

Translation



The following Chinese regulation governs the collection, protection, and sharing of scientific data. The regulation states that, as a general principle, scientific data should be shareable, but it also strictly limits the sharing of certain types of data, such as classified information and data to be shared with foreign researchers.

Title

Measures for the Management of Scientific Data
科学数据管理办法

Author

General Office of the State Council (国务院办公厅). The State Council, also known as the Central People's Government of the People's Republic of China (PRC), is the executive branch of the PRC government.

Source

Website of the Central People's Government of the PRC. The *Measures* were finalized on March 17, 2018 and published on April 2, 2018.

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http://www.gov.cn/zhengce/content/2018-04/02/content_5279272.htm

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Measures for the Management of Scientific Data

Chapter 1 General Provisions

Article 1 In order to further strengthen and regulate the management of scientific data, ensure the safety of scientific data, improve the level of open sharing, better support national science and technology (S&T) innovation, economic and social development, and national security, these *Measures* are formulated in accordance with the *Law of the People's Republic of China on Progress in Science and Technology*, the *Law of the People's Republic of China on Promoting the Commercialization of Scientific and Technological Achievements*, and the *Interim Measures for the Management of Government Information Resource Sharing*.

Article 2 The scientific data referred to in these *Measures* mainly include data generated through basic research, applied research, experimental development, etc., in fields such as natural science and engineering technology and science, and original data and derived data obtained and used for scientific research activities through observation and monitoring, inspection and surveying, and investigation and testing.

Article 3 These *Measures* apply to scientific data collection, production, processing, open sharing, and management activities supported by government budget funding.

Any unit or individual engaged in scientific data-related activities within the People's Republic of China that meets the provisions of these *Measures* shall carry out said activities in accordance with these *Measures*.

Article 4 Scientific data management follows the principles of graded management (分级管理), security and controllability, and full utilization, clearly defines the responsible entity, strengthens capacity building, and promotes open sharing.

Article 5 Any unit or individual engaged in the collection, production, use, and management of scientific data should comply with relevant national laws and regulations and departmental regulations, and must not use scientific data to engage in activities that harm national security, the public interest of society, and the legitimate rights and interests of others.

Chapter 2 Duties

Article 6 The work of scientific data management implements a system of national coordination and ministerial and regional division of labor.

Article 7 The State Council's science and technology administrative ministries take the lead in the macro management and comprehensive coordination of national scientific data. Their main duties are:

- (1) Organizing research and formulating national scientific data management policies and standards;
- (2) Coordinating and promoting the normative management, open sharing, and evaluation of scientific data;
- (3) Coordinating the construction and development of the national scientific data centers;
- (4) Taking responsibility for the construction and data maintenance of the national scientific data network management platform (国家科学数据网络管理平台).

Article 8 The main duties of the relevant ministries of the State Council and the relevant departments of the provincial people's governments (hereinafter referred to as the managing departments) in terms of scientific data management are:

- (1) Taking responsibility for establishing and improving the scientific data management policies and rules and regulations of the department (region), and promoting the implementation of national scientific data management policies;
- (2) Guiding the legal person units under their jurisdiction to strengthen and standardize scientific data management;
- (3) Carrying out or authorizing relevant units to carry out the work of scientific data classification (定密) according to national regulations;
- (4) Coordinating the planning and construction of the department's (region's) scientific data centers, and promoting the open sharing of scientific data;
- (5) Establishing a complete and effective incentive mechanism, and organizing the evaluation of the scientific data work of the legal person units under their jurisdiction.

Article 9 Relevant research institutes, higher education institutions, and enterprises (hereinafter referred to as legal person units) are the responsible entities for scientific data management. Their main duties are:

- (1) Implementing national and departmental (local) scientific data management policies, and establishing and improving their own internal scientific data management systems;
- (2) Carrying out scientific data collection, production, processing, and long-term preservation in accordance with relevant standards and norms to ensure data quality;
- (3) Carrying out scientific data secrecy and security management work in accordance with relevant regulations;
- (4) Establishing a scientific data management system, publishing an open catalog of scientific data and updating it in a timely manner, and actively carrying out scientific data sharing services;
- (5) Taking responsibility for the provision of necessary software, hardware, facilities, funding, and personnel support for the operation of scientific data management.

Article 10 The scientific data centers are important vehicles for promoting the open sharing of scientific data. They are established when managing departments entrust them to qualified legal entities. Their main duties are:

- (1) Undertaking the integration and exchange of scientific data in relevant fields;
- (2) Taking responsibility for the grading and categorizing, processing, and analysis of scientific data;

(3) Ensuring the safety of scientific data and promoting the open sharing of scientific data in accordance with laws and regulations;

(4) Strengthening scientific data exchanges and cooperation both domestically and internationally.

Chapter 3 Collection, Submission, and Preservation

Article 11 Legal entities and scientific data producers should organize scientific data collection, production, and processing in accordance with relevant standards and norms to form databases or datasets that are easy to use.

Legal entities should establish a scientific data quality control system to ensure the accuracy and usability of data.

Article 12 Managing departments should establish a scientific data submission system and carry out scientific data submission work for their department (region) based on the national unified government network and data sharing and exchange platform (国家统一政务网络和数据共享交换平台).

Article 13 The scientific data formed by S&T programs (special projects, funds, etc.) funded by government budget funds should be submitted to the relevant scientific data center by the leading unit of the project. The scientific data center receiving the data should issue a submission certificate.

Departments managing various levels of S&T programs (special projects, funds, etc.) should establish a mechanism for submitting scientific data before accepting S&T programs (special projects, funds, etc.); scientific data generated after project/task acceptance should also be submitted.

Article 14 Managing departments and legal entities should establish and improve the management system for the submission of academic paper data at home and abroad.

When scientific data formed by government budget funds are used to write and publish papers in foreign academic journals and it is necessary to submit corresponding scientific data, the authors of the paper should submit the scientific data to their unit for unified management (统一管理) before the paper is published.

Article 15 Scientific data involving state secrets, national security, and the public interest formed by social funding¹ must be submitted in accordance with relevant regulations.

Other scientific data formed by social funding are encouraged to be submitted to the relevant scientific data center.

Article 16 Legal entities should establish a scientific data preservation system, equip necessary facilities for data storage, management, service, and security, to ensure the integrity and security of scientific data.

Article 17 Legal entities should strengthen the building of a scientific data talent cadre, and establish incentive mechanisms in terms of setting up job openings, performance income, and professional title evaluation.

Article 18 The S&T administrative ministries of the State Council should strengthen the overall layout, and on the basis of scientific data centers with good conditions and obvious resource advantages, optimize and integrate them to form national scientific data centers.

Chapter 4 Sharing and Utilization

Article 19 Scientific data formed with the aid of government budget funding should follow the principle of being openly available by default and being closed off only in exceptional circumstances. The managing departments should compile catalogs of scientific data resources, connect the relevant directories and data to the national data sharing and exchange platform in a timely manner, and make them open to the public and to relevant departments, facilitating the sharing of scientific data between military and civilian channels. Exceptions apply where there are special provisions under national laws and regulations.

Article 20 Legal entities must grade and categorize scientific data, clarifying the classification level, the length of time the data are to be classified for, conditions for opening, entities the data can be opened to, and the review processes for, scientific data. They should publish catalogs of open scientific data as required, and share them with the public via online downloads, offline sharing, or customized services.

¹ Translator's note: The Chinese term 社会资金, translated literally as "social funding," and its synonyms "social capital" (社会资本), "social investment" (社会投资), and "social financing" (社会融资), refer to any source of funding outside of government budget outlays. These terms encompass investment by private individuals and private institutions. However, investment from state-funded entities such as state-owned enterprises (SOEs), including state-run banks, also falls under the umbrella of "social funding."

Article 21 Legal entities should analyze and mine scientific data according to demand, create valuable scientific data products, and provide value-added services. Social organizations and enterprises are encouraged to provide market-oriented value-added services.

Article 22 Managing departments and legal entities should actively promote the publication and dissemination of scientific data, supporting researchers in organizing and publishing scientific data with clear property rights, accurate and complete information, and high sharing value.

Article 23 Users of scientific data should comply with intellectual property regulations, acknowledging the scientific data they have used and cited in their papers, patent applications, monographs, and other works.

Article 24 For needs such as government decision-making, public safety, national defense construction, environmental protection, disaster prevention and mitigation, and public interest scientific research that require the use of scientific data, legal entities should provide them free of charge. For those that need to charge fees, they should formulate reasonable charging standards according to the prescribed procedures and non-profit principles, announce them to the public, and accept supervision.

For business activities that require the use of scientific data, both parties should sign a paid service contract that clearly defines each party's rights and obligations.

Where there are special provisions in national laws and regulations, these provisions should be followed.

Chapter 5 Secrecy and Security

Article 25 Scientific data related to state secrets, national security, the public interest of society, trade secrets, and personal privacy should not be shared openly. If it is necessary to open them up to the outside world, the purpose of use, user qualifications, secrecy conditions, etc. should be reviewed, and the range of people who are informed should be strictly controlled.

Article 26 The collection, production, processing, organization, management, and use of scientific data involving state secrets should be carried out in accordance with the relevant national secrecy regulations. Managing departments and legal entities should establish a sound management and use system for scientific data involving state secrets, and strictly manage production, review, registration, copying, transmission, destruction, and other processes.

When it is necessary to provide scientific data involving state secrets in foreign exchanges and cooperation, legal entities should clearly state the type, scope, and

purpose of the data to be used, and apply for approval from the managing department according to secrecy management procedures. Upon approval by the managing department, legal entities should carry out relevant procedures as required and sign a confidentiality agreement with the user.

Article 27 Managing departments and legal entities should strengthen the security management of the entire life cycle of scientific data, and formulate protective measures for scientific data security. They should strengthen management of data download authentication, authorization, and other protective measures, to prevent data from being maliciously used.

For scientific data open catalogs that need to be published or scientific data that need to be provided to the outside world, managing departments and legal entities should establish corresponding security and secrecy review systems.

Article 28 Legal entities and scientific data centers should establish a cybersecurity assurance system in accordance with national cybersecurity management regulations, adopt secure and reliable products and services, improve data control, attribute management, identity recognition, behavior traceability, blacklists, and other management measures, and establish a sound system for tampering prevention, leakage prevention, attack prevention, virus prevention, and other security protections.

Article 29 Scientific data centers should establish emergency management and disaster recovery backup mechanisms, establish emergency management systems as required, and back up important scientific data off-site.

Chapter 7 Supplementary Provisions

Article 30 Managing departments and legal entities should establish and improve the evaluation and assessment system for scientific data management and open sharing work.

Article 31 For acts such as faking data, infringing on intellectual property rights, and not submitting data as required, the managing departments may, depending on the severity of the case, give the relevant units and persons responsible rectification orders, criticism, disciplinary actions, or administer administrative penalties according to law.

For units and individuals who violate relevant national laws and regulations, they shall be held accountable according to law.

Article 32 The managing department can refer to these methods to formulate specific implementation rules. The management system for scientific data in the field of national defense is separately stipulated by relevant departments.

Article 33 These *Measures* shall be implemented from the date of issuance.