

Compendium of Good National Practices for Public-Private Engagement

China's Legislation and Policies Related to PPE in the field of Meteorological Service

At present, China has no special laws and regulations that specifically regulate the boundaries and relations between the public and private sectors in the meteorological field. The rules and regulations governing the boundaries and interaction between the public and private sectors are scattered in laws, administrative regulations, local regulations, and departmental regulations related to China's meteorological disaster prevention and mitigation activities. A prominent feature of the relevant legal documents is the consistent emphasis and legally binding provisions on the authority of public meteorological offices (i.e. China Meteorological Administration and its local offices) in the public weather forecast and weather warnings. In relation to non-public meteorological services, in particular the commercial services, the Country has been relaxing restrictions and increasing policies, measures and institutional arrangement to level playing field in order to boost the industry of meteorological services.

I. Meteorology Law of the People's Republic of China

The "**Meteorology Law**" is China's first law to regulate meteorological activities. It came into effect on January 1, 2000, and was amended three times on August 27, 2009, August 31, 2014, and November 7, 2016 respectively. The law includes 8 chapters and 45 articles. It stipulates that the meteorological offices at all levels of government shall provide basic public meteorological services, severe weather forecasts and warning services, and support to public safety and security. The Meteorological Law also stipulates a unified system for issuing severe weather warnings, by which the **CMA is the single authority for issuing public weather forecast and severe weather warnings.**



Figure 1: Meteorology Law of the People's Republic of China (adopted on October 31, 1999).

From the perspective of defining the business domain of China’s public meteorological offices (which are referred to as “competent meteorological departments” in the English version of the Meteorology Law, including China Meteorological Administration and its local offices at provincial, municipal and county levels), the most relevant articles are Article 3, Article 8 and Article 22 of the Meteorology Law. Their details are quoted as follows.

“Article 3: Meteorological service is a basic public welfare service for economic development, national defense, social development and people's wellbeing. Public welfare meteorological services shall be the first priority in meteorological work. People's governments at or above the county level shall strengthen their leadership over and coordination of meteorological activities, and incorporate meteorological service into the national economic and social development plans and fiscal budgets of the central and local governments in order to ensure their full function in the service of the general public, in government decision-making and in economic development. Local meteorological projects initiated by local people's governments at or above the county level to meet the needs of local social and economic development shall mainly be financed by the said governments themselves. On condition that unpaid public welfare meteorological services are guaranteed, meteorological offices and stations may provide paid meteorological services in accordance with law.”

“Article 8: Meteorological activities that organizations and individuals of other countries wish to conduct in the territory of the People's Republic of China and the sea areas under the jurisdiction of the People's Republic of China shall be subject to approval by the competent meteorological department¹ under the State Council in conjunction with relevant departments.”

“Article 22: The State applies a unified system for the issue of public meteorological forecast and severe weather warning. Meteorological offices and stations subordinate to the competent meteorological departments at different levels shall, in compliance with their functions and duties, issue to the community public meteorological forecast and severe weather warning, with timely supplements or corrections added as the weather changes. No other organizations or individuals may issue to the community such forecast or warning. Meteorological offices and stations subordinate to other relevant departments under the State Council or under the people's governments of provinces, autonomous regions or municipalities directly under the Central Government may issue specialized meteorological forecast to be used within the framework of their departments. The competent meteorological departments at different levels and the meteorological offices and stations subordinate to them shall issue public meteorological forecast and severe weather warning with improved accuracy, timeliness and service.”

Article 3 of the Meteorology Law emphasizes that public meteorological services are the primary responsibility of the public meteorological offices, but on the premise of ensuring public meteorological services, meteorological offices are allowed to provide paid meteorological services in accordance with law. This actually gives the public meteorological offices the permission to participate in commercial meteorological

¹ The term “competent meteorological departments” used in the English version of the Meteorology Law refers to the public meteorological offices, which include China Meteorological Administration and its local offices at provincial, municipal and county levels.

services together with other market players. Article 22 stipulates that no other organizations or individuals than the public meteorological offices are allowed to issue meteorological forecast or severe weather warning to the public, which excludes the private sector from providing public forecast and warning services. The same article allows other players² to issue specialized meteorological forecast for their own sectoral use. Article 8 clarifies that foreign organizations and individuals must obtain the approval of the meteorological authority to carry out meteorological services in the territory of China.

In addition, Articles 24 and 25 of the Meteorology Law jointly stipulate the requirements for dissemination and publication of severe weather warnings. According to them, when the media, including radio, television, newspaper and telecommunication, issue to the community public meteorological forecast or severe weather warning, they shall use the latest meteorological information provided by a meteorological office or station subordinate to a competent meteorological department, while indicating the time of issue and the name of the office or station.

II. Departmental Regulations

In China's legal framework, a governmental authority (usually Ministry level) has the power to formulate and issue departmental regulations, which make more detailed provisions on the implementation of the relevant provisions in the higher-level law. In addition to the Meteorology Law, there are some regulations formulated and issued by the China Meteorological Administration within its administrative authority that also provide guidance and influence the business boundaries and cooperation between the public and private sectors. The major regulations of this kind include the "Measures for the Administration of the Issuance and Dissemination of Meteorological Forecasts", and the "Measures for the Administration of Meteorological Information Service".

1. "Measures for the Administration of the Issuance and Dissemination of Meteorological Forecasts"

On March 6, 2015, the China Meteorological Administration adopted the "Measures for the Administration of the Issuance and Dissemination of Meteorological Forecasts" (hereinafter referred to as the "Measures for the Administration of Meteorological Forecasts") as an amendment to the 2005 version. It clearly incorporates public meteorological forecasts, severe weather warnings, and meteorological disaster warning signals into the category of meteorological forecasts which CMA and its subordinate meteorological offices at local levels are the single authority to issue.

At the same time, the "Measures for the Administration of Meteorological Forecasts" have further relaxed the regulations on media to disseminate meteorological forecasts and warnings, reflecting the principles for encouraging all media outlets to help delivering authoritative meteorological forecasts to the public. Article 5, Article 7 and Article 9 of the Measures stipulate that the media and units that disseminate meteorological forecasts should establish a mechanism for obtaining the latest meteorological forecasts for the purpose of

2 These players now include service providers from both other public agencies and the private sector.

disseminating timely and accurate meteorological forecasts to the public. The same Articles also encourage the media and units to disseminate and transmit meteorological forecasts to the public. Media and units that disseminate meteorological forecasts to the public are required to use the latest meteorological forecasts provided by the meteorological offices and to indicate the name of the meteorological office and time of issuance.

2. “Measures for the Administration of Meteorological Information Service”

On March 6, 2015, the China Meteorological Administration approved the “Measures for the Administration of Meteorological Information Service”. There are 21 articles in total, and the purpose of this regulation is to further open the meteorological information service market, to stimulate market players in providing such service, and to regulate the respective market actions according to law. The main objectives are: to encourage meteorological information service providers to carry out service activities according to law, to support scientific research related to meteorological information services and promote the application of research results and technology innovation, and to guide and attract capital investment in the growth of meteorological information industry. Furthermore, it is also aimed at regulating market actions and promoting quality-controlled services by establishing a certification and credibility-recognizing system. This system keeps official registration of meteorological service entities (both public and private ones) and information about their business activities, which provide basis for promoting industry ethics, self-discipline, quality evaluation, and public access to those entities’ performance and credibility information. The Measures also reaffirms that meteorological information service units other than the meteorological offices are prohibited from issuing public meteorological forecasts, severe weather warnings and meteorological disaster warning signals.

III. PPE-related Data Policy of CMA

With the rapid development of science and technology, increased data sharing is called for by all sectors of society. Only by sharing the socio-economic value of data can be realized and maximized, which will promote scientific and technological development and technological innovation. Meteorological data is an important part of the country's primary information resources, and plays an important role in technological innovation, strategic decision-making, economic development, national defense, and social life. At present, the China Meteorological Administration provides various types of meteorological data and products sharing services to domestic and foreign users. For CMA’s data-sharing activities, the major legislative document is a departmental regulation titled “Measures for the Administration of Meteorological Data Sharing” which was issued on November 27, 2001. Over the past 20 years, the CMA has been continuously improving policy guidance, facilitating and strengthening the capacity building of meteorological data sharing with the whole society. In recent years CMA has been relaxing restrictions on the sharing of the meteorological data towards a more open data policy through the relevant provisions of the Measures, the publication of the "Basic Meteorological Data and Product Sharing Catalogue (2015)", the development of China's meteorological data network, and other policies and technical measures .

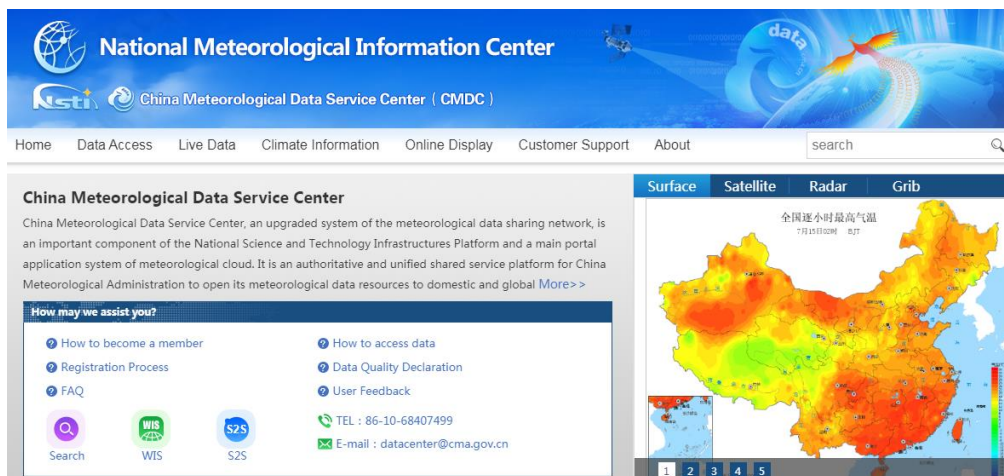


Figure 2: China Meteorological Data Service Center at <http://data.cma.cn/en>.

On 29 September 2015, the CMA officially released the "Basic Meteorological Data and Product Sharing Catalogue (2015)" (hereinafter referred to as the Catalogue), and launched the China Meteorological Data Network as an open sharing platform for meteorological data, with the aim to provide meteorological big data services to the whole society for the purpose of promoting social welfare, equality, and inclusive growth. Through a more open data policy and improved data service, CMA is also committed to increasing its cooperation with all sectors in promoting crowd-sourced innovation and development. The open and shared data includes 1096 basic meteorological data products in 12 categories such as data generated by ground and upper-air stations, meteorological satellites, weather radar, and numerical weather forecast, as well as data from projects on meteorological disaster prevention and mitigation, including "the Belt and Road Initiative", "Qinghai-Tibet Plateau Atmospheric Science Experiment", etc. Since its launch, China Meteorological Data Network has registered more than 240,000 users, more than 280 million visits, more than 1.5 million data orders, and 104 TB of shared service data. More than ten ministries have realized data sharing and integration applications through the "same-city data line". More than 3,600 scientific research and educational institutions and 800 enterprises have carried out scientific research, innovation and in-depth mining by using the data shared by the China Meteorological Data Network, which has generated huge social and economic value.

IV. China Meteorological Service Association

China Meteorological Service Association (CMSA), established in May 2015, is the first nation-wide industrial, and non-profit civil society representing meteorological service providers in China. The Public Meteorological Service Center of the China Meteorological Administration, National Meteorological Center, Huafeng Meteorological Media Group Co., Ltd., China Huayun Meteorological Science and Technology Group Corporation, and other 19 meteorological service enterprises and institutions initiated the establishment of CMSA.



Figure 3: Madame Jiao Meiyan, Deputy Administrator of CMA gave opening of the ceremony on establishment of the China Meteorological Service Association in Beijing. The association is the first national industry association in the field of meteorological services in China. With the approval of the State Council, the Ministry of Civil Affairs formally approved the preparation for establishment. (Beijing, China, March 2015) ([Reference](#))

The CMSA was established in a context that the central government continued to promote stable economic growth by energizing market entities and improving the business environment. In the past years, the government has been cutting requirements for government approvals and improving services to create a favorable environment for investment and business startups. At the same time, the government has moved faster to conduct impartial regulations and promote fair competition. With an improved business environment, China's meteorological service market has entered a stage of rapid development. In 2016, the revenue of the meteorological service industry exceeded 40 billion yuan. According to a research carried out by CMSA, the scale of China's meteorological service industry is very likely to reach 300 billion yuan in the next five years, which is a huge market potential.



Figure 4: The press conference of China's "Natural Oxygen Bar" tourism and culture festival was hosted by the China Meteorological Service Association and the Public Meteorological Service Center of the China Meteorological Administration.



Figure 5: In the midst of the 16th China-ASEAN Expo, the 4th China meteorological equipment and services exhibition of 2019 focuses on marine meteorological science and technology is held in Nanning, Guangxi (September 21 to 24, 2019).

The CMSA was established in that context and aimed to build a communication platform between the government, academic groups, and enterprises, boost the prosperity of the industry, and enhance the role and influence of meteorological services in the overall economic and social development pattern. The CMSA's primary purpose is to reflect the views and concerns of the industry and the associations' members, safeguard the legitimate rights and interests of the enterprises, and promote industry self-discipline and compliance to standards and regulations. The main functions of the Association mainly include, but not limited to, the following:

- developing industry norms in accordance with relevant policies, laws and regulations;
- undertaking the qualification review of meteorological service entities and competence review of meteorological service practitioners, with the authorization by government authority;
- conducting research and surveys on policies, laws and regulations, industry development and market trend in the field of meteorological services;
- organizing academic and technical exchange activities, and public education and awareness activities related to meteorological services.

As of the end of 2019, CMSA has already registered 586 members from public, private and academic sectors. Since its establishment, CMSA has carried out various activities in providing consultation to the government, servicing the development of enterprises, optimizing resource allocation, strengthening industry self-discipline, and fulfilling social responsibilities.

- The CMSA has organized various training and technical exchange activities around the needs of members, including meteorological equipment exposition and service technology innovation competitions;
- The CMSA develops industry norms, including 14 items of technological standards that have been published, and another 19 in formulation;
- Entrusted by the China Meteorological Administration, the CMSA selects main websites and mobile APPs for disseminating severe weather warning information in China and carries out the evaluation of the quality warning information dissemination (by such indicators as accuracy, timeless and compliance to CMA norms) on a quarterly basis;

- In 2019, the CMSA carried out the credibility ratings of the services and products provided by weather service enterprises, as a pilot project in cooperation with the Ministry of Commerce. So far, 33 members have passed the credibility rating trial evaluation and are rated as an A-level credit enterprise, They will become models and champions for the quality of weather services;
- The CMSA has developed and publicly releases “Meteorological Service Industry Prosperity Index” on a quarterly basis, and publishes “China Meteorological Service Industry Development Report” annually to track, monitor, and forecast the status and trend of the meteorological service market. These provides in-depth analysis and professional references for the government, industry and members to make operational decisions.
- The CMSA works with academic institutions, businesses and other relevant civil societies to carry out activities fulfilling social responsibilities. An exemplary activity of this kind is the evaluation of local climate resources for their ecological and recreational values. The outcome of the evaluation has been welcome and widely used in boosting local tourism, green development and poverty reduction.

References

- Meteorology Law of the People's Republic of China (adopted on October 31, 1999) ([Reference](#))
- China Meteorological Data Service Center. ([Reference](#))
- The 4th China meteorological equipment and services exhibition of 2019 focuses on marine meteorological science and technology ([Reference](#))
- China Meteorological Service Association was established to promote the development of meteorological service industry, March 2015. ([Reference](#))
- Press conference of China's "Natural Oxygen Bar" tourism and culture festival. ([Reference](#))