



2014 Updates of IRDR CHINA

Dr. Qiang Feng

June 11, 2014

Beijing

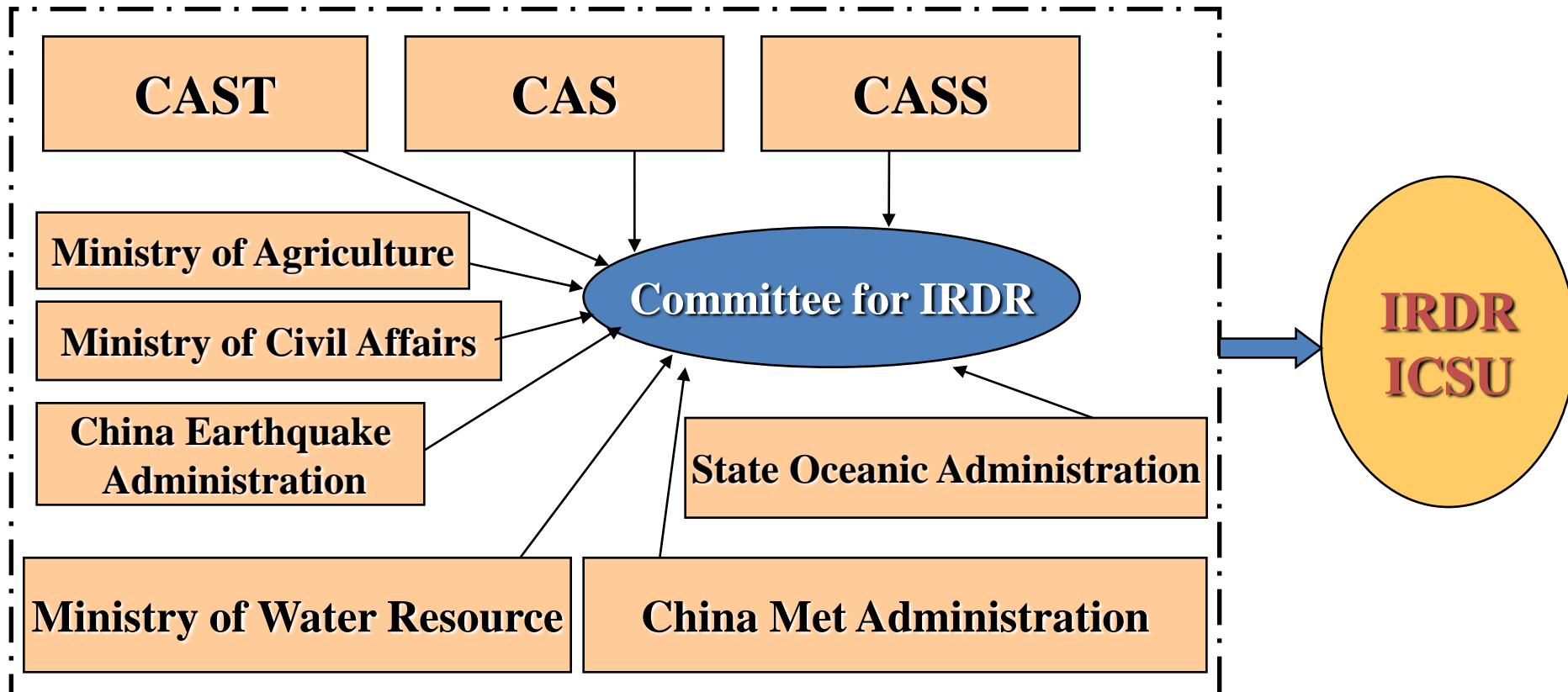


Functions of Disaster Risk Research and Mitigation

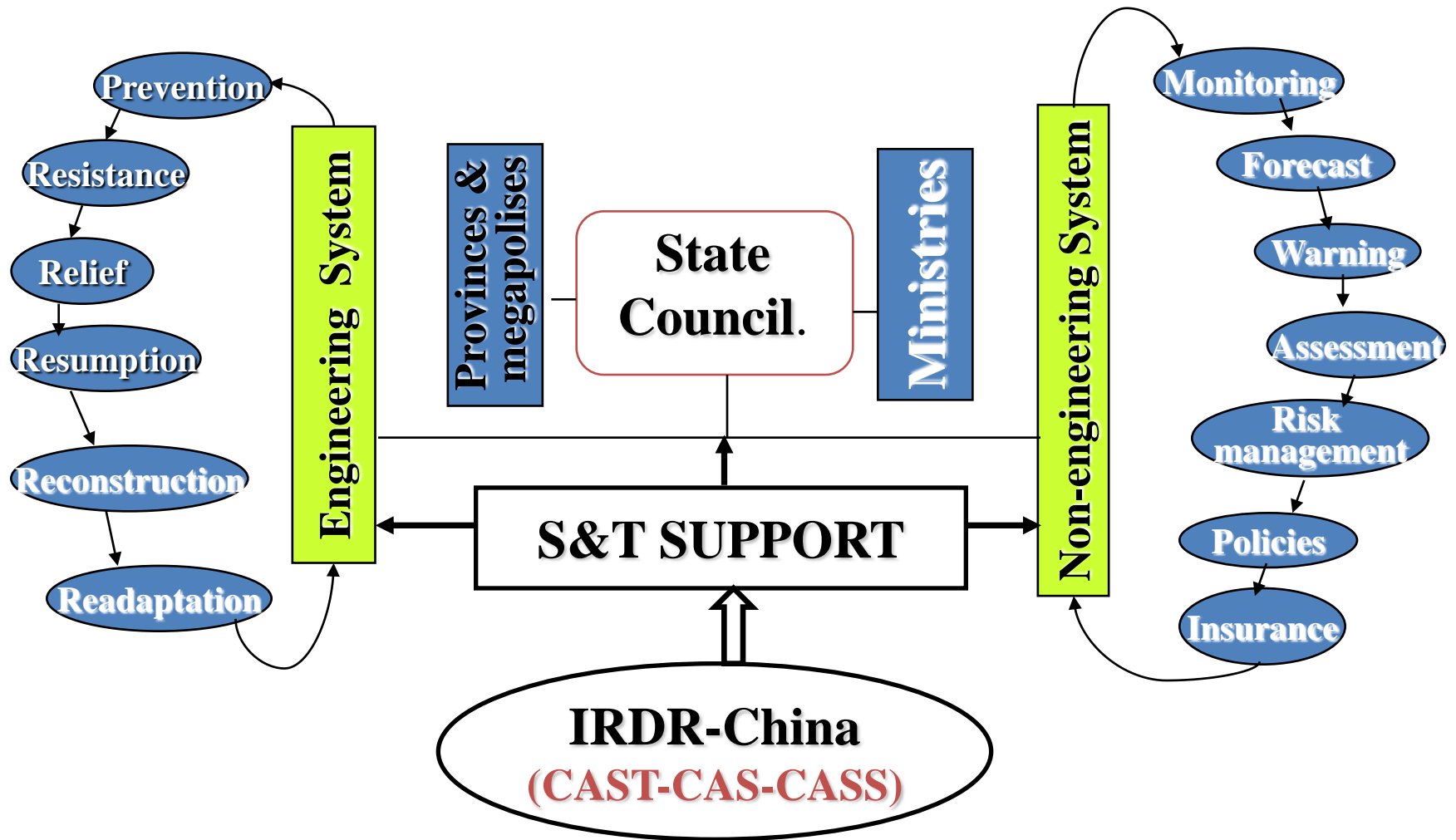


Solution of IRDR in China

*A committee named **IRDR CHINA** has been established as a response to IRDR ICSU to facilitate national, regional and international cooperation tasks in natural disaster mitigation.*



The Role of IRDR-China in the National System of Disaster Governance



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Progress of IRDR CHINA Projects

IRDR CHINA launched 6 programs on IRDR since October, 2012, including initiatives of Forensic Disaster Investigations in China (**FORIN-CHINA**) (4 programs), Disaster Loss Data in China (**DATA-CHINA**) (1 program) and The Impact of Natural Disasters in China (**IND-CHINA**) (1 program). Among the IRDR CHINA programs, 2 are specially supported young scientists. All the programs involve in social scientists and natural scientists.

Progress has been made and annual research reports collected.

IRDR CHINA supports 6 Projects

Project 1: FORIN Case Study of Seasonal Drought of Southwestern China under the Conditions of Climate Change—Yunnan Province Chosen as Case Study

Expert in charge: Prof. XU Yinlong

(Institute of Environment and Sustainable Development in Agriculture (CAAS))

Project 2: Study on Data Management Model for Historical Disaster Loss Data: Flood as Showcase

Expert in Charge: Prof. LI Guoqing

(Center for Earth Observation and Digital Earth, Chinese Academy of Sciences)

Project 3: Urban Disaster-Resistance Capability and Risk Assessment —Wenchuan Earthquake as Case Study

Expert in Charge: WANG Dongming

(China Earthquake Disaster Prevention Center)

Project 4: Study on the internal relationship between Global Change and Natural Disaster Risk Variation in China

Expert in Charge: FENG Qiang

(Center for Earth Observation and Digital Earth, Chinese Academy of Sciences)

Project 5: Study on Management Mechanisms of Community-Based Mountain Hazards Risk

Expert in Charge: CHEN Rong

(Institute of Mountain Hazards and Environment, CAS)

Project 6: Climate Change, Drought and Population Migration: Dynamic Mechanism and Risk Assessment

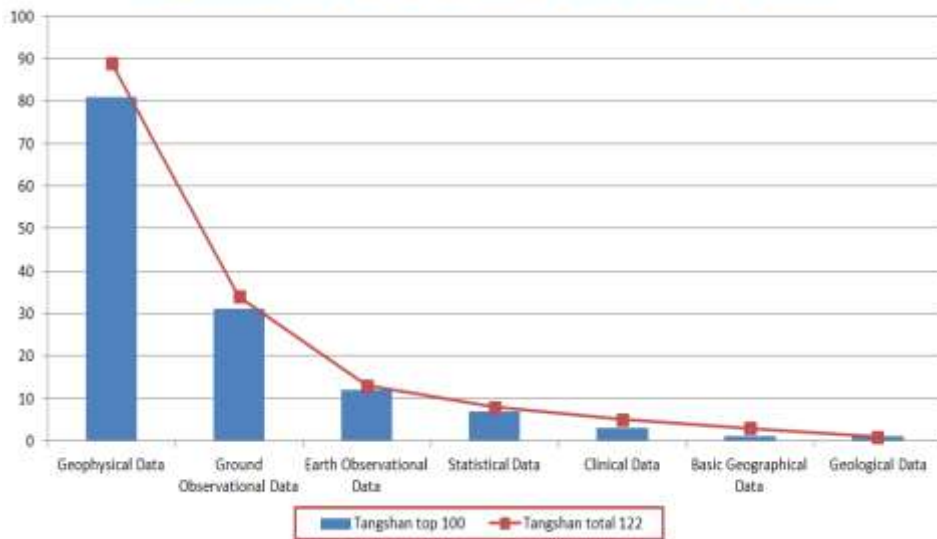
Expert in Charge: ZHENG Yan

(Institute for Urban and Environmental Development Studies, Chinese Academy of Social Sciences)

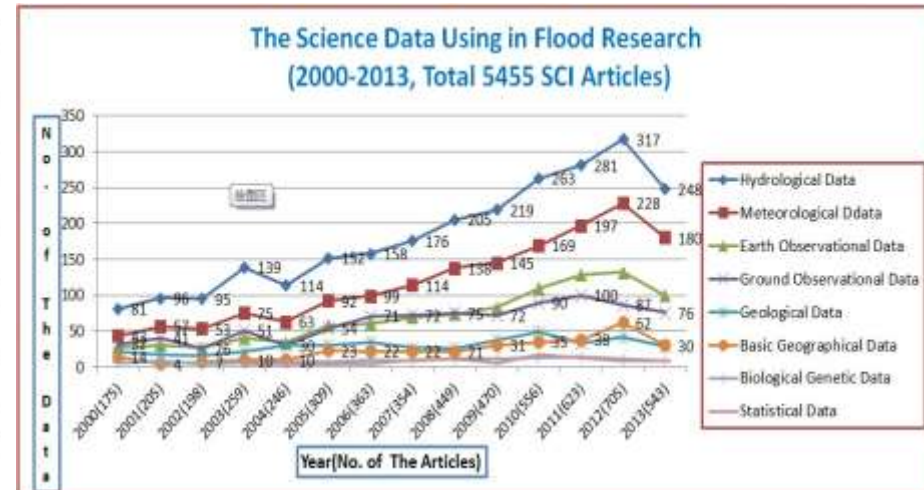
Study on Data Management Model for Historical Disaster Loss Data-----flood as showcase

- ❑ Taxonomy of natural disasters for data management ;
- ❑ The correlation analysis between scientific data and natural disaster event;
- ❑ A technical prototype platform for disaster loss data share

The Science Data Using in The Tangshan Earthquake Research



The Science Data Using in Flood Research (2000-2013, Total 5455 SCI Articles)



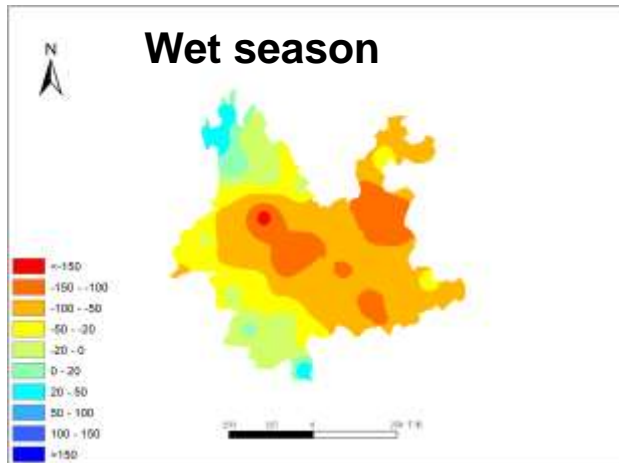
Drought FORIN Project

➤ Drought in Yunnan province from 2009 to 2013

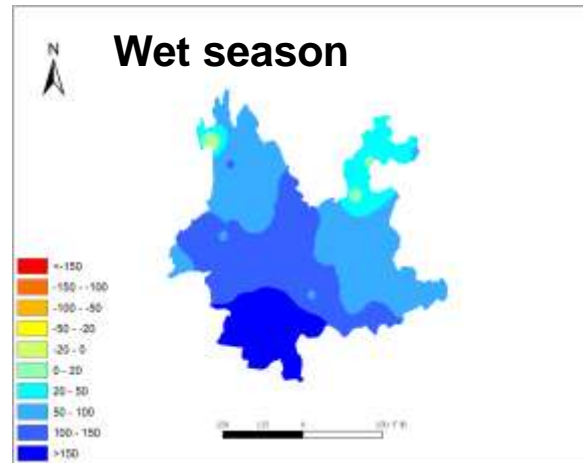
- Questionnaire and expert consultancy
- Field investigation
- Historic data analysis



Field investigation



2009~2013 precipitation Anomaly

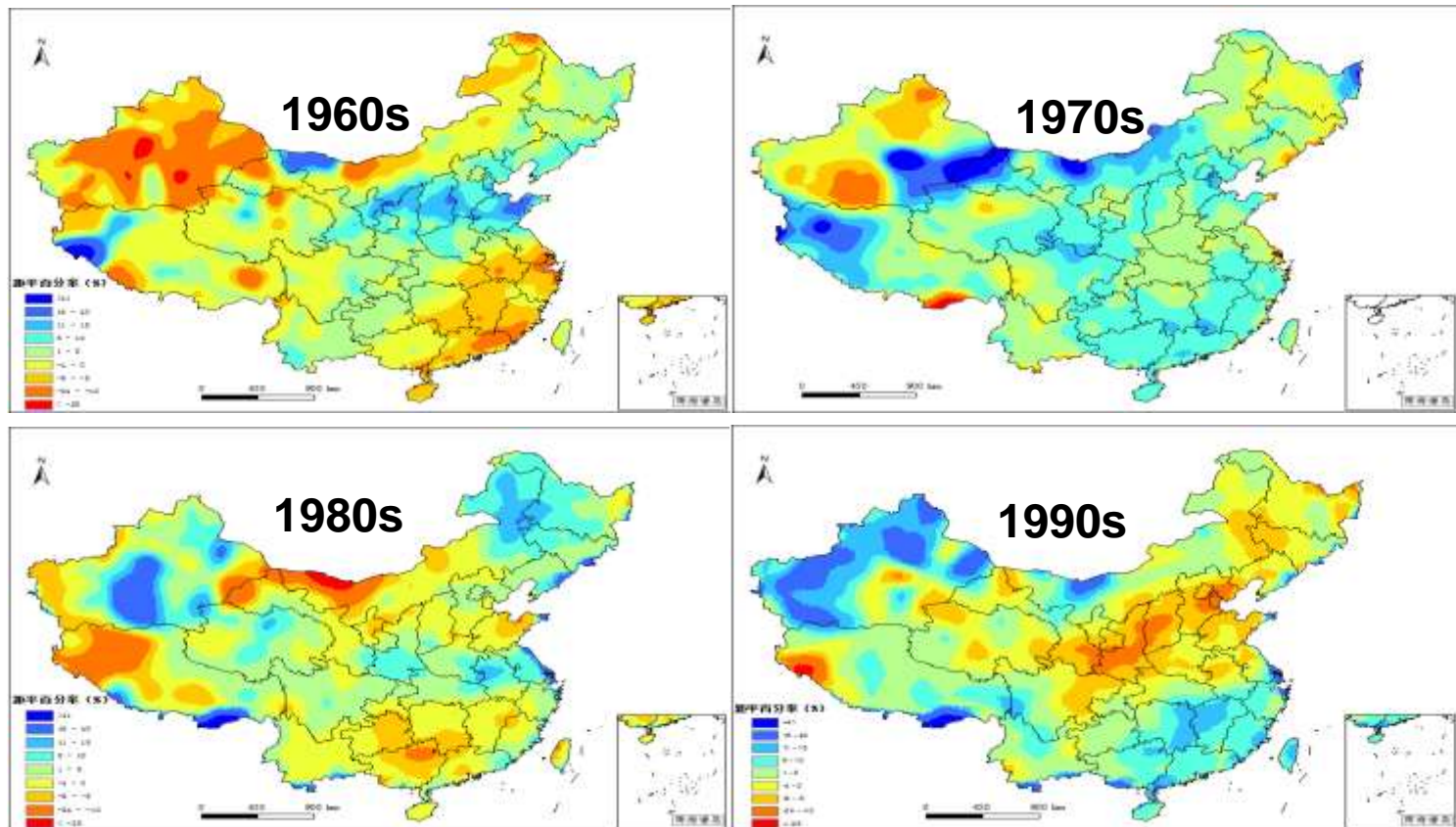


1994-1999 precipitation Anomaly

Project IND-CHINA: Drought Variation

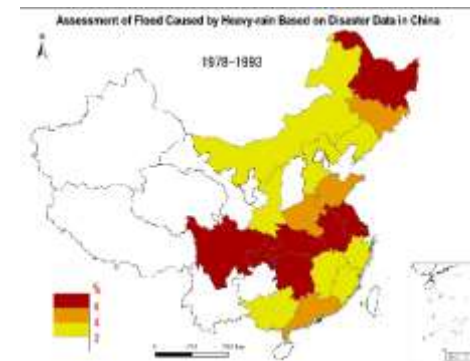
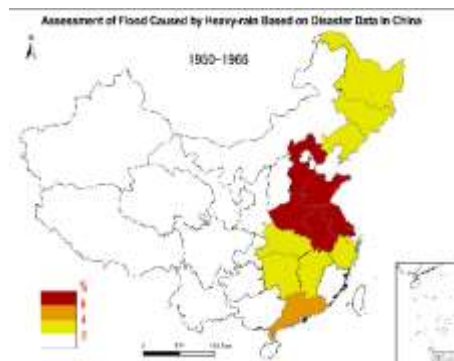
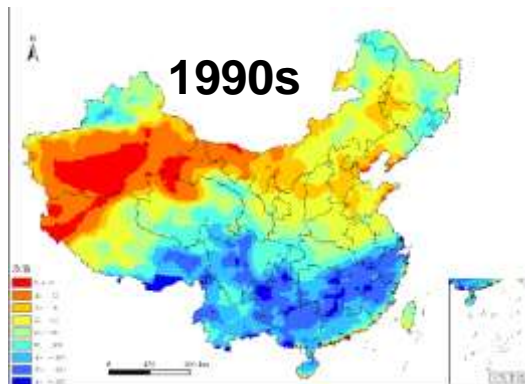
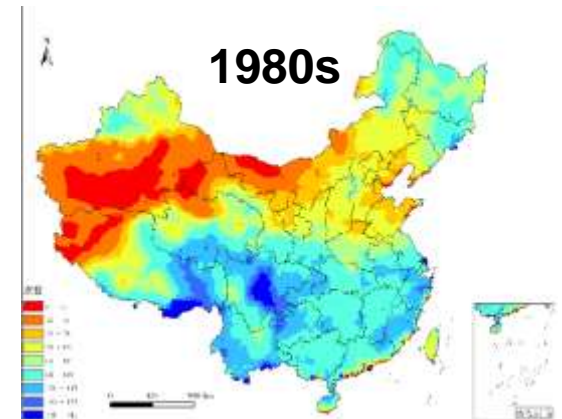
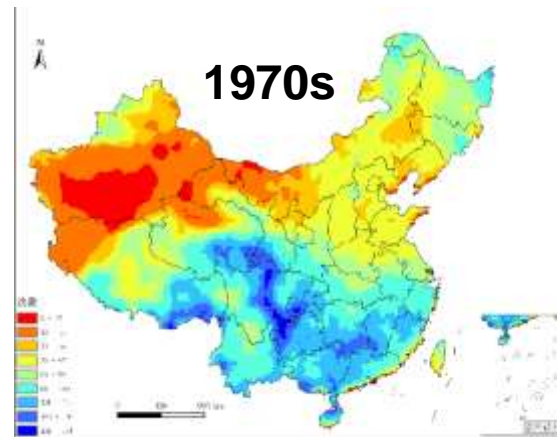
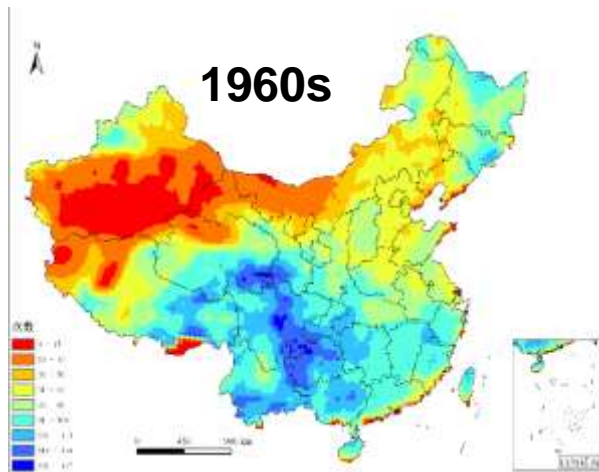
Precipitation Anomaly

中国干旱趋势的年代际变化（1960年代到1990年代）



Project IND-CHINA: Flood Variation

- Extreme precipitation days Variation in decades



Conferences and Cooperation

- **IRDR Conference 2014**
- **IRDR Session of MAIRS Open Science Meeting, 7-10 April 2014**
- **SDIM international training Workshop, June 2014(18 countries, >20 trainees)**



Conferences and Cooperation

- Beijing Office of Pan-Eurasian Experiment (PEEX) launched, 19 MAY 2014;
- World landslide Forum 3, June 3-6, 2014
- Workshop on Big Data for International Scientific Programs: Challenges and Opportunities 8-9, June 2014
- The 5th National Forum on Comprehensive Disaster Reduction and Sustainable Development, May 8, 2014



Progress of National Key Projects and Practice in DRR in China

- National Key Project "The Vulnerability Model in High Intensity Zone and Risk Assessment of Huge Earthquake"
 - VA on Engineering Structure of lifeline systems
 - VA of life in intensive earthquake zone and disaster impact
 - Risk assessment model of buildings in demonstration area affected by earthquake
 - The impact factors analysis of intensive earthquake
 - Disaster Simulation of intensive earthquake

National Key Projects and Practice in DRR in China

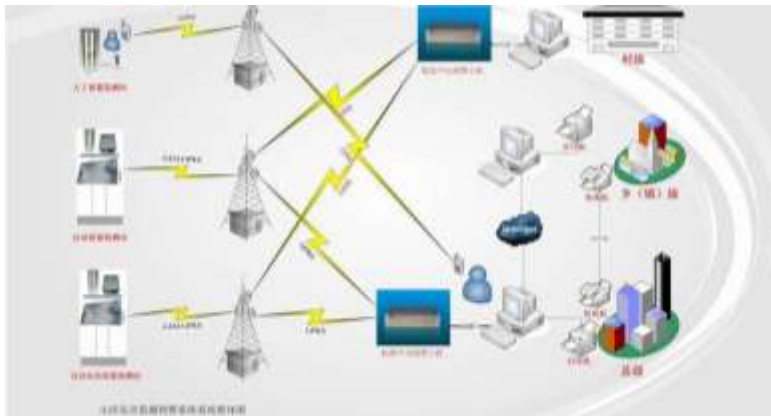
□ Geohazard survey and monitoring in China

Ministry of Land and Resource and China Geological Survey (CGS)

- 2005-2013, geohazards investigation and hazard assessment of 655 counties has been finished;
- Since 2013, CGS started to arrange watershed geohazard mapping and risk assessment which emphasizing geohazard mapping at 1:50000~1:10000 map sheet and investigation of geological conditions and triggering factors as well.

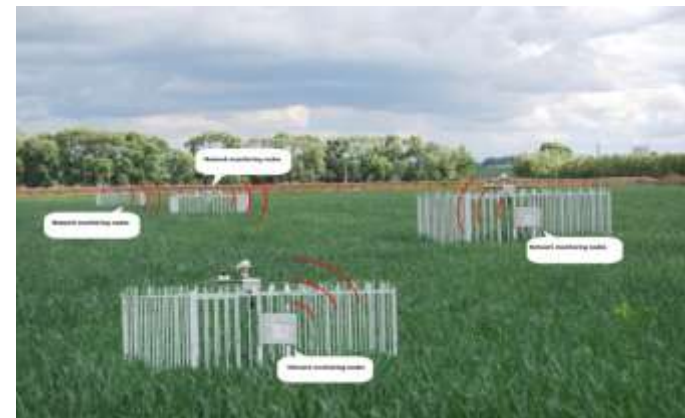
National Key Projects and Practice in DRR in China

The Mountainous Flooding Disaster Prevention and Mitigation (practical warning system)



National Key Projects and Practice in DRR in China

The Internet of Things Technology (IOT) in Agricultural Environments and Disasters Monitoring



Further Steps

- **Shift of IRDR CHINA, increase members**
- **Networking the research of IRDR in China**
- **Workshops and meetings**
- **International Cooperation Activities**



***Thanks for Your
Attention***

谢谢!