

The Application of Multi-model Risk Assessment in Natural Disaster Risk Trend Analysis



I. Technical Guideline of Integrated Risk Monitoring and Early Warning



General guidelines of integrated risk monitoring and early warning

Integrated risk monitoring and early warning

Carry out a three-dimensional, dynamic monitoring, risk assessment analysis and early warning in an all-round way, covering the whole processes in the development and changes of various disaster-exposing and disaster-inducing factors of multiple disaster types, disaster chains and disaster systems

Hazard

- Natural phenomenon



Disaster

- Natural disaster



I. Technical Guideline of Integrated Risk Monitoring and Early Warning

National-level risk monitoring and early warning—risk monitoring

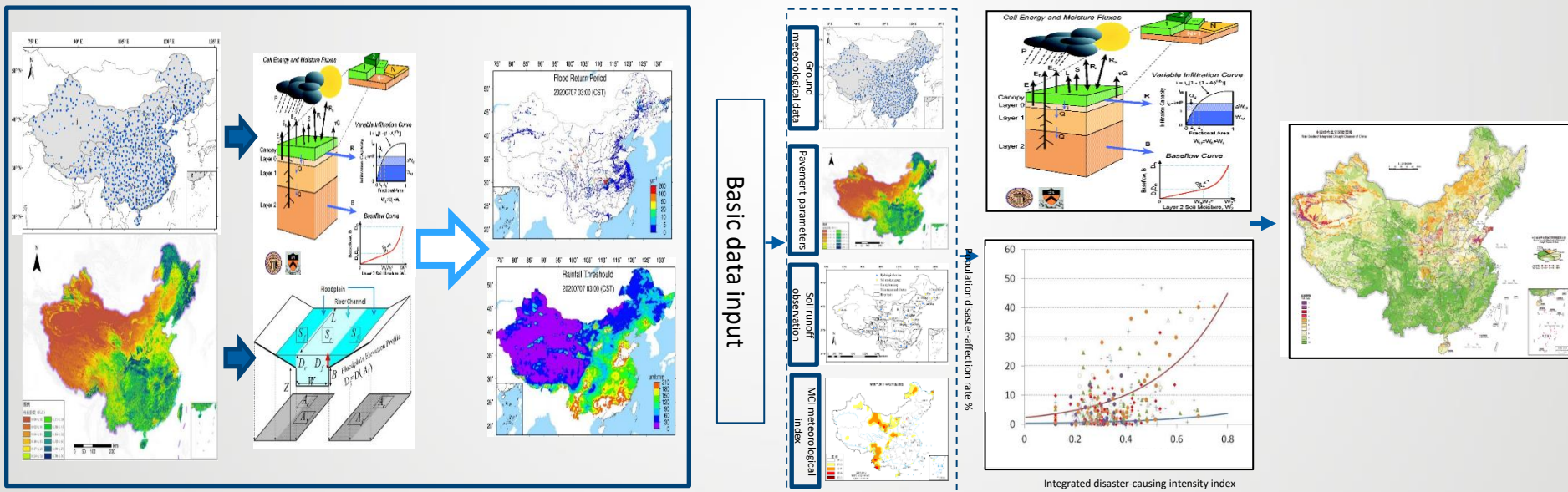
Build a "Space–
Air–Ground–Site"
integrated
monitoring system



I. Technical Guideline of Integrated Risk Monitoring and Early Warning

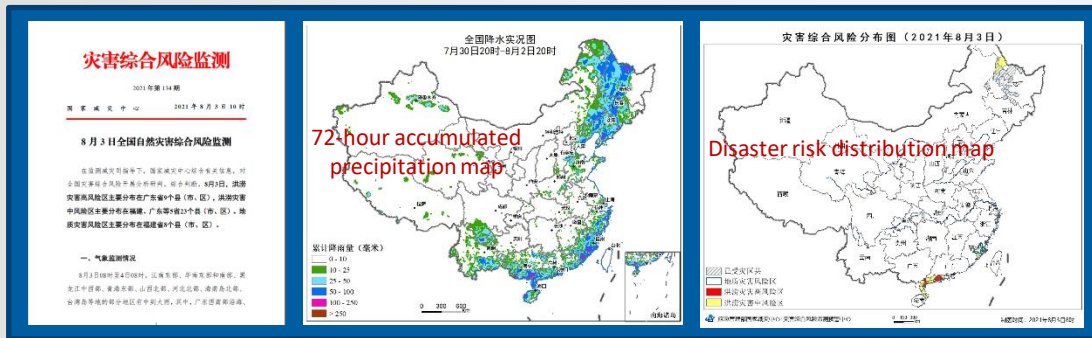
National risk monitoring and early warning—risk assessment and analysis

Multi-model risk assessment and analysis tools, such as big data analysis, simulation calculation and risk prediction

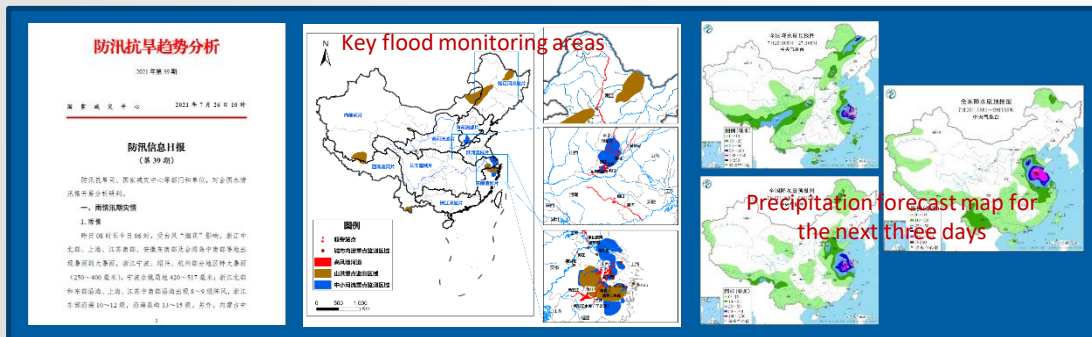


II. Risk Monitoring and Early Warning Products

➤ Daily Risk Monitoring Analysis (flood + geological disaster)



➤ Flood and Drought Analysis



➤ Typhoon Risk Monitoring Analysis



II. Daily Risk Monitoring Analysis Report

KEY ELEMENTS

- I. Meteorological information
- II. Disaster risk assessment
 - Flood
 - Geological disaster
- III. Precautionary advice

Hazard + Environment + Exposure + Vulnerability



Vulnerability model

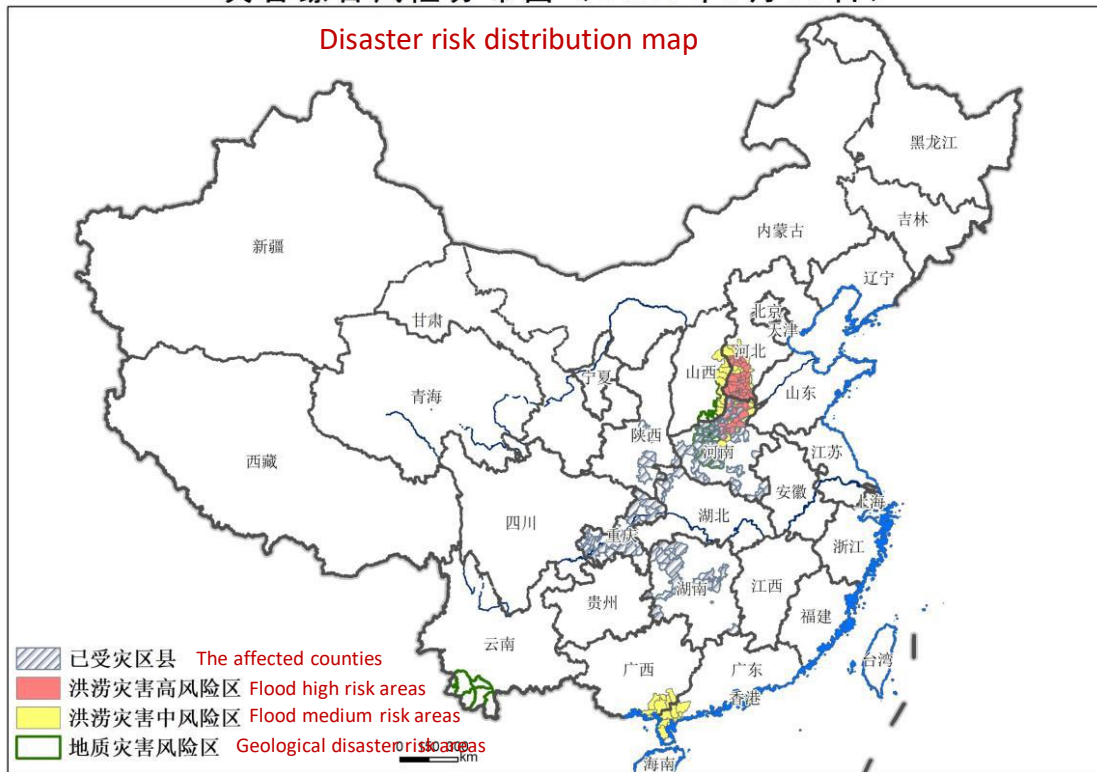
Dynamic critical rainfall



Flood risk area

灾害综合风险分布图（2021年7月21日）

Disaster risk distribution map



II. Flood and Drought Analysis Report

KEY ELEMENTS

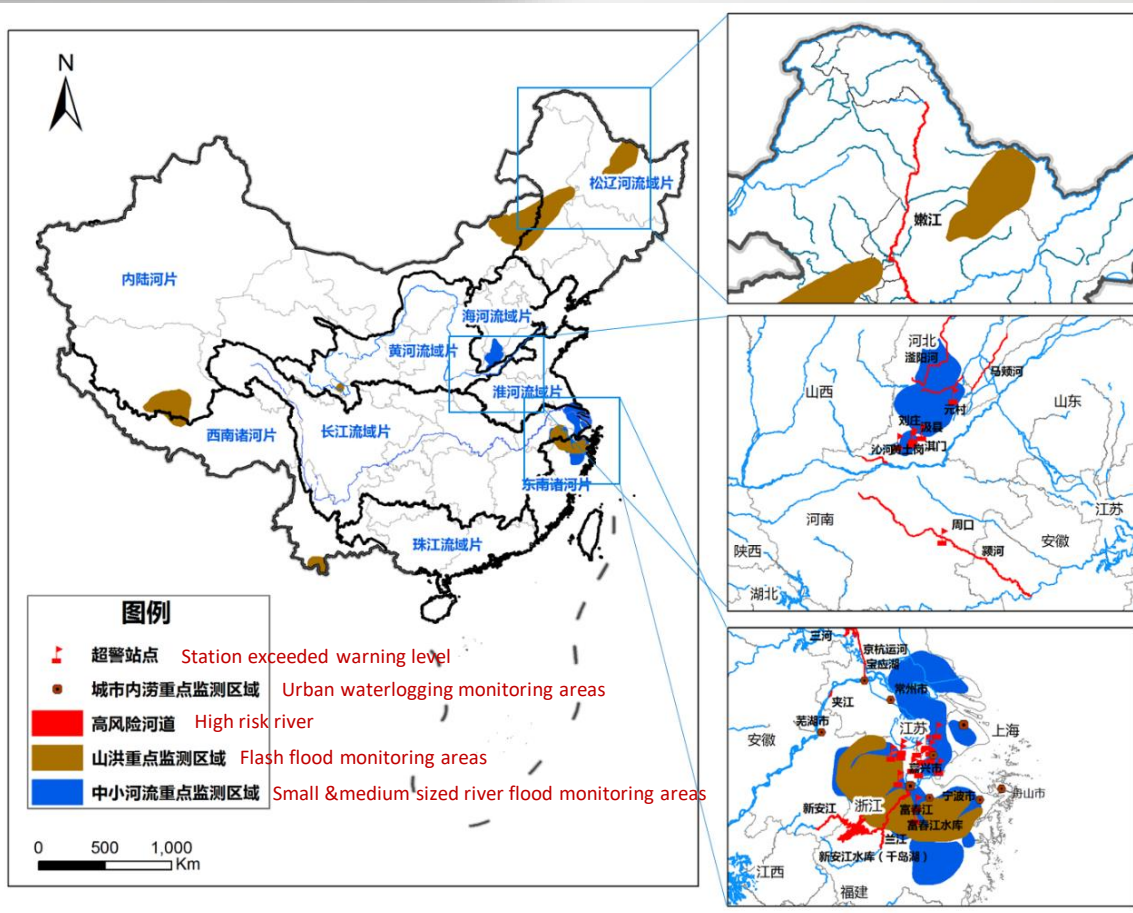
I. Precipitation, water levels, and the condition of flood

II. Forecast and predication
-Future rainfall
-Water forecast and risk analysis

III. Remote sensing monitoring
-Satellite remote sensing monitoring
-Aerial remote sensing monitoring

IV. Focused attention

V. Recommendations



➤ II. Typhoon Risk Monitoring Analysis Report

KEY ELEMENTS

I. Typhoon information

II. Risk monitoring analysis

- Rainfall monitoring analysis
- Wind monitoring analysis
- Storm surge monitoring analysis
- Ocean waves monitoring analysis
- Typhoon risk analysis

III. Historically similar typhoon

IV. Recommendations



Thank you...