

**International Symposium on the Mid-to Long-Term  
Global Vision for Challenges against Global Warming**

**Mid and Long Term Global Vision -  
China Views**

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**CIGS, Tokyo , October 27,2009**



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■ Energy Research Institute, National Development and Reform Commission

# Long-term Global Vision against GW



- Long-term global vision against global warming is to enable the full, effective and sustained implementation of the UNFCCC to achieve its ultimate objective;
- Such a vision should be guided by the principle of common but differentiated responsibilities and the principle of equity;
- The climate targets should be a comprehensive one, consisting of sustainable development, mitigation, adaptation, financing and technology.

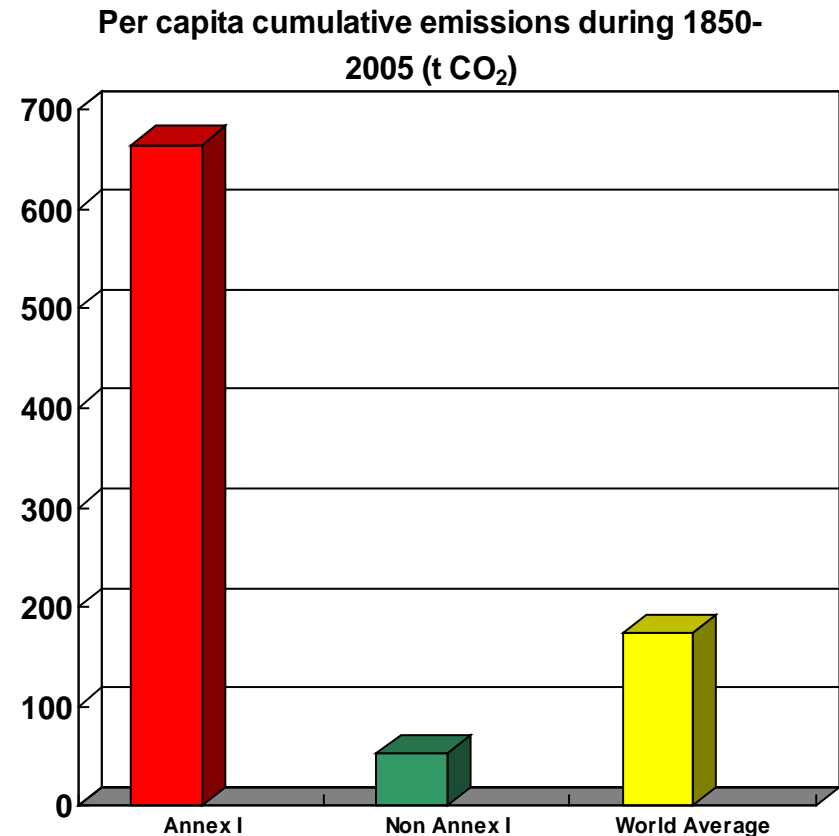


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# Long-term Global Vision against GW

- Burden sharing of emission reduction must be based on Per capita cumulative emission;
- Development needs of developing countries must be considered in setting long-term global mitigation goals.



Data sources: Climate Analysis Indicator Tool (CAIT) version 5.0, WRI

# Long-term Global Vision against GW



- The global average temperature increase to less than 2°C compared to pre-industrial levels: It is a political value judgment;
- Stabilizing atmospheric greenhouse gases concentrations at 450ppm: It is one scenario of the IPCC AR4;
- Achieving at least a 50% reduction of global emissions by 2050: it is the willingness of G8.



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# Mid-term Mitigation Efforts

- **Prime Minister Yukio Hatoyama of Japan:** I believe that the developed countries need to take the lead in emissions reduction efforts, Japan will aim to reduce its emissions by 25% by 2020, if compared to the 1990 level;
- **Prime Minister Fredrik Reinfeldt of Sweden:** Developed countries need to reduce their emissions by 25-40% by 2020, compared to 1990. Developing countries by 15-30%, compared to business-as-usual;
- **President Obama of USA:** The developed nations that caused much of the damage to our climate over the last century still have a responsibility to lead -- and that includes the United States.
- **President Hu Jintao of China:** Developing countries should not be asked to take on obligations that go beyond their development stage, responsibility and capabilities.

# Mid-term Mitigation Efforts

**1990-2006:**

- **Increased GHG emissions of 20 AI Parties: +0.8%~+95.1%;**
- **GHG emissions of non-EIT AI Parties: +9.9% (13~14.3 billion tonnes of CO<sub>2</sub>e);**
- **GHG emissions from the transport sector in AI Parties: +15.8%, EU: +25.8%;**
- **CO<sub>2</sub> emissions without LULUCF of EU- 15+ 3.4%.**

# Mid-term Mitigation Efforts

## Proposal commitments:

- The scale of emission reductions by AI Parties in aggregate: 30%, at least 40% and at least 45% below 1990 level by 2020;
- The contributions of AI Parties to the scale of emission reductions at least 40%.  
Australia:-39%, Canada:-47%, EC:-49%, Japan:-51%, USA:-52%.

## National targets:

- Norway: -40%
- EC:-20% or -30% (1990);
- Japan: -25% (1990);
- Australia:-5% or -25% (2000);
- Canada:-20% (2006);
- Russia:-10% or -15%;
- The scale of emission reductions by 13 AI Parties in aggregate is -15~-22% below 1990 level by 2020.

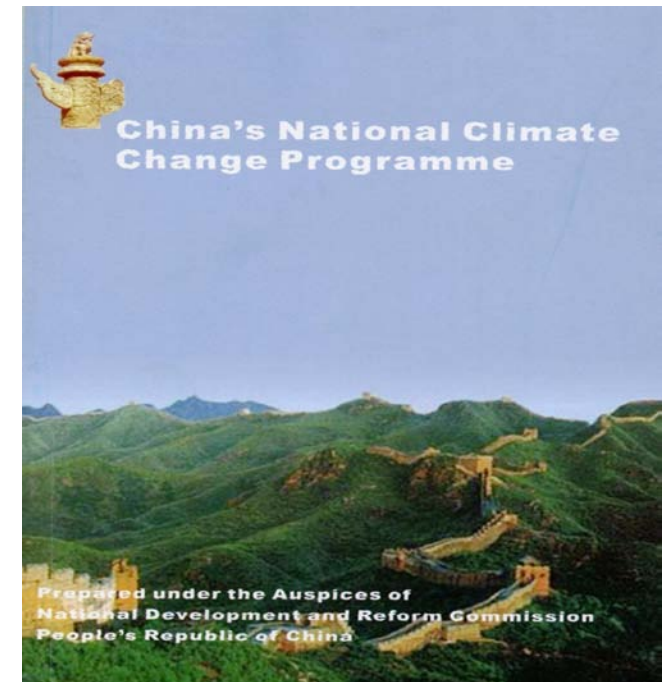
# China's Mitigation Efforts



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**On 3<sup>rd</sup> June 2007, the Government ratified the National Climate Change Programme, to make significant achievements in controlling GHGs in the 11<sup>th</sup> five-year period (2006-2010):**

- To reduce energy consumption per unit of GDP by 20%;
- To increase the share of RE in TPES up to around 10%;
- Recovery of coal bed methane up to 10 billion cubic meters in 2010;
- To stabilize N<sub>2</sub>O emissions from industrial processes at the 2005 level;
- To control the growth rate of CH<sub>4</sub> emissions from agriculture activities;
- To increase forest coverage rate to 20% of the country's area



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# China's Mitigation Efforts

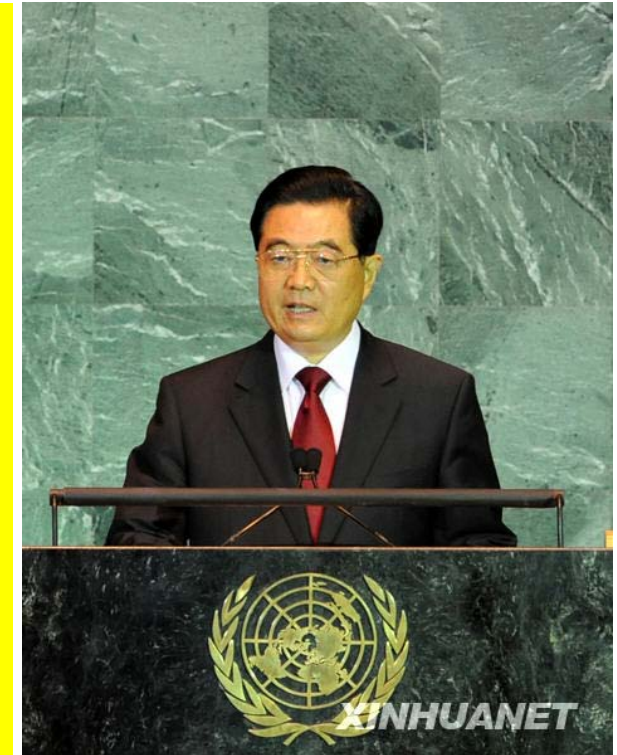
**On 27<sup>th</sup> August 2009, the NPC Standing Committee approved the *Congressional Resolution on Actively Tackling Climate Change*, calling for:**

- Take proactive and effective measures to address climate change, develop nationally appropriate green economy and low-carbon economy;
- Dealing with climate change should be regarded as an important role of achieving sustainable development and included into the economic and social development planning, plus clear objectives, tasks and requirements.
- Pertinent budget should be made and support should be strengthened for fighting climate change at all levels of governments;
- The legislative body should draw up and improve laws and regulations to provide legal foundation for addressing climate change.

# China's Mitigation Efforts

On 22<sup>nd</sup> September 2009, in his statement at the Opening Plenary Session of the UN Summit on Climate Change, H.E. Hu Jintao, President of the PRC, announced that China will further integrate actions on climate change into its economic and social development plan and take the following measures :

- Intensify effort to conserve energy and improve energy efficiency, to cut carbon dioxide emissions per unit of GDP by a notable margin by 2020 from the 2005 level;
- Vigorously develop renewable energy and nuclear energy, to increase ratio of non-fossil fuels to around 15% by 2020;
- Energetically increase forest carbon sink, intending to increase forest coverage by 40 million hectares and forest stock volume by 1.3 billion cubic meters by 2020 from the 2005 levels;
- Step up effort to develop green economy, low-carbon economy and circular economy, and enhance RD&D of climate-friendly technologies.



# China's Mitigation Efforts

- **Actively promote the implementation of ten key energy-saving projects;**
- **Orderly develop hydropower on the precondition of protecting the ecosystem;**
- **Actively promote the development of nuclear power;**
- **Expedite technology advancement in thermal power generation;**
- **Vigorously develop natural gas and coal-bed methane (CBM) industry;**

# China's Mitigation Efforts

- **Promote the development of bio-energy;**
- **Actively support the development and utilization of wind, solar, geothermal and tidal energy;**
- **Effectively control GHG emissions from cement production and other industrial processes;**
- **Make great efforts to reduce greenhouse gas emissions from the agricultural sector;**
- **Effectively build up carbon sinks through land-use change, afforestation and reforestation.**

# China's Mitigation Efforts



- Through the ten key energy-saving projects and other energy-saving actions, to reduce energy consumption per unit of GDP by 40% by 2020 from the 2005 level. This achievement may help China to cut a total of 3.8 billion tons of carbon dioxide emissions in the next 15 years;
- Through renewable energy and nuclear power development, to obtain 15% of its TPES from non-fossil energy sources by 2020. equivalent to cutting 1.2 billion tons of carbon dioxide emissions;



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# China's Mitigation Efforts



- A preliminary study shows that the proposed mitigation actions on energy efficiency improvement, renewable energy development and nuclear power development require 4,300 billion, 3,200 billion and 600 billion Yuan of investment respectively in the period of 2005 through 2020;
- Respective investment cost for GHG emission reductions via improving energy efficiency, developing renewable energy and nuclear power are 1120, 3270 and 2470 Yuan per ton of CO<sub>2</sub>eq reduction.



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# Thank you!



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