ACCC
Adapting to Climate Change in China
Sharing Knowledge Globally

Adapting to Climate Change in China

The 6th Interim Workshop of the National Physical Impacts Research Team

16th May 2012

National Development and Reform Commission

DFID Department for International Development

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Objectives of ACCC

1. Climate Change Science in China
2. Comprehensive Risk Assessment
3. Adaptation Planning
4. Capacity Building
5. Knowledge Sharing

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Objective 1: Climate Science

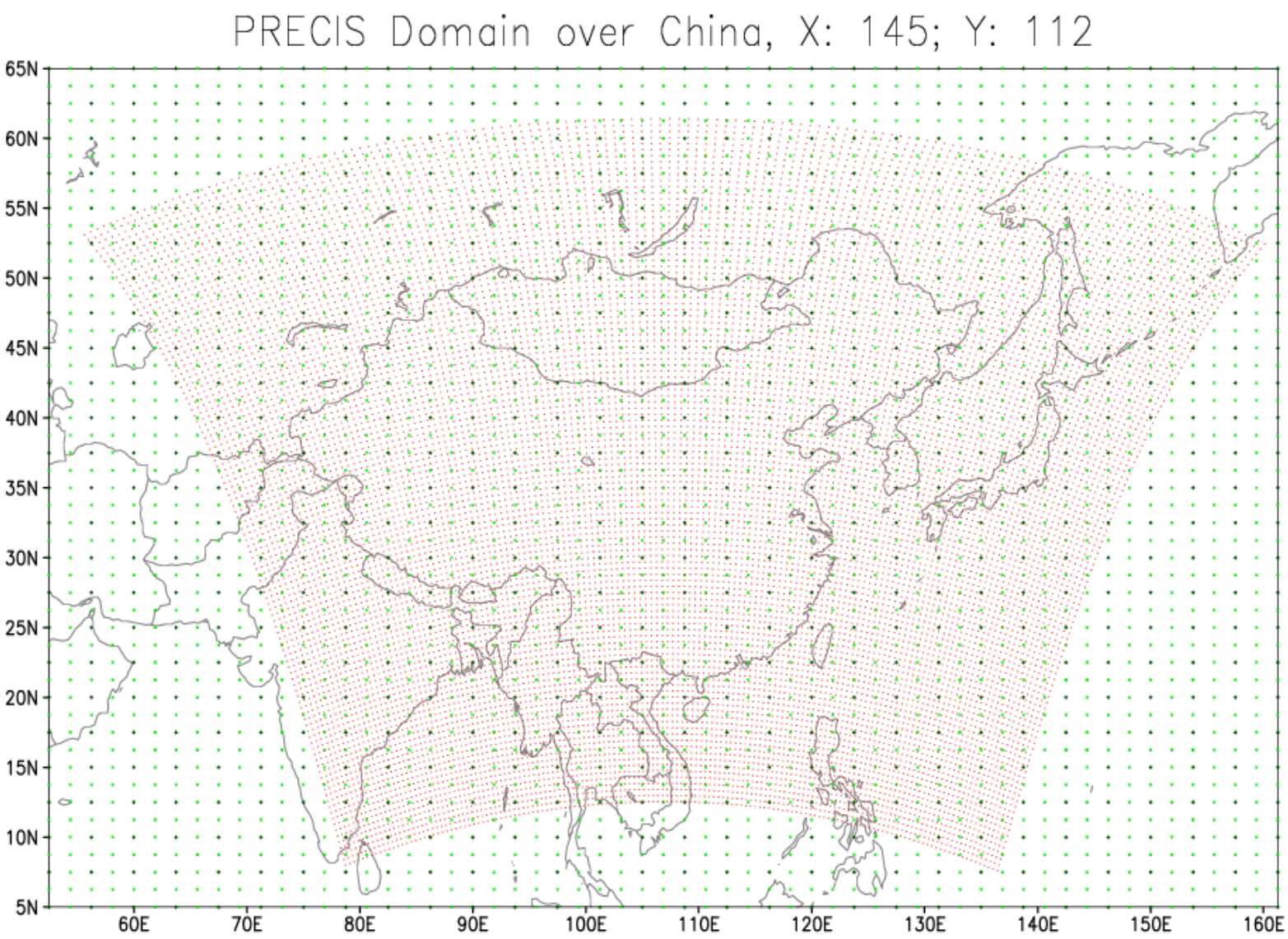
- Improved development of, and access to, climate change science in China;

- To generate more SRES scenarios;
- User-friendly datasets

- What's new?
- More GCMs
- More RCMs-PRECIS, RegCM3
- SRES A1B scenrios
- RCPs stablisation scenarios
- 50km→25km
- Daily-level→hourly level

PRECIS' Jobs
(CORDEX-Easia domain)

Observation	Period		Status	Size	Notes
ERA-Int	1989-2008		√	0.3Tb	Completion:
GCMs	**Period**		**Status**	**Size**	• √:finished and able to provide
ECHAM5	A1B		√	3.6Tb	• ✗ :unfinished
HadCM3Q	A1B	Q0	√	7.2Tb	Experiments:
		Q10	√	1.6Tb	•Q1: low sensitivity
		Q13	√	1.6Tb	•Q7: middle sensitivity
		Q7	√	1.6Tb	•Q10: high sensitivity
		Q1	Running		•Q13: high sensitivity
CMIP5	RCP	2.6?	✗		
		4.5	✗		
		8.5	✗		


PRECIS Domain over China, X: 145; Y: 112
65N
60N
55N
50N
45N
40N
35N
30N
25N
20N
15N
10N
5N
60E
70E
80E
90E
100E
110E
120E
130E
140E
150E
160E

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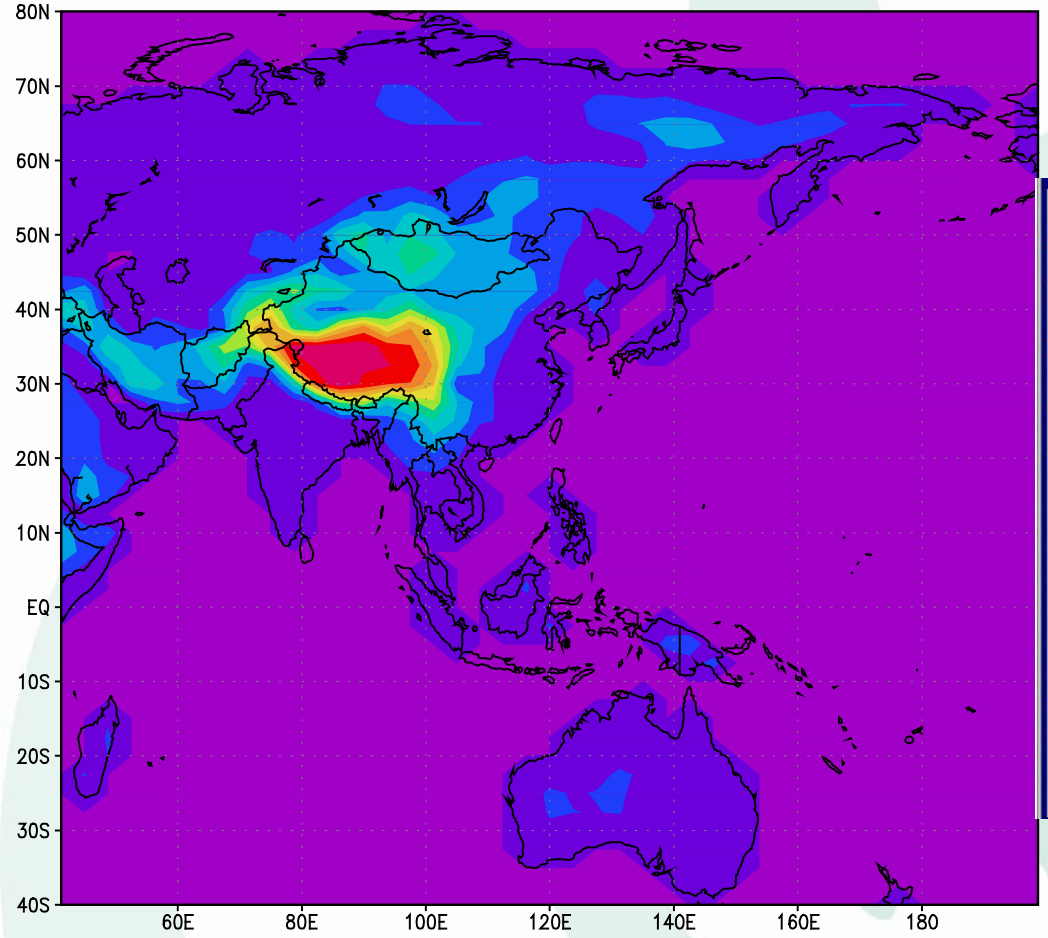

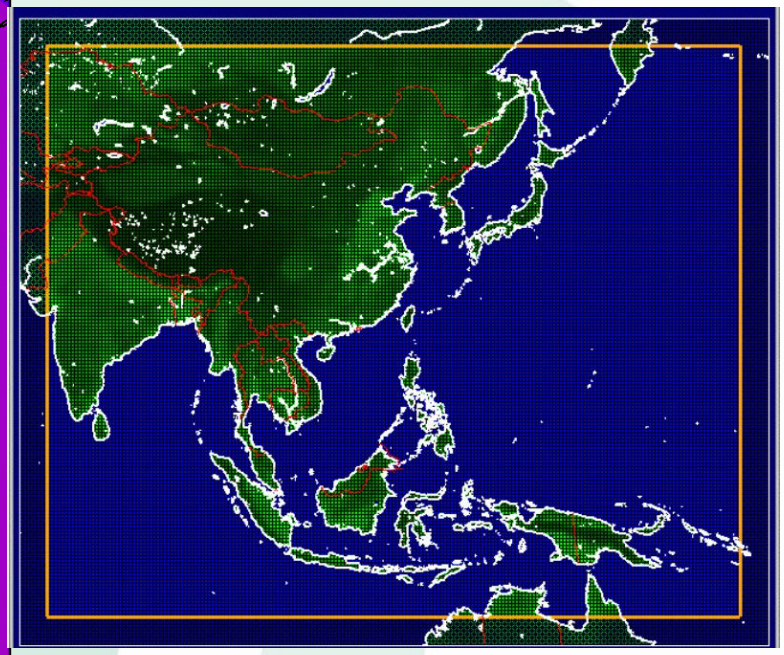

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Objective 2: Risk Assessments

Comprehensive impact and risk assessments at national and provincial level, including:

- Improved impact assessments on water and agriculture
- Relationship between climate and healthy better understood
- Detailed vulnerability assessments in three provinces

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Project Target Areas

National
Reform

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Objective 2: Risk Assessments

- Whole China
- 3 Provinces: Inner Mongolia, Ningxia, Guangdong
- Inner Mongolia: water resources, pasture, extremes-hot temperature, drought
- Ningxia: in-depth adaptation for agriculture, interaction with water
- Guangdong: sea level rise, extremes (storm surge), human health

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Objective 3: Adaptation Planning

- Climate risks integrated into planning and management within the three project provinces, and informing national level processes.
  - **Adaptation frameworks incorporated into planning**
  - **New financial and social mechanisms under consideration**

- What's new: from provincial adaptation practice to national adaptation mainstreaming
- Specifically how to do, NOT JUST PRINCIPLES!

Objective 4: Capacity Building

- Increased awareness and capacity among Chinese policymakers and other key stakeholders to address climate change adaptation within China's development process;
- **Communication, training, institutional development, including:**
  - **Formal training courses**
  - **Wide variety of communication materials**

Objective 5: Knowledge Sharing

- Knowledge sharing between China, UK, and other countries in Asia and Africa, to further develop climate change adaptation.
  - **Project approaches informing international adaptation efforts**
  - **Project informs other adaptation programmes in Asia, and emerging Chinese and UK Climate Change Centres**

What is New for Physical Assessment?

- Relationship of CC-disaster
- Relationship of CC-crop/grassland adjustments
- Assessing the effects of the adopted adaptive measures
- Interactions among agriculture, grassland-livestock, and water resources
- Vulnerability & risk assessments (indicators)
- Extremes impacts assessments
- Two typical regions for case study
- Checklist of adaptation techniques
- .....

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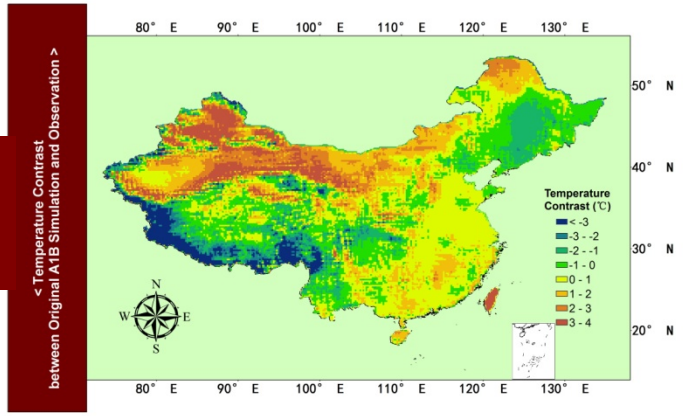
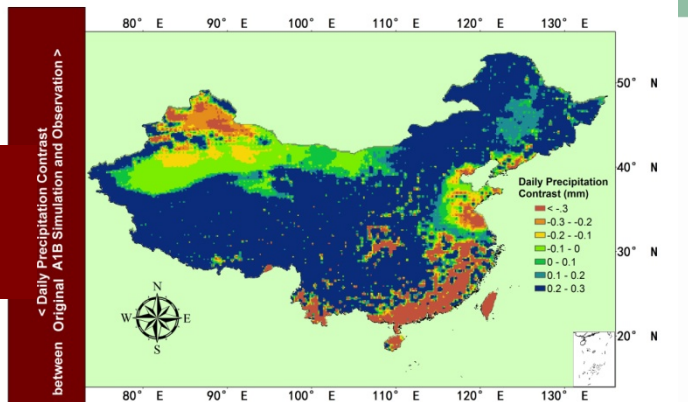
两种订正方法的比较:
原始值、平均态订正值与统计订正值与实况的偏差

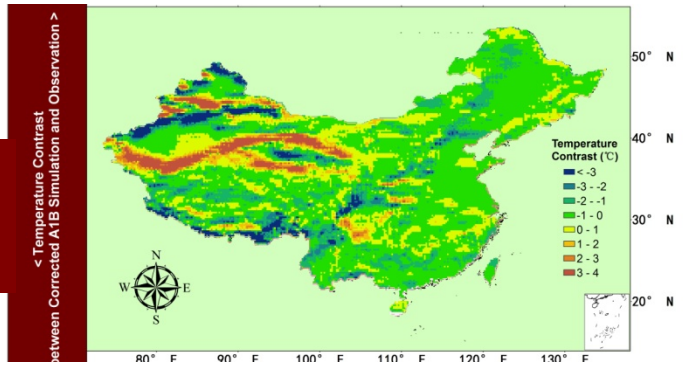
Temperature Original Output



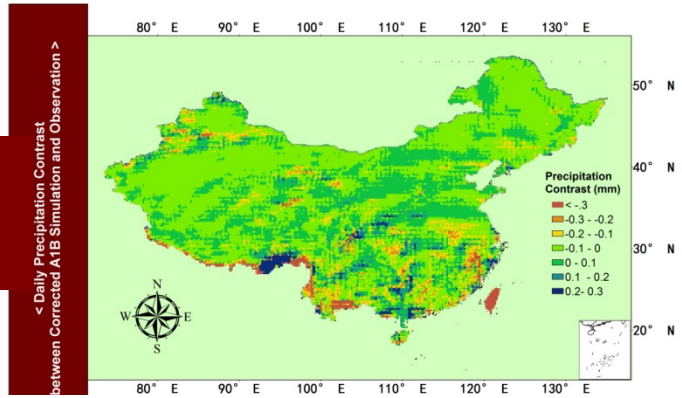
Precipitation Original Output



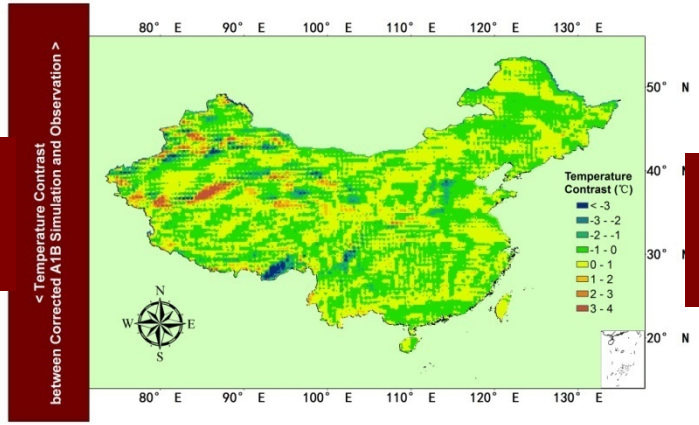
Temperature Mean Correction



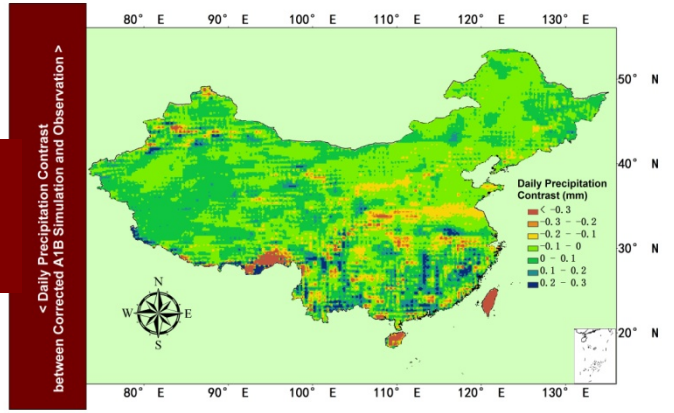
Precipitation Mean Correction



Temperature Statistical Correction



Precipitation Statistical Correction



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谢谢！

Thank You !

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