term landscape level connectivity through partnerships with government, NGOs and local communities.
5. **Protected area:** supporting the site management plan design and implementation in conjunction with government and local NGOs and ensuring permanency of legal and managerial structures.
6. **Reforestation corridor:** enhancing forest connectivity in targeted areas of the through expanded reforestation activities along the pipeline in partnership with government and local NGOs.
7. **Replacement forest:** creating a replacement, multifunctional forest on the footprint during progressive reclamation with an established, integrated managerial structure by mine closure.

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