



UNEP Finance Initiative
Innovative financing for sustainability

The risks and opportunities posed by climate change for the financial sector

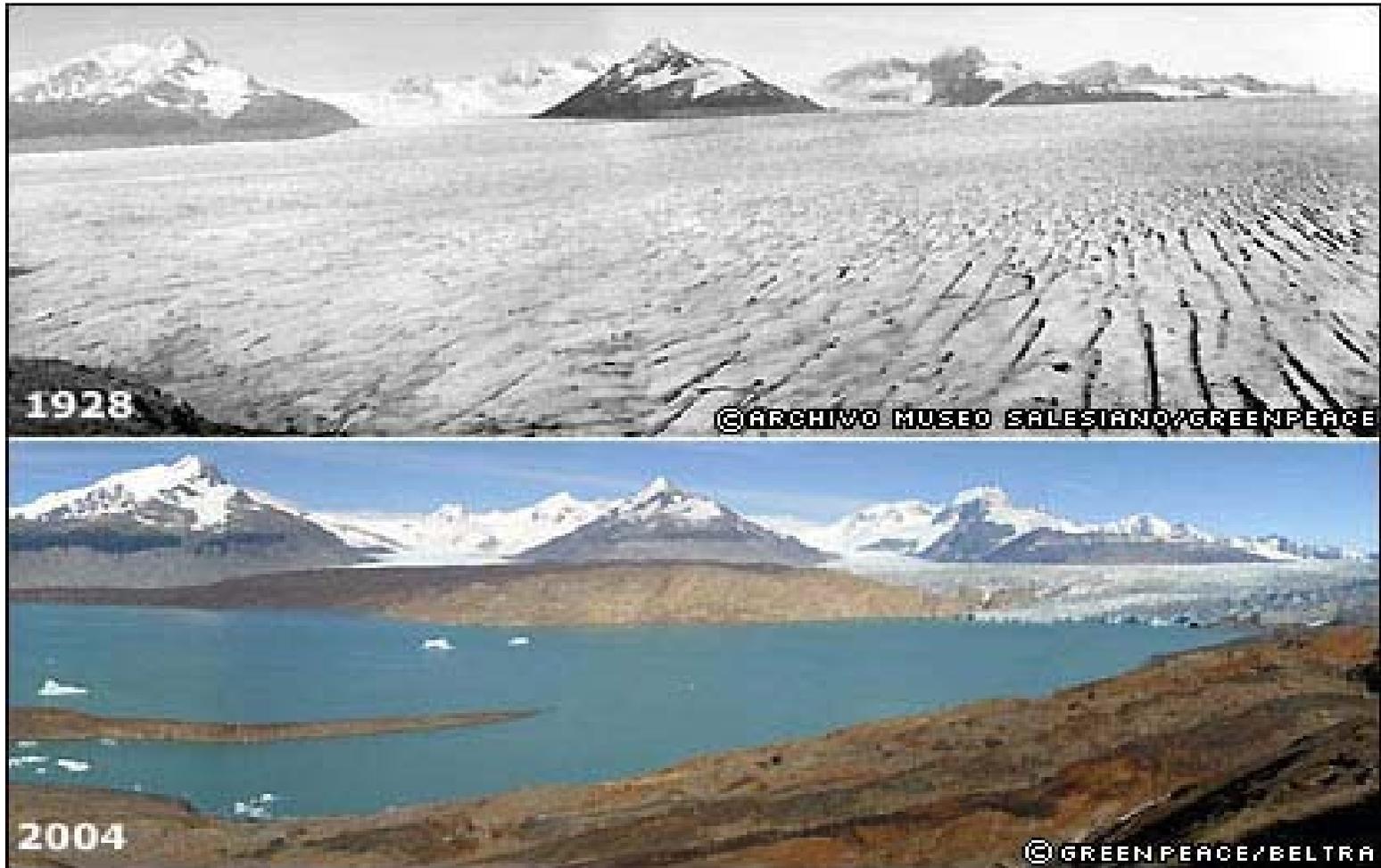
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Zagreb, Croatia
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Climate Change (Klimatska Promjena)



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Climate Change: Key Global Developments

- **Russia has signed: The Kyoto Protocol has come into force**
- **EU: The Emissions Trading Scheme (EU ETS) is in full swing**
- **USA: Although not ratified Kyoto, significant developments at the state level**
- **Post 2012/post-Kyoto: Discussions are starting to happen – looking for greater regulatory certainty**



Climate Change and the Kyoto Protocol: Background

- **The Kyoto Protocol: an international agreement setting targets for industrialised countries to cut their greenhouse gas emissions (GHGs)**
- **These gases are considered responsible for global warming - the rise in global temperature which may have catastrophic consequences for life on Earth**
- **The Protocol came into force Feb 2005 after Russian ratification: 124 countries ratified representing 75% of world's population**
- **Industrialised countries have committed to cut their combined emissions to 5% below 1990 levels by 2008 - 2012.**
- **Croatia has yet to ratify the Protocol (disagreements over baseline year)**



Climate Change: Impact on Finance and Business

The Risks

• **Direct physical risks** associated with climate change:

- Agriculture
- Fisheries
- Forestry
- Health care
- Re/insurance
- Real estate
- Tourism
- Water

• **Policy/regulatory risks** (trend towards regulation of carbon)

- Electric power
- Forestry/Pulp and Paper
- Manufacturing
- Basic industry – steel, chemicals, mining
- Oil and gas
- Transport and auto



Climate Change and the Finance Sector

The opportunities: Carbon is now a commodity

The sale of emission reduction units (ERUs), or "carbon credits," can significantly boost financial returns on climate-friendly projects

- **New Technologies** – energy efficiency, clean energy
- **New Markets** – Flexibility Mechanisms - Emissions trading, Clean Development Mechanism (CDM) and Joint Implementation (JI)

Finance sector can provide:

- route to market for participants,
- Liquidity
- risk mgmt tools (weather derivatives, natural catastrophe bonds, alternative risk transfer)
- Finance and credit for projects



Emissions trading and Joint Implementation

- **Market (flexibility) mechanisms more cost-effective way of meeting GHG reductions**
- **EU ETS first major scheme in place – trading as of Jan 1, 2005**
- **JI provides for industrialised countries to implement projects that reduce emissions in other developed countries, in return for ERUs.**
- **JI of particular interest to Eastern Europe - Most JI projects are expected to take place in transition economies**
- **135 projects at different stages of development in CEE to deliver 100 mill ERUs**
- **For a project owner / developer, JI represents a new source of capital for climate-friendly projects.**



UNEP FI and Climate Change

Landmark 2002 study on Climate Change and the Financial Services Industry by the Climate Change Working Group (CCWG)

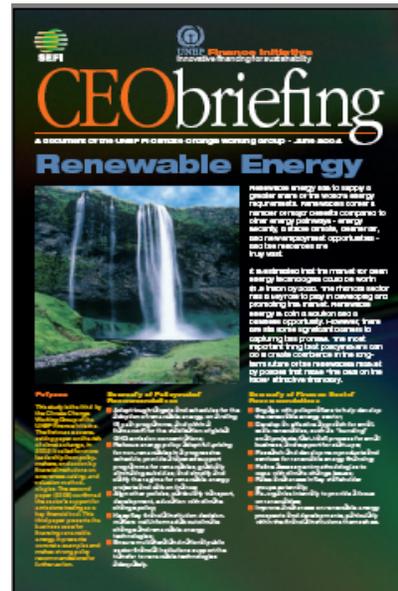


Climate Risk

Emissions Trading

Renewable Energy

CDM



The Climate Change Working Group: Highlights

- 2002 study confirms economic losses due to natural disasters doubling every 10 yrs and annual losses could reach **\$150bn** in next decade;
- In 2004, Munich Re announces economic losses totalling **\$145bn**, including insured losses of **\$44bn** from natural catastrophes, the highest ever recorded.
- Greenhouse gas emissions trading markets could be worth **\$2 trillion** by 2012
- 2004 renewable energy briefing estimates the market for clean technologies could be worth **\$1.9T** by 2020;
- Finance for Carbon Solutions, launched at COP 10, highlights financial instruments/markets that mitigate CC risk, including the CDM;

Investment related work on this front picked up by the Asset Management Working Group (AMWG) and the Materiality Series



Asset Management Working Group: Climate Change and Equity Pricing

In 2004 UNEP FI commissioned and compared 10 sector reports from brokerage houses on the materiality of ESG issues for equity pricing.

Reports that covered specific climate issues included:

Goldman Sachs, Oil and Gas: Understanding the transition from the "Age of Oil" to the "Age of Gas"

West LB, Insurance: Mounting insurance costs in the face of increasing frequency and intensity of climate caused natural disasters.

Nikko, New Technologies: Opportunities arising from new industries and technological responses to efforts to curb CO2 emissions.

UBS, Dresdner, HSBC, Utilities: Impact of the EU Emissions Trading Scheme on European Utilities.

Full Study and Summary at: www.unepfi.net/stocks

Currently working on a second series of reports



"Capital markets can save the planet from global warming"

Sunday Observer (UK), October 17, 2004



Thank you

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