

Science and Technology Daily

VOL.3-NO.112

THURSDAY, SEPTEMBER 28, 2023

WEEKLY EDITION

Integrating Development with Global Prosperity, Stability

Edited by Staff Reporters

The world is facing severe challenges in global development, standing at the crossroads of the future and the destiny of humanity. President Xi Jinping proposed the Global Development Initiative (GDI) in 2021, with the aim of promoting more robust, greener and healthier global development.

On September 19, on the second anniversary of the launch of GDI, China held a high-level meeting to showcase the cooperation results of GDI at the UN headquarters in New York, demonstrating its determination to promote the implementation of the UN 2030 Agenda for Sustainable Development.

Since its proposal, the initiative has garnered widespread response and achieved many accomplishments.

Through more than 30 cases of international cooperation projects, GDI shows how China and the international community are collaborating to pioneer a new model of international development cooperation, according to a report released at the high-level meeting.

In September 2022, China set up a GDI project pool and released the first list of global development projects covering multiple areas such as poverty reduction, food security and industrialization. Over 10 of these projects have already been completed, while the remaining projects are progressing vigorously.

The GDI brings substantial changes and tangible hope to the global community by taking concrete actions, such as providing technical assistance in cultivating mycorrhizal fungi and upland rice to the Eastern Highlands province of Papua New Guinea; implementing the "East Asia Poverty Reduction Demonstration Cooperation Project" in six impoverished villages in Laos, Myanmar and Cambodia, and distributing food packages to children in poor communities in Nepal.

For people in developing countries, it is challenging to improve their life quality while making their lifestyles "greener." This June, a China-aided solar energy demonstration village project in Mali passed completion inspection. Tens of thousands of local residents benefited from this project, with a total of 1,195 off-grid solar home systems, 200 solar street lighting systems, 17 solar water pump systems, and two centralized solar power supply systems installed. See page 2

To Celebrate National Day



The 18-meter-tall display in the shape of a flower basket is placed at Tian'anmen Square in Beijing as a decoration for the upcoming National Day. (PHOTO: HONG Xing/S&T Daily)

Editor's Pick

SKA Milestone Displays China's Dedication to Science

By LIN Yuchen

The first mid-frequency dish antenna designed for the Square Kilometer Array (SKA) radio telescope began assembly in Shijiazhuang, north China's Hebei province, on September 20.

This is also the first of the 64 mid-frequency dish antennas China will contribute to the SKA, based on an agreement reached in December 2022 between the Ministry of Science and Technology and the Square Kilometer Array Observatory (SKAO). Recognizing China's efforts, William Garnier, director of communication at SKAO, said that from day one, China has been a strong proponent of the SKA project.

Construction milestone

The 54th Research Institute of China Electronics Technology Group Corpora-

tion (CETC54) is responsible for producing all 64 antennas. The success of the first SKA mid-frequency dish antenna marks a milestone in the SKA construction phase.

The remaining mid-frequency dish antennas can now begin production and will eventually be delivered to South Africa over time, where they will be installed to prepare for the full operation of SKA in early 2027.

The SKA is an international scientific project proposed in the early 1990s. It is the largest synthetic aperture radio telescope ever built, and is a multinational co-funded international scientific project.

Astronomers and engineers from hundreds of universities and research institutions in around 20 countries are involved in the project. The telescope is so named because the total receiving area

of the array of radio telescopes is one square kilometer, equivalent to around 140 football fields.

Extreme precision in installation

Aiming for exploring a wider universe, including searching for more galaxies and new cradles of civilization, SKA has demanding technical requirements in its antennas, most notably high sensitivity and direction accuracy.

"We have carried out research on key technologies, such as control system design, dynamic simulation, calibration, debugging, test methods and test verification, and completed the design, processing and integration of the control system with high electromagnetic compatibility," Du Biao, chief designer of the SKA mid-frequency dish antenna at CETC54, told *Science and Technology Daily*.

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Improving People's Scientific Literacy

Edited by WANG Xiaoxia

The Qinghai Provincial Natural Resources Museum in Qinghai province, northwest China, recently welcomed a group of children from Datong, a county in Xining city, the provincial capital.

The young visitors looked excited to explore the mysteries of landforms and the origin of Earth, and credit for the visit goes to the drive held nationwide from September 17 to 23 to celebrate National Science Popularization Day.

Launched in 2004, the day is a reminder to respect the forces of creation and follow scientific laws. Science popularization is given the same importance as sci-tech innovation, as they both underpin innovation-led development.

The proportion of scientifically literate Chinese citizens increased to 12.93 percent in 2022, up 9.66 percentage

points from 2010. China's modern science and technology museums have received more than one billion offline visitors.

Since ancient times, when people looked up at the stars, their curiosity about the universe has never ceased, said Wu Xianguang, an academican of the Chinese Academy of Sciences, during his public lecture on September 2, which kicked off this year's "Science and China" lecture tour.

The lecture tour, started in December 2002 with the support of academicians and experts, has seen over 2,000 activities held nationwide to answer people's queries about science.

More people are showing interest in learning about science as well as popularizing science. Today, China has over one million full-time and part-time science communicators, including teachers, internet influencers, officials and volunteers.

Efforts are being made to improve the scientific literacy of the people and ensure more balanced allocation of science resources among regions, by organizing science exhibitions and lectures in schools, communities and factories in remote and less developed areas. A Mobile Science and Technology Museum tour has set up over 5,000 stops, bringing science education resources to nearly 2,000 counties in 29 provinces.

In the digital era, online platforms have enhanced access to scientific knowledge. A national online platform, the China Digital Science and Technology Museum, has more than 15 million users. China Science Communication, an important popular science resource base sponsored by the China Association for Science and Technology, has released thousands of videos and graphics to popularize science.

International Cooperation

China-Arab States Tech Transfer Mutually Beneficial

By Staff Reporters

The China-Arab States Technology Transfer and Innovation Cooperation Conference, a concurrent activity of the sixth China-Arab States Expo, was held on September 21 in Yinchuan, the capital of northwest China's Ningxia Hui Autonomous Region. Eight key cooperative projects were signed at the conference, along with the display of a range of advanced technologies.

The Ministry of Science and Technology (MOST) and the government of Ningxia jointly support the construction of the China-Arab States Technology Transfer Center (CASTTC), which has established a coordinated network connecting thousands of members, thus promoting cooperation in innovation, technology transfers and start-ups between China and Arab states, said Chen Jiachang, vice minister of science and technology, in his video speech to the conference.

Eight bilateral technology transfer centers have been established between Ningxia and some Arab states, with a batch of technology transfer projects achieving notable results. Since 2015, Ningxia University has signed a key biennial sci-tech cooperative project with Arab states. There are now seven demonstration bases, and training for technicians from 23 countries has been extensively conducted.

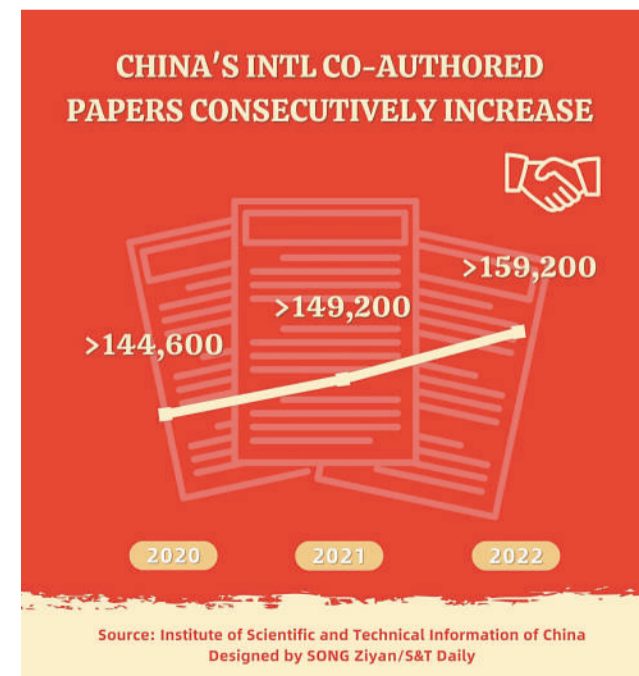
Guided by MOST, the displayed Chinese technologies were first collected by the Administration Center for China's Agenda 21 and CASTTC, and then selected by domestic and international experts.

Chen Fang, deputy director general of the Department of Science and Technology of Ningxia, said these technologies are fit for commercialized demonstration and promotion, and match the demand and concern for Arab states' sustainable development.

For example, South China University of Technology has developed a technology that can create high water-retentive soil to solve the problems of soil compaction and low water retention of sandy soil, which is a good fit for arid desert regions.

Professor Ismail Abdel Ghafar Ismail Farag, president of the Arab Academy for Science, Technology and Maritime Transport (AASTMT), said AASTMT has attended the conference for several consecutive times because they believe that it could provide pragmatic and reliable opportunities to strengthen deep and broad cooperation.

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