Ministry of Agriculture, Food and Rural Affairs

PRESS RELEASE

FOR IMMEDIATE RELEASE
Date of Release: 14 July 2026

FOR MORE INFORMATION
Seung-ho Choi, Foreign Press Spokesperson
TEL: 82-44-201-1120
E-mail: csh9731@korea.kr

S. Korea Establishes Data Strategy for AI Transformation in Agriculture and Rural Area

Sejong, 14 July 2026 — The Ministry of Agriculture, Food and Rural Affairs (MAFRA) released its AI transformation strategy for agriculture and rural areas in March. On 29 June, as a follow-up, the Ministry has established the AI data strategy for agriculture and rural areas to support the data-driven transformation in agriculture and rural communities.

Recent years have seen rapid changes in the agricultural environment, including climate change, an aging farming population, and rising production costs. In response, precise prediction and decision-making using artificial intelligence are emerging as key factors in agricultural competitiveness.

However, agricultural and rural data are currently dispersed across institutions and projects, and weak standardization and quality management systems have resulted in a shortage of high-quality AI-ready data suitable for machine

learning.

In response, the Ministry has set a vision of realizing AI-driven agriculture and rural development for all through data-driven transformation. To this end, the Ministry will pursue 15 detailed tasks under four major strategies: (1) expanding the collection and linkage of sufficient agricultural and rural data, (2) enhancing data value through standardization and quality management, (3) building a service system accessible to all users, and (4) establishing organisational and institutional foundations for a virtuous data cycle.

The first major strategy is as follows: The Ministry will strengthen farmers' data utilisation capabilities so that they can become key actors in the agricultural AI transformation process. At the same time, a foundation will be established in which high-quality field data is evaluated and traded, enabling farmers to generate new added value.

First, leading farmers with strong data utilisation capabilities, together with producer organisations, associations, and research groups, will guide other farmers, expanding the foundation for the production and use of high-quality agricultural data in the field. To this end, the Ministry will review the implementation of the Agricultural AI Data Consulting Voucher programme, which uses farm-level operational data to address on-site agricultural challenges. The programme aims to strengthen all farmers' capacity to use data and AI and to support their development as producers of high-quality data.

In addition, the Ministry will provide structured support to ensure that the value of standardised, high-quality farm data—produced by farmers utilising their enhanced data literacy—is fairly recognised. To this end, the Ministry will

establish the foundation for data quality certification, data valuation, and data trading. High-quality farm data will be linked to government procurement and private-sector transactions through a data marketplace within the AI data hub for agriculture and rural areas currently under development, enabling farmers to generate data-based income in addition to traditional agricultural production and sales.

The second major strategy focuses on the systematic identification and linkage of data dispersed across agricultural and rural areas and institutions. Mechanisms will also be established for the automatic accumulation of field-level data, thereby building a sufficient data foundation for the AI transformation of agriculture and rural areas.

The first step in the agricultural and rural AI transformation is identifying what data exists and where it is located. To this end, the Ministry plans to conduct a comprehensive Agriculture and Rural AI Data Survey to map the location, status, and AI usability of public and private datasets, with a particular focus on AI model development needs across sectors. The Ministry will then visualise the results as a data map and data gap map.

The Ministry will also address the “data silo” issue, where data is separately managed by institutions or programmes and is therefore difficult to use in an integrated manner. A data pipeline connecting data held by the Ministry of Agriculture, Food and Rural Affairs, the Rural Development Administration, local governments, and private companies will be established to link production, distribution, consumption, and rural life data into forms usable by AI.

- Data pipeline: a data communication channel through which raw data remains within each

institution, and is connected, processed, and exchanged in mutually agreed formats and methods when needed for AI use.

In addition, the burden of collecting field data will be reduced by a new system that automatically collects and accumulates data generated through the operation of agricultural machinery, facilities, and distribution equipment. The data will then be used for AI training and policy analysis.

The third major strategy aims to establish standards for managing the entire lifecycle of agricultural and rural data and promote data valuation through quality management.

A standardised data management framework covering the entire data lifecycle—from collection and production to management and utilisation—will be established so that agricultural and rural data can be used reliably in AI training and service development. In particular, the Ministry will systematically establish data standards tailored to the characteristics of agro-industrial sectors such as smart farming, livestock, agricultural machinery, distribution and consumption, and food sectors. An AI-based quality management system will also be introduced to automatically detect and correct errors and missing data.

A data valuation framework will be established so that high-quality agricultural and rural data is recognized and utilised as a new asset. High-value data, such as data on plant diseases and crop growth, will be developed into shared public datasets and made openly available. Based on these datasets, shared AI models tailored to the agro-industry will also be provided, enabling companies and research institutions to develop AI services more easily without having to make their own foundational or duplicative investments.

The final major strategy aims to lay the foundation for a virtuous cycle of data utilisation and transactions. To this end, the Ministry will make AI-ready data publicly available, provide one-stop support services for data discovery and utilisation, and establish a secure data trading framework and a new AI data hub.

Existing public data will be converted into formats suitable for AI training and made publicly available. Data containing personal information that could not previously be released will be made available in anonymised or synthetic forms.

A one-stop service will be established to provide a single point of access for the entire process of locating and using data for the AI transformation of the agro-industry. A data catalogue, AI-powered search, and sample datasets will enable users to easily find and use the data they need, while an agricultural AI data support centre will provide assistance with practical challenges such as data processing, analysis, transactions, and dispute resolution.

A secure framework for data transactions will also be established by defining farmers' data rights and introducing a standard contract for agricultural data transactions. The data marketplace will support transaction methods tailored to user needs and standardise procedures for contracting, data use, billing, and dispute prevention, ensuring that data providers and users can conduct transactions with confidence.

Finally, the Ministry plans to establish an AI data hub to support the effective implementation of its AI data strategy. The hub will provide integrated support for the collection, integration, sharing, trading, and utilisation of agricultural and rural data, while converting agricultural and food big data into AI-ready

data. It will also support private-sector companies in developing AI solutions by allowing them to access shared datasets, AI models, GPUs, and cloud resources, while ensuring that revenue generated from the data is returned to the farmers who provide it.