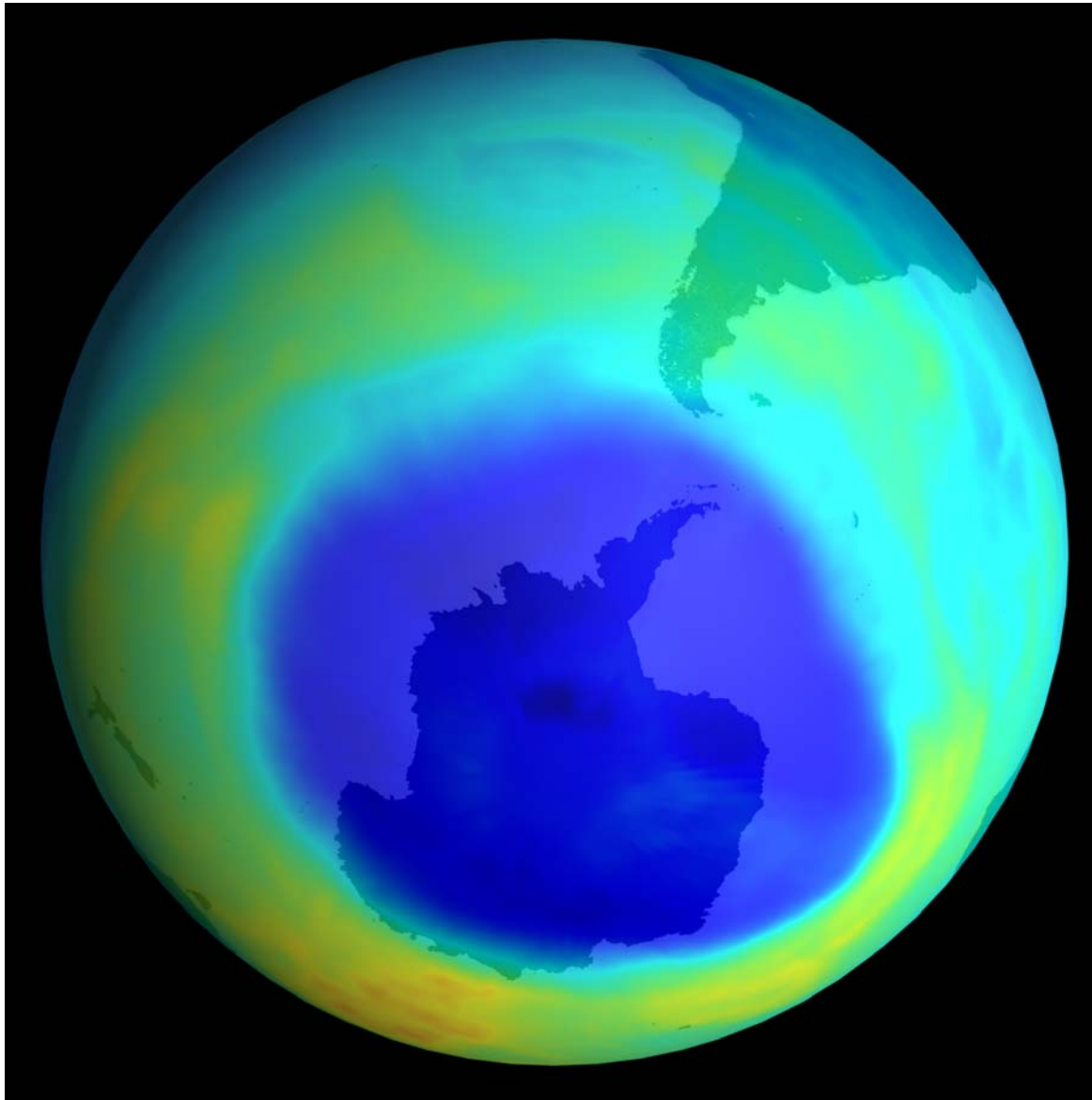


Climate Action Registry: Implications for Biomass Management and Use

**Presentation at the 2nd Annual
California Biomass Collaborative Forum
March 1, 2005 in Sacramento, California**

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Climate Change Program
California Energy Commission





**Global
Warming**
is about...

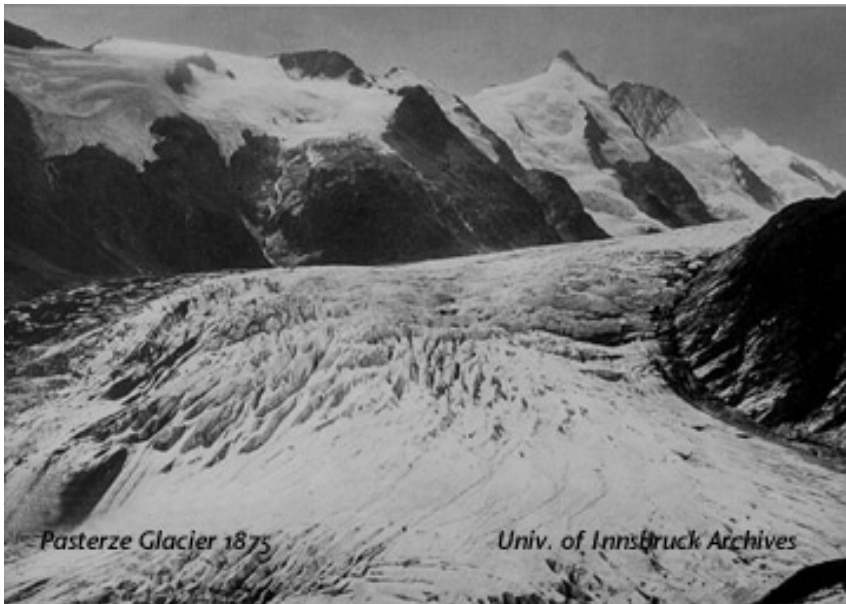
the **Ozone
Hole...**

right???

Actually,
they are
connected,
like many
things on
planet
Earth!



Retreating Pasterze Glacier: 1875 & 2004



THAT WAS THEN THIS IS NOW



What is the Climate Action Registry?

- Non-profit organization that allows members to voluntarily record their GHG emissions
- Called for in state statutes (SB 1771, Sher 2000) at CA H&S Code 42800
- A public / private partnership to encourage emissions reductions
- State of California will give appropriate consideration to certified inventories



Several Goals of the Registry

- **Ensure members create accurate entity-wide emissions inventories**
- **Influence global debate on registries**
- **Help develop consistent emission reporting and certification standards**
- **A diverse membership across CA economy**



If You Join the Registry.....

- Need to report entity-wide GHGs at the California or United States level
- Report CO₂ first 3 years, other Kyoto Protocol gases thereafter
- Develop inventories according to protocols and have it independently certified by an approved organization



Some of the Registry Members

**Better World Group
Bentley Prince Street
British Petroleum
Burbank Water & Power
CA Energy Commission
Cal EPA
City of Los Angeles
City of Santa Monica
Clipper Windpower
Energy Foundation**

**LA Dept Water & Power
NRDC
ICF Consulting
PacifiCorp
Pacific Forest Trust
PG&E Corporation
QUALCOMM
SMUD
So. California Edison
U.C. San Diego**



Forestry Projects at CA Registry

- Types - reforestation, conservation-based management, conservation
- California projects only
- Permanent conservation easement
- Promote & maintain native species
- Additional to Forest Practice Rules



Power & Utility Sector Protocol

- Entity-wide protocols only at this time
- Both reporting and certification protocols
- Efficiency metrics for GHG emissions relative to generation and deliveries
- Focus on stationary combustion, process, fugitive emission sources
- Indirect emissions from energy purchased and consumed



Future Protocols Being Considered by the Climate Action Registry

- Projects in electricity sector
- Landfill methane recovery
- Conservation tillage
- Solid waste management
- Dairy methane capture
- Cement industry
- Oil & gas sector



Trading in United States at the Chicago Climate Exchange (Jan. 2005)

Vintage	Open	High	Low	Last	Change	Volume
2003	\$1.77	\$2.00	\$1.75	\$1.87	+0.16	65,700
2004	\$1.78	\$2.02	\$1.75	\$1.87	+0.19	52,500
2005	\$1.74	\$1.96	\$1.74	\$1.96	+0.21	19,500
2006	\$1.74	\$1.92	\$1.74	\$1.85	+0.17	8,000

Price Units: Per metric ton of CO₂

Volume Units: Metric tons CO₂

Change: Based on previous month's last traded price

Source: Chicago Climate Exchange



The Climate Trust in Oregon Funds Project to Sequester Carbon

Private landowner plants trees on 12 acres of deforested riparian land in SW Oregon. Project must demonstrate actual changes in on-site carbon stocks. A third-party measures carbon stocks periodically during the project. The landowner records agreement in the real property records. Agreement calls for 1600 metric tons of carbon sequestration for a minimum of 120 years.



Flexibility Mechanisms of Kyoto Protocol

Clean Development Mechanism

Industrialized countries invest in GHG emission reductions in developing countries, apply reductions against it's own domestic target

Joint Implementation

Reduction investments between two industrialized signatory countries



BASIC STEPS TOWARDS MEASURING A PROJECT'S GHG REDUCTIONS

- Project Identification
- Quantification
- Monitoring and Verification
- Validation and Certification



CDM Executive Board Approved Baseline and Monitoring Methodologies

- Biomass power
(replaces uncontrolled burning)
- Manure management systems
- Landfill gas capture
- Bagasse-based cogeneration
- Improved animal waste systems



WRI & WBCSD – GHG PROTOCOLS

World Resources Institute & World Business Council for Sustainable Development working on two standards

- GHG Protocol Corporate Accounting and Reporting Standard
- GHG Protocol Project Quantification Standard



WRI Principles for GHG Inventories

- Relevance
- Completeness
- Consistency
- Transparency
- Accuracy



WRI's PROJECT PROTOCOL

Still working on variety of issues such as:

- Project typology
- Setting project boundaries
- Establishing baselines
- Additionality tests
- Determining Leakage



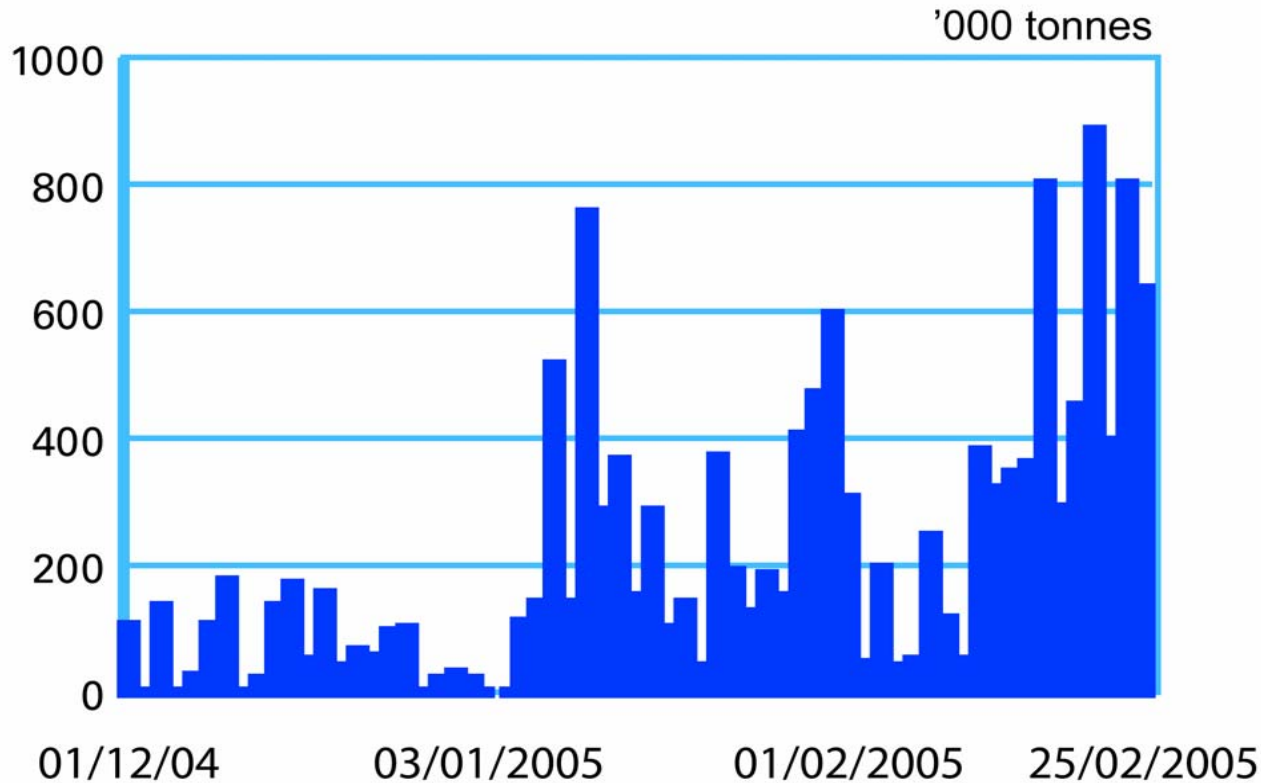
Europe: CO2 Hits \$12.50 Per Tonne



Source: Point Carbon



EU: 3.5 Million Tonnes Traded Week of 2/21



Source: Point Carbon



A Few Concluding Points

- Carbon market is launched in Europe, emerging in Canada and Japan
- Some states in U.S. are funding GHG offsets, others designing cap-and-trade system for CO₂ emissions in the power sector
- Project-based accounting for GHG reductions is still in early childhood (not all tons are created equal) but growing up fast!



Some Informative Websites on GHGs

www.climatechange.ca.gov

www.westcarb.org

www.climateregistry.org

www.eia.doe.gov/environment.html

cdm.unfccc.int

www.ghgprotocol.org

www.epa.gov/globalwarming

www.chicagoclimatex.com

europa.eu.int/comm/environment/climat/emission.htm

www.agcert.com

www.pointcarbon.com

