

DROUGHT MONITORING ACTIVITIES: CASE STUDIES

Extract from WMO publication, 'Drought Monitoring and Early Warning: concepts, progress and future challenges', (WMO-No. 1006).

<http://www.wamis.org/agm/pubs/brochures/WMO1006e.pdf>

CHINA

The authority that monitors drought development in China is the Beijing Climate Center (BCC) of the China Meteorological Administration (CMA).

BCC has used the Standardized Precipitation

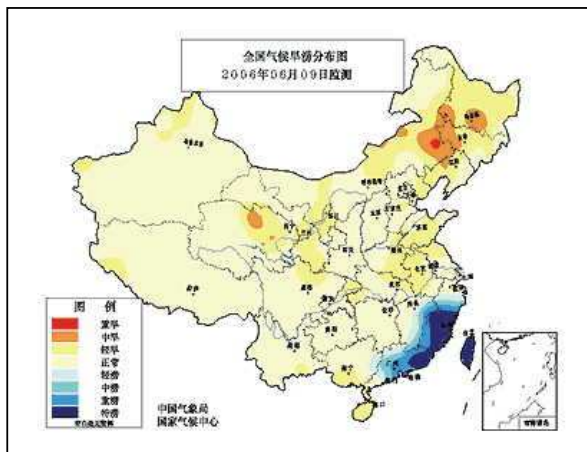


Figure 9. Drought monitoring for China, 9 June 2006; the colour scale from egg shell (in the middle) to red indicates drought severity: (Source: China Meteorological Administration)

and early warning system was developed and put into operation on a daily basis in 1999. This system provides accurate information on drought to various related governmental agencies and to the general public, which helps in the development of measures to mitigate the impacts of drought. The core of the system is a Comprehensive Index (CI) for drought monitoring developed by BCC as a result of its long experience in drought monitoring and impact assessment.

CI is a function of the last 30-day and 90-day SPI and the corresponding potential evapotranspiration.

Based on CI and soil moisture monitoring from an agricultural meteorological station network and remote-sensing-based monitoring from CMA's

National Satellite Meteorological Center, a number of drought monitoring products have

Index since 1995 to monitor drought occurrence and development in China on a 10-day basis. The monitoring results are published in the China Drought Monitoring Bulletin issued by BCC.

Between 1995 and 1999, a Chinese drought monitoring being

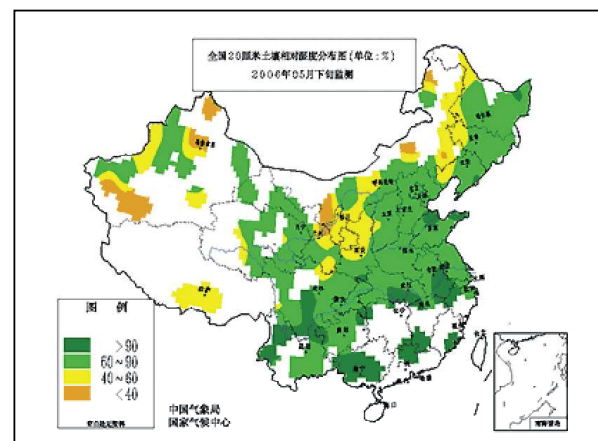


Figure 10. Soil moisture monitoring of the top 20 cm of soil from 21 to 31 May 2006. The higher the values, the wetter the soil. (Meteorological Administration)

produced:

- Bulletin of China Drought Monitoring, which targets governmental agencies and is published at varying intervals;
- A drought monitoring and impact assessment briefing, broadcast on CCTV every Wednesday since 2004;
- Daily drought monitoring maps, which have been available on the BCC homepage since February 2003 (<http://www.bcc.cma.gov.cn/en>).

Figures 9 to 11 provide examples of drought monitoring products such as drought monitoring maps, soil moisture assessment and remote-sensing-based products. Spring drought in

Ningxia province in 2006 had a significant impact on the winter wheat crop.

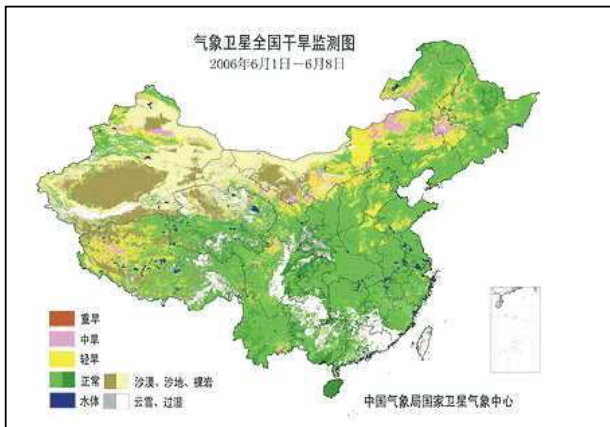


Figure 11. Remote-sensing-based drought monitoring for 1 to 8 June 2006. The colour scale on the left from blue to brown indicates the degree of drought Severity. (Source: China Meteorological Administration)