

Capacity Building of DRR in China

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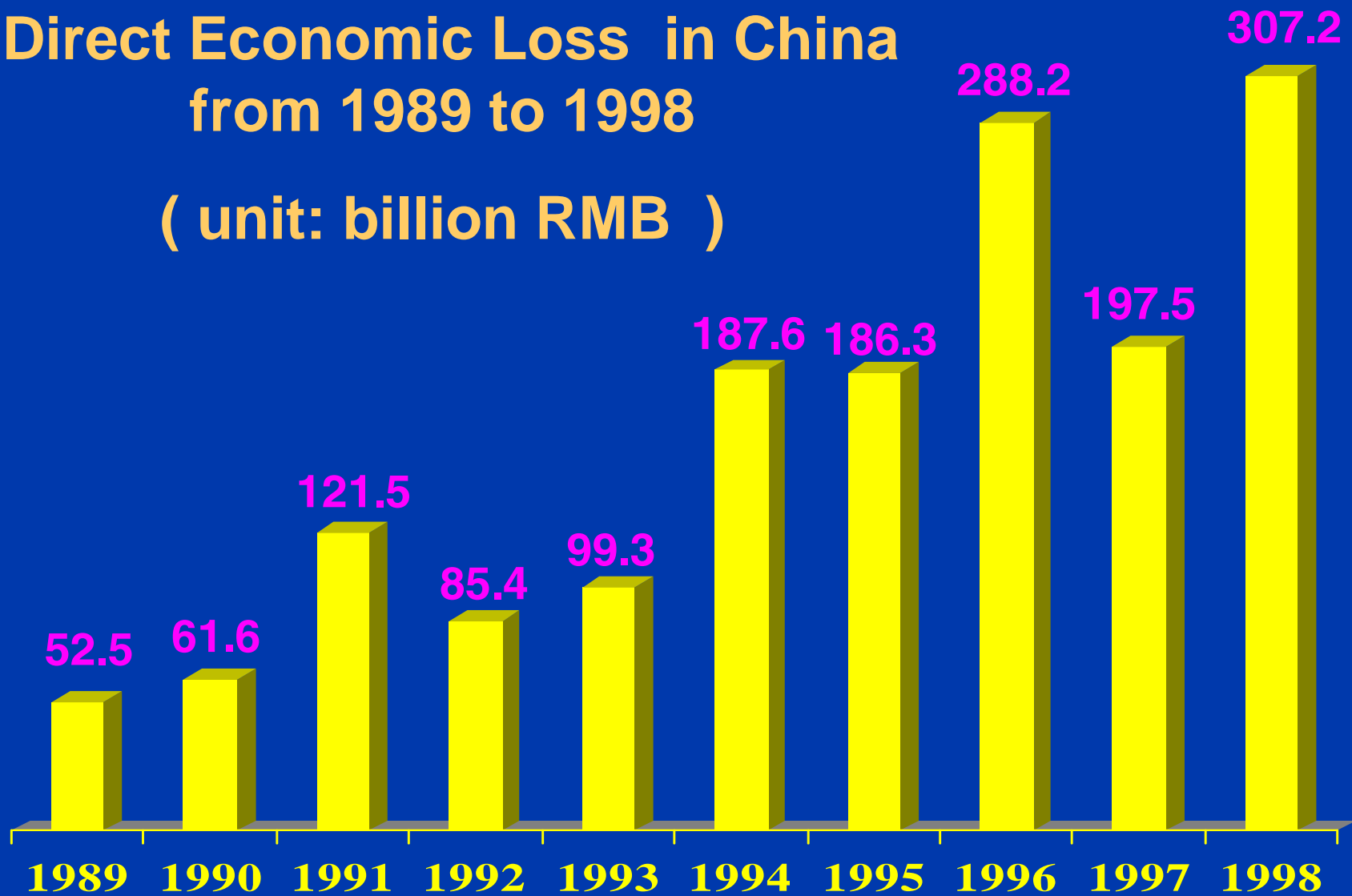
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**Building a Local Government Alliance for Disaster Risk Reduction
and Expert Group Meeting on ICT for Disaster Risk Reduction,
11-13 August 2009,
Incheon, Republic of KOREA**



Direct Economic Loss in China from 1989 to 1998

(unit: billion RMB)



Trend to Increase

National Disaster Reduction Committee

- **National Disaster Reduction Committee (NDRC)** was established in 2004;
- Made up of 34 ministries and national bureaus, NDRC is in charge of natural disaster management in China, include Disaster risk reduction;
- NDRC has a office in Ministry of Civil Affair, and a Science and Technology Council with 39 members coming from famous universities and research agencies;

国家减灾委员会
National Commission for Disaster Reduction

办公室
General Office

专家委员会
Board of Experts

国家减灾中心
NDRCC

国务院办公厅
General Office of the State Council

民政部
Ministry of Civil Affairs

外交部
Ministry of Foreign Affairs

国家发改委
State Development and Reform Commission

科技部
Ministry of Science and Technology

商务部
Ministry of Commerce

教育部
Ministry of Education

国防科工委
Commission of Science, Technology and Industry for National Defence

公安部
Ministry of Public Security

财政部
Ministry of Finance

国土资源部
Ministry of Land and Resources

建设部
Ministry of Construction

铁道部
Ministry of Railways

交通部
Ministry of Communications

信息产业部
Ministry of Information Industry

水利部
Ministry of Water Resources

农业部
Ministry of Agriculture

卫生部
Ministry of Public Health

国家环保总局
State Environmental Protection Administration

国家广电总局
State Administration of Radio, Film and Television

安全监管总局
Administration of Work Safety

国家统计局
State Statistics Bureau

国家林业局
State Forestry Bureau

中国科学院
China Academy of Science

中国地震局
China Seismological Bureau

中国气象局
China Meteorological Bureau

中国保监会
China Insurance Regulatory Commission

自然科学基金会
The National Natural Science Foundation

国家海洋局
State Bureau of Oceanic Administration

国家测绘局
State Bureau of Surveying and Mapping

解放军总参谋部
General Staff Headquarters

武装警察部队
Chinese People's Armed Police Force

中国科学技术协会
China Society and Technology Association

中国红十字协会
Red Cross Society of China

College of Disaster Reduction and Emergency Management

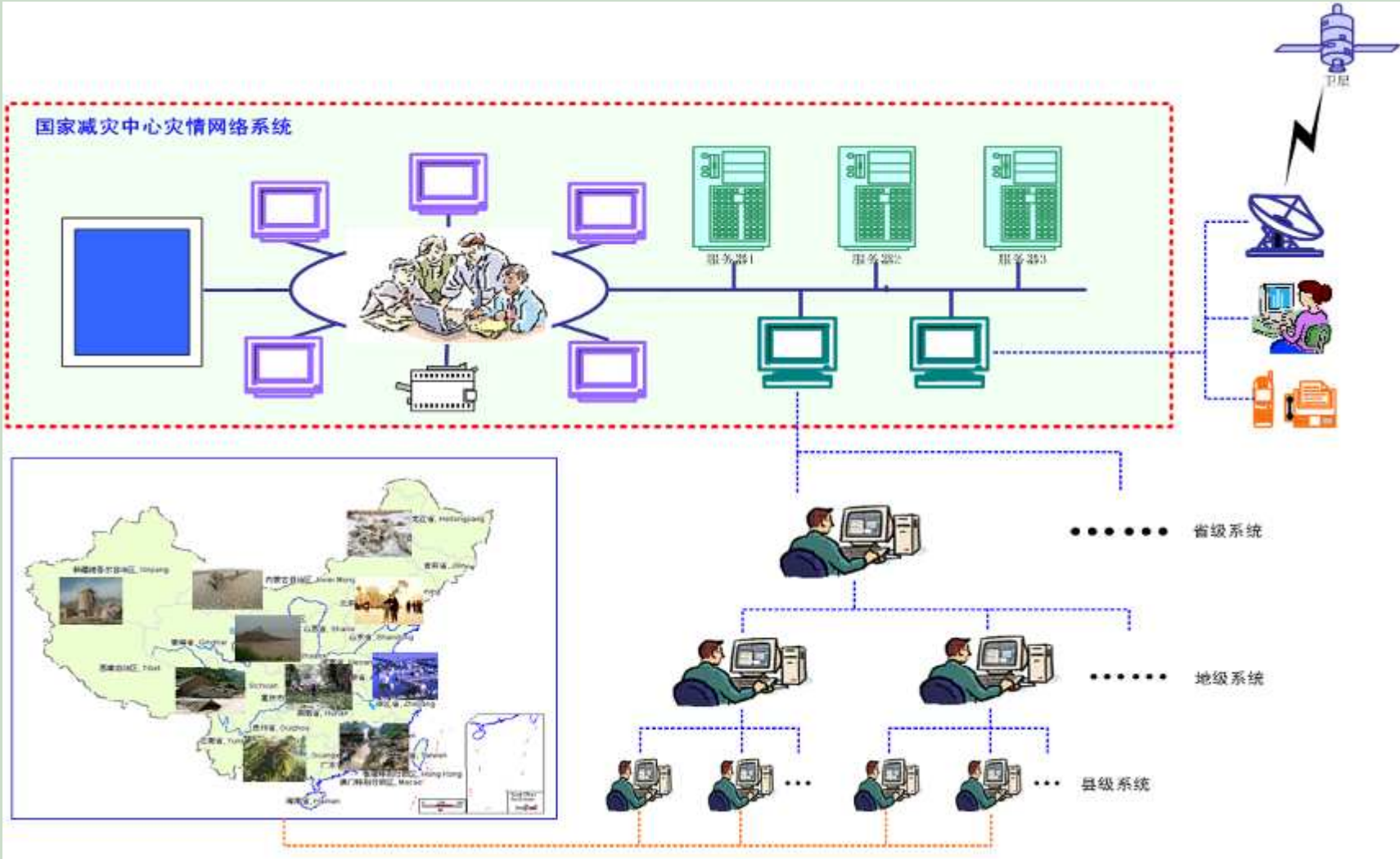
- Ministry of Civil Affairs (MCA) and Ministry of Education (MOE) establish the College of Disaster Reduction and Emergency Management in Beijing Normal University. Its main task is R&D, technical training, and international cooperation in disaster and emergency management. It will be a **National Research Base and Educating Center** for disaster risk reduction and emergency management in China

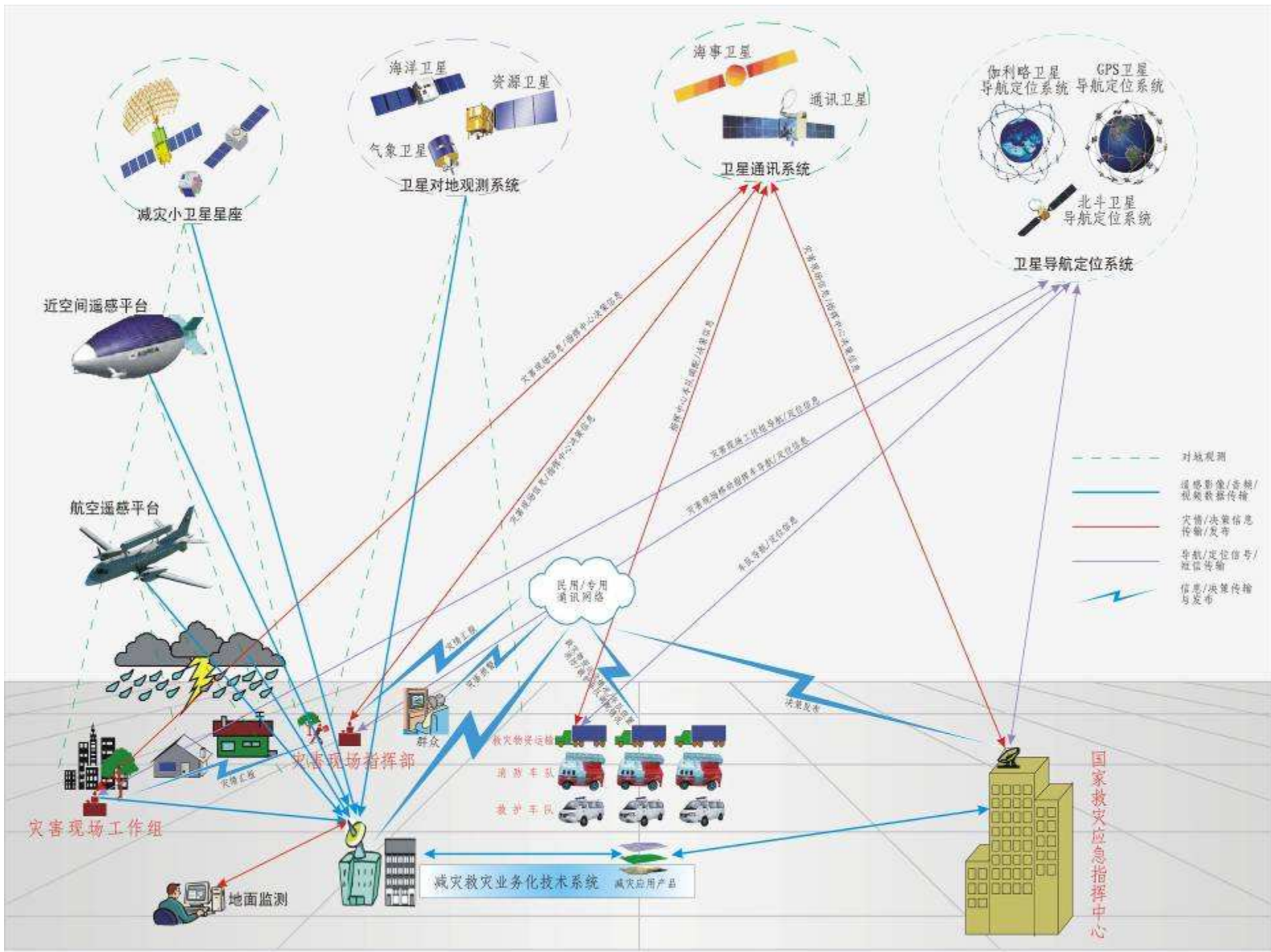


- Information work is one of the most important work of NDRC, include information collection and share the information among its members, information analysis, and provide decision-make information;
- Various information technologies, especially space information technology (include remote sensing, GIS, GNSS, satellite communication), have been used to meet requirement of disaster reduction;
- Relevant system has been established as one of the important part of capacity building of DRR

Disaster Information System

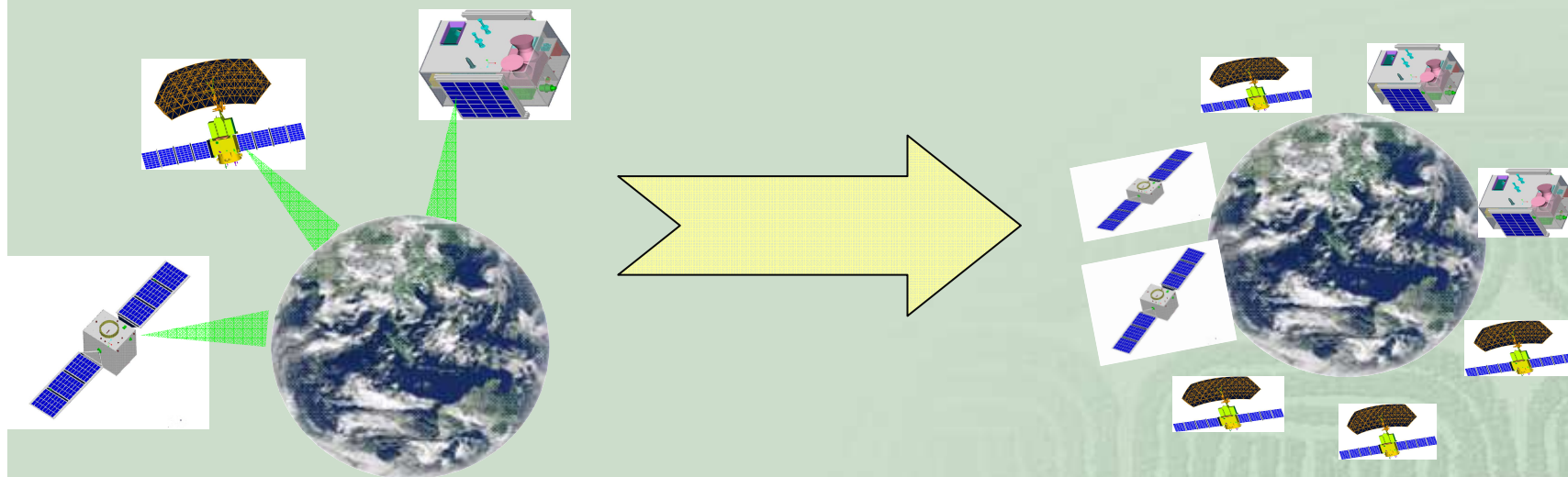
A 24-hour dynamic monitoring on major disaster information home and abroad has initially been put in place, which provides disaster-management departments with timely and reliable disaster information.



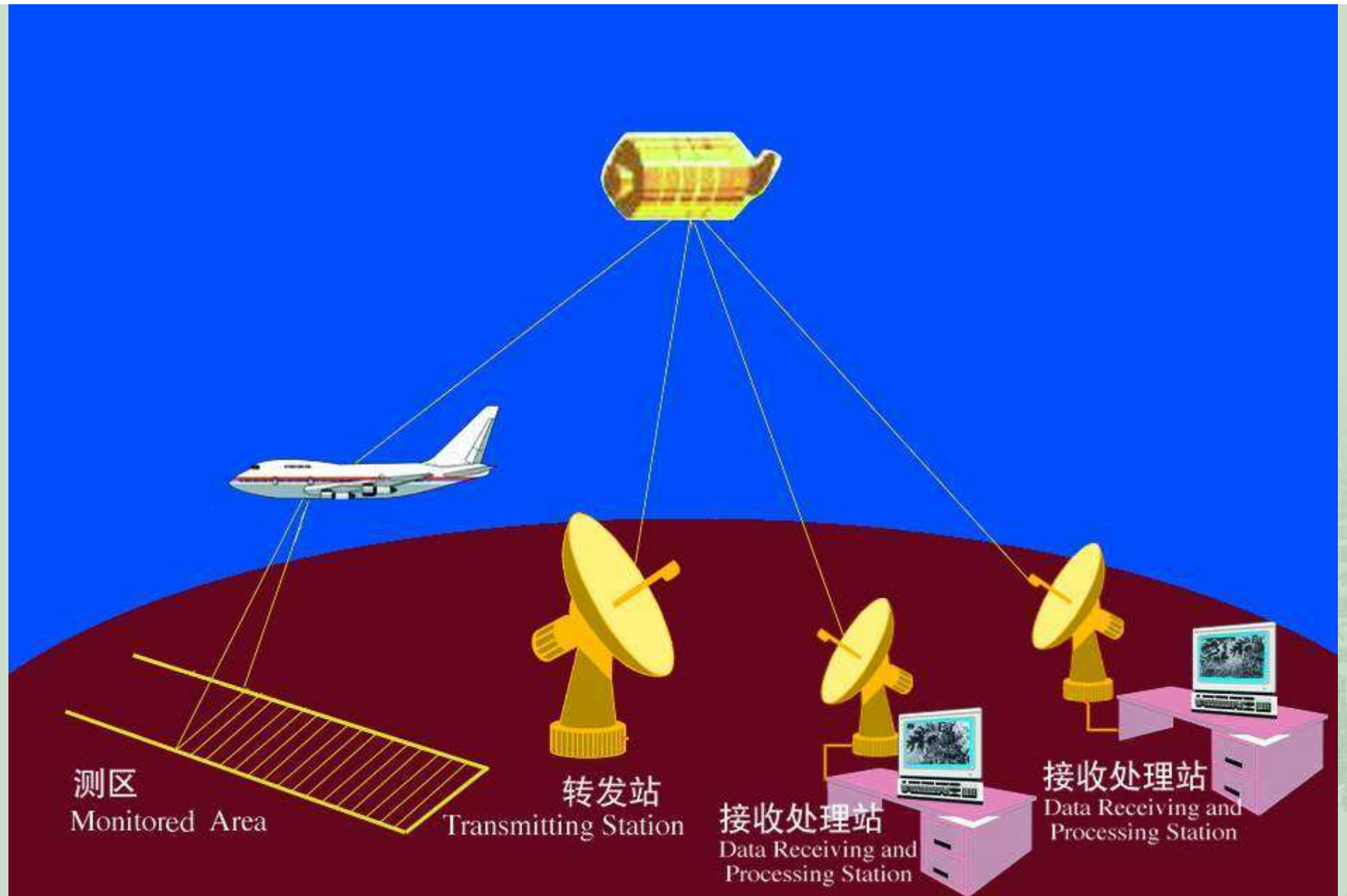


Disaster Monitoring Satellite Constellation Plan

It includes two steps: First step will launch two optical satellites and one SAR satellite, called the “2+1” Project, second step will launch 4 optical satellites and 4 SAR satellites later (“4+4”).



2 optical satellites, HJ-1A and 1B was launched on 2008.9.6. The payload of the satellite includes CCD camera, infrared camera, and hyper-spectrum camera.



Airplane-Satellite-Ground Monitoring System

Use UAV to get remote sensing image. Beichuan, 2008.5.15

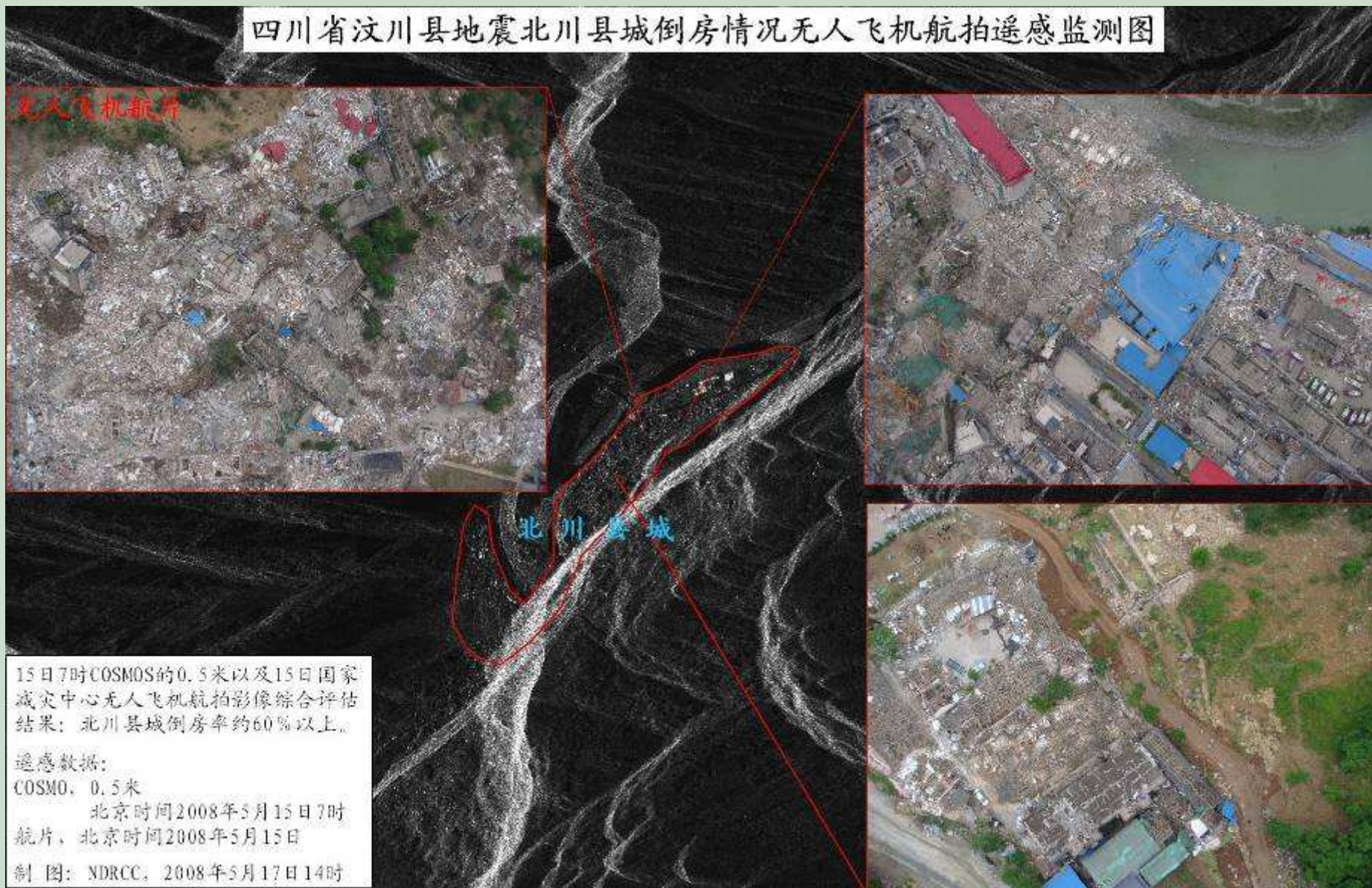


Use BGAN system to send air images to Beijing



Map of distribution of destroyed houses in Beichuan Based on Cosmos Image and UAV images on **May 15**

四川省汶川县地震北川县城倒房情况无人飞机航拍遥感监测图



Human Capacity Development

- Human capacity development is the most important part of DRR capacity building. No any high technical system can work without professional workers;
- NDRC and our college all pay much attention on human capacity development. As national training center for DRR, we make a detail training plan in the area for NDRC, include education for degree and on-job training (short time)



Education for Degree

- About 40 normal students in my college get degrees in Geoinformatics or disaster management area, include B.Sc, M.Sc., and Doctor degree every year;
- In recent year, we have a new program of on-job education for Master degree. In the program, about 20 students every year who come from NDRC member agencies, get on-job training for Master degree (need a few years)



Shout Time Training Course

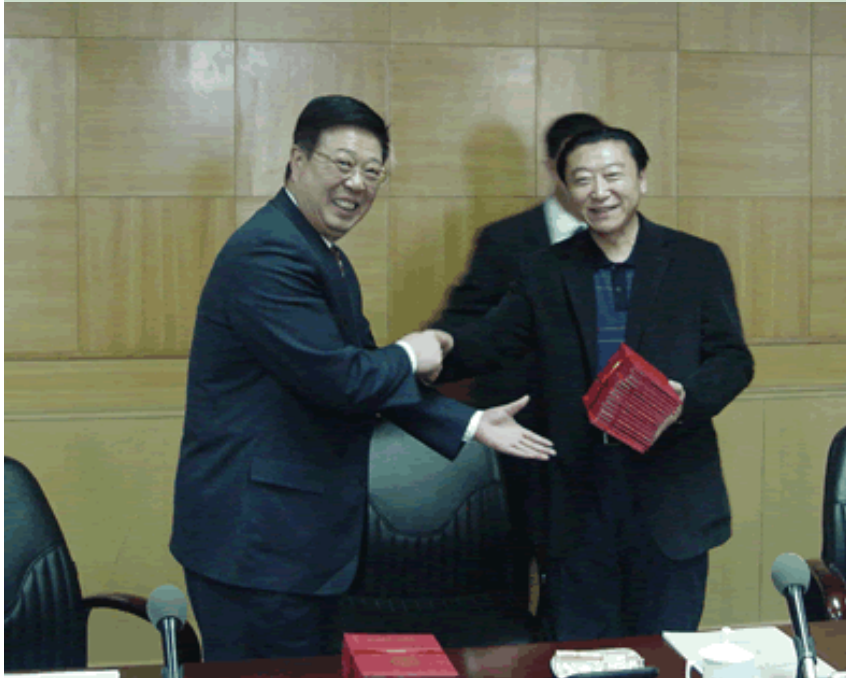
- Organize some training course or workshop every year. The period is a few days or a few week;
- Based on participant and training content, training course can be divided to two type: Decision-maker training and theme training (flood disaster, mountain disaster, ...);
- Decision-maker training divide to: Minister (include Nomarch) level, Department Director (include Mayor) level and Division Head level (include the head of a county). ICT is one part of training content.

Minister Level Workshop



Minister Level Workshop on Disaster Reduction and Emergency Management was hold in May 2004, 60 vice ministers or vice Nomarch Attend.

Department Director Level Training Course



From December 2005 – April 2006, we organize 4 training courses on disaster reduction and emergency management, 355 vice mayors or vice department director attend



Training Course of Mountain Disaster Management



For example: the training course in May 2006, about 100 vice head of county and vice division head attend.



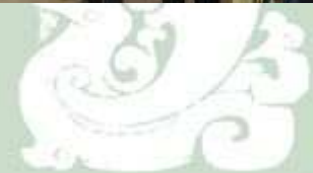
Training Course on Flood Disaster

- For example: In 2004, 3 training courses on flood disaster were organized, and 539 participants attend.
- More than 1,000 people attend the theme training every year



International Training Course

In recent year, about 20 international training courses on disaster reduction and emergency management also organize more in China. More than 300 participants attend them.



Textbook Construction

Textbook construction is the basic work for training and education for degree. We have made a program for textbook construction; Under the program, some books already be published since 2005. They include:

- Textbook for undergraduate and graduate;
- Textbook for senior middle school;
- Teaching Material



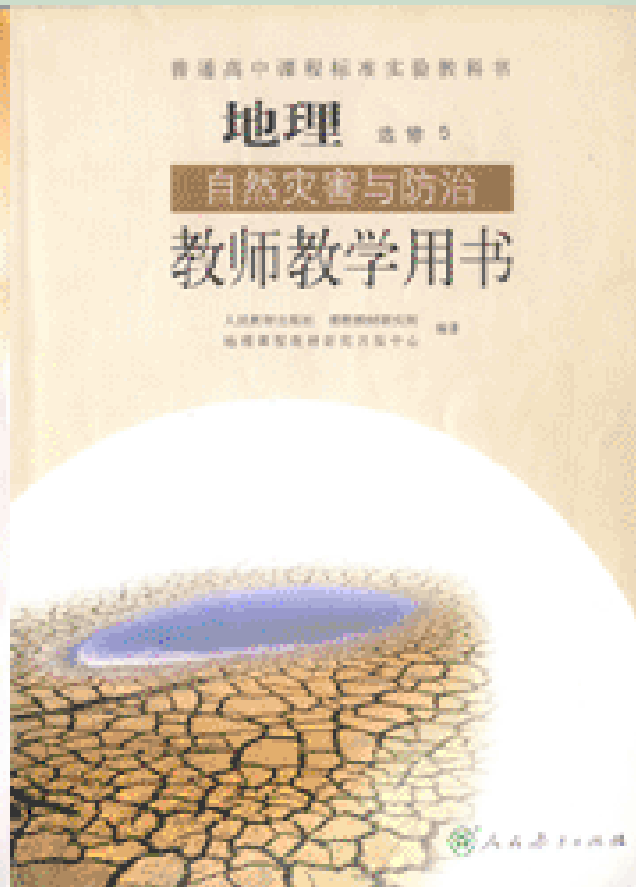
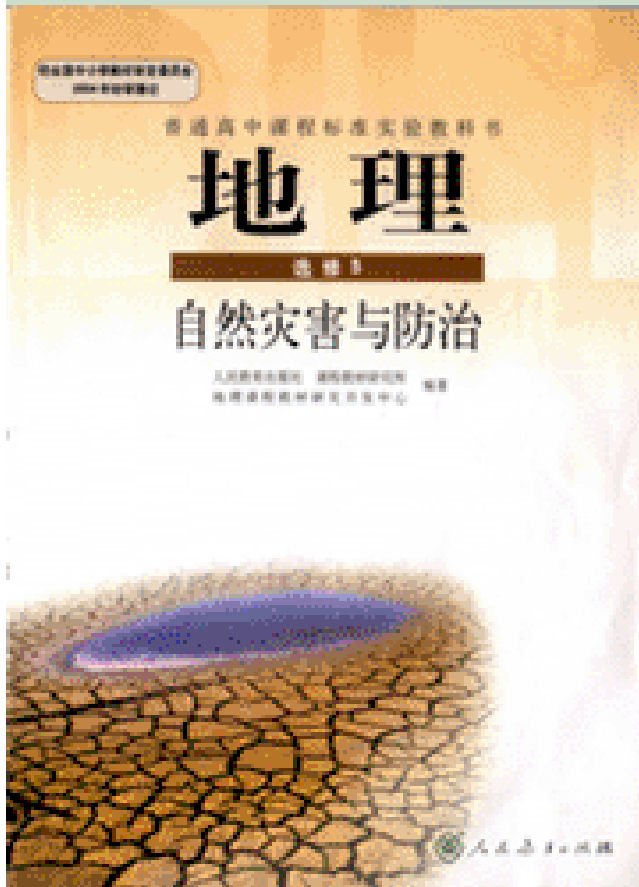
Textbook for undergraduate and graduate

- Natural Disaster;
- Spatial-temporal Pattern of Natural Disaster;
- Risk Assessment of Natural Disaster;
- Main Meteorological Disaster Risk Assessment and Management;
- ...



Textbook for senior middle school

- Natural Disaster & Prevention
- Natural Disaster & Prevention, The Teacher's Book
- Natural Disaster & Prevention, Matching Disc



Disaster Management: Basic Material for International Training Course

- Outline of Disaster Management;
- China's Disaster Management Frame;
- Disaster Risk Reduction;
- Disaster Information Management;
- Disaster Emergency Response;
- Recovery and Integrated Disaster Reduction;
- International Disaster Reduction



A bouquet of flowers is shown against a white background. The bouquet includes several large daisies in shades of red, white, and yellow, along with green foliage and baby's breath flowers. The text "Thank you for your attention!" is overlaid in a blue, serif font.

**Thank you for
your attention!**