

Responding to the biodiversity challenge

Business contributions to the Convention on Biological Diversity



What is the WBCSD?

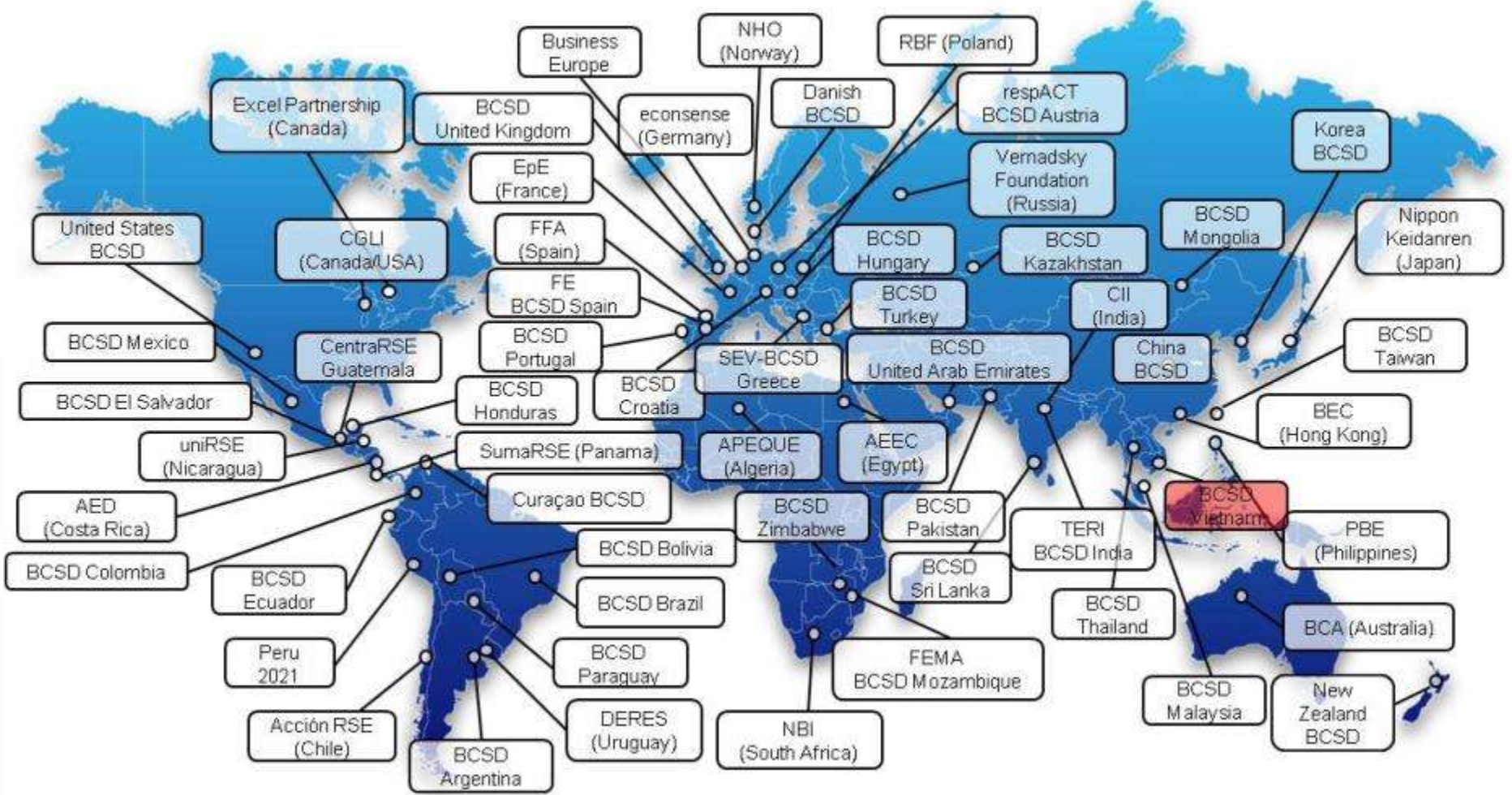
- The World Business Council for Sustainable Development (WBCSD) is a global CEO-led coalition of some 200 international companies, from 35 countries and 22 sectors, with a shared commitment to sustainable development.
- Collectively, members represent an estimated:
 - 15 million employees
 - 7 USD trillion annual revenues
 - 5 USD trillion market capitalization

(Source: Observatoire de la Finance, Geneva, December 2009)

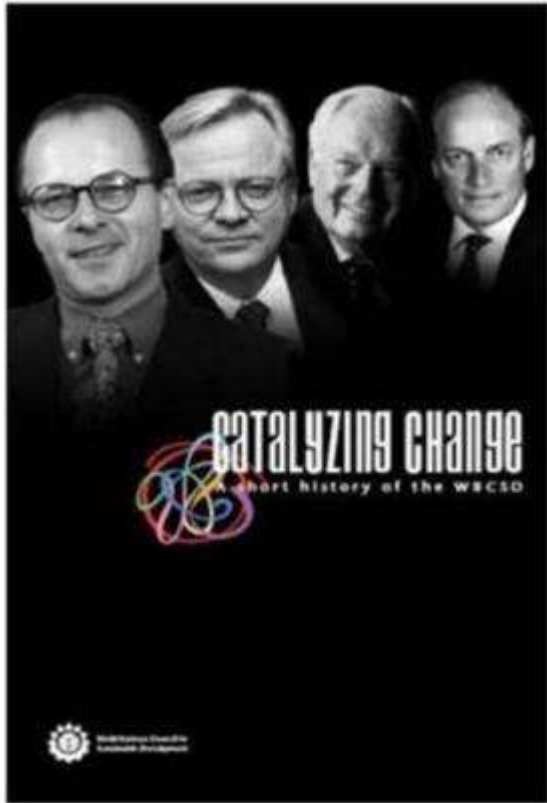
WBCSD Members



Regional network



What is our mission?



- Provide business leadership as a catalyst for change toward sustainable development
- Support the business license to operate, innovate and grow

Ecosystems Focus Area Objective

Support the business license of member companies to operate, innovate, and grow by proactively:

- Addressing business risks associated with ecosystem degradation.
- Promoting development and uptake of best practice mitigation and market-based approaches.

Ecosystems Core Team

Co-chairs:



HITACHI



RioTinto

syngenta



Business case for action

Businesses impact on ecosystems
and ecosystem services



Ecosystem change creates
business **risks** and
opportunities



Businesses rely and depend on
ecosystems and ecosystem services



Introduction

❖ **Issues business can face in daily operations and supply chains :**

- Water scarcity and declining water quality
- Disruption of food, fiber, fuel or other natural industrial inputs
- Increasing incidents of extreme flooding, storms or drought
- Environmental NGOs expanding their activities
- Tightened public policies on natural resource management or operational permitting
- Customers & investors asking about ecological “footprint”



❖ **Business and ecosystem services are inextricably linked**

- Businesses impact on ecosystems and ecosystem services
- Businesses rely and depend on ecosystems and ecosystem services

❖ **Ecosystems degradation will affect how business operates**

- Ecosystem change creates business risks and opportunities

How can business respond?

1. Measure, manage and mitigate biodiversity & ecosystem impact and dependence *risks* and explore *new opportunities*
2. Undertake *corporate ecosystem valuation* to quantify business risks and opportunities
3. Innovate and lead the development of:
 - Markets for ecosystem services
 - Eco-efficient goods, services & technologies
4. Encourage suppliers & purchasers - including SMEs - to adopt “best” biodiversity practices through the supply chain
5. Enter into creative partnerships with municipalities, governments, NGOs, science community for on-the-ground solutions
6. Support “smart” ecosystem regulation that reverses degradation, leverage market forces, “levels the playing field” for all and supports social & livelihood benefits





❖ One of the 3 Rio Conventions signed in 1992

- Climate (UNFCCC)
- Desertification
- Biodiversity (CBD)

❖ Convention on Biological Diversity's 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 



New 2011-2020 Strategic plan with 5 strategic goals and 20 headline targets



World Business Council for
Sustainable Development

- 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

*See Annex at end of pack for
detailed targets*

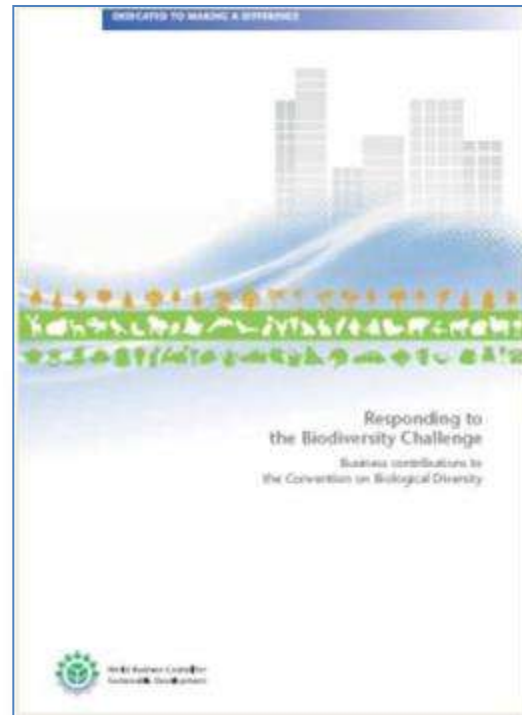


World Business Council for
Sustainable Development

Wide range of solutions by business

- ❖ 28 case studies, from 16 different countries and 15 sectors
- ❖ Illustrate how business responds to each of the CBD's objectives
- ❖ Demonstrate how business can also respond to the CBD 2011-2020 Strategic Plan

Note: Many case studies respond to several of the new targets – only one has been illustrated for each case



Business actions from all over the world

On the ground business actions

The case studies feature companies from diverse sectors, operating in very different countries and implementing specific measures to address one (or several) of the CBD objectives.

1. Company: ArcelorMittal
Country: US
CBD Objective:
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2. Company: ArcelorMittal
Country: Liberia
CBD Objective:
Page: 7

3. Company: BASF SE
Country: UK, Brazil, France
CBD Objective:
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4. Company: CDC Biodiversité (EP6 Member)
Country: France
CBD Objective:
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5. Company: CEMEX
Country: Mexico
CBD Objective:
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6. Company: Cook Composites and Polymers (US BCSD Member)
Country: US
CBD Objective:
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7. Company: The Dow Chemical Company
Country: The Netherlands
CBD Objective:
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8. Company: Dupont (Pioneer 16-Bred)
Country: Philippines
CBD Objective:
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9. Company: Energias de Portugal
Country: Portugal
CBD Objective:
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10. Company: Fibría
Country: Brazil
CBD Objective:
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11. Company: GDF Suez (Gira France)
Country: France
CBD Objective:
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12. Company: Holcim Spain
Country: Spain
CBD Objective:
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13. Company: Lafarge
Country: Uganda-Philippines
CBD Objective:
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14. Company: Natura
Country: Brazil
CBD Objective:
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15. Company: Michelin
Country: Brazil
CBD Objective:
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16. Company: Mondi
Country: South Africa
CBD Objective:
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17. Company: Panama Canal Authority
Country: Panama
CBD Objective:
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18. Company: PaperCo
Country: India
CBD Objective:
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19. Company: Portugal Soporcel Group
Country: Worldwide
CBD Objective:
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20. Company: Sol Mills Group (Fundacion Entorno Member)
Country: Mexico
CBD Objective:
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21. Company: Sampo Japan
Country: Japan
CBD Objective:
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22. Company: Suncor Energy Inc.
Country: Canada
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23. Company: TEPCO
Country: Japan
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24. Company: Vale
Country: Brazil
CBD Objective:
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25. Company: Veolia Water
Country: France
CBD Objective:
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26. Company: Varacil (Stora Enso)
Country: Brazil
CBD Objective:
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27. Company: Volkswagen
Country: Mexico
CBD Objective:
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28. Company: Weyerhaeuser
Country: US
CBD Objective:
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CBD OBJECTIVES	RELEVANCE	
	++	+
The sustainable use of the components of biological diversity		
The conservation of biological diversity		
The fair and equitable sharing of the benefits arising out of the utilization of genetic resources		

Sustaining our Great Lakes



CBD Objectives		Country covered	USA and Canada
CBD Strategic Goal	D.14 – Ecosystems providing essential services (incl. water) are restored	Business case	<ul style="list-style-type: none"> ▪ Dependency on water for operations ▪ License to operate

❖ The issue

- 9 facilities surrounding the Great Lakes
- High dependency on water resource (manufacturing process & materials shipment)

❖ The response

- Participation in “Sustain our Great Lakes” public-private initiative
- Objective: restore the ecological integrity of the basin
- Contents: funding of on-the-ground projects led by NGOs



❖ The results

- Since 2006, “Sustain our Great Lakes” received 103 grants from ArcelorMittal and other donors, equaling 29 million USD and used for conservation activities
- Project → demonstrate the company’s responsibility to stakeholders

Conserving indigenous forests in Liberia

CBD Objectives		Country covered	Liberia
CBD Strategic Goal	A.4 – Business to keep the impacts of use of natural resources well within safe ecological limits.	Business case	<ul style="list-style-type: none">▪ Stakeholder relationship building▪ License to operate

❖ The issue

- Planning to start iron mining operations in Liberia
- Location: an area with extremely rich biodiversity, upon which population depends

❖ The response

- Large-scale ecological study
- Involved a large team of specialists and NGOs (Conservation International, Liberian Forestry Development Authority, etc)
- Contents: funding of on-the-ground projects led by NGOs

❖ The results

- Started planning for rehabilitation and protection
- Improved relationships with stakeholders
- License to operate



Protecting ecosystems through respectful agricultural practices

CBD Objectives		Country covered	UK, Brazil and France
CBD Strategic Goal	B. 7 – Areas under agriculture are managed sustainably	Business case	<ul style="list-style-type: none"> ▪ Dependency on ecosystem regulating services for customers' operations ▪ Reputation

❖ The issue

- Need to support customers' (the farmers) activities for sustainable agriculture
- Stakeholders' expect agriculture to consider biodiversity protection

❖ The response

Different programs implemented internationally:

- Testing methods of biodiversity enhancement methods in commercial farms (UK)
- Reforestation program (300 ha) and education program to restore and maintain native vegetation and ecosystems (Brazil)
- Enhancing pollinator populations through improvement of bee nutrition via the Bee Biodiversity Network (France)



❖ The results

- Demonstrated compatibility between agriculture and the conservation of biodiversity
- Strengthened relationships with farmers and improved reputation of the sector

Testing the first habitat banking project in Europe



EpE
Member
Company

CBD Objectives	A small icon of a green globe with a white grid, representing global objectives.	Country covered	France
CBD Strategic Goal	D.15 – Restoration of at least 15 % of degraded ecosystems by 2020	Business case	<ul style="list-style-type: none">▪ New business opportunities emerging from biodiversity compensation needs

❖ The issue

- Increasing number of businesses implementing “no net loss” programs

❖ The response

- Biodiversity compensation program, through the first habitat banking project in Europe, near Marseille
- Beginning: 2008 / End: 2038
- Conversion of 367 ha of former arboriculture domain into sustainable grazing areas

❖ The results

- Compared to ad hoc offsets:
 - Cost effective thanks to economies of scale
 - Higher ecological efficiency as it targets a larger area
- A new business for CDC Biodiversité



Conserving a unique transboundary ecosystem



CBD Objectives		Country covered	Mexico
CBD Strategic Goal	D.15 – Restoration of at least 15 of degraded ecosystems by 2020	Business case	<ul style="list-style-type: none"> ▪ Part of CSR program ▪ Build stakeholder relationships

❖ The issue

- Owns land in a biodiversity hotspot located in the border region of Mexico and USA
- A region that has been heavily exploited by logging, mining and overgrazing for more than 100 years

❖ The response

- El Carmen Transboundary Conservation initiative
- Unique partnership between a large number of stakeholders: government, private landowners, NGOs, universities, etc

❖ The results


- 200,000 ha of protected area (CEMEX and other private landowners)
- 500 species of plants, 290 species of birds, 80 species of reptiles & amphibians, 81 species of mammals and 140 species of butterflies
- Expertise building in land management and biodiversity conservation
- Possibility to participate in emerging markets for carbon sequestration and watershed protection



Creating business value through ecological stormwater management



US BCSD
Member
Company

CBD Objectives		Country covered	US
CBD Strategic Goal	D.14 – Ecosystem providing essential services (inc. water) are restored	Business case	<ul style="list-style-type: none">▪ Reduction of natural hazards (flooding)▪ Cost efficiency

❖ The issue

- Ageing stormwater management infrastructure → recurrent flooding

❖ The response

- Restoration of the local ecosystem through construction of a wetland, able to regulate stormwater
- Worked in partnership with stakeholders to analyze, design and construct the wetland
- Valuation study of the two options (management infrastructure vs. wetland)

❖ The results

- Wetland more cost efficient in the long run
- Improvement of stormwater regulation
- Improvement of the public water system in the region
- Biodiversity enhancement: plant diversity expected to increase by 30 species



Utilizing household wastewater



CBD Objectives		Country covered	The Netherlands
CBD Strategic Goal	A.4 – Business to keep the impacts of use of natural resources well within safe ecological limits.	Business case	<ul style="list-style-type: none"> ▪ Reduce risks linked to water supply ▪ Reduce costs

❖ The issue

- A very water intensive production process
- Brackish local water supply, needing desalination

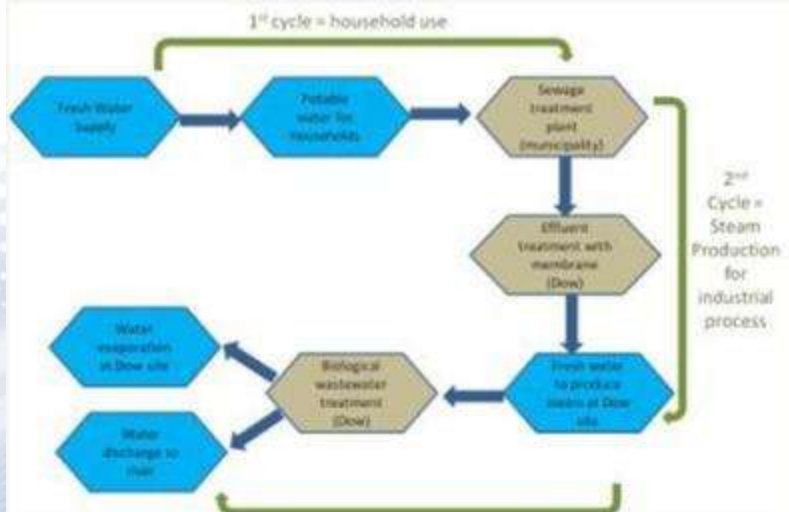
❖ The response

- Use of local household wastewater
- Re-using water twice in the manufacturing process, three times in the whole process

❖ The results

- Significant reduction of the amount of freshwater used
- Purification of wastewater using 65% less energy equivalent to 5,000 tons of CO₂ savings/year
- Secured water supply, at a constant price

Reusing every liter of water three times



Planting trees in the Philippines to preserve biodiversity



CBD Objectives		Country covered	Philippines
CBD Strategic Goal	D.14 – Ecosystem providing essential services are restored	Business case	<ul style="list-style-type: none"> ▪ Reduce risks linked to local ecosystem degradation ▪ Reputation in the region

❖ The issue

- Seed production plant operated by Pioneer Hi-Bred (DuPont business) close to the Mt. Makiling reserve in the Philippines
- Impacts from deforestation of the nearby Mt Makiling area (erosion and water quality)

❖ The response

- Tree planting and nurturing project, as an annual activity involving employees
- Close collaboration with schools and other stakeholders


❖ The results

- More than 3 hectares replanted / 6,000 standing trees since 2001
- Strengthened relationships between Pioneer Hi-Bred, DuPont employees, local officials and community



Implementing “zero impact” invoices



CBD Objectives		Country covered	Portugal
CBD Strategic Goal	<p>A.4 – Business to keep the impacts of use of natural resources well within safe ecological limits.</p>	Business case	<ul style="list-style-type: none"> ▪ Reputation ▪ Tackling new market opportunities

❖ The issue

- 34 million paper invoices distributed per year
- Need to reduce impacts

❖ The response

- 1st: mitigation, i.e. offer online invoicing to clients
- 2nd: compensation. Understand the impacts of the paper invoicing system through a lifecycle assessment (accounts for the resources, energy and equipment used for generating invoices and invoice delivery), then compensate for inevitable impacts


❖ The results

- Mitigation: by end 2009, 500,000 clients joined the online invoicing service
- Compensation: when possible, carried out in the same ecosystem service category & same location
 Ex: 9,800 m³/year of water savings, 585 ha of agricultural best practice use, etc.
- New potential business opportunities, using biodiversity market mechanisms (in particular carbon)



Setting private natural heritage reserves



CBD Objectives		Country covered	Brazil
CBD Strategic Goal	C-11 – At least 17 % of terrestrial and inland water are conserved, incl. through protected areas	Business case	<ul style="list-style-type: none"> ▪ Government recognition of conservation actions

❖ The issue

- Activities involving management of large landholdings (1,043,000 ha, of which 393,000 ha are native reserves)
- Legal recognition of conservation areas

❖ The response

- Registration of some areas through the Private Natural Heritage Reserves (RPPN), a mechanism for the creation of environmental conservation areas on private lands.

❖ The results

- Registration process completed for 3 RPPN, a total of 2,677 hectares
- Additional 3,690 hectares under approval
- Strengthening of Fibria's ties with government agencies and environmental NGOs



Partnering for biodiversity conservation on landfill sites



CBD Objectives		Country covered	France
CBD Strategic Goal	A.4 – Business to keep the impacts of use of natural resources well within safe ecological limits.	Business case	<ul style="list-style-type: none"> ▪ Acceptance of landfills (negative image) ▪ Social license to operate

❖ The issue

- Landfills impact ecosystems : land occupation and changes in population equilibrium

❖ The response

- Different biodiversity conservation programs:
 - Creation of a Biodiversity Quality Index – a standardized tool that helps assess the ecological quality of landfill sites and help track and manage conservation measures
 - Red Kite conservation program including direct conservation actions and awareness raising of employees and the general public

❖ The results

- Better management of biodiversity conservation actions in and around landfill sites
- Better acceptance of landfill sites through public involvement



Creating an oasis of biodiversity



CBD Objectives		Country covered	Spain
CBD Strategic Goal	A.4 – Business to keep the impacts of use of natural resources well within safe ecological limits.	Business case	<ul style="list-style-type: none"> ▪ Legal compliance ▪ Need to demonstrate ability in land management and post-operation rehabilitation

❖ The issue

- El Puente gravel quarry in operation since 1979 (owned since 1989)
- Necessity to return the land to the community with an environmental quality equal or greater than before exploitation

❖ The response

- Clear and defined rehabilitation strategy:
 - Since 1989 worked with an independent biologist on restoration plans
 - Rehabilitation aiming to enhance wetlands providing habitat for fauna and flora

❖ The results


- Greater environmental quality than before quarrying began (before operations lands were used for agriculture)
- 180 ha of lands now home to 200 bird species
- Now declared a special bird protection zone and received several awards

Positive impacts on relations with stakeholders



Building local plant nurseries for quarry rehabilitation



CBD Objectives		Country covered	Philippines and Uganda
CBD Strategic Goal	<p>A.4 – Business to keep the impacts of use of natural resources well within safe ecological limits.</p>	Business case	<ul style="list-style-type: none"> ▪ Legal compliance ▪ Develop a set of best practices to optimize quarry reclamation

❖ The issue

- Extractive industries impact on biodiversity: removal of soil (early stages of extraction) destruction of habitats (mining operations)

❖ The response

- Organization of a biodiversity management system : number of tools and best practices
- Creation of local nurseries to ensure the respect of indigenous species, adaptation to the biogeography and avoid spread of invasive species

❖ The results

- Nurseries in Philippines and Uganda
- Uganda: 30 employees and production capacity of 100,000 seedlings per year, shared between seedlings used for rehabilitation, for local communities and for alternative fuel plantations.



Protecting ecosystems and producing rubber in a sustainable way



CBD Objectives		Country covered	Brazil
CBD Strategic Goal	B. 7 – Areas under forestry are managed sustainably	Business case	<ul style="list-style-type: none"> ▪ Productivity increase ▪ Employees' motivation

❖ The issue

- Relying on hevea plantation for tire production
- In 2001, decline of productivity of hevea tree plantation in Brazil: disease, topography of the area, age of the trees, etc.

❖ The response

- Implementation of a new business model and organizational structure:
 - Local managers empowerment: opportunity to manage the plantation directly, divided into 12 medium size plantation of 400 ha each
 - Replanting with disease-resistant hevea trees and opportunity to develop other cultures (cocoa, banana, etc)
 - Creation of small family owned small hevea farms (1,000 families) and donation of land for the construction of a new village
 - Management of ecological corridors – environmental reserve covering 3,000 ha with tree nursery



❖ The results

- Increase of productivity
- Generation of social, environmental and economic benefits
- Stronger reputation among consumers and environmental stakeholders.



Restoring wetlands to secure water supply



CBD Objectives		Country covered	South Africa
CBD Strategic Goal	B. 7 – Areas under forestry are managed sustainably	Business case	<ul style="list-style-type: none"> ▪ Dependency of water for operations ▪ Social and environmental license to operate

❖ The issue

- South Africa: a water scarce country, where 55% of wetlands have been damaged
- Mondi high reliance on water (commercial forests and processing plants)

❖ The response

- Creation of *Mondi wetland programme* – partnership between Mondi, WWF, Wildlife and Environment Society of South Africa and the Mazda Wildlife Fund: 1) awareness program (incl. training on management tools and resources) and 2) removal of commercial trees on or close to riparian or wetland areas

❖ The results

- Substantial contribution to the maintenance of functioning freshwater systems (renounced to 5% of its productive forestry land)
- Costs are part of social and environmental license to operate and commitment to communities



Sharing the benefits arising from the use of biodiversity in cosmetics



CBD Objectives		Country covered	Brazil
CBD Strategic Goal	A.4 – Business implemented plans for sustainable production and consumption	Business case	<ul style="list-style-type: none"> ▪ Achievement of high sustainability standard ▪ Product differentiation ▪ Source of innovation

❖ The issue

- Bring sustainability at the center of Natura's strategy
- Product differentiation in the very competitive cosmetics market
- Sources of innovation

❖ The response

- Sustainable use of Brazilian biodiversity as a business platform since 2000
- Natura Ekos Line (100 products): partnerships with 26 local communities in Brazil :
 - Provide access to the natural ingredients and their traditional knowledge
 - In return direct payments, benefit sharing and other payments including investment in local development

❖ The results


- A win-win partnership:
 - Communities benefit from sourcing and benefit sharing (2100+ families)
 - Natura benefits from new sources of innovation and greater appeal to consumers (104 new ingredients developed from Brazilian biodiversity used in 900 different products)
 - Ecological and biodiversity benefits from increased stewardship by communities (45 native species sustainably sourced)

Values received by communities (2009)

US\$ Thousands	2009
Supply	1.531
Benefit sharing	587
Local Development Funds	632
Use of image	8
Training	84
Certification and management	15
Studies, consultancy and support	207
Total	3.065

Using market mechanisms to protect biodiversity in the Panama Canal basin



CBD Objectives		Country covered	Panama
CBD Strategic Goal	D.14 – Ecosystems providing essential services (incl. water) are restored	Business case	<ul style="list-style-type: none"> ▪ High dependency on freshwater ▪ New business opportunities

❖ The issue

- High consumption of water: freshwater from the basin supply more than half the country's population and the Panama Canal operations
- More pressure on natural resources due to population growth and development of economic activities in the region

❖ The response

- 20-year project “ The Environmental Economic Incentives Program” aiming at ensuring freshwater availability in quantity and quality:
 - Protection of existing forest cover and regulation of land use
 - Improvement of biological connectivity among national protected areas
 - Recovery of specific areas through agroforestry, silvopastoral systems, and commercial reforestation activities involving local farmers
 - Financing through market instruments (certified emissions reduction in voluntary markets)


❖ The results

- Restore over 20,000 ha of lands and natural resources, and reduce CO2 emissions for a 20-year period



Growing a staple food with less water & fewer GHG emissions in India



CBD Objectives		Country covered	India
CBD Strategic Goal	A.4 – Business to keep the impacts of use of natural resources well within safe ecological limits	Business case	<ul style="list-style-type: none"> ▪ Reduction of water risks ▪ License to operate

❖ The issue

- Operates several manufacturing plants in India
- Need to secure a reliable water supply for its operations: committed in 2003 to conserve more water than it uses

❖ The response

- Rice growing identified as a major opportunity of water use reduction
- Implementation of a program of direct seeding of rice: no water required at the crop base
→ 30% of water use reduction

❖ The results

- In 2009: 2,630 ha, i.e. 5.5 billion liters of water reduction
→ PepsiCo achieved a positive water balance
- Additionally, reduction of GHG emissions by over 70%, a business opportunity for the farmers if this can get certified as a CDM



Integrating biodiversity conservation in the forest management model

grupo Portucel Soporcel

CBD Objectives		Country covered	Worldwide
CBD Strategic Goal	B. 7 – Areas under forestry are managed sustainably	Business case	<ul style="list-style-type: none"> ▪ Large and scattered estate to manage, involving sensitive areas ▪ Environmental and social responsibility

❖ The issue

- Management of wide forest areas (120,000 ha), 73% of which are eucalyptus plantations
- Need to define new planning and management approaches to manage plantations in a way that can contribute to ecosystem integrity

❖ The response

- Specific methodology for afforestation and reforestation projects:
 - Identify natural values in forest
 - Assess potential impacts and survey of habitats, flora and fauna
 - Map zones needing conservation
 - Define conservation plans and plantation designs

❖ The results

- End 2009:- Assessment completed in a large part of the estate
 - 12,000 ha classified zones with interest conservation
 - Best forestry practices and conservation actions developed
- A process involving multiple local stakeholders thus helping to strengthen ties



Protecting local species for impact mitigation and creation of new business opportunities



Fundacion
Entorno
Member
Company

CBD Objectives		Country covered	Mexico
CBD Strategic Goal	C.12 –The extinction of known threatened species has been prevented and their conservation status has been improved and sustained.	Business case	<ul style="list-style-type: none"> ▪ Reputation

❖ The issue

- Tourism may have a negative impact on turtle populations
 - Degradation and/or destruction of the beaches where they lay their eggs
 - Excessive light impacts adult behavior

❖ The response

- Sol Meliá Group engaged in a turtle protection program, aiming to mitigate its impacts and strengthen its position as a responsible group:
 - Education: guest awareness raising activities
 - Protection: hotel cooperation in protection of nests and baby turtles

❖ The results

- In 2009: involvement of 3,770 guests from hotels helped protect 4,216 baby turtles
- Helped to build the environmentally conscious image of the group



Utilizing financing mechanisms to protect Japanese satoyama biodiversity



CBD Objectives		Country covered	Japan
CBD Strategic Goal	A.2 – Biodiversity values have been integrated into national and local development strategies		Business case
			<ul style="list-style-type: none"> ▪ Business opportunity

❖ The issue

- Increasing pressures for more responsible finance and investment
- Biodiversity conservation becoming a leading concern in Japan

❖ The response

- Position the company as a solution provider:
 - Inclusion of biodiversity conservation criteria into the screening criteria of one of its SRI funds
 - Creation of a new loan mechanism linked to investment in house improvements to reduce CO₂ emissions

❖ The results


- Loan mechanism launched in January 2009. Already 6 different regional NGOs funded
- Opportunity to build relationships with new stakeholders and strengthen ties with local communities

The Loan Plan mechanism can be schematized as follows:



Reclamation progress in oil sands



CBD Objectives		Country covered	Canada
CBD Strategic Goal	D.15 – Restoration of at least 15 % of degraded ecosystems by 2020	Business case	<ul style="list-style-type: none"> ▪ Environmental regulatory framework ▪ Reputation

❖ The issue

- Environmental impacts of oil sands mining in the Alberta region (Canada)
- High stakeholders expectations regarding post-operation land reclamation

❖ The response

- Reclamation methodology based on close collaboration with the Alberta government. 2 steps:
 - 1) Tailing ponds transformation into solid material that supports vegetation
 - 2) Re-vegetation to create a self-sustaining ecosystem

❖ The results

- 220 ha pond reclamation on-going since 2007:
 - ➔ First 8 months of 2010 alone: 600,000 trees planted
 - ➔ Pond no longer exists → it is a solid surface, renamed “Wapisiw Lookout”
- Research on innovative reclamation methodology helps secure the social license to operate



Protecting a national park for half a century



CBD Objectives	A small green icon of a globe with a leaf, symbolizing environmental protection.	Country covered	Japan
CBD Strategic Goal	D.15 – Restoration of at least 15 % of degraded ecosystems by 2020	Business case	▪ Reputation and image building

❖ The issue

- Owning 16,000 ha of land, originally acquired for potential power generation capacity
- Land damaged because of booming of hiking in the region

❖ The response

- Project of hydroelectric generation abandoned
- Decision to preserve the land was taken in the 1960s: restoration of the most damaged marshland and of a 20 km wooden walkway so that the park can be accessed without damaging the environment

❖ The results

- Multiple recognition:
 - Oze region designated as a Special Natural Monument (1960)
 - In 2005, registration under the Ramsar convention
 - In 2007, the entire area (including TEPCO's owned land) became a national park.



Conserving biodiversity in the Atlantic forest of Brazil



CBD Objectives	A small icon of a green globe with a leaf-like shape extending from the bottom right.	Country covered	Brazil
CBD Strategic Goal	C-11 – At least 17 % of terrestrial and inland water are conserved, incl. through protected areas	Business case	<ul style="list-style-type: none">▪ Reputation▪ License to operate▪ Environmental responsibility

❖ The issue

- Important land owner
- Company responsibility not limited to mining operation but to all the lands it owns

❖ The response


- Biodiversity protection projects on nearly 1.1 million hectares (in Brazil and other countries)
- E.g. Research conducted in Reserva Natural Vale covering 220km², sometimes in partnership with other organizations. Includes creation of a nursery, producing seedlings.

❖ The results

- In 2009 more than 100 research projects carried out: demonstrated the richness of the biome
- Demonstrated the private sector's ability to be a protagonist and partner in protecting natural areas



Preserving water quality in a sustainable manner

CBD Objectives		Country covered	France
CBD Strategic Goal	D.14 – Ecosystems providing essential services (incl. water) are restored	Business case	<ul style="list-style-type: none"> ▪ Increase business performance and customer service

❖ The issue

- High dependency on the state of its Crepieux-Charmy water withdrawal site for the ability and quality of the water resource it manages

❖ The response

- Team of environmental technicians
 - Maintains and restores the wellfield, including habitat restoration
 - Keeps inventory of the local fauna and flora
 - Carries awareness and communication campaigns


❖ The results

- Program :
 - Helped to protect the site's biodiversity
 - Helped company to preserve water resource quality and quantity at a lower cost



Conserving the Atlantic rainforest in Brazil



CBD Objectives		Country covered	Brazil
CBD Strategic Goal	B.5 –The rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.	Business case	<ul style="list-style-type: none"> ▪ Business performance ▪ Social license to operate

❖ The issue

- Dependence on ecosystem services: soil nutrition, water, etc and ecosystems' resilience
- need to protect environment in and around plantation to guarantee future operations

❖ The response

- Mosaic landscape approach:
 - Growing eucalyptus for industrial use
 - Conserving and restoring the Atlantic rainforest
 - ➔ eucalyptus covers less than half the total area
 - Most degraded part of the Atlantic forest are restored


❖ The results

- Every year, replanting of 400 ha of Atlantic rainforest (3,500 ha in 2009)
- Main business benefit is ensuring good conditions for its eucalyptus plantation



Replenishing groundwater through reforestation in Mexico

VOLKSWAGEN

CBD Objectives		Country covered	Mexico
CBD Strategic Goal	<p>D.14 – Ecosystems providing essential services (incl. water) are restored</p>	Business case	<ul style="list-style-type: none"> ▪ Secure operations (access to water)

❖ The issue

- Factory in a region where water is scarce and population is increasing
- Future operations could be at risk if nothing is done to secure water

❖ The response

- Research on the groundwater situation in the region
- Following findings on links between water and deforestation, implementation of a two fold program :
 - Reforestation: in 2 years, 300,000 pines were planted
 - Rain water infiltration project including pit digging and earth bank building

❖ The results

- Will enable 1,300,000 additional m³ water per annum in the ground reserves of the region, i.e. more groundwater than VW consumers every year
- Secured long term operations in the region



Mitigation bank projects on Southern Timberlands

CBD Objectives		Country covered	U.S.
CBD Strategic Goal	D.15 – Restoration of at least 15 % of degraded ecosystems by 2020	Business case	<ul style="list-style-type: none"> ▪ New business opportunities emerging from biodiversity compensation needs

❖ The issue

- Managing commercial forestland worldwide and owning large land areas.
 ➔ Need to maximize the economic return on company owned-assets

❖ The response

- New revenue streams are emerging from mitigation banking
 = projects providing compensatory mitigation in advance of impacts authorized by law.



❖ The results

- Weyerhaeuser proposed 11 mitigation banking projects in the U.S.
- Total U.S. market in 2009: 431 active banks, 182 banks pending approval and 88 banks sold out
- Credit price: \$3,000 to \$653,000 per credit

Annex: 2020 Aichi Targets

A- Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society.

- 1- By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably
- 2- By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.
- 3- By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio-economic conditions.
- 4- By 2020, at the latest, Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.

Annex: 2020 Aichi Targets

B- Reduce the direct pressures on biodiversity and promote sustainable use

- 5- By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.
- 6- By 2020 all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.
- 7- By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.
- 8- By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.
- 9- By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.
- 10- By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.



Annex: 2020 Aichi Targets

C- To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity

- 11- By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscape and seascapes
- 12- By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.
- 13- By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.



Annex: 2020 Aichi Targets

D- Enhance the benefits to all from biodiversity and ecosystem services

- 14- By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.
- 15- By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.
- 16- By 2015, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation.

Annex: 2020 Aichi Targets

E- Enhance implementation through participatory planning, knowledge management and capacity building

17- By 2015 each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan.

18- By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.

19- By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied. A reference to Article 16 of the Convention will be added to the technical rationale.

20- By 2020, at the latest, the mobilization of financial resources for effectively implementing the Strategic Plan 2011-2020 from all sources and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization should increase substantially from the current levels. This target will be subject to changes contingent to resources needs assessments to be developed and reported by Parties.



