

Evaluation and Management of Environmental and Social Risks in Lending, Investment and Insurance Practices

Why Environmental & Social Risk Analysis?

Sultana Gruber, Environmental Risk Management

Athens, 28 May 2010

AGENDA

- Examples of Environmental damages in the last years
- Environmental Legislation
- Banking and sustainable development
- Conceptual framework of environmental and social risks
- consequences and opportunities of the environmental and social risks for financial institutions

Note:

Why Environmental & Social Risk Analysis?

- Examples of Environmental damages in the last years
 - EU-environmental legislation
 - Banking and sustainable development
 - Conceptual framework of environmental and social risks
 - Consequences and opportunities of the environmental and social risks for financial institutions
-

Examples of Environmental oil spills worldwide

- **Exxon Valdez oil spill** March 24, 1989, ran aground on Bligh Reef in Alaska
- **Brent spar**
1995, Greenpeace activists occupied the Brent Spar oil storage facility in the North Sea. Their purpose was to stop plans to scuttle the 14,500 tonne installation. The action was a part of an ongoing campaign to stop ocean dumping, and pitted Greenpeace against the combined forces of the UK government and the world's then-largest oil company.
- **Erica oil spill:** December 12, 1999
350km of coastline affected 100,000 birds may have been killed 11m litres of oil spilled 23m litres remain in the wreckage
- **Jessica: 2001** Galapagos islands: Oil spill about 200,000 gallons into a pristine environment known for unique wildlife and aquatic species.
- **Prestige:**2002 Spain: A Greek-operated, single-hulled oil tanker, officially registered in the Bahamas but with a Liberian owner
- **BP** 2010, April 20th explosion and sinking of the Deepwater Horizon oil rig in the Gulf of Mexico: “BP takes full responsibility...”



Further severe disasters

- **Boliden, 1998** Spain: a burst lagoon at the **Aznalcollar zinc mine** in April 1998 led to five million cubic metres of **acidic** water flooding into the internationally important conservation area of the **Doñana wetlands**. More than 20 tonnes of dead fish were collected. The EU has contributed around 72 million euros to the clean-up operation, whose total is estimated at 180 million to 250 million euros.
- **Baia Mare January 2000**
in North-western **Romania**, a burst dam caused about 100,000 cubic metres of **cyanide-laced** water **from the Aurul goldmine** to spill into tributaries of the river Tisza, into the Szamos river and ultimately into the Danube. Hungary, which alleged damage worth 84 million euros, says it alone lost more than 1,000 tonnes of fish, while the water supplies of more than 2.5 million people were threatened. Yet Australian mining company **Esmeralda**, which has a 50% stake in the mining operation behind the pollution, was in **liquidation** and therefore could not contribute to the clean-up operation.
- **Three Gorges Dam, China Yangtze River – completed in 2006**
 - degraded water quality
 - detriments to wildlife (Diversity, Siberian Cranes..)
 - Danger of earthquakes and landslide
 - Effect on local culture and aesthetic values
 - Downstream erosion and upstream sedimentation



Consequences? → Polluter pays regime, EU Liability
Some events necessitate new legislation!

Why Environmental & Social Risk Analysis?

- Examples of Environmental damages in the last years
- Environmental Legislation
- Banking and sustainable development
- Conceptual framework of environmental and social risks
- consequences and opportunities of the environmental and social risks for financial institutions

Commitment due to international legislation and conventions

Compulsary

Direct impact on our customers

EU- Directives

VOC

SEVESO II



EU Environmental Liability Directive



Directive on Waste Electrical and Electronic Equipment (WEEE)



REACH: Registration, Evaluation and Authorization of Chemicals

EU- Emissions Trading System



JI-Projects

CDM-Projects

Voluntary



The European Union Green Paper: "Promoting a European Framework for Corporate Social Responsibility"



BASEL II

International Convergence of Capital Measurement and Capital Standards

EMAS II: Annex VI 6.3

Indirect environmental aspects:

- Capital investments
- Lending
- Insurance services



Basel II- International Convergence of Capital Measurement and Capital Standards (implemented in the EU Directive 2006/48/EC)

Clause 510

- The bank must appropriately **monitor the risk of environmental liability arising in respect of the collateral**, such as the presence of **toxic material on a property**.

Clause 518

- The bank must maintain a continuous monitoring process that is appropriate for the specific exposures (either immediate or contingent) attributable to the collateral to be utilised as a risk mitigant. This process may include, as appropriate and relevant, ageing reports, control of trade documents, borrowing base certificates, frequent audits of collateral, confirmation of accounts, control of the proceeds of accounts paid, analyses of dilution (credits given by the borrower to the issuers) and regular financial analysis of both the borrower and the issuers of the receivables, especially in the case when a small number of large-sized receivables are taken as collateral. Observance of the bank's overall concentration limits should be monitored. Additionally, **compliance with loan covenants, environmental restrictions**, and other **legal requirements should be reviewed on a regular basis**.
-

Example for EU- chemical regulatory framework: REACH

- REACH is the Regulation for **R**egistration, **E**valuation, **A**uthorisation and **R**estriction of **C**hemicals.
- REACH places greater responsibility on industry to manage the risks that chemicals may pose to the health and the environment.
- In principle REACH applies to all chemicals: not only **chemicals** used in **industrial processes** but also in **our day-to-day life**, for example in cleaning products, paints as well as in articles such as clothes, furniture and electrical appliances.
- All manufacturers and **importers** of chemicals must **identify and manage risks** linked to the substances they manufacture and market. For substances produced or imported in quantities of **1 tonne or more** per year per company, **manufacturers and importers need to demonstrate that they have appropriately done so by means of a registration dossier**, which shall be **submitted to the ECHA** (European Chemical Agency)
- Once the registration dossier has been received, the **Agency may check that it is compliant with the Regulation** and shall evaluate testing proposals to ensure that the assessment of the chemical substances will not result in unnecessary testing, especially on animals.



Why Environmental & Social Risk Analysis?

- Examples of Environmental damages in the last years
- Environmental Legislation
- Banking and sustainable development
- Conceptual framework of environmental and social risks
- Consequences and opportunities of the environmental and social risks for financial institutions

Banking and sustainable development

A continuing process with some crucial milestones:

- **1989** - The **European Commission** issues a **Directive on Civil Liability for Damage caused by Waste**. **'Actual control'** was potentially dangerous
The Bankers Federation contacted the Commission to voice its concerns.
- **1992** - **The UNEP Finance Initiative Statement by Banks on the Environment and Sustainable Development**
- **1993** - **The Green Paper**
about the issues related to **liability** in remedying environmental damage.
- **1994** – **UNEP –FI First international round table meeting**
on **commercial banks** and the environment and the following conferences and round tables with the issues **risks and opportunities**...
- **1995** - **Global survey on the environmental practices of the financial services sector**
 - **70%** of respondents believed **environmental issues** had a material impact on their business;
 - **80%** were undertaking some form of **environmental risk management related to debt financing**;
- **1997**: Bank of America was the first bank to **endorse the CERES Principles: Coalition for Environmentally Responsible Economies**
- **1998**: **First IFC Draft for Environmental and Social Principles**
- **1999**: **Dow Jones Sustainability Group Indices (DJSGI)**
- **2000** amendments of the UK's Pensions Act:
Disclosure of the environmental, ethical and social consideration in the investments

SRI

Banking and sustainable development

“The do’s and don’ts of Sustainable Banking
A Bank Track manual”

Don’t treat sustainability as a niche market. Do recognize that **sustainability is already at the core of all your business activities**, as most activities financed by your bank have social and environmental impacts, be they positive or negative. The challenge is to **recognise these impacts** and **shift their balance in a positive direction**.

Banking and sustainable development

“The do’s and don’ts of Sustainable Banking A Bank Track manual”

■ Evaluate your portfolio

Assess all **direct and indirect environmental and social impacts** of the financial services

- retail banking (saving accounts, credit, mortgages)
- commercial banking (company loans, trade finance)
- investment banking (stock issuances and trading, project finance, stock analysis, M&A and other corporate advising)
- asset management, private banking, trust banking and other forms of financial services.

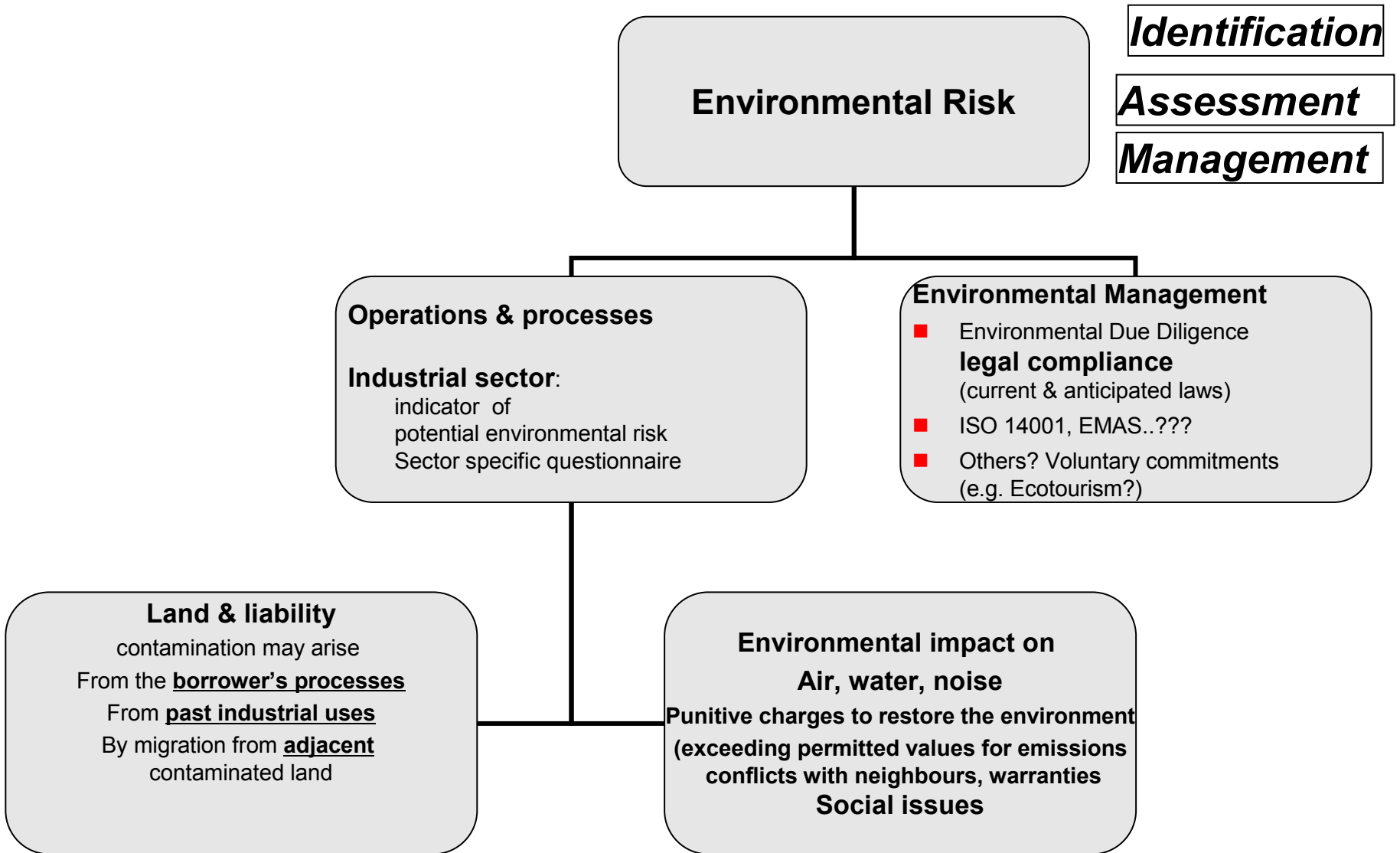
■ Look at

- the **regions and countries** where you operate and
 - the **sectors** in which your clients are active. Assess the **positive and negative contributions** of these activities **towards your new mission**: are they fostering social and environmental sustainability? What social and environmental damage is facilitated with your money, your advice, your financial skills?
-

Why Environmental & Social Risk Analysis?

- Examples of Environmental damages in the last years
- Environmental Legislation
- Banking and sustainable development
- Conceptual framework of environmental and social risks
- Consequences and opportunities of the environmental and social risks for financial institutions

Conceptual Framework



Sources of Environmental Risk

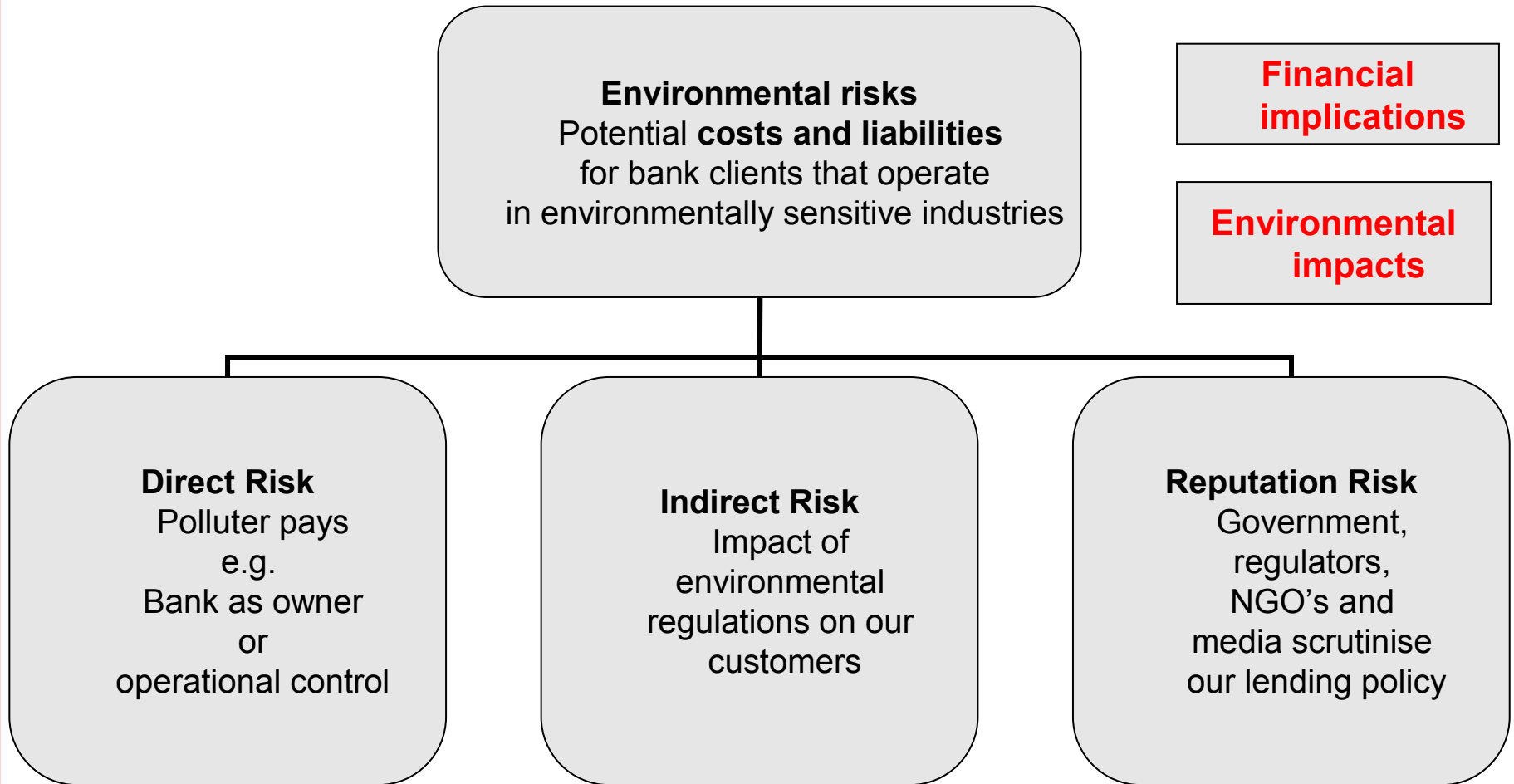
- **Customers current operation, environmental practices and historical use of the site:** old fashioned production systems, used materials, deposits, and storage and waste of hazardous materials, asbestos, bulk gases (propane, butane, carbon dioxide, nitrogen, ammonia)
- **Environmental Laws and Regulations**
 - **Costs:** Punitive **fin**es or **charges**, environmental taxes, EMS, environmental monitoring
 - Revocation of operating **permits, licenses** or consents
 - Administrative **orders** or injunctions **requiring a cessation** of polluting activities
 - **Remedial actions** designed to restore polluted property to its former condition → **environmental liability**
 - **Obsolescent technology**
 - **Border area** contains **NATURA 2000** sites → faces a risk of environmental pollution (due to stronger emissions limits for protected areas)
- **Accidents, natural hazards, natural disaster** (**site** or the **border** area)
- **Reputation Risk:** **Community concerns, public opposition** against projects viewed as to have a significant adverse effect on living and working conditions in their localities
- **Social Risks:** behaviour and actions of the **employees** → operational risk
- **Customer supply chain standards**
- **Changing end consumer preferences** in favour of more **environmentally friendly products** and services (poor environmental image of collaterals → decreasing in value) or **obsolete products** → costs (switching to greener raw materials and products)

***These risks can even lead to liquidation and foreclosure →
environmental risk = credit risk***

Why Environmental & Social Risk Analysis?

- Examples of Environmental damages in the last years
- Environmental Legislation
- Banking and sustainable development
- Conceptual framework of environmental and social risks
- Consequences and opportunities of the environmental and social risks for financial institutions

Consequences and opportunities of the environmental and social risks for financial institutions



Risk Assessment versus Risk Management and Decision Making



- **Risk assessment:**
is the process **evaluating** the **likelihood of an adverse effect**. Risk assessment does not determine **what level of risk is allowable or acceptable**.
- **Risk Management:**
Determining what we will be allowed or accepted is a part of ***Risk Management***
- **Decision Making- *Risk-Benefit Analysis***
Balancing costs and benefits is also a very important factor in decision making.
Risk-Benefit Analysis: to **measure** or quantify the level of **risk** and the level of **benefit** associated with a particular **regulatory decision**.

Balancing costs and benefits, cost effectiveness, driving forces of the project, future use, economic viability, involving stakeholders, managing uncertainties, feasibility study, legal framework and sustainable development are important issues in the **risk management in corporate lending**.

Risk alleviation

Bank:

- **Environmental assessment, due diligence, environmental impact assessment**
- Consulting **environmental lawyers and engineering experts**
- **Avoiding delay** (additional costs: new regulatory changes)
- **Additional assurances, indemnification, escrows**
- **Diversification**
- **Covenants in contracts and agreements, environmental clauses**, assignments about liability, cost sharing, diversification, adequate compliance with laws

Customer:

- **Decontamination** in accordance with regulations
 - **Reduce noise level**
 - **Encapsulate the waste gas ventilations fans**
 - **Removal of toxic waste by well-known waste disposal company**
 - **New waste gas filter unit**
 - **Low-NO_x burner in the boiler**
 - **Risk transfer** → Insurance (accident, disaster), recovery planning
 - **Social: employees** → motivation, satisfaction; health and care education
-

Risk Alleviation : Additional Assurances



e.g. contamination /brownfield redevelopment

- Ask for **another mortgage**, inventory and equipment
 - **Cash flows**, personal **guarantees**, **insurance** products
 - **Constructing** the buildings in **several phases** to make funds available for the latter phases
 - **Subdividing into smaller parcels** (while the seller cleans up the contaminated section, the buyer can redevelop the clean parcels)
 - **Agreements** in the **purchase contract** (seller-buyer)
 - **Joint-ventures** (seller has a share in the financial returns from the redevelopment)
 - **Purchase options**: buyer holds the right to purchase the property, but does not take title until the site is clean
-

Macro- and Micro-Economic Benefits e.g. brownfields revitalisation



Win- Win situation:

- **Protection of greenfields**, recycling, open space preservation
- **Efficient use of land and existing infrastructure** (community)
- **Additional jobs** and new tax revenues for cities and towns
- **Quality of life** and the **environment** (risk reduction of human health)
- Approach of **flood alleviation** and **prevention of mud slides**
- Revitalisation of deteriorated **neighbourhoods**
- **Solving problems** like **liability** for past contamination, **inadequate financing**, **weaker market conditions**
- **Potential for exceptional returns** on investment for developers and lenders

Win-win solutions: Sustainable Handling of the Resource “Land”

- **Clean-up** --> **ecological**
- **Employment, new technologies** --> **social**
- **Financing the redevelopment** --> **economical**

The winners:

environment, population, municipalities, economy, government, technology sector, constructors, industry, financial institutions, this and next generation, our planet

Clean up:

New opportunities for insurance companies- New products???

- Post-remediation” coverage
 - completion of remediation in case of additional or residual contamination
 - payment of additional cost
 - “Stop-loss”policy --> payment for remediation cost overruns
 - allows the party that is undertaking the remediation to cap or fix the costs prior to the beginning cleanup,
 - avoids consequential damage at an early stage and
 - prevents substantially higher clean-up costs in the future)
 - Coverage of the “political risk” --> for increased costs due to legal changes (reduction in limiting values)
 - Coverage of third-party bodily injury and/or property claims
 - Coverage of spread of existing contamination during remediation
-

Climate Change: Risks and opportunities



Risks:

- The **greenhouse gas risk factor**

Economic impacts: in ski tourism, floods, but also in the “Kyoto” sectors of the European Union's **Emissions Trading System (Cap-and Trade)**

- **oil and gas**
- **power generation**
- **pulp and paper**
- **cement and glass and**
- **steel**

These companies are allocated **tradable emissions allowances** annually. If they fail to take action, the companies have to pay penalties.

Additional expenses: risk management, monitoring, staff capacity and training.

Opportunities

- **New markets, project finance, solar energy**

- **JI CDM Projects**
- **Emissions Trading**

EU funding for the environment

European environment policy and European action programme

Funds:

- **EAGF (European Agricultural Guaranty Fund)**
- **EARDF (European Agricultural and Rural Development Fund)**
- **ERDF (European Regional Development Fund)** → economic development, sustainable jobs, education, energy, environment, culture, tourism, research, health, transport
 - Environment and risk prevention
 - Restoring contaminated land
 - Infrastructures linked to biodiversity and NATURA 2000
 - Energetic Efficiency and Alternative Energy
 - Public and urban clean transports
 - Formulating plans to anticipate and manage natural and technology related risks
- **ESF (European Social Fund)** → human capital, education, training, lifelong learning, research, innovation
- **CF (Cohesion Fund)** (environment, trans-European transport networks)
- Sectorial programmes
 - **Life + e.g. Nature and Biodiversity**
 - **The 7th framework programme for technological research and development** (energy, climate change, natural resources, marine environment, environmental technologies, earth observation and assessment tools, transport...)....





Thank you for your attention!

Sultana Gruber

0043/(0)50505/51297

sultana.gruber@unicreditgroup.at
