



# Science and Technology Daily

VOL.3-NO.81

THURSDAY, FEBRUARY 16, 2023

WEEKLY EDITION

## Pilot Zone Provides New Model for Digital Villages

By WANG Xiaoxia

The Cyberspace Administration of China, the Ministry of Agriculture and Rural Affairs and Zhejiang province recently signed a memorandum of cooperation to build a pilot zone of digital villages in Zhejiang and use this experience to roll the project out countrywide.

In terms of the construction of digital villages, Zhejiang is a national front runner. It was reported that in 2022, the digitalization rate of agriculture in Zhejiang reached 68.3 percent, ranking first in the country for the fourth consecutive year.

According to Zhejiang provincial government, by 2027, it will build 1,000 digital agricultural factories, 100 future farms and 1,000 demonstration villages, with the online retail sales of agricultural products reaching 180 billion RMB (around 26.5 billion USD).

To achieve these goals, Zhejiang will take full advantage of the support from central government, and accelerate the implementation of pilot projects and favorable policies.

Projects will be carried out to digitalize agriculture in rural areas, improve the efficiency of rural industries and the quality of public services with digital tools, popularize rural culture through the Internet, and upgrade governance and digital infrastructure, according to the memorandum.



Ice & Snow Metaverse

A visitor wearing a VR headset experiences the virtual ice slide at an ice and snow metaverse experience center in Harbin, northeast China's Heilongjiang province. (PHOTO: XINHUA)

## Solid Progress in Trade with BRI Countries

By Staff Reporters

The trade in goods between China and countries along the Belt and Road Initiative (BRI) reached 13.8 trillion RMB in 2022, soaring by 19.4 percent year-on-year, according to a press conference about China's commerce work and development in 2022 recently.

China established 12 new cooperative mechanisms in trade, investment and trade in service last year. The bilateral investment also witnessed growth. In particular, China's non-financial foreign direct investment to BRI countries hit 141.05 billion RMB and the latter to former reached 89.15 billion RMB, increasing by 7.7 percent and 17.2 percent respectively. The total value of newly signed contracts for engineering work with BRI countries in 2022 was 871.8 billion RMB.

High-quality cooperation projects had brought concrete benefits to local people. By the end of 2022, Chinese enterprises had invested 397.9 billion RMB in the economic and trade cooperation zones in BRI countries, creating 421,000 jobs for local residents.

Major projects like China-Laos railway and Hungary-Serbia Railway have made concrete progress, and projects on agriculture, medical service and poverty alleviation are also on the right track. Cooperation in new energy, environmental protection and new infrastructure also flourished.

In 2022, China signed 31 memorandums in the investment and cooperation of green development, digital economy and blue economy with BRI countries. Twenty-nine BRI countries have established a bilateral e-commerce cooperation mechanism with China, with highlighted activities like an online shopping festival for products from Africa.

This year marked the tenth anniversary of BRI, and the Ministry of Commerce (MOFCOM) will further promote smooth trade and cooperation in innovation investment and enhance quality and benefits of trade, in order to contribute to the high-quality development of BRI, said Yang Tao, director general of the Comprehensive Department of MOFCOM.

## Editor's Pick

## People-Centered Natural Forest Conservation

By LIN Yuchen

Since 1998, China has been initiating the Natural Forest Protection Program (NFPP) that aims to restore fragile systems in terms of forest coverage and stocking. By the end of 2020, the cumulative reduction of natural forest timber harvest was 332 million cubic meters. Furthermore, the total afforestation of China has now accounted for more than four percent of the global net green area growth.

As the world's first and only ecological program that focuses on protecting natural forests, NFPP bears the historical significance of transforming China's timber-harvest-oriented forestry industry into one which features ecological sustainability.

### Path to a greener land

The measures that have been implemented within NFPP areas include logging bans and systematic arrangements afterwards that ensure each component of work is attended to by designated individuals.

In some key protection areas like

the Northeast or Inner Mongolia regions, for example, a three-level forest management network system of counties, farms and stations was established.

More than 40,000 management stations of various types had been constructed by the end of 2010, and the number of state-owned forestry workers participating in the management process increased from 32,000 in 1998 to 227,000 in 2009, with more than 106 billion hectares of forests under effective management.

The timber production in these areas was reduced from 18.53 million cubic meters in 2000 to 10.94 million in 2010.

Beyond that, between 2012 and 2022, China planted more than 6.13 million hectares of national reserve forests, about the size of Croatia.

Large-scale afforestation is also accelerating. The two rounds of afforestation at national level have raised central funding of 570 billion RMB since 1999, benefiting nearly 158 million farmers or herdsmen in total.

An outstanding example of this can

be seen in the Chaxiang village in Guizhou. The national afforestation subsidy for farmland return per mu (about 0.06 hectare) was 150 kilograms grains and 20 RMB cash in 2000, when the local annual income per capita was less than 400 RMB.

A species of wild rose called *Rosa roxburghii* were then planted in the village. The plant's rosehip contains nutrients, including a significant amount of vitamin C and can produce juice for commercial use. By 2012, the average annual income per capita in Chaxiang village exceeded 10,000 RMB.

NFPP has received central funding of over 500 billion RMB to date, covering 31 regions nationwide, ranging from province to a district of a city, to curb commercial timber harvesting, plant forests, and retrain forest workers.

### Creating new jobs for forest workers

The program is creating new employment opportunities for forest workers affected by the reduction in forest harvesting from the natural forests protection policy. *See page 3*

## International Cooperation

## Satellite TV Project Benefits African Villages

By WANG Xiaoxia

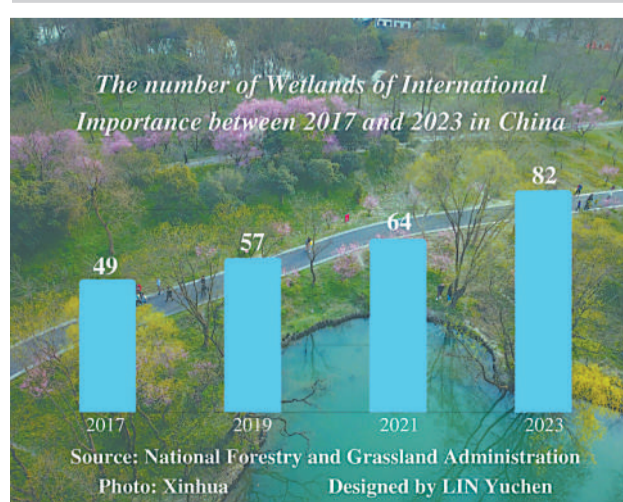
Access to information is not the privilege of a minority, but a fundamental human right that is of equal importance to personal safety, clean drinking water and affordable health-care. Satellite television can provide this access to people in rural areas, said Zambian President Edgar Lungu at a launch ceremony of a China-aided satellite TV project.

Access to Satellite TV for 10,000 African Villages is a China-Africa cooperation project that aims to reduce the digital divide in African rural areas by giving villages access to digital television. As of December 2022, the project had been completed in 21 African countries, covering 9,512 villages and benefiting more than 190,000 households.

Chinese digital TV operator StarTimes installed satellite receivers to relay signals, and provide an affordable service. In Zambia, it now costs just 30 kwachas (1.60 USD) per month to watch TV programs, 75 percent less than previously.

Apart from entertainment, TV is also a tool for people to understand the changing world and develop their hometowns with more advanced technology. In Burundi, a farmer named Hatungimana watched a modern farming program on satellite television and immediately learned how to build a pigsty and raise piglets. *See page 3*

## New Graphic



## Karachi's Hualong-1 K-3 Project Completed

By Staff Reporters

The K-3 unit of the Karachi nuclear power plant was inaugurated in Pakistan on February 2, marking completion of the first two units of Hualong-1 overseas project.

Hualong-1 is one of the third-generation nuclear power units and independently developed by China. The first Hualong-1 unit K-2 went into operation in May 2021. The K-2/K-3 units of Karachi nuclear power plant are the first million-kilowatt-grade single-unit power project in Pakistan.

Pakistan used to suffer from severe

power blackouts. At its most severe, the capital Islamabad would have one hour power cuts every three hours, according to local residents.

The operation of the two units have greatly cut the frequency and length of power outages. The two units could generate clean energy of nearly 20 billion kWh per year, satisfying the power demand for production and life of the two million local residents.

This is the equivalent of reducing consumption of 6.24 million tons of standard coal, cutting 16.32 million tons of CO<sub>2</sub> emissions and planting 140 million

trees, which is of great significance to optimize the energy structure of Pakistan and cope with global climate changes.

The Karachi project also brought other benefits to local people. Fan Haiping, general manager of the Karachi project at China National Nuclear Corporation Overseas Ltd., said that, during the construction, over 60,000 job vacancies were created. The project also conducted training for Pakistanis of more than 100,000 person times, said Fan, adding that in addition, they had trained some 8,000 skilled Pakistani employees who can work independently.

## WEEKLY REVIEW

### Taikonauts Complete 7 Hours' Spacewalk

The Shenzhou-15 astronauts completed their first spacewalk on February 10, which lasted about seven hours. A series of tasks including the installation of the extension pumps outside the Mengtian lab module were completed. The CMSA said that the crew will conduct extravehicular activities again in the future.

### Scientists Develop Prototype of Submersible Aircraft

Scientists at the Tongji University and the Chinese University of Hong Kong developed a quadrotor prototype that can both fly in the air and submerge underwater. The vehicle of quadrotor is expected to be applied in a wide range of fields including resource exploration, search and rescue missions and engineering inspections.

### Baidu to Launch New AI Chatbot

China's Internet giant Baidu said on February 7 that it will launch an AI chatbot service named "ERNIE Bot" in March. The company noted that it has processed sufficient arithmetic power, algorithms and data for the AI, as well as a four-layer technology of chips, frameworks, models, and applications.

### China Launch Its First ECMO

With the support of MOST, China's first home-grown extracorporeal membrane oxygenation (ECMO) device was launched on February 9. The device, hailed as a "miracle machine," can provide prolonged cardiac and respiratory support to patients outside the body.

WECHAT ACCOUNT



E-PAPER

