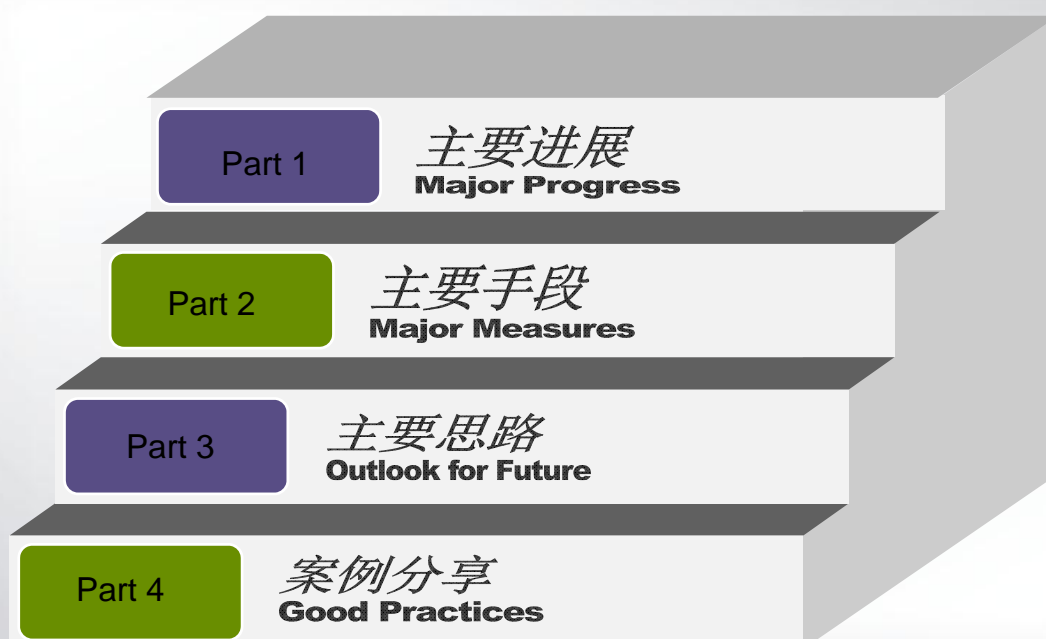


# Development of Scientific Decision Supports for Emergency Preparedness of Natural Disasters in China

Mr. Li Qun, Office of China National Commission for Disaster Reduction,  
Department of Disaster Relief of the Ministry of Civil Affairs

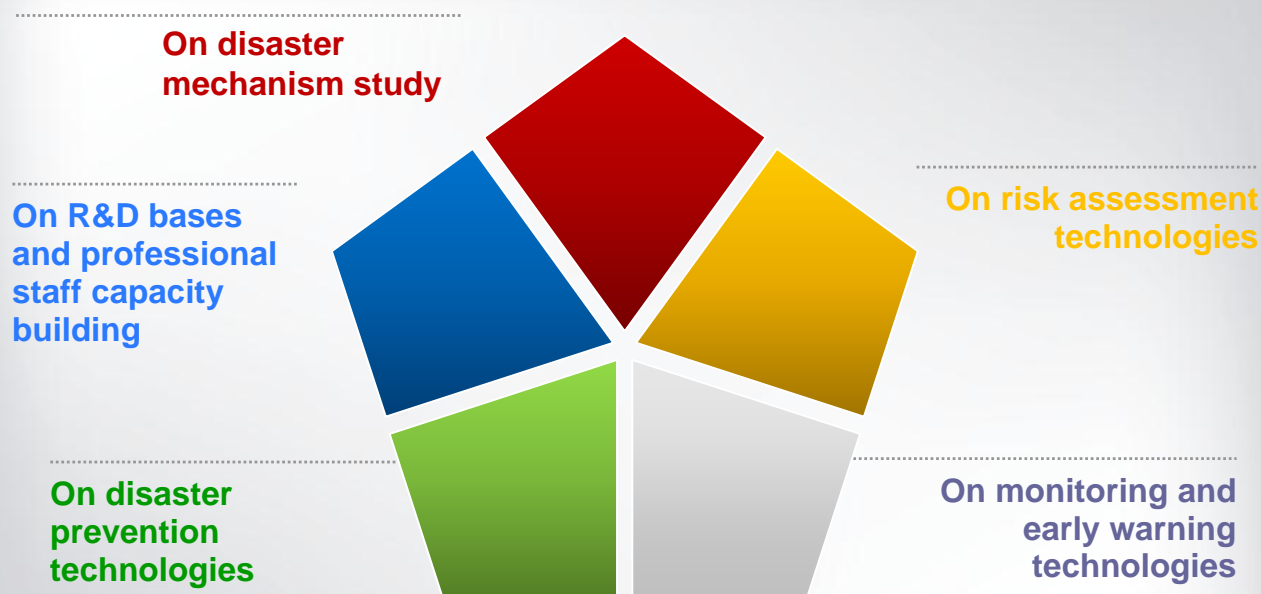


## Scientific Decision Supports for Emergency Preparedness of Natural Disasters in China





Major Progress in Science and Technology Supported Disaster Preparedness



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disaster mechanism study

achievements

- deepen knowledge of the mechanism for the birth and outbreak of major natural disasters
- expand technological methods for predicting, forecasting, monitoring and early warning
- provide solid theoretical guidance for the study of application technologies in disaster prevention and reduction

- Comprehensive assessment and technological study of risk grades of major natural disasters in China



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## risk assessment technologies

### achievements

- flood risk maps
- seismic intensity zoning map
- indicator system for early identification
- demonstration system for comprehensive risks of catastrophic disasters in Asia

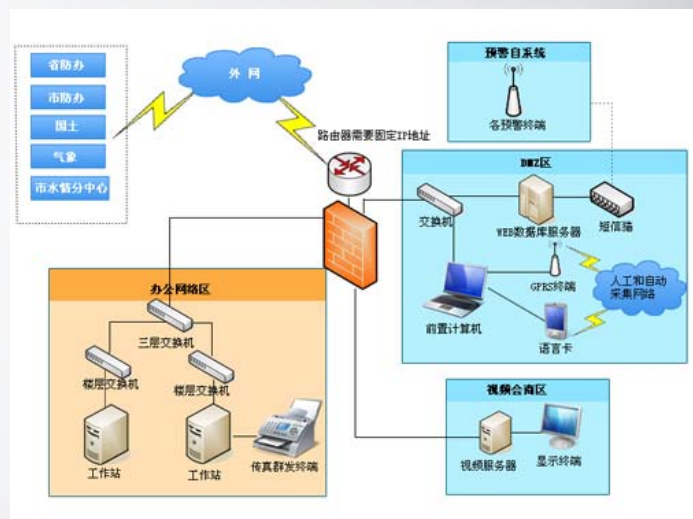
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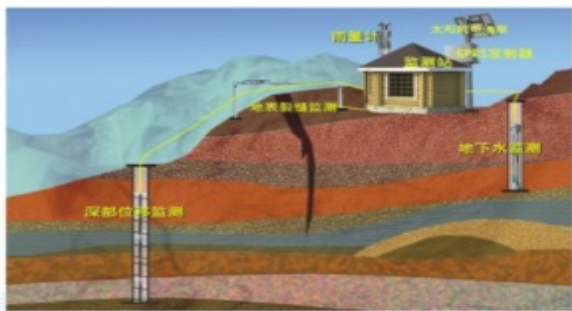
## monitoring and early warning technologies

### achievements

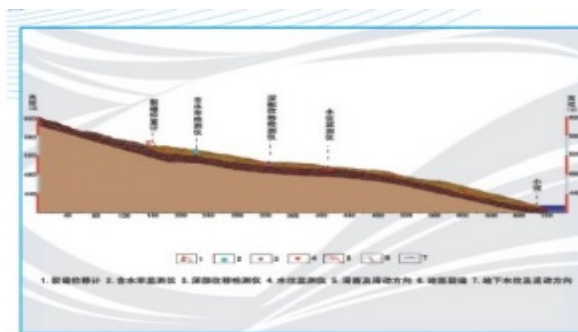
- a stereoscopic monitoring system
- ground monitoring,
- marine observation
- air-space-ground observation
- the earthquake early warning and seismic intensity quick report system



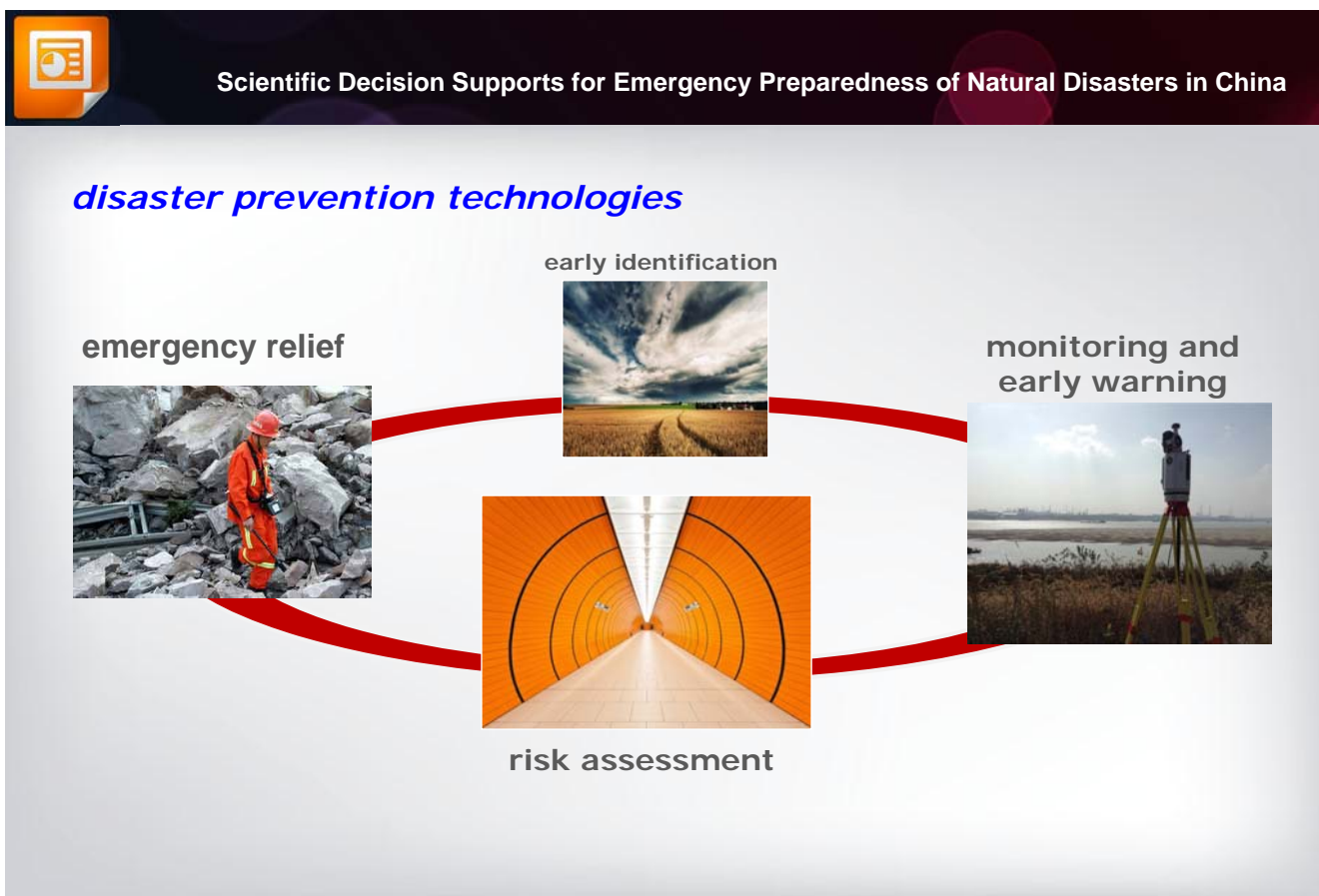
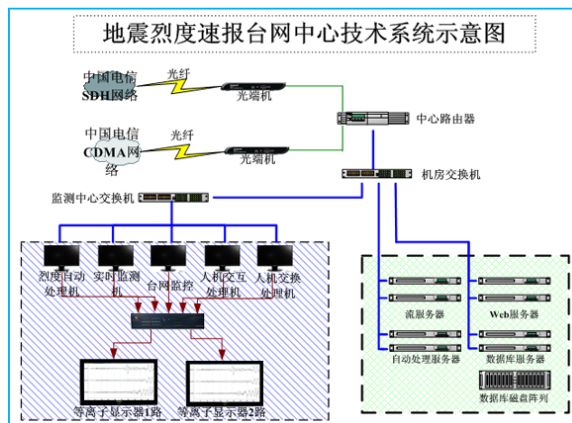
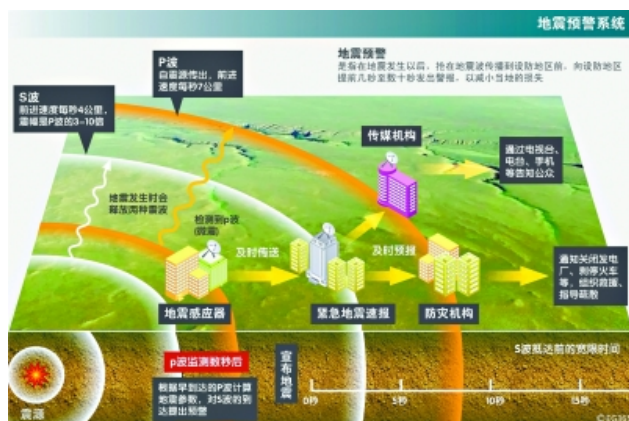
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地质灾害监测系统示意图



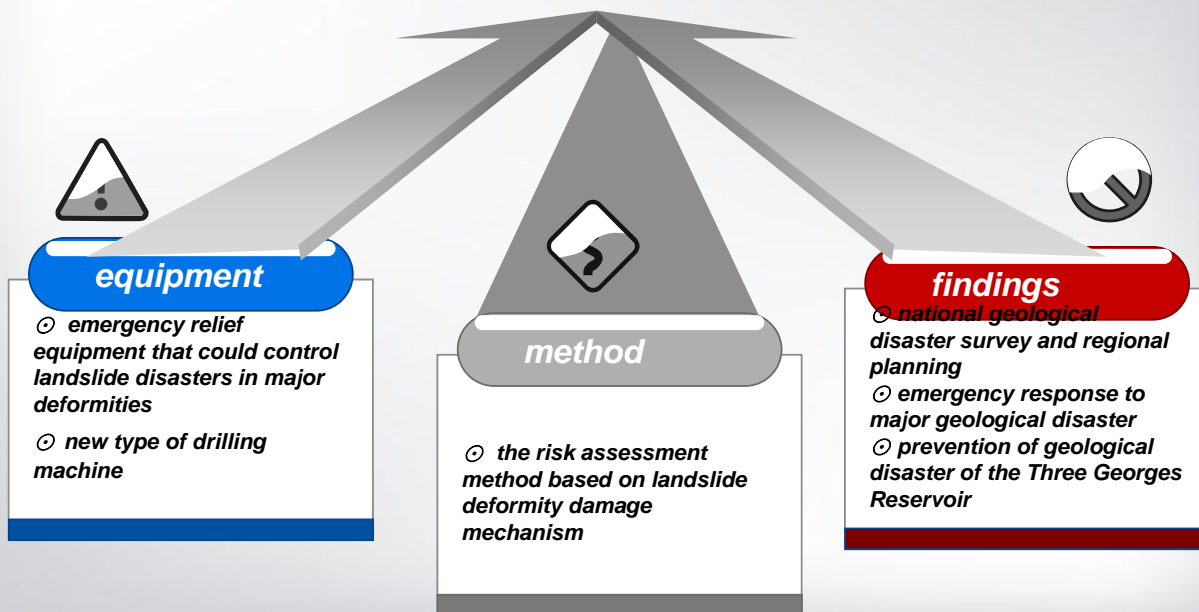
检测仪安装示意图







## disaster prevention technologies



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## R&D bases and professional staff capacity building



*national key laboratories*



*national engineering technology research centers*

**5**

01. disaster weathers  
02. geological disaster prevention & geological environmental conservation

**3**




01. national disaster relief and emergency oil, water and power supply and emergency repair equipment engineering technology research center

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## Scientific Decision Supports for Emergency Preparedness of Natural Disasters in China



-  ***Formulating strategic plans for disaster reduction***
-  ***Strengthening comprehensive resource coordination***
-  ***Improving publicity and education***

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## Scientific Decision Supports for Emergency Preparedness of Natural Disasters in China

<the Special Plan for Science and Technology Development of Disaster Prevention and Reduction in China during the 13th Five Year Plan Period>

<Outline of the National Mid-to-Long-Term Development Plan for Science and Technology (2006-2020)>



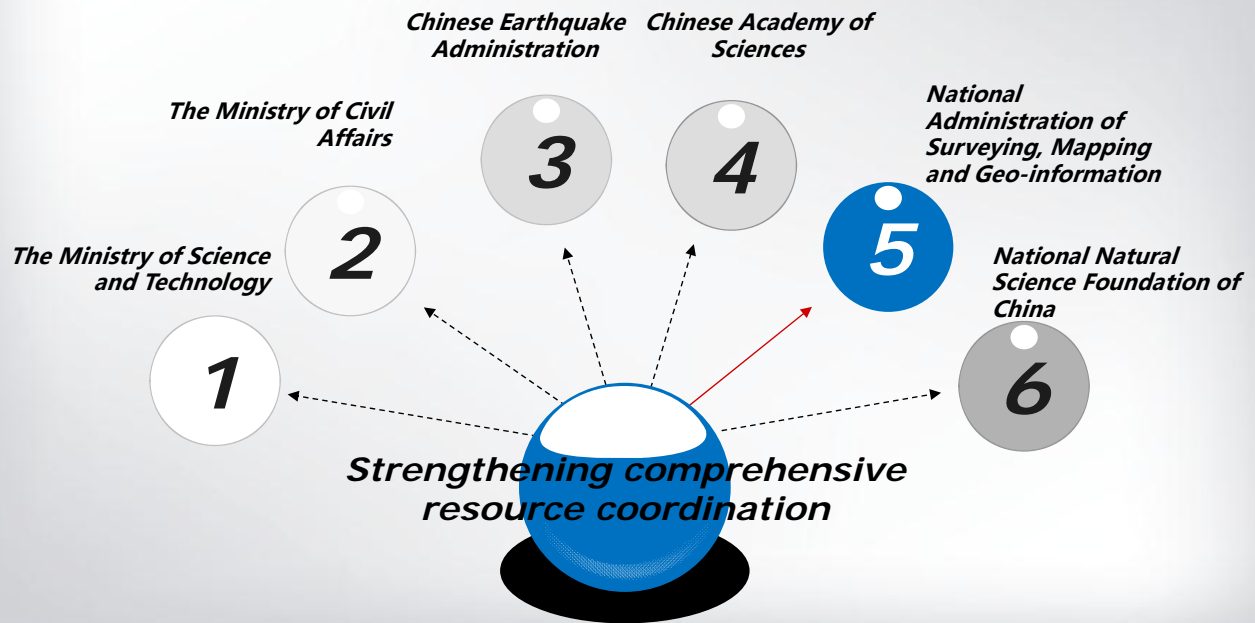
<the National Plan of Comprehensive Disaster Prevention and Reduction (2016-2020)>

<the National Development Plan of Science and Technology during the 13th Five Year Plan Period>

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## Scientific Decision Supports for Emergency Preparedness of Natural Disasters in China



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## Scientific Decision Supports for Emergency Preparedness of Natural Disasters in China

### Improving publicity and education

#### the theme

science supported disaster reduction,  
law-oriented disaster response



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## Outlook for Future

1

Strengthening organization and leadership, make joint efforts to promote science and technology work in disaster prevention and reduction.

2

Increasing science and technology input and establish resource input mechanism through multiple channels.

3

Consolidating science and technology resources and make overall plan to support science and technology work in disaster prevention and reduction.

4

Strengthening discipline construction and promote popularization of scientific and technological knowledge on disaster prevention and reduction.

5

Strengthening international cooperation and draw upon advanced concept and technologies on disaster prevention and reduction.

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## *Mountain Torrents Prevention and Control Program*



### Background Information

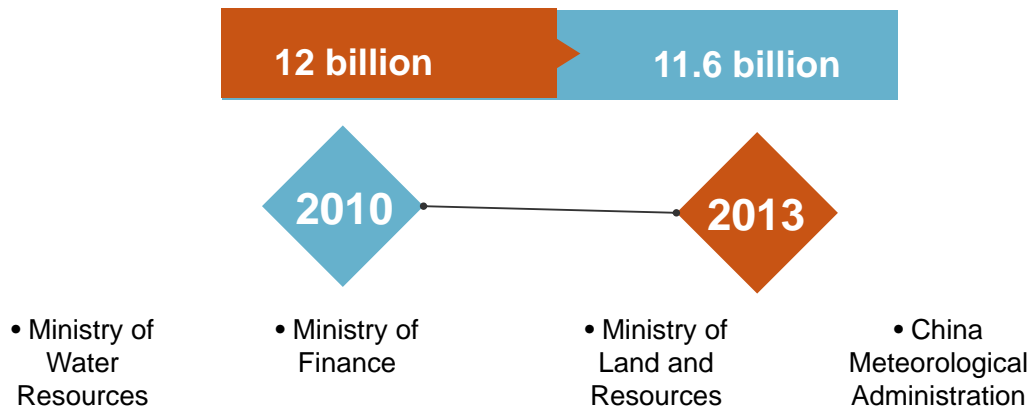
- Mountain torrent is one of the major natural disasters in China that cause damages to lives and properties. In China, the key control area of mountain torrents covers **1.1 million** square kms; and the affected population is **150 million**.

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## The County-level Non-structural Measure of Mountain Torrents Prevention and Control Program



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short message  
alert service



geographic  
information  
positioning  
system



automatic  
monitoring



cyber data  
transmission



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## Scientific Decision Supports for Emergency Preparedness of Natural Disasters in China

**monitoring and  
early-warning  
platforms**

205  
8

52  
K

**automatic monitoring  
stations**

200  
K

**trainings and drills**

5.3  
M

**simple monitoring stations**

**information cards**

51M

1M

**alarm facilities**

**warning signs and  
billboards**

600  
k

260  
K

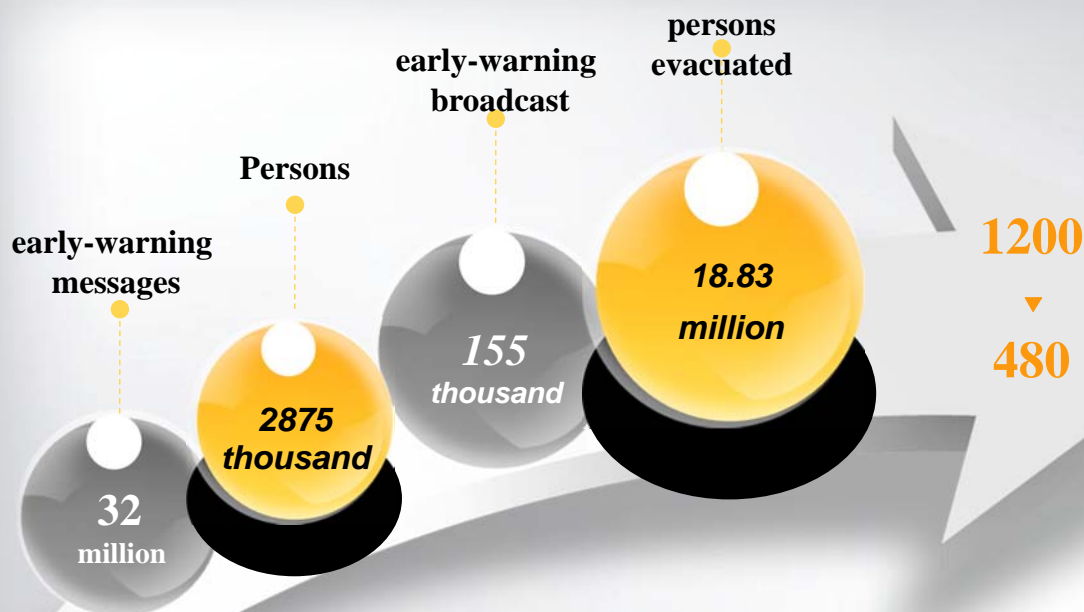
**disaster prevention plans**

**Progress  
&Achievement  
s**

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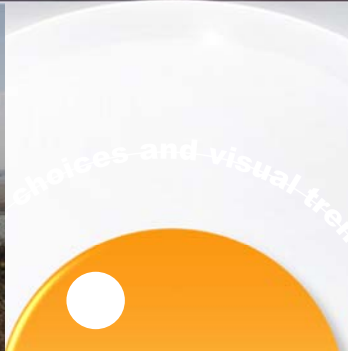
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## Scientific Decision Supports for Emergency Preparedness of Natural Disasters in China



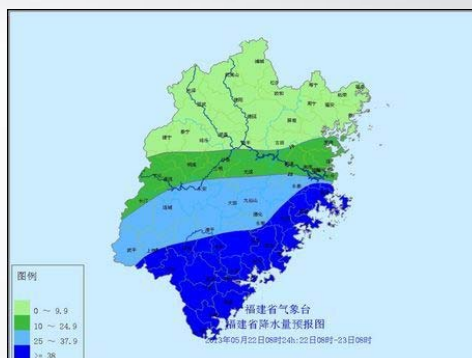
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## Scientific Decision Supports for Emergency Preparedness of Natural Disasters in China

### Case of Application

### Fujian Province



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# THANK YOU!

E-mail: [liqun@mca.gov.cn](mailto:liqun@mca.gov.cn)