



Asian Regional Workshop on Climate and Energy, And U.S. Climate Policy

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Outline



- **Climate and Energy**
 - **Observations from Asia Region Workshop**
- **U.S. Climate Change Policy**
 - **Three U.S. Climate Change Policy Components**
 - **Actions to Meet 10-Year Goal**
 - **U.S. International Cooperation**
- **Summary**



- **Sponsored by METI Japan and the U.S. in Kuala Lumpur from March 16-17, 2004 in cooperation with the Malaysian Ministry of Environment, Science and Technology.**
- **Co-chaired by Yuzo Ichikawa, METI Deputy Director, and Harlan Watson, Senior Climate Change Negotiator and Special Representative**
- **Approximately 90 participants, including senior government officials, the private sector, and NGO's representing 17 countries in Asia.**

Why This Workshop?



- **Asia's energy demand is growing faster than any other region**
- **Climate change is a distant concern to many energy officials, and climate discussions sometimes not reflected in broader sustainable development priorities**
- **Perception that greater interaction between climate and energy policy makers can help catalyze practical action**

Workshop Approach



- **Targeted two groups: senior climate negotiators and officials responsible for provision of energy services**
- **Topics included both issues relating to energy services and climate change**
- **Focus on opportunities to foster sustainable development and climate change goals**
- **Focus both on short term (technology application) and long term (technology development)**
- **Sub-regional breakout group sessions fostered interaction between climate and energy officials**

Energy and Climate – Observations

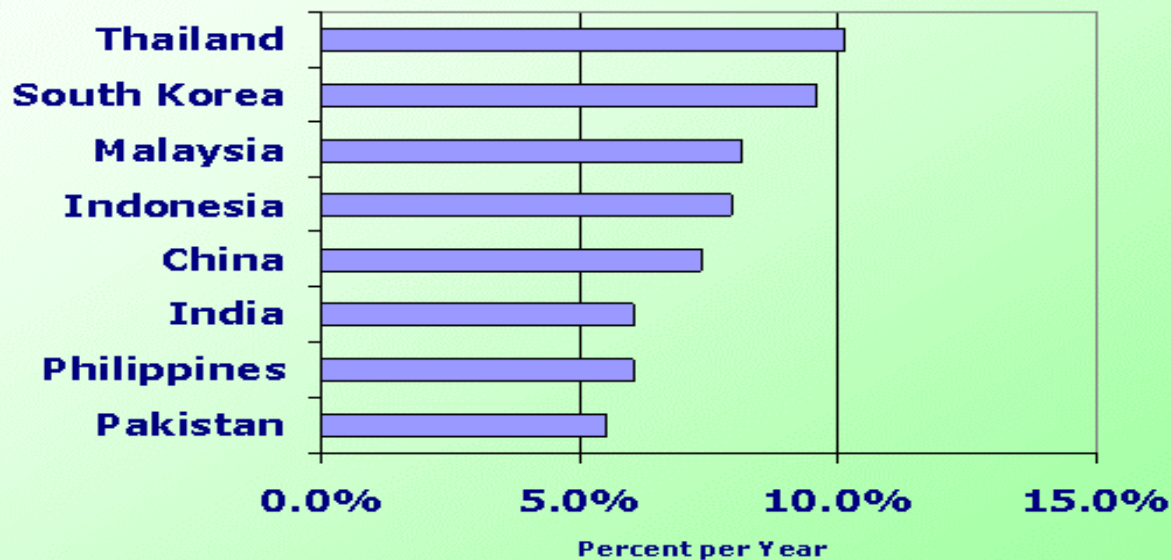


- **Energy policy and climate policy are “two sides of the same coin” since, for most countries, vast majority GHG emissions are energy-related**
- **Important co-benefits: Improved air quality (IES as example).**
- **Overriding priority: Provide affordable and reliable energy energy to citizens—a basic building block for sustainable development.**
- **Governments, industries, and other stakeholders are engaging in an impressive level of activities that impact emissions from the energy sector.**
- **The climate challenge will require better application of existing technologies, and the development of new technologies if that challenge is to be met.**
- **For many, this means advancing carbon sequestration, hydrogen, and nuclear technologies domestically, as well as internationally**

Rate of Growth in Energy Demand



Asia: Energy Demand Growth, 1992-2002

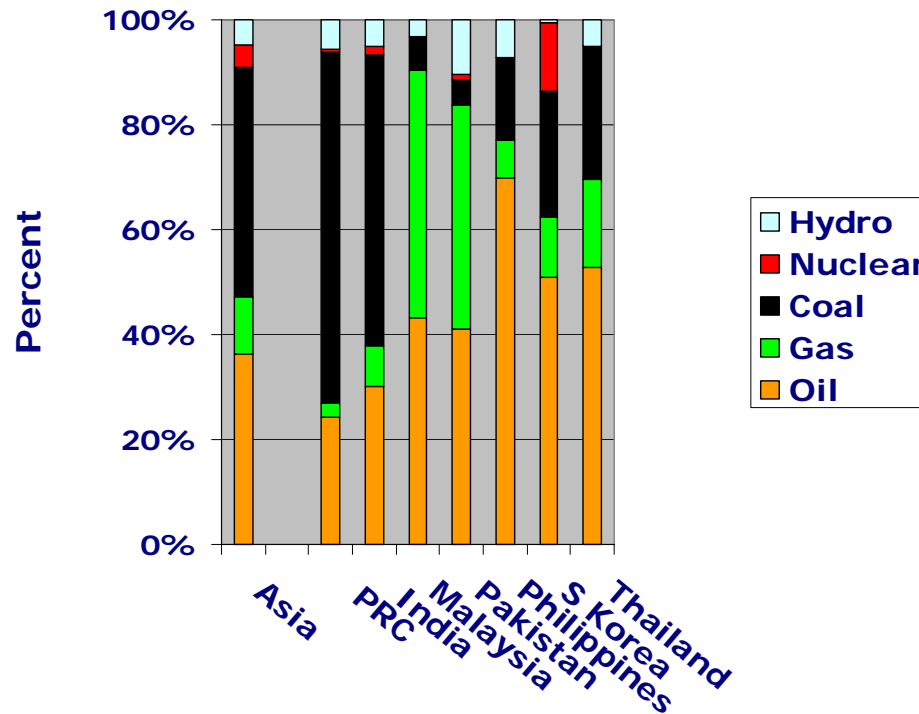


Focus on Indigenous Energy Sources



- Focus on indigenous sources of energy, which are diverse: fossil (coal, gas, oil), nuclear, and renewables (hydro, wind, solar, biomass, geothermal, wave resources).

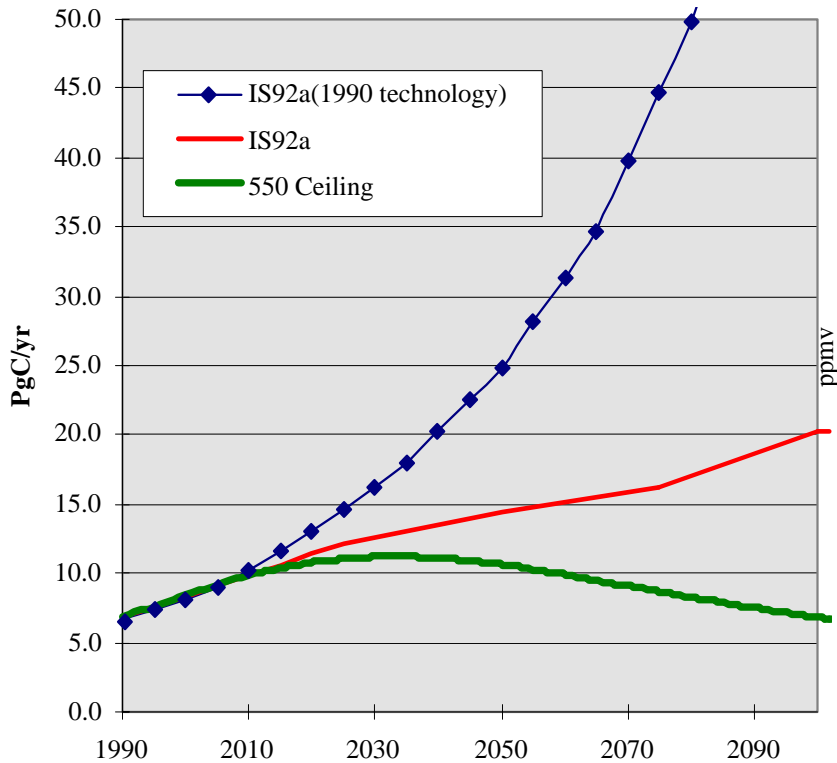
Asia: Energy Supply by Type



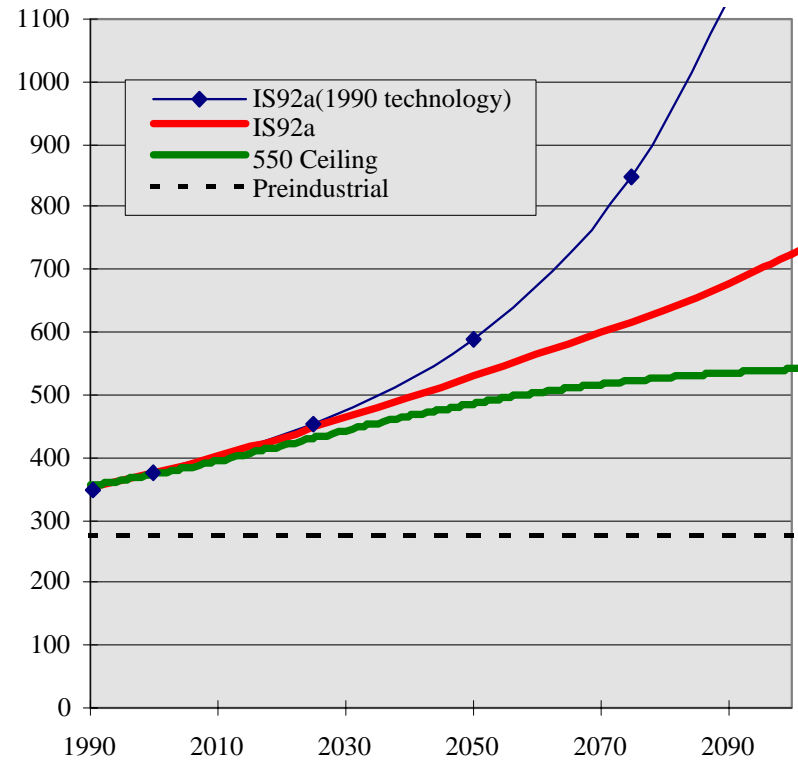
Challenge is Significant



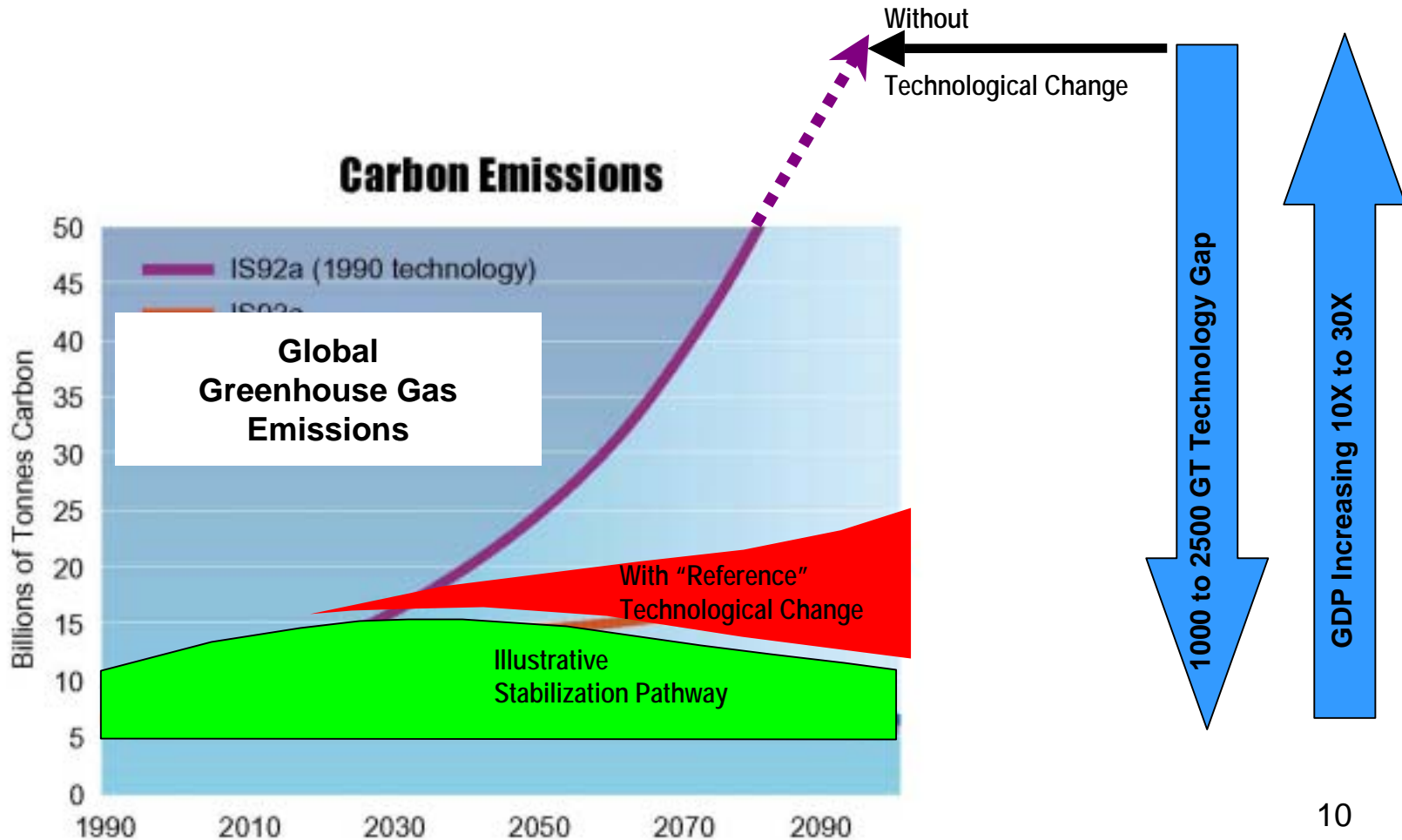
Emissions



Concentration



Need Better Application of Existing Technologies and New Technologies





Barriers exist at many levels...

- **Technical**
- **Economic**
- **Political**
- **Cultural**
- **Social**
- **Behavioral**
- **Institutional**
- **Financial**

Observations - 2



- **Uniform interest in designing practical solutions and, in particular, involving the private sector in designing those solutions.**
- **Important regional and international partnerships exist: Asia Pacific Roundtable for Cleaner Production, Clean Air Initiative for Asian Cities, ASEAN Climate Change Initiative, APEC EWG.**
- **Reducing non-CO₂ gases also presents cost-effective opportunities.**
- **Adaptation will surely be part of the policy mix.**

An interest in continuing the dialogue...



- **Participants considered that it was particularly valuable to get the perspective of energy policy makers into climate discussions and that there is value to continuing the dialogue.**
- **Planning underway to hold a second session of the Dialogue in Spring 2004.**
- **More specific focus on specific practical opportunities that achieve climate change and sustainable development activities simultaneously.**

U.S. Climate Change Policy



- **Reaffirms the U.S. commitment to the United Nations Framework Convention on Climate Change (UNFCCC) and to the mutual goals of sustainable development and economic growth.**
- **Recognizes the need to take near-term actions, while maintaining economic growth that will improve the world's standard of living.**
- **Grounded in reality—Addressing the issue of climate change will require:**
 - **Sustained effort by all nations over many generations.**
 - **An approach that will harness the power of markets, the creativity of entrepreneurs, and draw upon the best scientific research.**
 - **Development and deployment of new transformational technologies during this century—technologies that will allow us to produce and use energy with reduced GHG emissions, and technologies that will allow the use of abundant fossil fuels.**

Three U.S. Climate Change Policy Components



- **Slowing the Growth of Net Greenhouse Gas (GHG) Emissions—National Goal: Reduce GHG Intensity by 18% Over Next 10 Years**
- **Laying the Groundwork for Current and Future Action: Investments in Science, Technology, and Institutions**
- **International Cooperation**

Actions to Meet 10-Year Goal—1



- **More than 60 Federal (and many more State) programs—some mandatory, some voluntary, some incentive-based—to help slow U.S. GHG emissions growth:**
 - **Federal mandates: Corporate Average Fuel Economy (CAFE), appliance and Clean Air Act standards and regulations.**
 - **States: Number have enacted renewable portfolio standards as well as restrictions on CO₂ emissions from power plants.**
- **Numerous U.S. Department of Energy (DOE) and U.S. Environmental Protection Agency (EPA) voluntary programs to help consumers and corporations to make great strides in reducing their GHG emissions, for example:**
 - **ENERGY STAR®;**
 - **DOE Climate VISION; and**
 - **EPA Climate Leaders.**

Actions to Meet 10-Year Goal—2



- **Near-term incentives for carbon sequestration to increase the amount of carbon stored by America's farms and forests.**
 - **Under the 2002 Farm Bill, the U.S. will invest up to \$47 billion in the next decade for conservation measures on its farms and forest lands—including measures that will enhance the natural storage of carbon.**

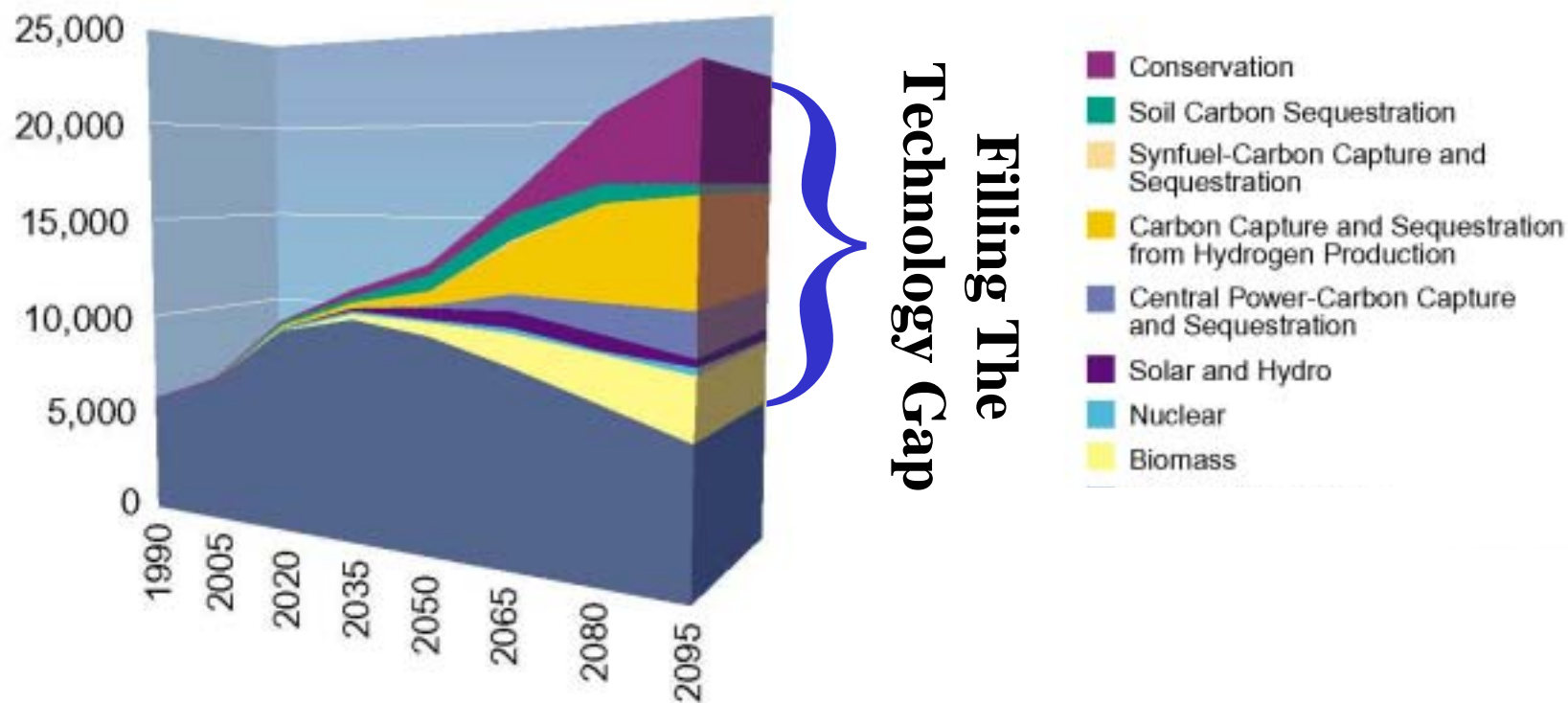
- **President's Fiscal Year 2005 budget also supports the near-term objective:**
 - **Seeks nearly \$5 billion for climate change science and technology programs.**
 - **Proposes nearly \$5 billion in tax incentives over the next five years and \$7.3 billion over the next 10 years to encourage purchases of hybrid and fuel cell vehicles, to promote residential solar energy and combined heat and power systems, and to reward investments in wind, solar, biomass and nuclear energy production.**

Technology Breakthroughs Are Essential



For example:

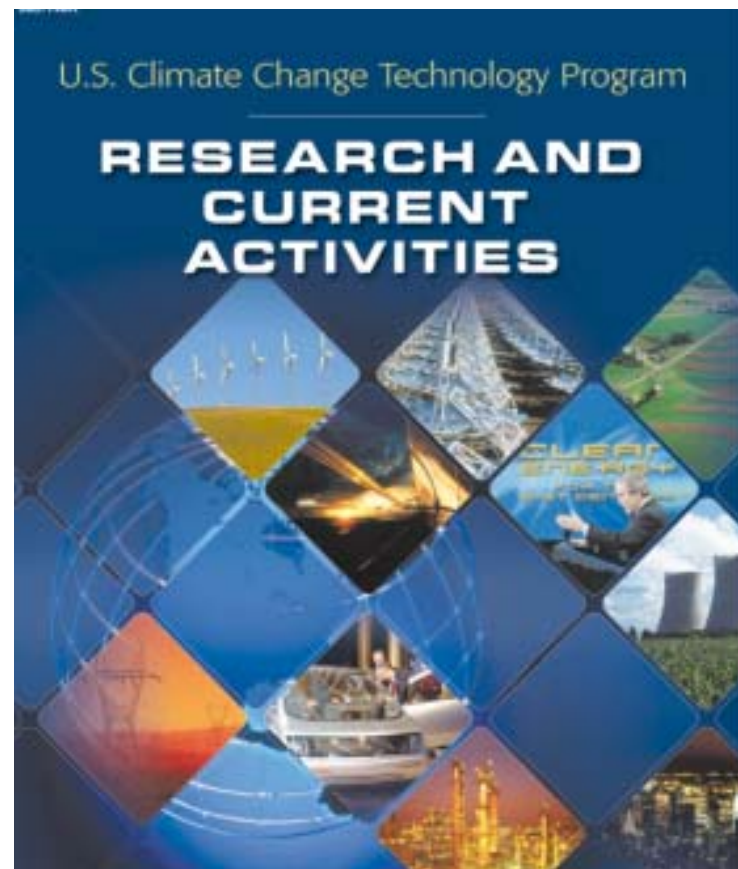
Global Carbon Emissions



Climate Change Technology Program



- 10 agencies investing over \$3 billion annually in climate-related technology investments, including:
 - \$1.2 b to advance energy efficiency RD&D
 - Over \$200m on renewables RD&D
 - \$1.7 billion over 5 years to deploy a hydrogen-powered vehicle by 2015
 - Enhanced support for carbon capture and storage, including through a 10-year a \$1b, public-private effort to build a large scale zero-emissions coal-fired power plant



International: U.S. Technology Initiatives



**CARBON SEQUESTRATION
LEADERSHIP FORUM**



- **Bilateral/ multilateral partnerships to foster the rapid development and deployment of technologies that can capture and store large quantities of carbon dioxide in a safe and environmentally benign manner.**
 - **Australia, Brazil, Canada, China, Colombia, EC, Germany, India, Italy, Japan, Mexico, Norway, Russian Federation, South Africa, UK, and US.**
- **Efficiently organize, evaluate and coordinate multinational research, development and deployment programs that advance the transition to a global hydrogen economy.**
 - **Australia, Brazil, Canada, China, European Commission, France, Germany, Iceland, India, Italy, Japan, Mexico, Norway, Russian Federation, South Korea, UK, and US.**
- **Working on nuclear reactor technologies that could be deployed by 2030 and present significant improvements in economics, safety and reliability and sustainability over currently operating reactor technologies.**
 - **Argentina, Brazil, Canada, France, EURATOM, France, Japan, South Africa, South Korea, Switzerland, UK, and US.**

International Technology Initiatives



Methane to Markets

- EPA-led initiative designed to promote significant opportunities to capture and use methane energy at low- or no cost.
- Focus on technology transfer and capacity building
- First ministerial meeting planned for November



- Design and operational implementation over the next 10 years of a new international, integrated, sustained, and comprehensive Earth observation system.

➤ 48 Members and 29 Participants

International: Bilateral Cooperation



Developed Countries

- **Australia**
- **European Union (EU)**
- **Japan**
- **Russian Federation**
- **Canada**
- **Italy**
- **New Zealand**

Developing Countries

- **Brazil**
- **Central American Countries**
 - (CONCAUSA: Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama)
- **China**
- **India**
- **Mexico**
- **Republic of Korea**
- **South Africa**



Ongoing Technology Cooperation

The U.S. is also involved in a number of initiatives in the region to promote energy efficiency and technology transfer. Regional activities include:

- **U.S.-Asia Environmental Partnership**
- **The South Asia Regional Initiative for Energy Cooperation and Development**
- **Climate Technology Initiative**
- **ASEAN Work on Co-Benefits (proposed)**



Summary

- **U.S. takes climate change very seriously and remains committed to the UNFCCC and to the mutual goals of sustainable development and economic growth, as articulated in the Delhi Declaration.**
- **Addressing global climate change will require a sustained effort involving all nations over many generations, and an approach that will harness the power of markets, the creativity of entrepreneurs, and draw upon the best scientific research.**
- **U.S. has an ambitious near-term goal to reduce the growth of its GHG emissions and is investing billions of dollars to address climate change—both in the near-term and long-term.**
- **U.S. is fully engaged internationally, is leading major bilateral and multilateral climate change science and technology initiatives, and will continue to cooperate will all nations.**