



**UNEP Finance Initiative**  
Innovative financing for sustainability

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

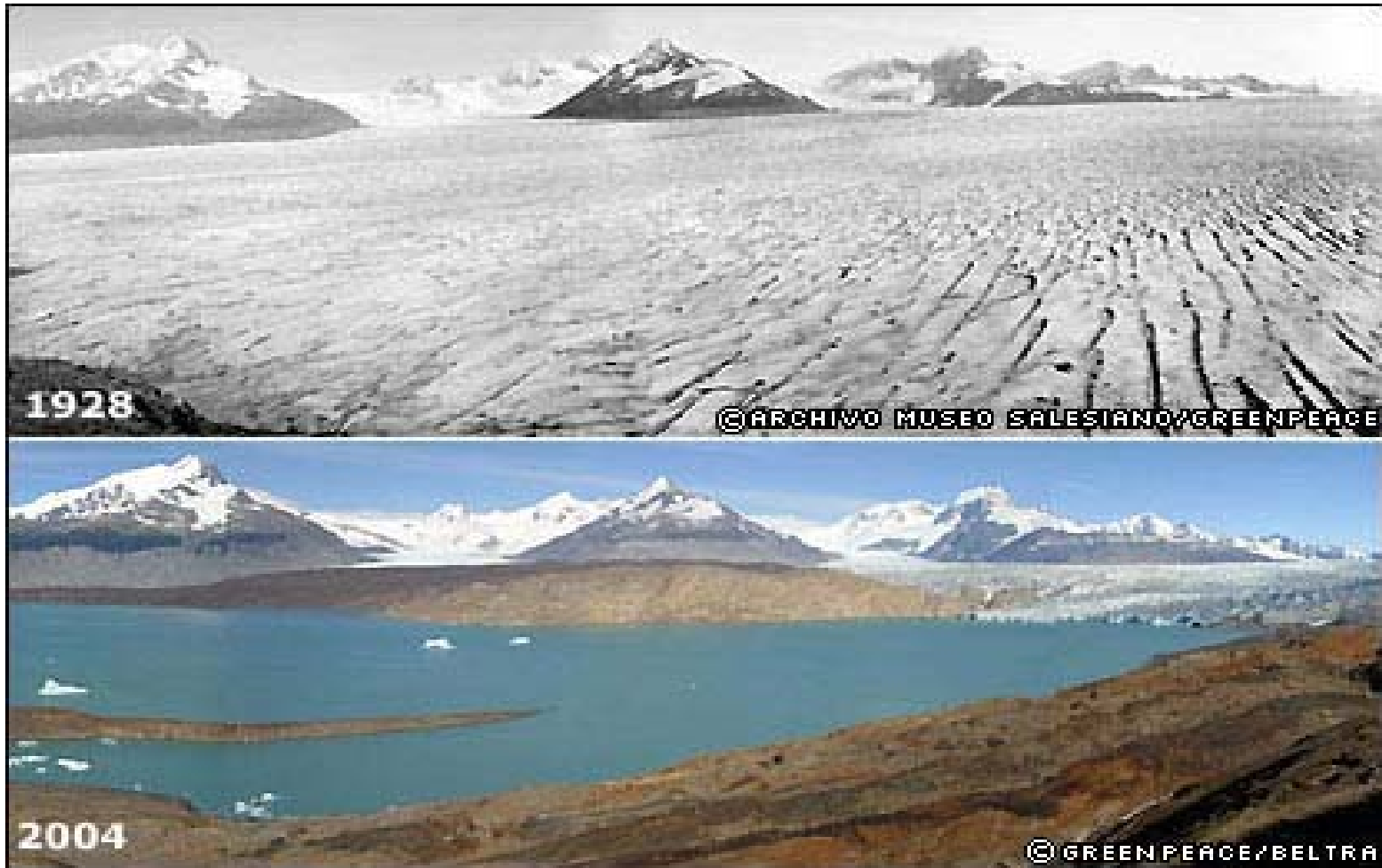
**June 14, 2005**

**Zagreb, Croatia**  
**Lisa Petrovic, UNEP FI**

# Climate Change (Klimatska Promjena)



# Climate Change (Klimatska Promjena):



# 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)



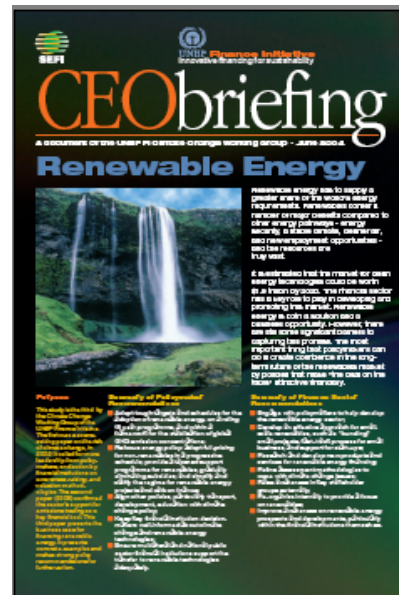
Climate Risk



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](http://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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