



# Financing Climate Change Mitigation in the Asia- Pacific Region: The GEF Experience

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Asia-Pacific Partnership on Clean Development and Climate  
Policy and Implementation Committee Meeting  
Tokyo, Japan, July 19-20, 2007



# Global Environment Facility

- Established in 1991 to provide “incremental cost” funding to projects with “global environmental benefits”
- Operates financial mechanism for UNFCCC, CBD, UNCCD, and Stockholm Convention
- Allocated \$6 billion until 2006 and leveraged \$20 billion

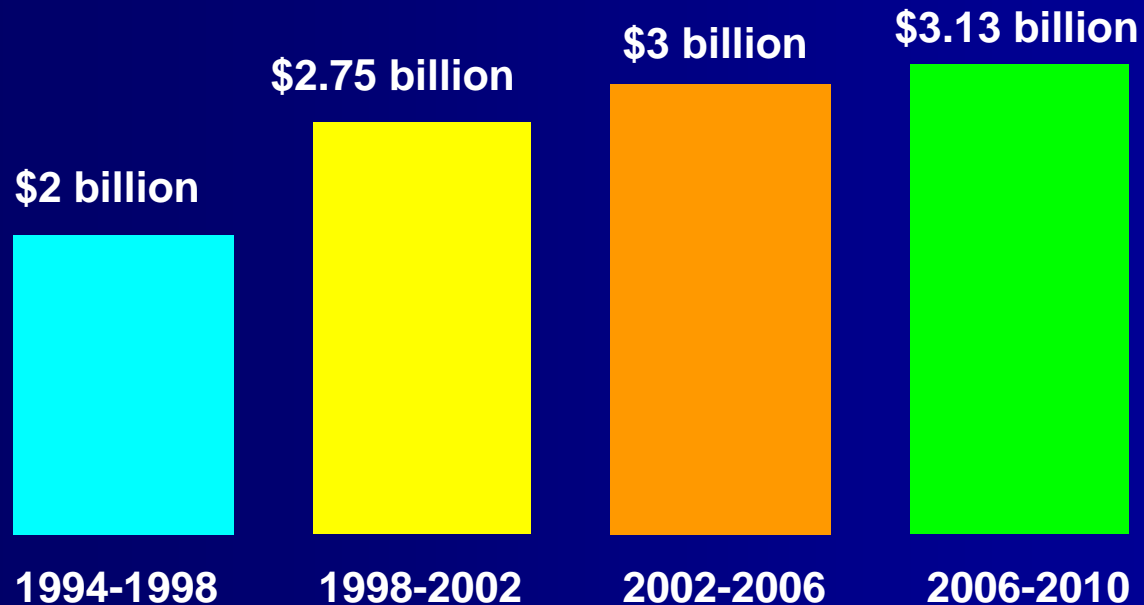
# GEF's Six Focal Areas

- Biodiversity
- **Climate change**
- International waters
- Ozone depletion
- Land degradation
- Persistent organic pollutants

# GEF's Ten Agencies

- United Nations Development Program
- United Nations Environment Program
- World Bank
- African Development Bank
- Asian Development Bank
- European Bank for Reconstruction & Development
- Inter-American Development Bank
- International Fund for Agricultural Development
- United Nations Food and Agriculture Organization
- United Nations Industrial Development Organization

# GEF Replenishments





# GEF Funding for Climate Change

- **1991-2006 (from GEF-1 to GEF-3)**
  - Total: \$2.3 billion; \$10 billion co-financing
  - China: \$325 million
  - India: \$130 million
- **2006-2010 (GEF-4)**
  - Total: \$1 billion
  - China: \$150 million
  - India: \$75 million

# Strategic Programs for CC Mitigation During GEF-4

- **Energy efficiency**
  - Buildings
  - Industry
- **Renewable energy**
  - On-grid electricity from renewables
  - Sustainable energy production from biomass
- **Transport**
  - Sustainable urban transport
- **Land use and land-use change and forestry**

# Climate Change Project Portfolio in China

- **\$360m; \$3.2b co-financing; 26 projects**
  - Energy efficiency
    - \$200m (56%); 13 projects
  - Renewable energy
    - \$98m (27%); 5 projects
  - Transport
    - \$33m (9%); 3 projects
  - Short-term response measures
    - \$22m (6%); 2 projects
  - Enabling activities and other
    - \$7m (2%); 3 projects

# Climate Change Project Portfolio in India

- **\$130m; \$876m co-financing; 14 projects**
  - Energy efficiency
    - \$63m (48%); 4 projects
  - Renewable energy
    - \$49m (38%); 5 projects
  - Transport
    - \$1m (1%); 1 project
  - Short-term response measures
    - \$9m (7%); 1 project
  - Enabling activities
    - \$7m (6%); 3 projects

# Relevant GEF Projects for APP in China

- **Energy Efficiency Financing (WB)**
  - Steel, chemicals, cement, and other large, heavy industries
- **Renewable Energy Scale Up Program (WB)**
  - Renewable Energy Law; wind, biomass, and small hydro
- **Heat Reform and Building Energy Efficiency (WB)**
  - Policy reform, pricing; pilot EE technologies for new residential buildings
- **Energy Conservation I & II (WB)**
  - ESCOs, ESCO Association, and guarantee fund
- **Energy Conservation in Township and Village Enterprises (UNDP)**
  - Cement (co-generation), brick, coking (co-generation), and metal casting
- **End-Use Energy Efficiency (UNDP)**
  - Policy, regulation, and standards in industry and buildings
- **Energy Efficiency Standards and Labeling (UNDP; regional project)**
  - 6 products in 5-7 countries in Asia; harmonization of S&L, testing procedures, etc.
- **Thermal Power Efficiency (WB – under development)**
  - Regulatory framework and demonstration for rehabilitation of coal-fired power plants; closure of small units

# Relevant GEF Projects for APP in India

- **Coal-Fired Generation Rehabilitation (WB)**
  - Debt financing for power plant rehabilitation
- **Market Transformation for Energy Efficient Refrigerators and Air Conditioners (UNDP)**
  - Policy, regulation, awareness, and standards and labeling
- **Energy Efficiency Improvement in the Steel Re-rolling Mill Sector (UNDP)**
  - Support for technology development and dissemination
- **Fuel-Cell Financing Initiative for Distributed Generation Applications (IFC – multi-country project)**
  - Piloting installations to test financing and business models

# Conclusion

- GEF experience in light of
  - APP approach
  - Task forces and action plans
  - Project proposals
- ➔ Synergy
- ➔ Complementarity
- ➔ Opportunities for collaboration