Cultural Development Gets Timely Investment

Policy

By ZHONG Jianli

China's ongoing commitment to reform its cultural facilities and services has taken a significant step forward, with the release of a new set of economic policies aimed at promoting high-quality cultural development.

The policies emphasize that a diversified funding structure is to be developed to ensure that key cultural planning and project expenditures are adequately supported. The effective use of funds to improve cultural services and the supply of cultural products is encouraged.

Local governments are motivated to develop cultural facilities tailored to regional characteristics, aspiring to create world-class libraries, museums, art galleries, and science centers with Chinese features. Areas with the capability are advised to implement incentive policies for extending operational hours of free public cultural facilities, enhancing accessibility and services for the elderly.

Furthermore, support will be directed towards disaster prevention and safety monitoring systems for cultural heritage.

Visitors learn about deep-sea fish at the Ocean Hall of Xiamen Science and Technology Museum. (PHOTO: VCG)

The initiatives also call for improving international collaboration in the cultural sector, encouraging the establishment of overseas cultural institutions, facilitating international culture-related assistance, and supporting the development of national cultural trade bases.

The cultivation of key cultural export enterprises with international competitiveness will be accelerated so as to promote cultural products and services "going global."

Meanwhile, banking institutions are encouraged to increase their financial support for cultural enterprises, including providing high-quality cross-border payment settlement services for cultural trade enterprises.

On the technology front, the policies outline a commitment to exploring effective mechanisms for merging culture and technology. They emphasize the use of Internet thinking and information technology to refine cultural creation and production processes, thereby supporting the digital empowerment and transformation of the cultural sector.

The document proposes that both national and local technological development plans increase their backing for cultural technology innovation, while promoting the establishment of national technology innovation centers within the cultural sector.

A robust service system for cultural technology innovation will also be developed to accelerate the conversion of innovative cultural technologies into practical applications.

Plans are also in place to supplement data standardization in the cultural sector, and cultural enterprises and institutions are encouraged to develop and utilize cultural data resources. Another focus area is supporting the construction of digital culture infrastructure and creating comprehensive cultural data service platforms.

In addition, the initiatives will work towards building high-quality AI datasets within the cultural sector while supporting the development of large AI models.

Emphasis will also be placed on elevating the digitalization of cultural trade and fostering the growth of digital cultural content on an international scale.

Case Study

Tech-driven Cattle Farming in Beijing's Suburban Town

By WANG Junming, SUN Mingyuan, HUA Ling & ZHONG Jianli

In the bustling cattle barns of Doudian Hengsheng Livestock Breeding Center, one of Beijing's largest and most technologically advanced beef cattle farms, rows of robust black Angus and golden-red Limousin cattle leisurely munch on feed.

Located in Beijing's Fangshan district, Doudian town has long been a hub for cattle farming. Today, its premium beef — an essential product for Beijing consumers during the Spring Festival — is not just a local delicacy but a symbol of how technology is revolutionizing agriculture and husbandry.

Smart farming: from 'cow ID' to data-driven ranching

Every morning at 7 a.m., upbeat music fills Hengsheng's barns as studies suggest that harmonious melodies reduce stress, improve digestion, and enhance meat quality.

Besides the "music therapy," each cow there wears an "intelligent ear tag," a digital identifier that tracks its birthdate, lineage, weight and health history. Around their necks, motion-sensing collars — akin to human fitness trackers — monitor their daily activity levels to ensure they meet the step counts required to stay healthy. Overhead, a network of sensors measures real-time environmental data, from humidity to harmful gas levels, transmitting the information to cloud-based systems for analysis.

With digital, intelligent technologies, a team of just over a dozen workers can manage 4,000 cattle efficiently.

The company collaborates with China Agricultural University (CAU), tapping into their academic expertise for breed optimization, according to Wu Lianfang, general manager of Hengsheng Livestock. Wu said the ranch serves as a CAU postgraduate research base, where Ph.D. candidates tackle real-world challenges alongside farmers.

Circular economy: where microbes meet cattle

In Doudian, sustainability is more than a buzzword — it's a closed-loop system.

Cattle manure, once an environmental burden, is now processed using microbial technology developed with Beijing Aerospace Hengfeng Technology Co., Ltd. The result is the "Hengsheng Cattle," a new type of microbial agent that can be absorbed more than twice as effective as conventional nitrogen alternatives, enriching local crops while reducing pollution.

"Many experiments in the cattle industry are related to microorganisms," said Li Xiaodong, a manager at Hengfeng Livestock, explaining that after the harmless microbial treatment, the cattle manure can be utilized for energy and fertilizer, thus developing a circular economy.

Doudian's cattle industry now spans agriculture, animal husbandry, commerce and tourism. The town supplies high-end beef to markets across Beijing, including the iconic Niujie and Changyang areas. An entertainment and dining complex invites visitors to savor locally sourced steaks while learning about modern farming.

"Our cattle industry isn't just about jobs; it's about creating shared value through innovation," said Wang Qi, deputy chief of Doudian.

According to Wang, the town's total income and per capita net income increased by four percent and 7.1 percent in 2024 respectively.

The cattle barn of Doudian Hengsheng Livestock Breeding Center. (PHOTO: SUN Mingyuan / Science and Technology Daily)

Green Tech Aids China's Industrial Evolution

By WANG Manxi

Over 100 advanced green technologies have been selected to help China cultivate and develop green and low-carbon industries, and provide technical support for the green transformation of the country's economic development.

The National Development and Reform Commission (NDRC), the Ministry of Science and Technology and six other departments recently issued the *Green Technology Promotion Catalog (2024 Edition)*, which details the 112 green technologies across seven sectors. They are energy conservation and carbon reduction industries, environmental protection industries, resource recycling industries, green and low-carbon energy transformation, ecological protection, restoration and utilization, green upgrading of infrastructure, and green services.

The catalog serves as a practical tool to guide relevant entities in adopting green technologies. The technologies span a wide range of applications, targeting industries such as steel, petrochemicals, chemicals, construction, transportation and new energy. For each technology, the catalog outlines its technical processes, key parameters and case studies, which helps accelerate market adoption.

It plays a pivotal role in accelerating the transformation of green tech achievements into practical applications. The NDRC highlighted the fact that platforms such as the National Green Technology Trading Center will be fully utilized to organize achievement promotion activities and bridge the gap between supply and demand. Additionally, financial institutions are encouraged to enhance financing support through green credit, green bonds and carbon emission reduction tools.

For green technologies to gain market acceptance and achieve rapid adoption, they need to demonstrate tangible economic benefits. The catalog serves as an effective instrument to expedite the industrial application of green technologies. For enterprises, the advanced and applicable technical pathways outlined in the catalog act as a catalyst for green and low-carbon transformation. By adopting a "catalog-based" promotion approach, the costs of market screening are significantly reduced, and the commercialization cycle for technologies is shortened.

The technologies in the catalog will help build a green, low-carbon and circular economy, which is a key link in achieving high-quality development.

These photovoltaic panels located in Inner Mongolia autonomous region supply green energy to China's eastern coastal areas. (PHOTO: VCG)

Plan for Healthy Whole Grain Diet

By CHEN Chunyou & MA Aiping

Whole grains retain their natural dietary fiber, micronutrients and bioactive substances, while the refining process largely removes them. Increasing the supply and consumption of whole grains not only helps reduce food loss and waste and enhance food security, but also promotes balanced nutrition and improves public health, said Wang Hong, spokesperson for the National Food and Strategic Reserves Administration (NFSRA), at a recent press conference.

By 2035, public awareness of whole grains should improve significantly, the proportion of whole grains in dietary consumption should rise markedly, and consumption levels should align with China's socio-economic development, according to a national whole grain action plan issued by the National Development and Reform Commission, the NFSRA, the Ministry of Science and Technology and other four government departments in last December. The plan covers the period between 2024 and 2035.

What are whole grains?

In simple terms, natural grains comprise the endosperm, germ and bran. Whole grains retain these three components after the inedible husk is removed, maintaining an extraction rate of over 98 percent, explained Tan Bin, chief scientist at the NFSRA Academy.

Research shows that whole grains contain 40-90 percent more B vitamins, such as B1, B2, folic acid and niacin, as well as essential minerals like calcium, iron and zinc, compared to refined grains, Tan said. "These micronutrients play a crucial role in brain functions and maintaining a healthy metabolism."

However, whole grain consumption in China currently accounts for less than one percent of total grain consumption. The action plan aims to address this by 2035, ensuring a wider variety of high-quality whole grain products to meet nutritional needs. A dynamic balance between supply and demand will be achieved, fostering a comprehensive, efficient, and sustainable whole grain development ecosystem.

Overcoming challenges

"Due to the better taste and easier storage of refined grains, Chinese consumers have long preferred white rice and refined flour," Tan said. "We should bridge the gap between the supply and demand for whole grains, changing the current mindset where consumers are reluctant to buy or eat them, and enterprises are hesitant to produce them."

Advancing China's whole grain industry, according to Tan, requires a comprehensive and sustained effort. This effort should include supportive policies such as funding for public education, scientific research, industry guidance, and incentives for local governments to promote whole grain consumption.

Such measures will encourage collaboration across the entire supply chain, integrating agriculture, nutrition, healthcare and wellness, ultimately making whole grains a viable alternative for better public nutrition.

In addition to raising public awareness, further initiatives are necessary, including the development of whole grain standards, innovation in whole grain science and technology, and the enhancement of the whole grain industry, Tan said.

Agricultural technicians conduct a wheat growth survey in the fields of Huayanghe farm in Susong county, Anqing city, Anhui province, February 7, 2025. (PHOTO: VCG)

Spring Festival Consumption Upgrades Traditional Products

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Liuyang's fireworks are increasingly making their mark in global markets, particularly with significant growth in exports to Germany. The city, home to a complete fireworks production chain from research and design to logistics, is a significant player in the international fireworks industry, and its products are in high demand during the festive period.

Innovative technologies have propelled Liuyang to the forefront of the industry. The integration of drones and AI in fireworks shows has sparked new interest both domestically and internationally. Adopting a "fireworks plus tourism" strategy, the city organizes regular shows that attract millions of tourists annually, generating significant economic benefits. This fusion of technology and tradition has enabled Liuyang to maintain its leadership in the fireworks sector.

Traditional steamed bun charms nation

The huabobo, a type of steamed bun with colorful patterns, is a symbol of the Chinese New Year celebrations in Qingdao, a coastal city in Shandong province, east China. It is often shaped into flowers, animals and auspicious symbols and is a longstanding tradition in the area. Known for its intricate designs and symbolism, it is a quintessential part of local Chinese New Year customs.

In recent years, the huabobo has entered the commercial market. Qingdao-based Shengkelong Food Co. reported a 20 percent annual growth in their sale of these decorative pastries. As the product becomes increasingly popular across China, it is increasingly making its way onto online platforms, reaching a broader range of consumers from different regions.

The traditional making of these pastries, once passed down from generation to generation, has been modernized to meet mass production demands while maintaining the artistry and cultural significance of the craft.

Beyond the abalone, fireworks and huabobo, Spring Festival consumption at large is thriving as Chinese consumers embrace a growing desire for unique, high-quality, and culturally significant goods. The popularity of these three products exemplifies this trend. They are not just a staple of the traditional celebration, but have evolved into cultural exports and modernized commodities with both economic and symbolic value.