



Research Initiatives of China to Address the Recommendations of the IPCC TAR

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Outline

- **Specific Programs for Climate System in China**
- **Research on Climate Change Supported by Chinese Government**
- **International Academic Communion and Cooperation**
- **Suggestions for Future**

Specific Programs for Climate System



China Climate Conference held on 5-6 May, 2002

- 1、 China National Climate Plan (2001-2010)
- 2、 Plan on China Climate Observing System

China National Climate Plan

The plan formulated guidelines and identified priorities related to climate change research in the first ten-year of this century, and the following sub-plan will be finalized in 2005:

- Climate Data and Monitor Plan
- Climate Assessment and Response Plan
- Climate Research Plan
- Climate Application and Service Plan



China Climate Observing System Plan

Principles in Designing GCOS-China

- To utilize and integrate the existing observing systems in China, improving the observations of the multi-sphere in the climate system and their interactions.
- To cooperate among multi-department, building a climate observing system according to the same standard, instrument, precision, observing time, etc.
- To built a platform for data exchange and share of data.
- To choose regions of different underlying surface, monitoring the interaction among multi-sphere and satisfying to the development of climate model.

Preliminary implementation plan for ground observing system of GCOS-China

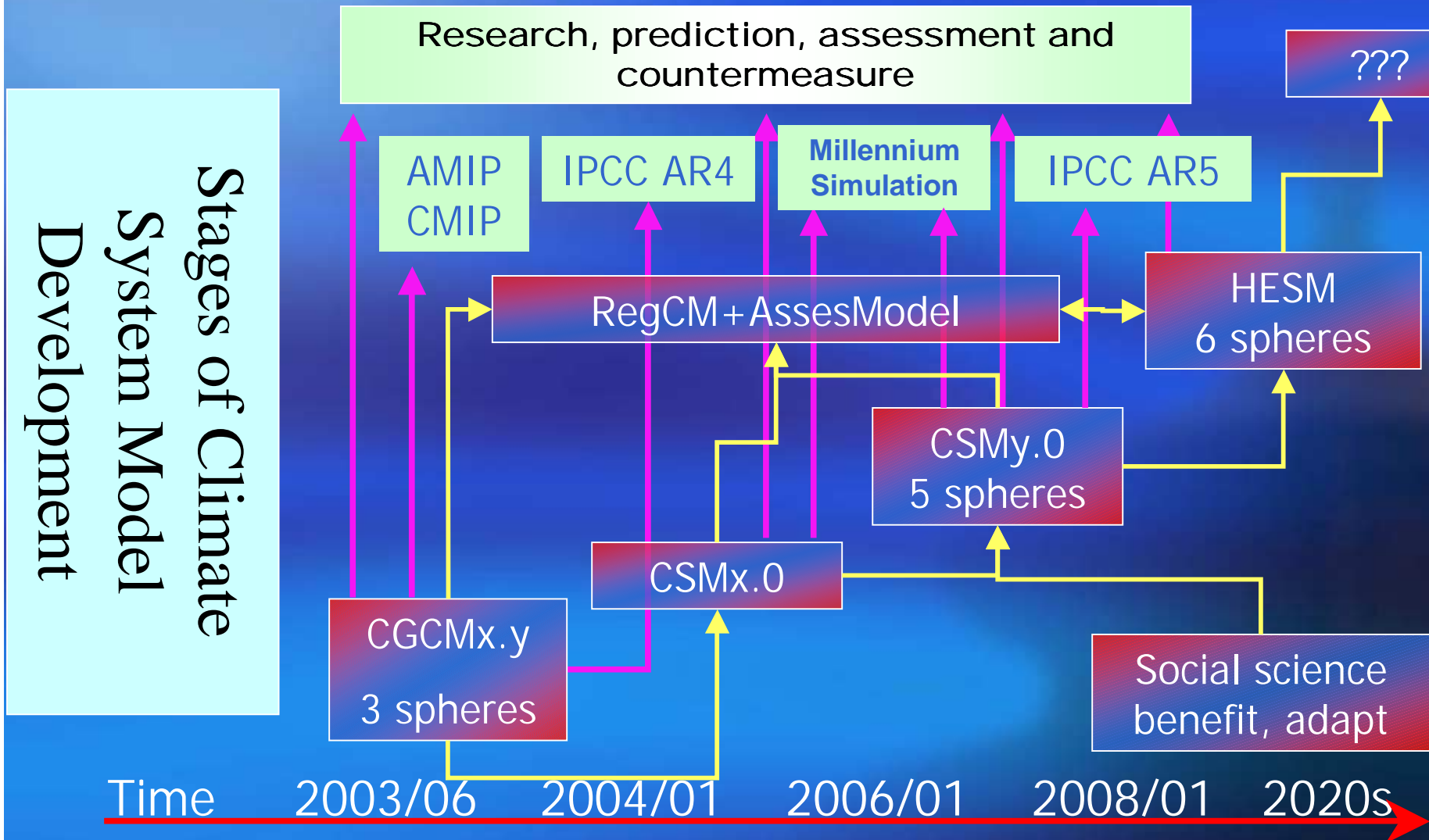


Climate System Model Plan

In order to improve the ability to predict the future climate change in China, we initiate to develop and establish the common climate system model, which can satisfy the need of both climate research and climate operation.



What can be provided by CSM?



Research Activities Related to Climate Change Supported by Chinese Government

Chinese Government has been seriously concerned about the issue of climate change and actively supported relevant research activities. Since IPCC TAR, some important national research projects on climate change have been initiated as follows:

- To reconstruct past climate change on national scale;
- To assess climate change impacts on agriculture , water resource, terrestrial and coastal ecosystem of China;
- To explore influences of climate change on national economic and environmental policy;

Particularly, the highest priority has been given the following research projects and some progress has been made :

- Possible environmental change in the coming 20-50 years in China
- Severe climate and weather disasters and their impacts on natural and socio-economic systems of china
- Interactions between agriculture and global change
- Response mechanisms of terrestrial ecosystem to global change

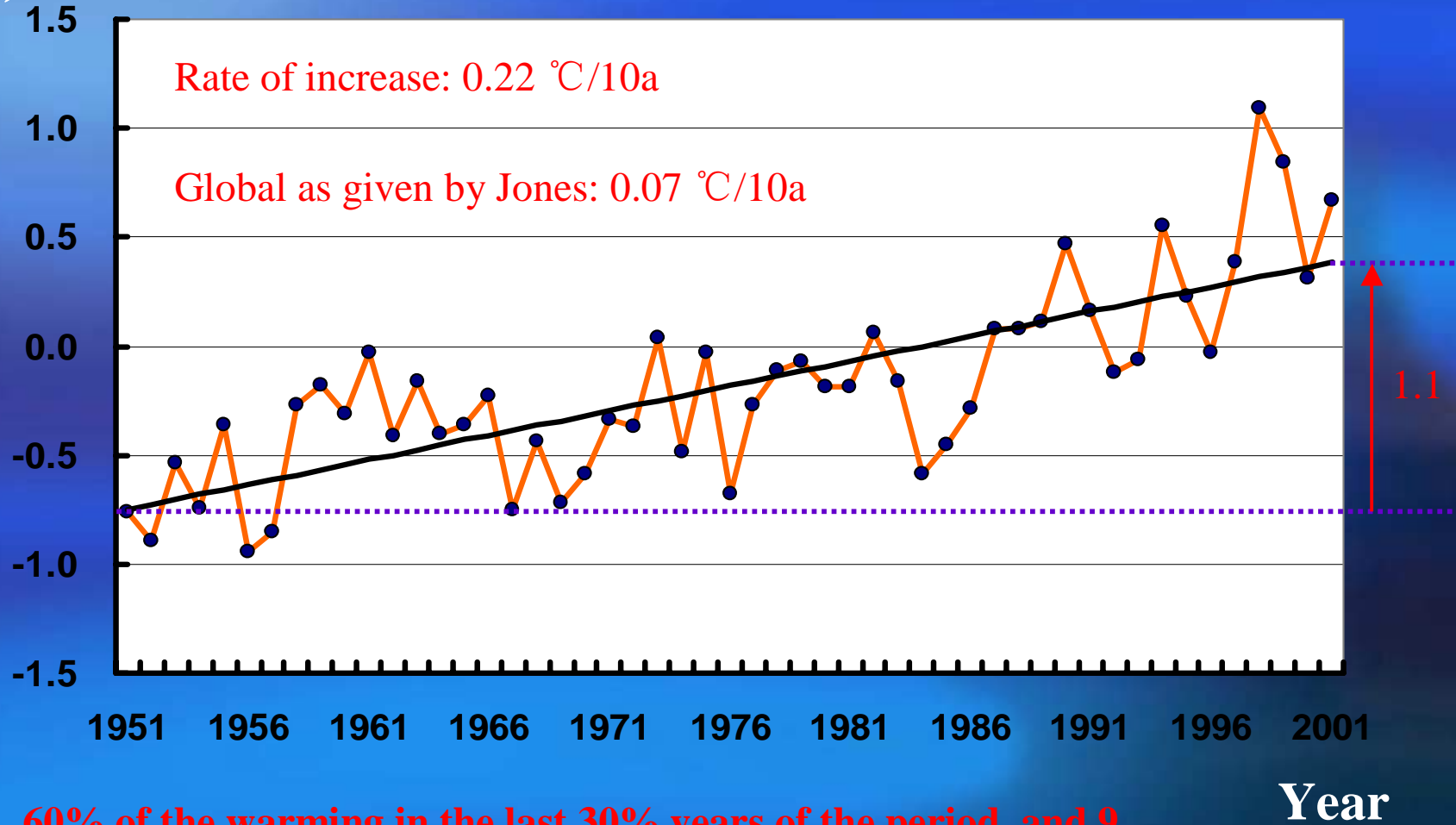
In spite of limitation of financial and technological conditions, China has obtained some valuable results in the following fields:

- Reconstruction of past climate change curves on the timescale of past 1000, 100 and 50 years
- Assessment and Attribution of natural and anthropogenic climate change
- Development of coupled GCMs and regional climate models
- Projections of global and regional climate change scenarios in the coming 50 and 100 years

Surface Temperature Trend in China in the Past 50 yrs

Anomalies

(°C)

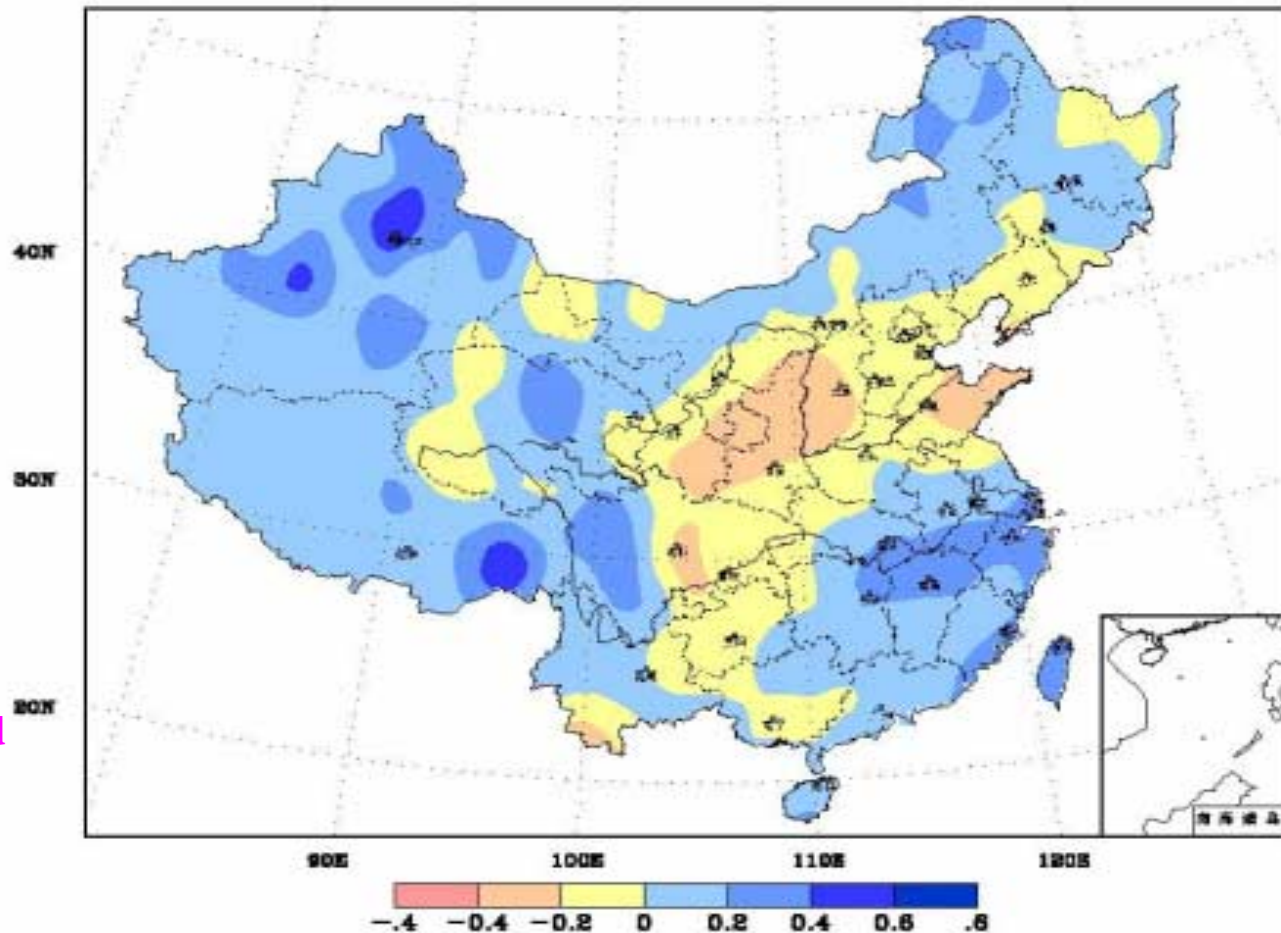


60% of the warming in the last 30% years of the period, and 9 warmest years in the last 12 years, with 1998 the warmest year.

Tendency in precipitation over China (1961-2000)

Increase in the Yangtze River Basin, most parts of Northwest, Tibet Plateau and Inner Mongolia (Mongolia also wetter);

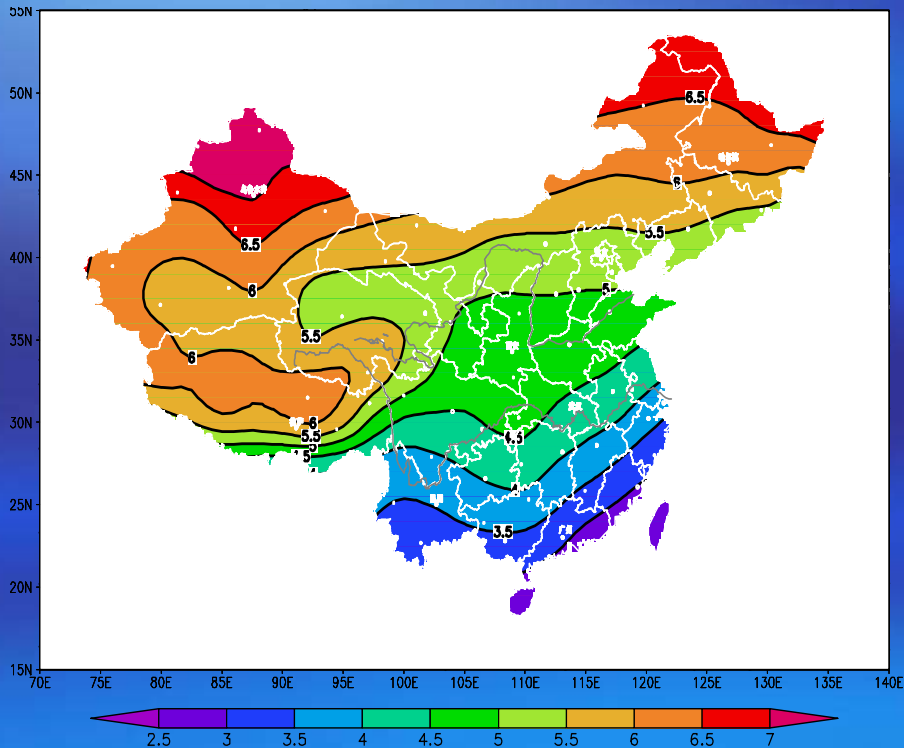
Decrease in the Yellow River Basin (Shandong, Liaodong and North Korea)



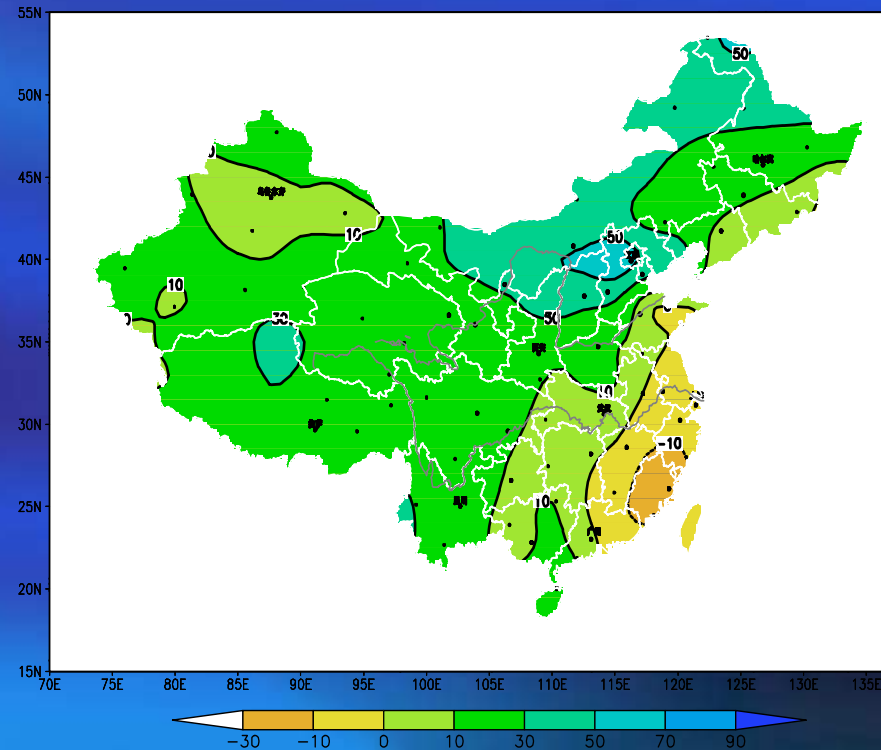
Blue color: positive trend Yellow color: negative trend

The temperature and precipitation change of China in the end of this century simulated by NCC/IAPT63 (A2)

Temperature (°C)



Precipitation (%)



Assessment Report of Climate Change in China

Assessment Report on Climate and Environment of West China

- ▶ Clarifying the new scientific facts of climate change in West China area in recent 100 years;
- ▶ Analysing and assessing the impact of climate change on natural ecological and social economic systems in West China;
- ▶ Providing countermeasures and suggestion for high authority;
- ▶ Finishing the state assessment report of climate change based on the above research.



A series of reports will be published next year, including:

- Assessment Report on Climate and Environment of China
- China National Assessment Report on Climate Change
- National Blue Book—Scientific and Technological Policy on Climate Change

International Academic Communion and Cooperation

1. Academic Communion

International Symposium on Climate Change (ISCC) sponsored by China National Climate Committee and the WMO was held on 31 March to 3 April 2003, with the theme of “Climate Change: Science and Sustainable Development”.

Mr. HUI Liangyu, the Chinese Vice Premier, and Dr. Obasi, the former Secretary General of WMO attended the opening ceremony and delivered speech respectively. The symposium attracted more than 500 experts from 46 countries/regions and organizations.



Workshop on Climate Change, Ecosystem and Environment

Sponsored by the Population, Resource and Environment Committee of China Political Consultative Conference and China Meteorological Administration, the workshop was held on 24-26 November 2003. More than 300 experts and officers from different departments and regions of China attended the workshop.



The valuable results and information from these high-level science workshops and symposiums have facilitated Chinese senior decision-makers to be more aware of the importance and severity of climate change and its impacts on social and economic development.

2. International cooperation

Some bilateral and multilateral projects and programs related to climate change are underway smoothly. For example:

- ‘Goal research related to national greenhouse inventory’ is supported by GEF
- China-Canada Cooperation on Climate Change Project (C5)
- CMA-USDOE jointly study on global change
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Suggestions for Future

1. To increase and broaden the participation of developing countries in large international climate change research programs;
2. To intensify the transfer of key techniques and information on climate change projection, adaptation and mitigation to developing countries;
3. To enhance the capacity building facing experts of developing countries;
4. To launch the international research programs that are mainly organized or coordinated by developing countries

Thank
you!

