# COMBATING CLIMATE CHANGE THROUGH SUSTAINABLE DEVELOPMENT

## China's Policies & Actions and Position

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# Content

I. China's National Circumstances and Impacts of Climate Change

II. Strategies and Objectives for Addressing Climate Change

III. Policies and Actions to Mitigate Climate Change

IV. Position on the Copenhagen Climate Change Conference

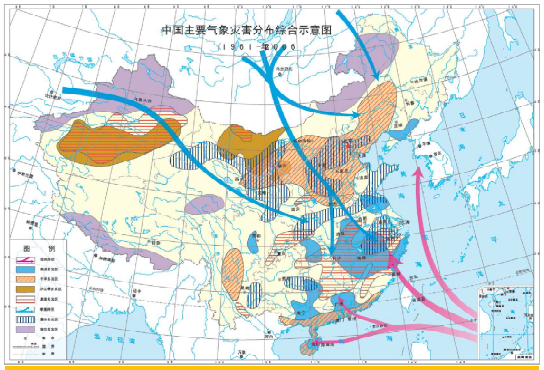
# I. China's National Circumstances and Impacts of Climate Change

## Observed Facts of Climate Change

--The average surface temperature in China has increased by **1.1℃** over the last 100 years (1908-2007).

--China experienced **21** warm winters from 1986 to 2007, with 2007 being the warmest year since the beginning of systematic meteorological observations in 1951.

--The nationwide distribution of precipitation in the past 50 years has undergone marked changes.



## Extreme Climate Events

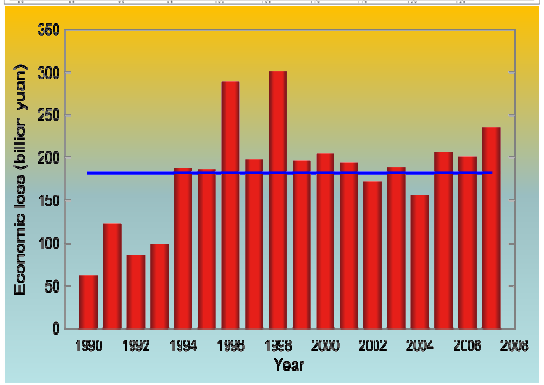
--Hot extremes, heavy precipitation and severe droughts: **increased…**

--The frequency of heat waves: **increased…**

--Heavy precipitation: **increased…**

--The snow disaster: **more frequent…**

--In China's coastal zones, the sea surface temperature has increased by **0.9℃** and sea-level risen by **90 mm** over the past 30 years.




# I. China's National Circumstances and Impacts of Climate Change

- **Scientific research projects that the trend of climate warming in China would further intensify.**

--Frequency of extreme climate events is likely to increase.

--Uneven distribution of precipitation would be more visible than before and the frequency of heavy precipitation would increase.

--The arid land would expand in scope.

--The sea-level would rise faster than ever.

# I. China's National Circumstances and Impacts of Climate Change

- **The national circumstances and conditions pose great challenges for China to address climate change.**

--A complex climate and a fragile ecological environment determine that China's task of adapting itself to climate change is arduous.

--With a large population and a relatively low level of development, China's development task is a formidable one.

--China's ongoing industrialization process and its coal-dominated energy mix determine that its task of controlling greenhouse gas emissions is a tough one.

# I. China's National Circumstances and Impacts of Climate Change

- **China is one of the countries most vulnerable to the adverse effects of climate change. Corresponding economic and social costs will have to be paid for addressing climate change.**
  - Impacts on Agriculture and Livestock Industry
  - Impacts on Forestry and Other Natural Ecological Systems
  - Impacts on Water Resources
  - Impacts on Coastal Zones
  - Impacts on Society, Economy and Other Fields

# II. Strategies and Objectives for Addressing Climate Change

- **To address climate change, China sticks to the following principles:**

—To address climate change in the context of sustainable development.

—The principle of "common but differentiated responsibilities".

—To place equal emphasis on both mitigation and adaptation.

—The UNFCCC and its Kyoto Protocol are the main channel for addressing climate change.

—To rely on the advancement, innovation of science and technology and technology transfer.

—To rely on public participation and extensive international cooperation.

# II. Strategies and Objectives for Addressing Climate Change

- **China's National Climate Change Programme released in June 2007, set the general objectives of addressing climate change up to 2010:**

--Significant results should be achieved in controlling greenhouse gas emissions.

--The capability of adaptation to climate change should be relentlessly enhanced.

--Climate-change-related research should be promoted to make new progress.

--In addition, the public awareness of climate change should be enhanced, and the institutions and mechanisms for dealing with climate change should be further strengthened.

# II. Strategies and Objectives for Addressing Climate Change

## Control of Greenhouse Gas Emissions

--By 2010, the energy consumption per-unit GDP is expected to drop by about 20 % compared to that of 2005, and $CO_2$ emissions will consequently be reduced.

--By 2010, to raise the proportion of renewable energy (including large-scale hydropower) in the primary energy consumption up to 10%, and the extraction of coal-bed mine methane up to 10 billion $m^3$.

--By 2010, the emissions of $N_2O$ from industrial process will remain stable as that in 2005.

--By 2010, striving to control $CH_4$ emissions…

--By 2010, to increase forest coverage to 20% and realize an increase of annual carbon sinks by 50 million $tCO_2$ over the level of 2005.

# II. Strategies and Objectives for Addressing Climate Change

## Enhancing the Capacity of Adaptation to Climate Change

--By 2010, a number of meteorological disaster prevention projects will be completed.

--By 2010, improved grassland will be increased by 24 million hectares, restored 52 million hectares, and the efficiency of irrigation water will be raised to 0.5.

--By 2010, 90 % of typical forest ecological systems and national key wildlife species will be under effective protection, and nature reserve area will account for 16% of the national territory.

--By 2010, 25 million hectares of land suffering from soil erosion will have been improved; 30 million hectares of land will have been ecologically restored; and 22 million hectares of desertified land will have been put under control.

--By 2010, to build a water-conserving society and an anti-flood engineering system in large rivers ...

--By 2010, to protect and restore the mangroves, and promote the capability to resist marine disasters in coastal zones.

# II. Strategies and Objectives for Addressing Climate Change

## Strengthening R&D

--By 2010, to keep up with international advanced level in some fields…

--By 2010, to achieve big breakthroughs in R&D on energy development, energy conservation and clean energy technology, to quicken the commercialization of advanced technologies; to enhance the technological capacity of agriculture, water conservancy and forestry sectors to adapt to climate change…

# II. Strategies and Objectives for Addressing Climate Change

## Enhancing Public Awareness and Improving Management

--By 2010, broad public awareness of the severity of climate change will be achieved, and a social environment conducive to addressing climate change will be in place.

--A suitable and highly-efficient institutional and management framework to address climate change will be gradually established.

# III. Policies and Actions to Mitigate Climate Change

- **China has adopted proactive policies and taken active actions to mitigate climate change, and remarkable achievements have been made so far.**
  - Adjusting the Economic Structure to Promote the Optimization and Upgrade of the Industrial Structure
  - Striving to Save Energy and Improve Energy Efficiency
  - Developing Renewable Energy and Optimizing Energy Mix
  - Developing Recycling Economy to Reduce Greenhouse Gas Emissions
  - Controlling Greenhouse Gas Emissions in Agriculture and the Rural Area
  - Promoting Tree-planting and Afforestation Campaign and Increasing the Capability of Carbon Sequestration
  - Intensifying R&D Efforts to Respond to Climate Change

# III. Policies and Actions to Mitigate Climate Change

## Adjusting the Economic Structure to Promote the Optimization and Upgrade of the Industrial Structure

— Limiting the excessively rapid expansion of high energy intensive and emission intensive industries.

— Accelerating the pace of phasing out of backward production capacity.

— Accelerating the development of the service industry and high-tech industry.

# III. Policies and Actions to Mitigate Climate Change

## Striving to Save Energy and Improve Energy Efficiency

- It stipulates that the energy consumption per-unit GDP in 2010 should be 20% lower than that in 2005, and this goal is binding.

- Compared to the year of 2005, China's energy consumption per unit GDP by 2008 dropped by 10.1% with an annual increasing rate of decline, saving cumulative 290 million tce over the three years, equal to about 700 million tons of $CO_2$ emission.

- Although facing great challenges, China is hopefully to decrease its energy consumption per unit GDP by about 20% by 2010 compared to the year of 2005, thus save more than 600 million tce, equal to over 1.5 billion tons of $CO_2$ emission reduction.

# III. Policies and Actions to Mitigate Climate Change

## Striving to Save Energy and Improve Energy Efficiency

- Strengthening the responsibility system with goals for energy conservation and emission reduction.
- Accelerating the construction of major energy conservation and emission reduction projects.
- Promoting energy conservation and emission reduction in key fields.
- Implementing “Waste Management Project for Energy-Saving Products”.
- Allocating 7 billion yuan from the central fiscal resources to encourage “Trade-in” of old vehicles and household appliances for new ones.
- Restricting the use of plastic shopping bag.

# III. Policies and Actions to Mitigate Climate Change

## Developing Renewable Energy and Optimizing Energy Mix

- China sets an objective of increasing the proportion of renewable energy in the primary energy mix to 10% by 2010, and about 15% by 2020.

- By the end of 2008, China's renewable energy consumption reached 250 million tce, approximately accounting for 9% in China's primary energy mix, and the objective of 10% by 2010 will hopefully be achieved.

# III. Policies and Actions to Mitigate Climate Change

## Controlling Greenhouse Gas Emissions in Agriculture and the Rural Area

- Testing soil and balanced fertilizations are applied to reduce $N_2O$ emissions from farmland.
- Soil organic carbon is increased by feeding animals with straw and applying manure to the cropland.
- Grassland degradation is avoided by establishment of compensatory mechanism for grassland ecology.
- By the end of 2008, there were over 30.5 million rural households using household biogas digesters in China, saving 18 million tce annually, equal to 49 million tons of $CO_2$ emission reduction.

# III. Policies and Actions to Mitigate Climate Change

## Promoting Tree-planting and Afforestation Campaign and Increasing the Capability of Carbon Sequestration

- In the past 20-odd years, four million hectares of trees have been planted annually on average.

- By the end of 2007, 10.98 billion person-time in total had joined voluntarily and planted 51.54 billion trees all over China.

- It is estimated that from 1980 to 2005, a total accumulated net sequestration of 3.06 billion $tCO_2$ was achieved by afforestation, and 1.62 billion $tCO_2$ by forest management respectively, and 430 million $tCO_2$ from deforestation were avoided.

# Ⅳ. Position on the Copenhagen Climate Change Conference

- Fully aware of the seriousness and urgency of climate change and with a deep sense of responsibility for the long-term development of mankind, China has took a series of strong policies, measures and actions and made unremitting efforts and commendable contribution to addressing climate change.

- As a Party to the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol, China has and will continue to play an active and constructive role in such negotiations and hereby presents its position on the Copenhagen Climate Conference implementing the Bali Roadmap.

# Ⅳ. Position on the Copenhagen Climate Change Conference

## ☐ Principles

- **The *UNFCCC* and its *Kyoto Protocol* as the Basis and the Mandate of the *Bali Roadmap* as the Focus.**
- **The Principle of Common but Differentiated Responsibilities.**
- **The Principle of Sustainable Development.**
- **Mitigation, Adaption, Technology Transfer and Financial Support on the Same Footing and as Equal Priorities.**

# Ⅳ. Position on the Copenhagen Climate Change Conference

## Objective

—To further enhance the full, effective and sustained implementation of the UNFCCC and its Kyoto Protocol and to reach positive outcome, focusing on making concrete arrangements for mitigation, adaptation, technology transfer and financial support.

# Ⅳ. Position on the Copenhagen Climate Change Conference

## Objective

— To set deeper quantified emission reduction targets for developed countries for the second commitment period under the Kyoto Protocol, and to ensure comparability of quantified emission reduction commitments by developed countries that are Parties to the Kyoto Protocol and that are not;

— To establish effective institutional arrangements to ensure that developed countries are fulfilling their commitments to provide technology, financing and capacity building support to developing countries;

— To enable developing countries to take nationally appropriate mitigation and adaptation actions, in the context of sustainable development, supported by technology, financing and capacity building from developed countries.

- Climate change is a common challenge confronting the whole world, and demands the joint efforts of all countries and the entire international community.

- China will work unremittingly for global sustainable development with other countries and continuously make new contributions to the protection of the climate system.

# *Thanks!*