

A world map is visible in the background, rendered in a light blue color against the darker blue background of the slide. The map shows the continents of North America, South America, Europe, Africa, Asia, and Australia.

UNECE Activities to Support Financing and Development of Coal Mine Methane Projects:

Steering Committee of the EE 21 Project
30 May 2007
Geneva

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Secretary

UNECE Ad Hoc Group of Experts on Coal Mine Methane

What is Coal Mine Methane (CMM)?

- CMM is the methane released from coal seams before, during, and after mining
- Becomes a greenhouse gas upon release to the atmosphere
- 4th largest source of methane emissions
- Several sources
 - Operating underground mines
 - Methane degasification systems
 - Ventilation systems (VAM)
 - Surface mines
 - Closed underground mines



CNG/LNG



Mine Ventilation Air



Natural Gas Pipeline/
Town Gas



Internal Combustion
Engines

Wide Variety of Uses



Microturbines



Manufacturing -
Eg., Methanol, DME,
Desalination (shown here)



Heating

Important Issue for ECE Region

- Coal industry continues to be very important player in energy sector in many ECE countries
 - 38% of global coal production
 - 40% of global CMM emissions
- Region has history of methane outbursts and explosions in coal mines resulting in injury and death
- Benefits of CMM projects
 - Contributes to mine profitability
 - Energy sales
 - Carbon value on direct greenhouse gas mitigation
 - Carbon value on indirect greenhouse gas mitigation from fuel switching
 - Supports improvements in mine safety
 - Increases mine productivity
 - Local/regional air quality improvement
 - Enterprise development
 - Skilled job training

UNECE Programme on CMM

- Ad Hoc Group of Experts on CMM
- Task Force on Mine Safety (improving degasification)
- Extrabudgetary project to support project development
 - Total budget: \$205,000 grant from US EPA
 - Project term: September 2004 - August 2008
 - Target countries: CEE/EECCA Region
 - Near-term Goal: Address a principal barrier to project implementation - project finance - by providing technical assistance to a limited number of projects in the region
 - Long-term Goal: catalyze development of projects on broader scale
 - Project Objectives
 - Capacity building to provide basic skills for development of CMM projects with focus on financial engineering and project design
 - Project pipeline to investors through development of early-stage investment-grade documents for 3-6 projects in Central & Eastern Europe and the EECCA region
 - Education programme to convey lessons learned and provide industry-wide training

Status of Extrabudgetary Project

Limited Progress to Date

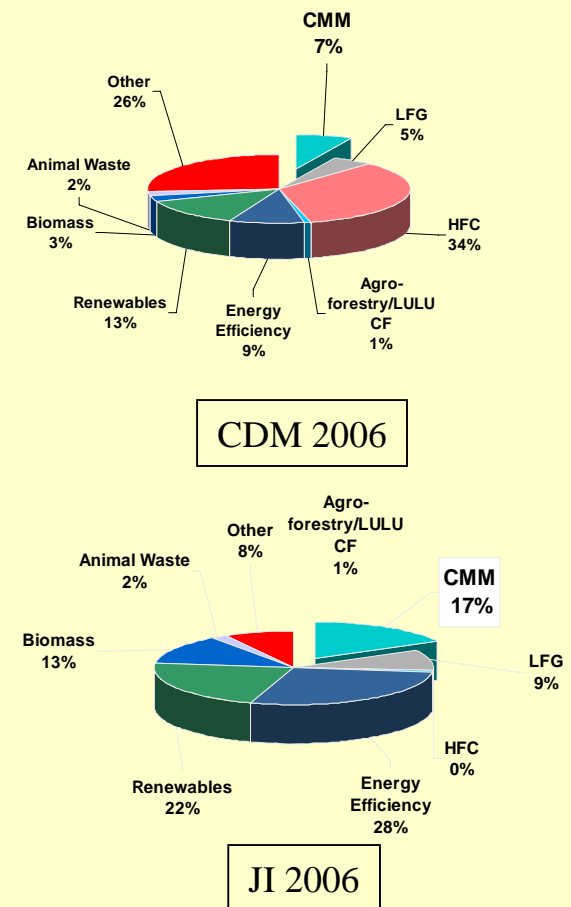
- Demand for ECE services is not as strong as when project was envisaged in 2003
 - Last two years have seen billions of dollars in equity available for carbon mitigation projects
 - Investors/project developers very aggressively searching for projects
 - Mining industries in first two countries project focus, Russian Federation and Kazakhstan, have restructured into a consolidated and well-capitalized industry
- Continuing problems with regulatory frameworks
 - JI framework is still not in place in the Russian Federation
 - Kazakhstan has not ratified the Kyoto Protocol
 - Post-2012 uncertainty
- Institutional problems remain as coal companies in many developing countries and economies in transition limit their corporate vision to coal producers rather than taking a more expansive view of themselves as “energy” companies
 - Reinforced by strong coal prices which directs attention to coal production rather than “extraneous” activities such as CMM utilization
- Significant differences in expectations between investors and mining sector on pricing, contract terms, allocation of risk, etc.
- Until now, most attention focused on CDM projects rather than JI

Expectations for Final 15 Months of Project

- Investor interest in CMM projects, in general, and in UNECE pipeline, in particular, remains strong
 - CMM projects remain an attractive asset class for carbon mitigation projects
 - Attention shifting to JI projects
 - Investors are encouraged by UN association
- Russian Federation & Kazakhstan
 - Cooperating with UNDP in Russian Federation
 - Still seeking interest in Kazakhstan
 - Prepared to support participation in Methane to Markets Expo in Beijing in October 2007
- Open project to other CEE/EECCA countries in 4th quarter 2007
- Continue training courses on project finance

Percentage of Volumes Traded

2006*



*World Bank, "State and Trends of the Carbon Market 2007"

Thank You!



UNECE United Nations Economic Commission for Europe

SUSTAINABLE ENERGY

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