



# Asia Pacific Partnership on Clean Development & Climate

Australia

China

India

Japan

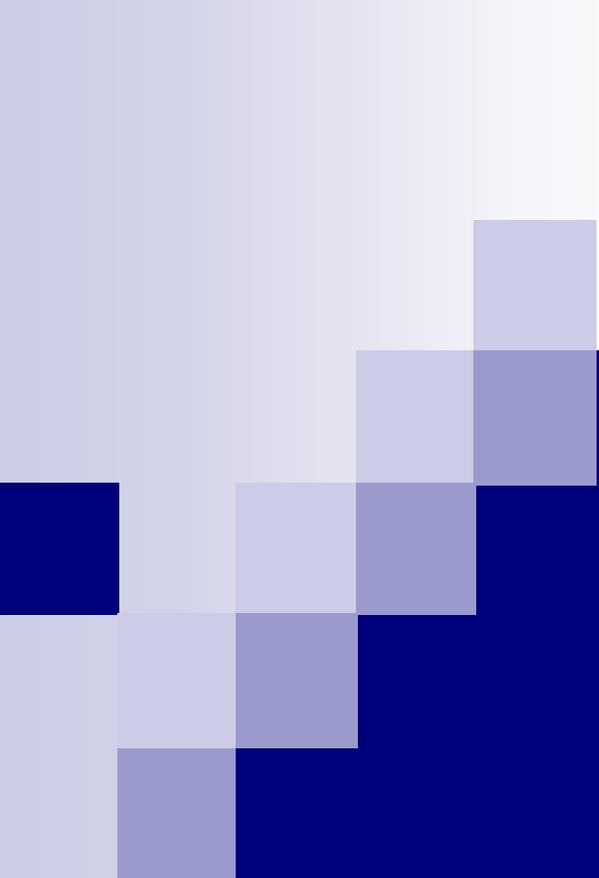
South Korea

United States

- 
- an innovative new effort to accelerate the development and deployment of clean energy technologies.
  - partners have agreed to work together and with private sector partners to meet goals for energy security, national air pollution reduction, and climate change in ways that promote sustainable economic growth and poverty reduction.

# Eight public-private sector task forces covering:

- (1) cleaner use of fossil energy;
- (2) renewable energy and distributed generation;
- (3) power generation and transmission;
- (4) steel;
- (5) aluminum;
- (6) cement;
- (7) buildings and appliances; and
- (8) coal mining.



# Coal Mining Task Force

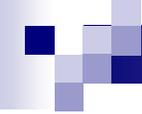
Australia

China

India Co-Chair

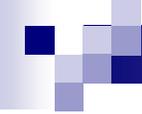
Japan

United States Chair



# Background

- Coal will continue to supply more than a third of the world's energy supply
- Coal production is expected to nearly double in many of our countries by 2030
- This will require substantial growth of infrastructure in both labor and capital
- There is an imperative for cleaner development and health & safety



# Taskforce Activity Topics

- Mine health & safety
- Coalfield fires
- Reclamation of abandoned surface & underground coal mines
- Carbon sequestration (biological) in conjunction with active and abandoned mine reclamation



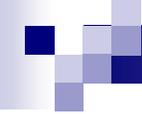
# Taskforce Activity Topics cont'd

- Coal preparation technology
- Mining techniques
- Workforce assessment & training needs
- In-situ coal gasification; and
- Coal mine methane



# Coal Mine Methane (background)

- Methane, a potent greenhouse gas, is contained in coal seams and associated strata,
- Methane is released into the atmosphere during coal mining and contributes about 8% of all human-related emissions of methane,
- Globally, China has the largest coal mine methane emissions, followed by the United States and India ranked 9th.



# Desired Outcome

- Improve mine safety and increase coal mine methane/coalbed methane production and utilization in the APP countries by promoting use of more effective drilling and mine drainage technologies and techniques in advance of mining, and the recovery or use of low-grade CMM sources, such as VAM.



# Obstacles or Challenges

- No wide-spread deployment of drilling and drainage technology for end-uses like gas pipelines or power generation,
- Lack of training to operate such technology
- Lack of demonstrated, economically attractive technology for recovery or use of low-grade CMM, such as VAM



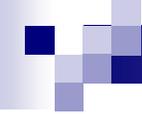
# **Obstacles or Challenges cont'd**

- Lack of appropriate infrastructure for processing, transmission and utilization (pipelines for pipeline quality gas and off-spec gas)
- Regulatory and legal barriers that impede project development
- Lack of investment capital for high-capital projects



# Methane to Markets and APP Coal Mining Taskforce

- The Coal Mining Taskforce intends to complement and not duplicate the efforts under the Methane to Markets (M2M) Partnership to promote coal mine methane project development.
- The M2M Partnership is focused specifically on overcoming impediments to project development, including informational, regulatory, and policy barriers; and pre-feasibility studies to evaluate use of end-use technologies under site-specific circumstances.



# Proposed Taskforce Activities

- Methane resource assessment to identify promising sites or regions in each country for available CMM utilization techniques using pre-feasibility assessments.
- Workshops on best practices for pre-mine methane drainage and CMM utilization.
- Implement pilot programs to demonstrate the applicability of advance drilling and CMM recovery technologies under site-specific conditions
- Information sharing on regulatory frameworks



# Next Steps...

- Project descriptions
  - Drafts May 31, 2006
- Face to face meeting in India
  - July/August 2006
- Final action plan
  - August 31, 2006