Space-based Technology Application for Disaster Management in China

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Natural Disasters in China

China is one of the countries in the world that seriously affected by natural disasters
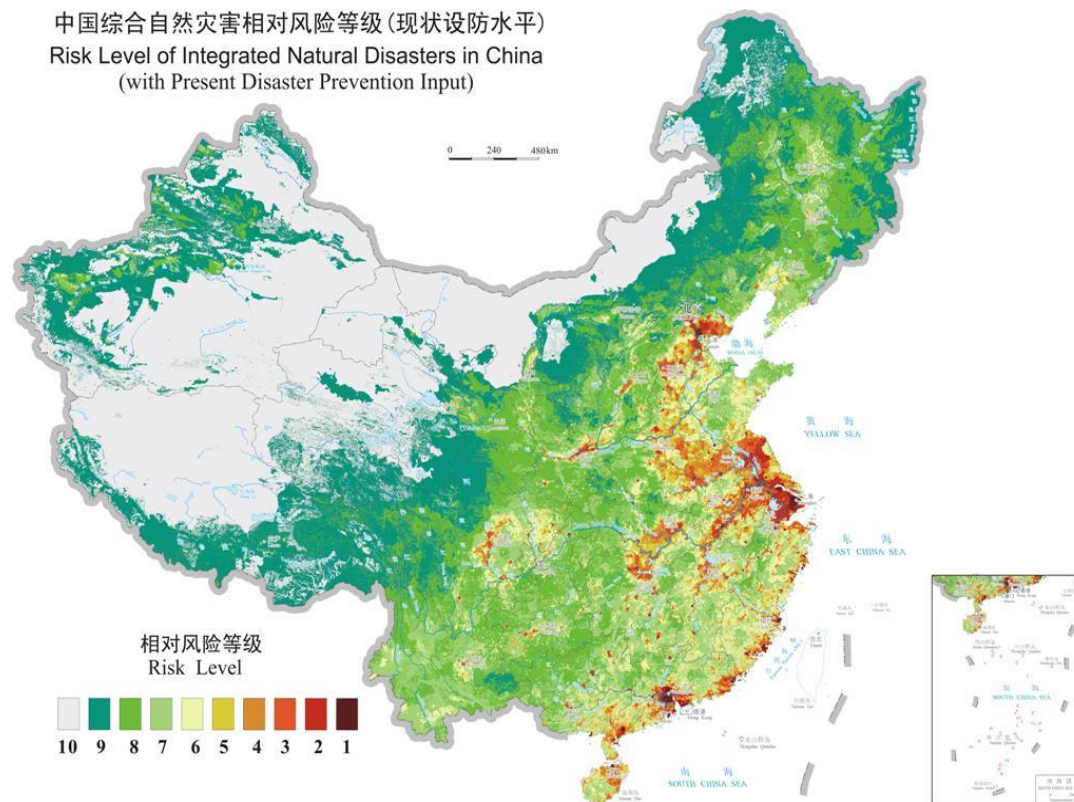
Various disasters

Widely distributed

High frequency

Large impact

中国综合自然灾害相对风险等级（现状设防水平）
Risk Level of Integrated Natural Disasters in China
(with Present Disaster Prevention Input)

相对风险等级
Risk Level

Natural Disasters in China

Natural Disaster Losses in 2018

130 million people were affected

635 people died or missed

5 million people-times were urgently relocated and resettled

97 thousand houses collapsed

the area of affected crop was **20** million ha

The direct economic loss was **264** billion RMB

State Council Institutional Reform

Ministry of Emergency Management

State Administration of Work Safety	General Office of the State Council	Ministry of Public Security	Ministry of Civil Affairs	Ministry of Land and Resources	Ministry of Water Resources	Ministry of Agriculture
	Emergency management	*Fire service*	*Disaster relief*	*Geological disaster prevention*	*Drought and flood control*	*Prairie fire control*

State Forest Bureau	China Earthquake Administration	National Commission for Disaster Reduction	State Flood and Drought Relief Headquarters	State Council Earthquake Relief Headquarters	State Forest Fire Prevention Headquarters
Forest fire control	*Earthquake emergency rescue*				

State Council Institutional Reform

Building a national emergency response capacity system with Chinese Characteristics

中华人民共和国 应急管理部

新华网
WWW.NEWS.CN

Unified direction → Professional volunteerism

Fast responsiveness

readiness
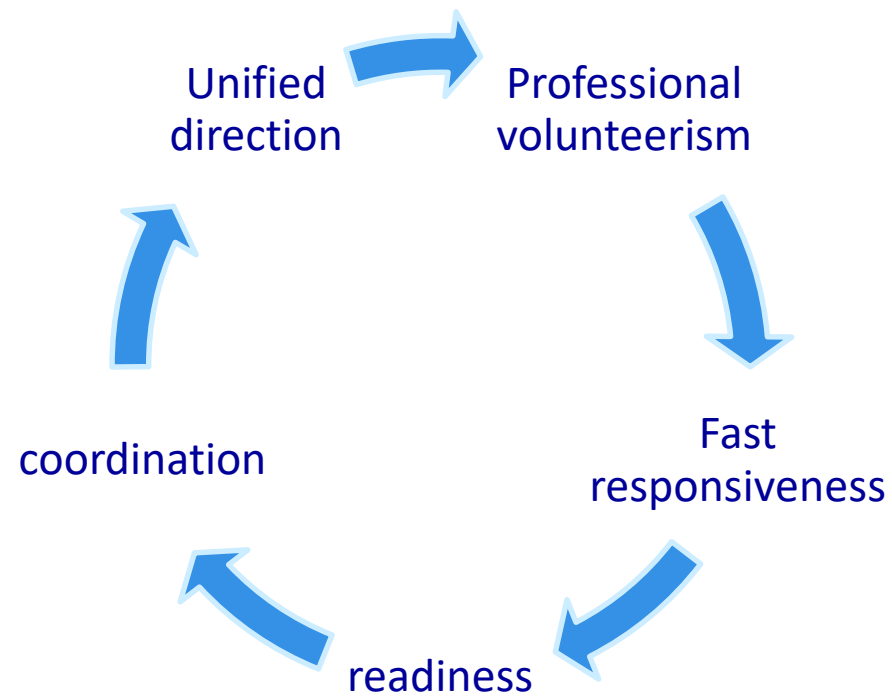
coordination

OPTIMIZATION   COORDINATION   EFFICIENCY

State Council Institutional Reform

Strengthening Risk Governance and Better Preparedness in advance
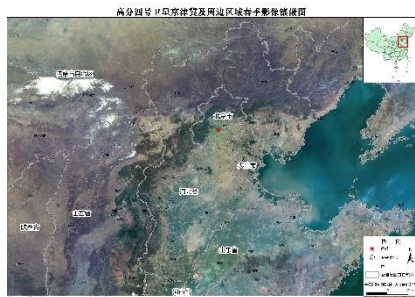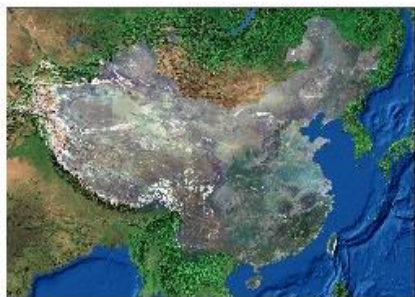
Set DISASTER PREVENTION as a priority
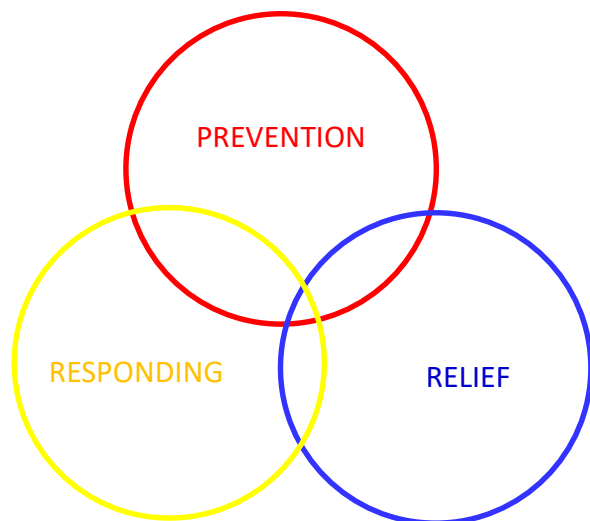
- **from post-disaster relief to pre-disaster prevention**

- **from single-hazard response to integrated DRR**

- **from reducing disaster losses to reducing disaster risks.**
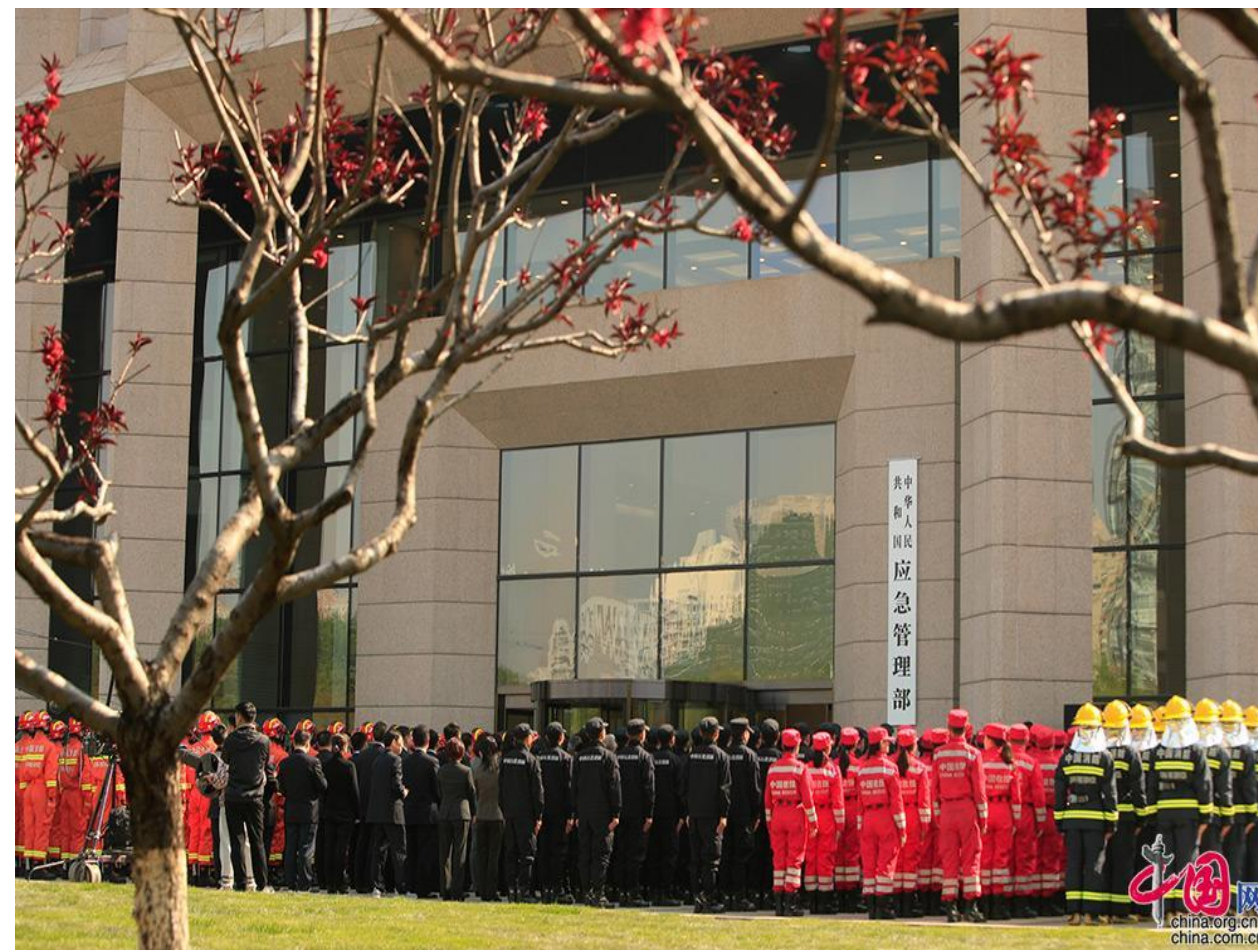
Disaster Monitoring Products System based on RS

RS Imagery Products	Disaster Element Monitoring	Disaster Trend Analysis	Emergency Monitoring	Recovery & Reconstruction
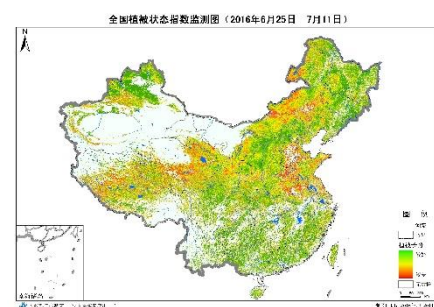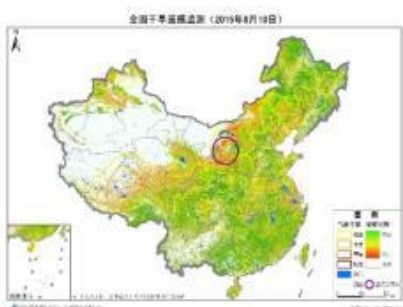
Disaster Risk Monitoring
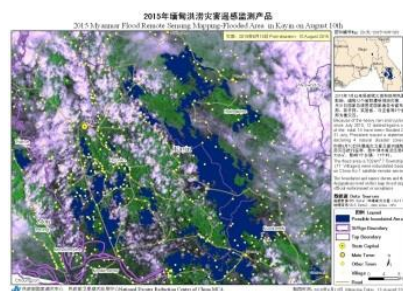
Daily Snow Detection
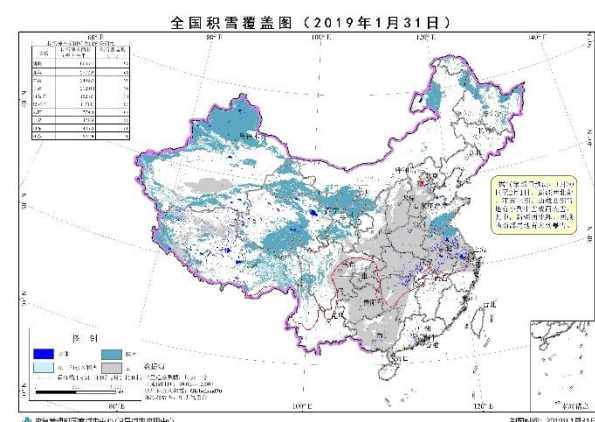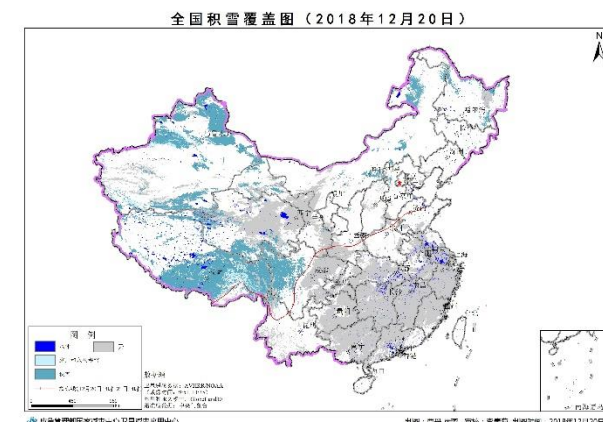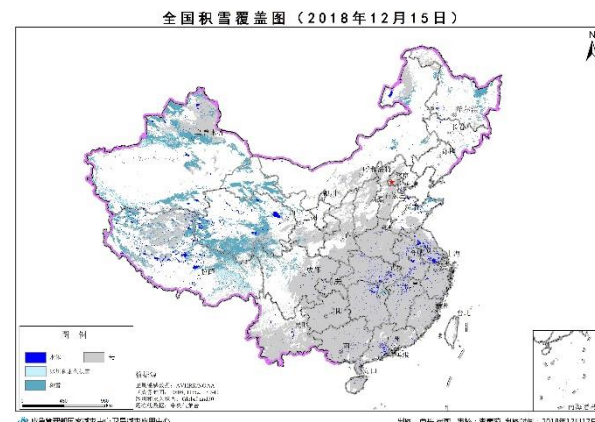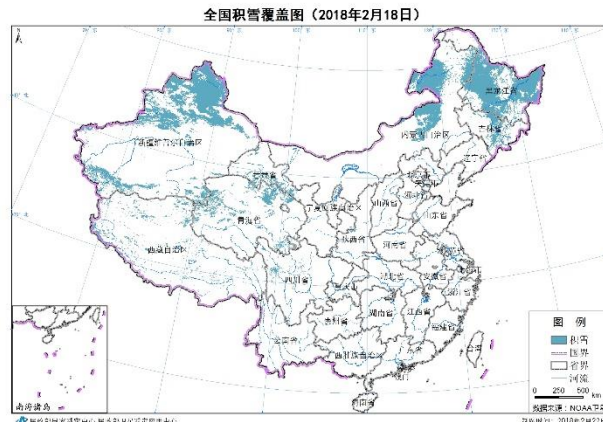
Based on
Meteorological Satellites (FY & NOAA)

Disaster Risk Monitoring

Vegetation Growth Condition Monitoring
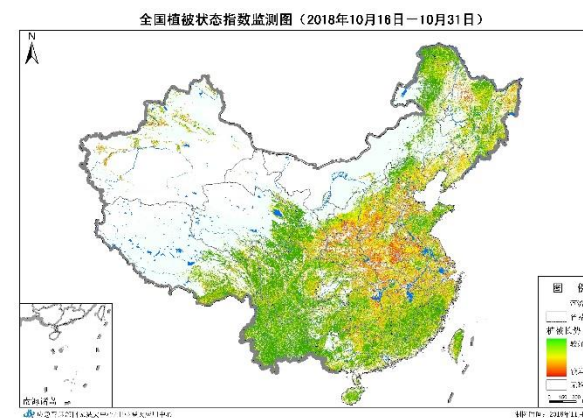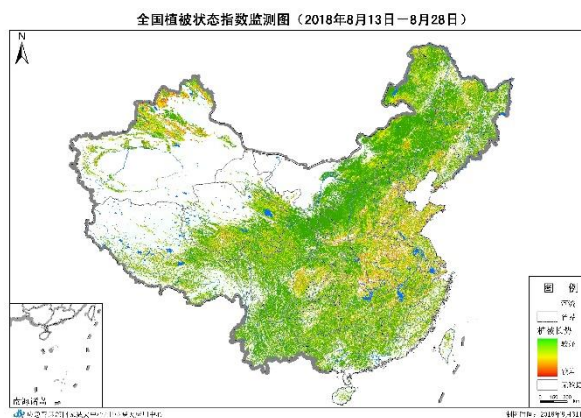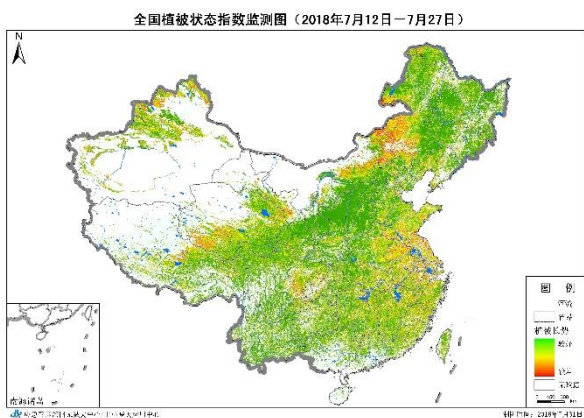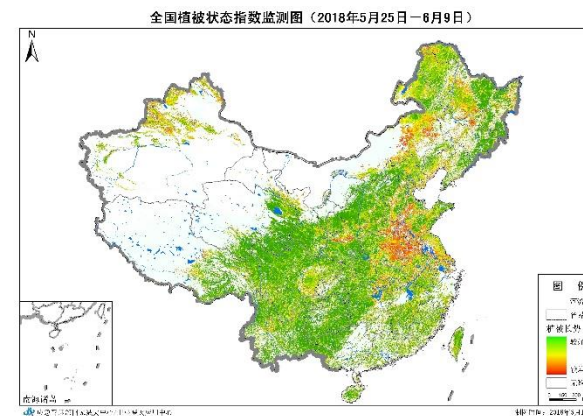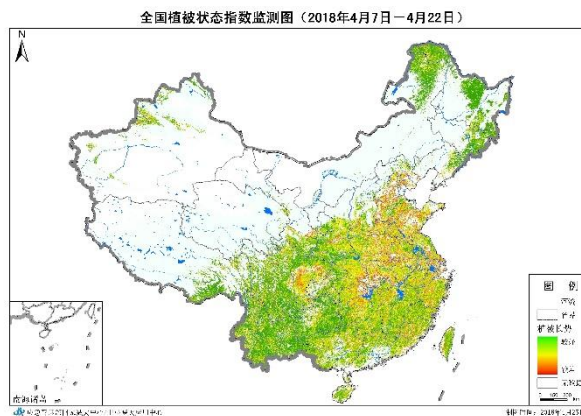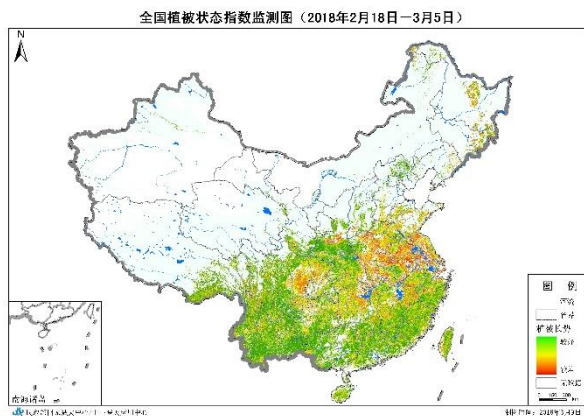
Based on FY & MODIS

Wild Fire

Emergency Monitoring-Flood

Flood Monitoring by HJ-1 in Inner Mongolia **(JULY, 2018)**

Flood Monitoring by Sentinel-1, international open source RS data in Jiangxi (**July, 2018**)

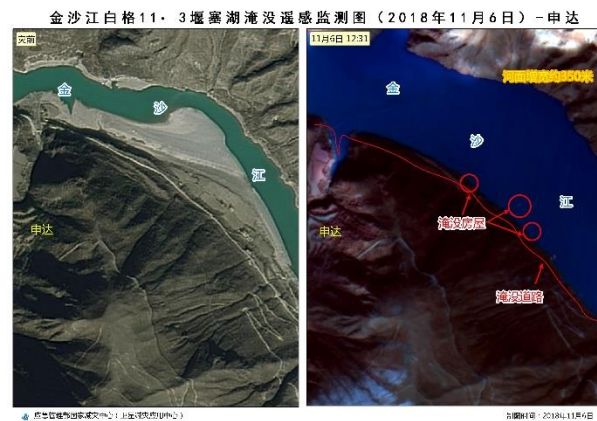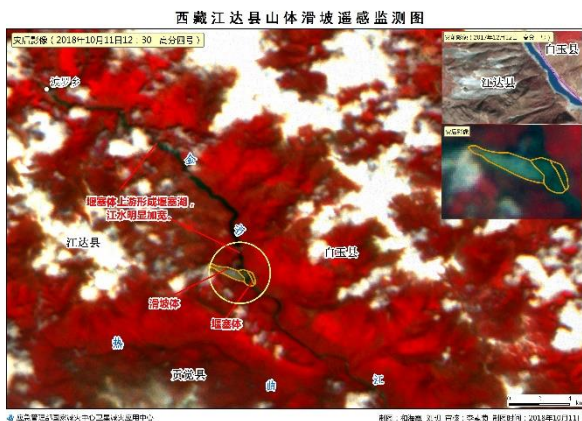内蒙古乌拉特前旗南昌村附近洪涝范围监测图

2018年7月8日江西上饶市古县渡镇至凰岗镇段洪涝范围分布图
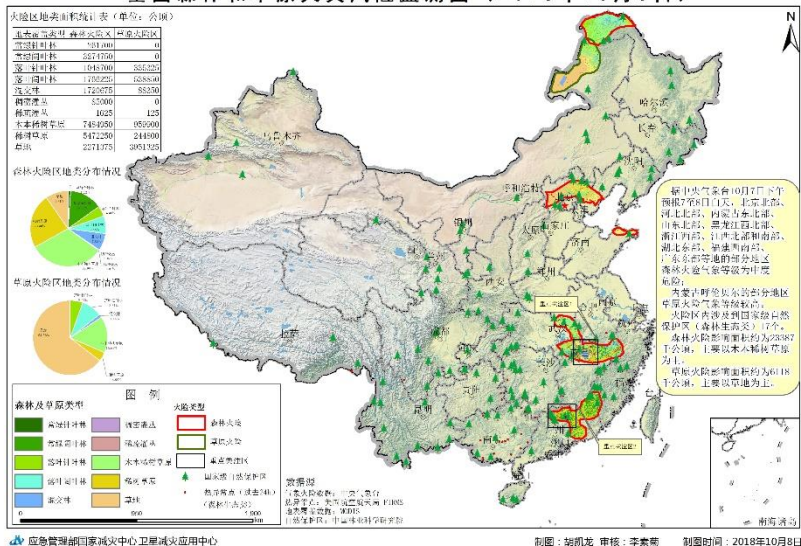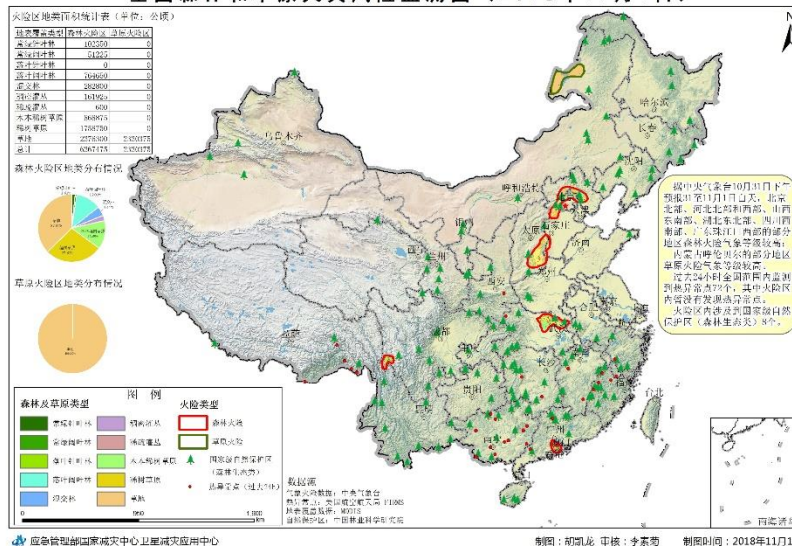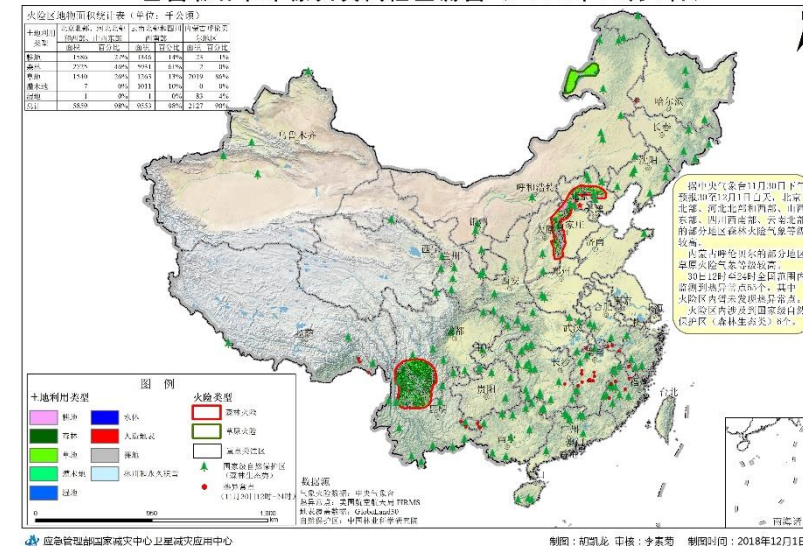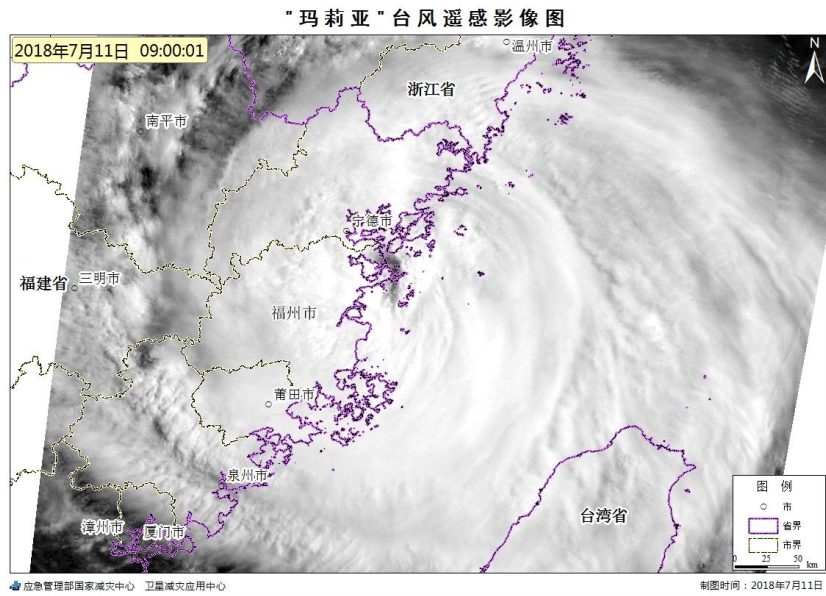
Typhoon

Typhoon Maria monitoring by GF-4 (July, 2018)
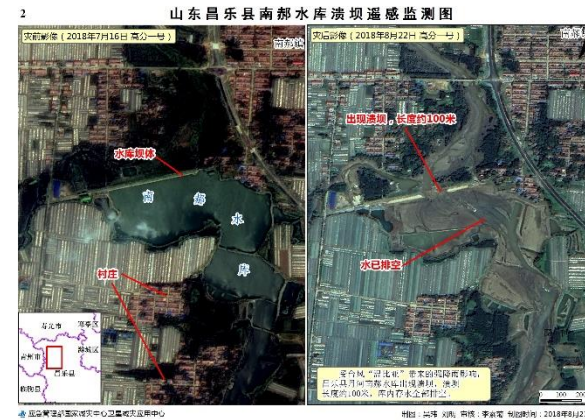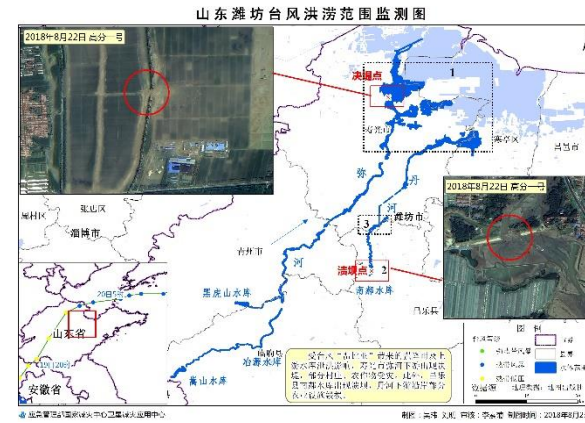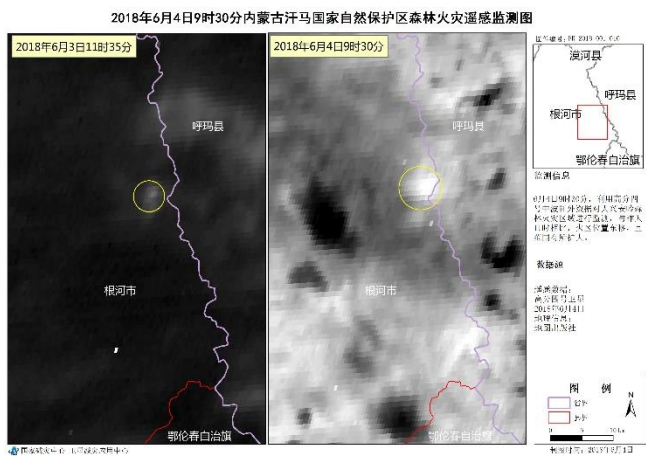

Impact of typhoon Rumbia monitoring by GF-1 in Shandong (August, 2018)

Landslide

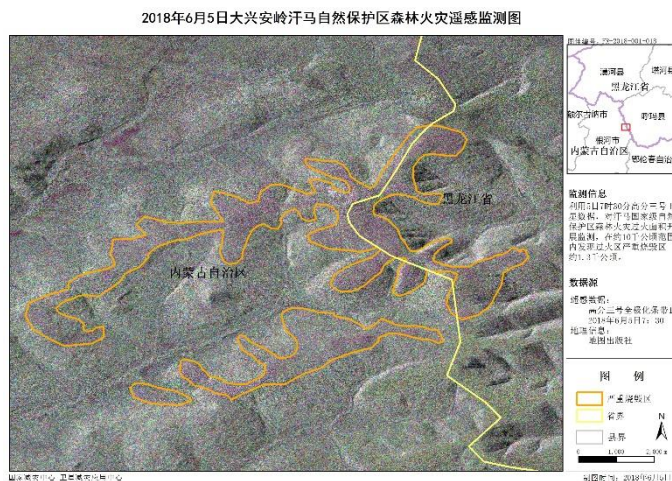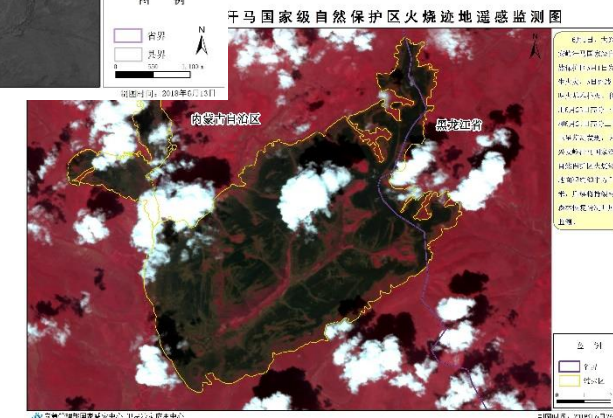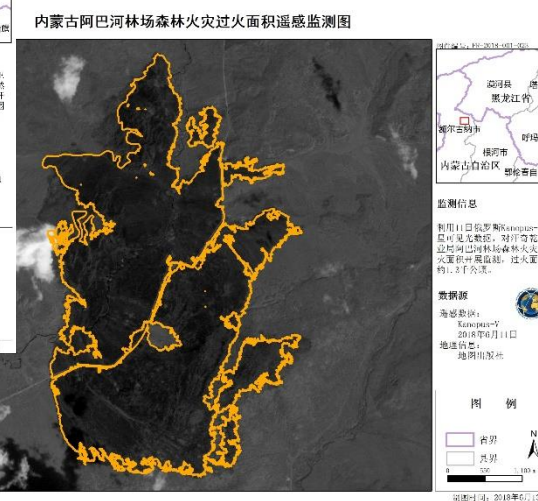Landslide and quake lake monitoring by multi-source RS data (October & November, 2018)
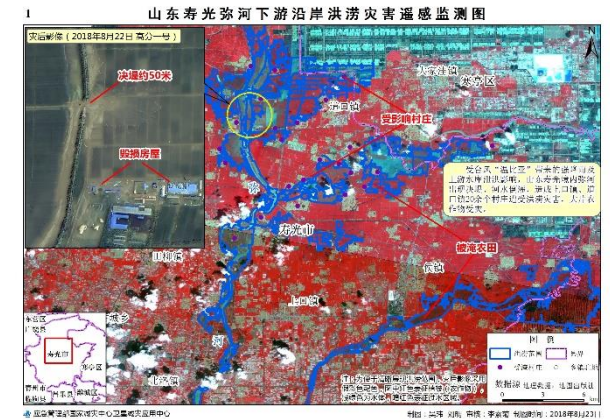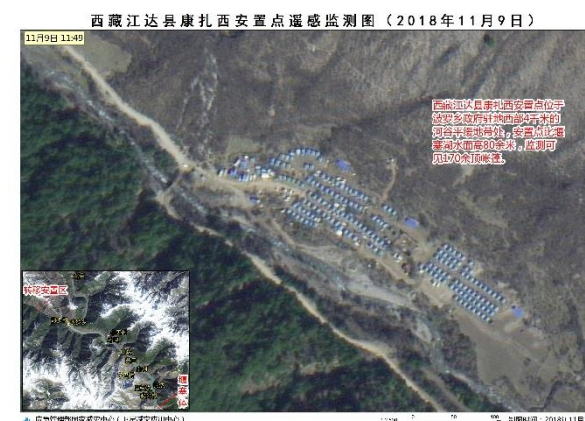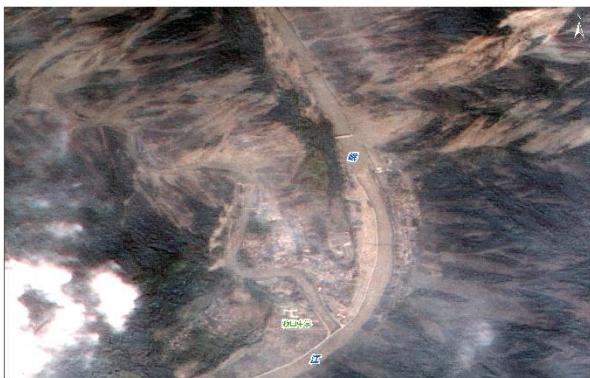
Wild Fire

Wild fire monitoring in Inner Mongolia (June, 2018)

Active Fire

Burned Area

Recovery & Reconstruction Monitoring
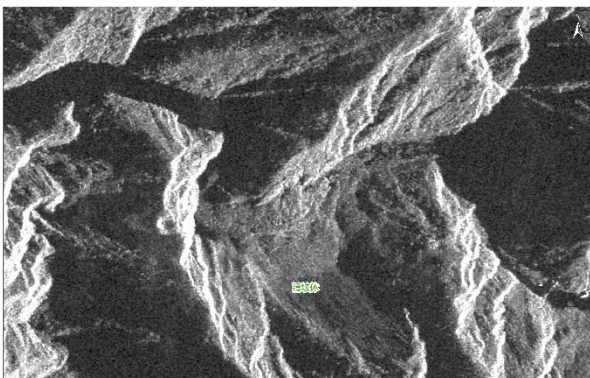
Reconstruction in Wenchuan Earthquake Region

International Products Service
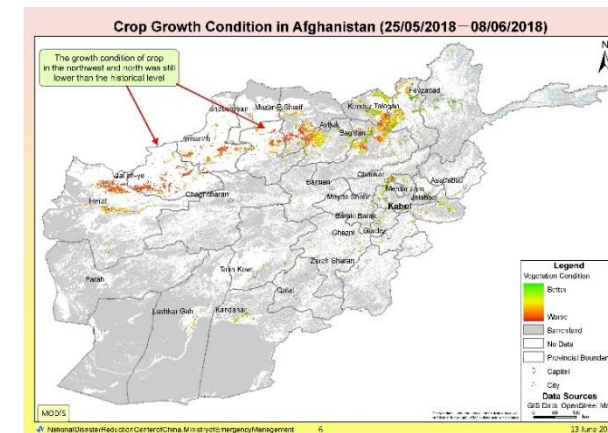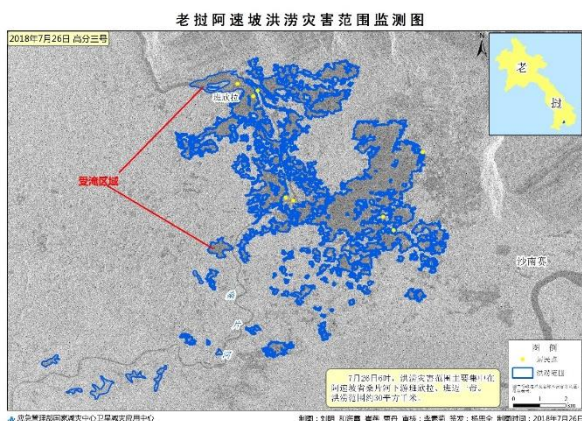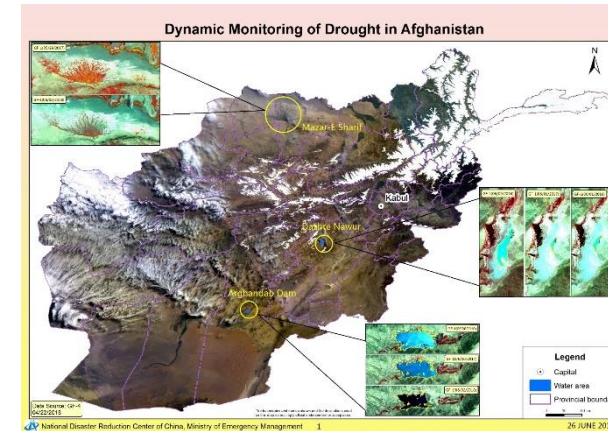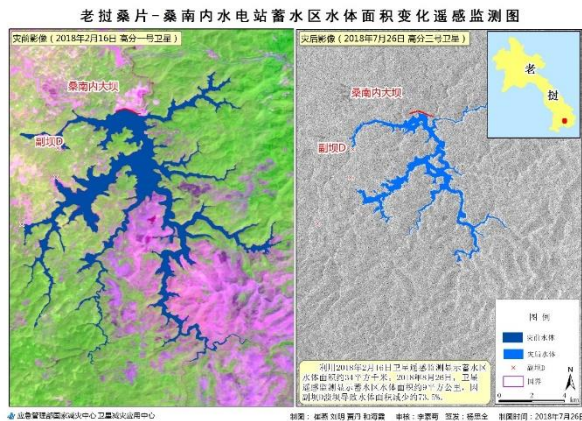
Dam Collapsed Monitoring in the southern part of Lao PDR by GF-3 (July, 2018)

Loss by Tsunami monitoring by BJ-2 in Indonesia (September, 2018)

Drought Monitoring in Afghanistan (May, 2018)

The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance.

Thank You