

China's Agricultural Informatization Situation

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Recently, the Chinese central government attached great importance to the development of agricultural information system. On June 28, 2012, the State Council issued a set of opinions on vigorously advancing informatization and thoroughly ensuring information security, demanding that efforts be taken to push forward the development of agricultural and rural information system so as to further grow the agricultural sector and benefit farmers as well. On Sept. 15, 2012, then Vice President Xi Jinping said that the IOT (Internet of Things) should be better used to boost production and bring benefits to people's lives. In November 2012, the 18th CPC National Congress outlined the strategy of synchronizing the Four Modernizations, which set the direction for faster development of agricultural information system and made clear the goals and tasks in this regard.

Continued improvement in policy environment

The Guideline on the Development of Agricultural and Rural Information System During the 12th Five-Year Period (2011-2015) put forward Five Tasks, Four Areas, Three Projects and Four Measures. According to the document, work in this regard would focus on comprehensive promotion of informatization in agricultural production and business operation, constantly improving information services in the agricultural sector with emphasis on key demonstration projects.

A nationwide agricultural and rural information system came into shape, featuring an information agency in every county, an information station in every town and an information post in every village. By the end of June 2012, China saw 31 provinces (autonomous regions and municipalities) set up departments in charge of agricultural and rural information with full-time personnel, 55.3% of the counties establish special administrative agencies Responsible for agricultural and rural information, and 48% of the counties install an agricultural information service station in every town. Meanwhile, every town in Beijing, Jilin, Heilongjiang, Zhejiang, Anhui and Chongqing had its own agricultural information service station. Across the country, village-level information posts numbered 156,000, among which 47% were equipped with computers and had access to the Internet. Those posts mobilized a total of 181,650 informants.

Further consolidation of related infrastructure

In 2012, all towns across the country had been connected to the Internet. Local governments had also sped up effort to extend broadband service to every administrative village. As a result, 87.9% of all the country's administrative villages had Internet connections, and the rural population with access to the Internet increased by 19.6 million in the year, bringing the total number of people in that category to 156 million, which accounted for 27.6% of the

country's total number of netizens. Among rural residents, the number of computers owned by every 100 households had risen to 18 sets.

The year also witnessed remarkable progress in rural telecommunication services. After hooking up every administrative village to the telecommunication grid, efforts were switched to providing telecommunication services to sparsely populated rural areas. In 2012, 11,000 more remote natural villages were connected to the telecommunication network and phone services were extended to 95.2% of all natural villages with more than 20 households, up from the 94.7% in the previous year, while mobile phone ownership amounted to 180 sets per 100 households, making it the primary tool for rural dwellers to access information.

The coverage of radio and TV services in rural areas was expanding from every village to every household. For those rural areas without cable network, the Publicity Department of the CPC Central Committee and the State Administration of Radio, Film and Television (SARFT) jointly unveiled the "Satellite TV Service for Every Household" project, providing rural residents 25 TV channels and 17 radio channels of programs free of charge. By November 15, 2012, the number of direct broadcast satellite users increased by 3.94 million, bringing the coverage in rural areas to 96.1%.

Marked progress in exploitation and utilization of agricultural information resources

In 2012, significant improvement was made in the informatization of the country's agricultural administration system. The first phase of the "Golden Agriculture" project, an e-government system for agriculture, was completed. Achievements in this regard included a platform of national agricultural administration, an agricultural data center and a secondary data center of agricultural science. The system connected the MoA with the State Grain Administration and the data center under the General Administration of Customs. The system's current 31 online functions included data collection, consultation, business supervision, administrative approval and emergency response. The e-government system for agriculture became better, and an agricultural portal website cluster covering the ministerial, provincial, municipal and county levels was basically established. Agricultural departments at various levels had set up and put into use a large numbers of e-government platforms, which effectively boosted innovation in agricultural administration and improved the capacity of agricultural departments in supervising economic activities, decision-making, management and services.

The year also saw increasing resources of agricultural information. Bolstered by the development of national agricultural data center and the secondary data center of agricultural science, the MoA established 40 channels of information-gathering and over 8 000 information posts, from which agricultural information flowed continuously into 14 large scale agricultural data bases. Local agricultural departments also set up a lot of data bases surrounding agricultural production, science and technology, market and policies and regulations.

Agriculture websites moved toward providing more practical functions. As of 2012, agriculture-related websites in the country topped 40,000, over 90% of which were sponsored by agriculture-related enterprises and organizations. The businesses had replay government departments as the main force in running such websites. Sector-specific agricultural websites played a key role in guiding the market. Meanwhile, the e-commerce websites also witnessed a boom. The active participation by leading agricultural enterprises helped the formation of

many characteristic agricultural e-commerce websites and remarkably increased the practicality of agriculture-related websites.

Improvements in comprehensive agricultural services

The development of information service platforms had achieved great results. As of 2012, the MoA had used some 100 million yuan of financial and infrastructure funds as well as local matching funds to set up 32 information service platforms at the provincial level, 78 at the municipal level and 352 at the county level. An overwhelming majority of Chinese provinces (autonomous regions and municipalities) had opened the 12316 agricultural service hotline and the annual number of consultations reached tens of millions, which helped farmers increase their income and avert economic loss amounting to 1 billion yuan. In both Liaoning and Jilin, the total population used this hotline service surpassed 2 million in 2012, with the average daily telephone traffic at 6,000 call-ins and the peak at 20,000 per day. Statistics showed that the 12316 hotline had covered a third of farming households nationwide.

Information services also became more diversified. Agricultural departments used various means of communication such as telephone, radio, TV and the Internet to gradually build up a comprehensive service platform. And useful information on agricultural production, market situation, agriculture policies and related laws and regulations were also relayed to many farming households via the 12316 hotline.

The service scope of agriculture information system was further extended. While providing basic services such as consulting, agricultural departments also tried to tap into the full potential of the information system so as to open new services, besides the timely publication of information on agricultural production, business operation, markets and policies. The service scope had been extended to legal consultation, civil mediation, e-commerce and on-demand broadcasting of cultural programs. This extension of information services had narrowed the digital gap between cities and rural areas and pushed forward a lifestyle change among farmers and forcefully promoted coordinated socioeconomic development in the cities and rural areas.

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