

CHINA

70 YEARS ON | TIANJIN

Tianjin keeps high-tech hub goal in sights

City has 'made great achievements', aims to become R&D base, mayor says

By OUYANG SHIJIA in Beijing and YANG CHENG in Tianjin

Tianjin, a major northern port city, has witnessed positive outcomes in its efforts to pursue high-quality development, and the city will continue working to boost productivity and seek new momentum to foster green and sustainable development, according to its city government.

"We've made great achievements in the field of smart technologies, buoyed by a group of leading tech firms and research institutes," said Zhang Guoqing, mayor of Tianjin. "Next, we will ramp up efforts to build the city into a national advanced manufacturing research and development base as well as a hub of strategic emerging industries."

Zhang made the remarks on Monday at a State Council Information Office news conference held in Beijing.

According to him, the city will make a big push to transform and upgrade traditional industries, thus creating new growth and bringing about innovation-driven development.

More efforts are needed to foster the high-end industrial chain, introduce more innovative high-tech companies, create a high-tech and high-end innovation platform and pursue the application of smart technologies, Zhang noted.

In the first half of this year, the city's GDP surged 4.6 percent year-on-year to about 1.04 trillion yuan (\$150 billion), official data showed.

During that period, value-added industrial output in Tianjin surpassed 417 billion yuan, up by 3.5 percent year-on-year.

Specifically, value-added automobile manufacturing output and specialized equipment manufacturing surged by 11.7 percent and 18.2 percent respectively.

Now, Tianjin is shaping up to become a high-tech hub, having rolled out a series of supportive policies to develop the blossoming artificial intelligence sector as it aims to inject new impetus into the city's economic growth.

Last December, Tianjin unveiled a three-year plan to boost the innovative development of seven AI-related industrial chains, including the independent and controllable information system, smart security, big data, advanced communications, intelligent connected vehicles, industrial robots and intelligent terminals.

The new plan aims to complete the transformation of the city into an AI innovation center and a hub of AI industries and AI innovative applications in 2020.

Last May, Tianjin set up a 100 billion yuan fund to invest in AI technologies, focusing on emerging fields including robots, smart software and hardware as well as intelligent vehicles.

Buoyed by supportive government policies, Tianjin has attracted a wide range of companies to expand in the booming smart technologies market, including Sugon, Huawei, Lenovo and Inspur.

Sugon, a leading Chinese super-computer manufacturer, is beefing up efforts to build a national-level advanced computing innovation center in Tianjin, considering the burgeoning demand for computing power. The center is set to be completed in 2021.

"We will promote the integration of advanced computing with industry applications," said Ren Jingyang, senior vice-president of Sugon. He noted such computing technology will have broad application prospects in emerging sectors.

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Zhang Guoqing

Student hang out



College volunteers from China and abroad interact with elementary school students in Qionghai, Hainan province, on Monday. Eighteen international students from countries including Spain, South Korea and Egypt, along with 26 from Chinese universities, hung out with the children and gave lessons on foreign languages and the Rubik's cube. YUAN CHEN / FOR CHINA DAILY

New technology helps researchers decrease emissions at coal plants

By ZHANG YANGFEI
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Researchers at Zhejiang University aim to further lower the emissions of coal-fired power plants by improving the ultralow emission technology they have developed.

Their system can effectively reduce the emissions of pollutants such as sulfur dioxide, sulfur trioxide and heavy metals such as mercury.

"We are improving the accuracy of the system, lowering the operating costs under variable load conditions and promoting the system from coal-fired power plants to also be applied to industrial boilers," said Zhang Yongxin, a researcher at the university's Institute for Thermal Power Engineering.

Coal is the main source of energy in China. According to the International Energy Agency, the country has been the world's largest producer of coal since 1985 and produced nearly half the world's coal in 2014.

Gao Xiang, a researcher at the institute who heads the team working on the project, said coal accounts for over 90 percent of China's proven reserves of fossil energy resources and, even though new energy is weighing in, its

coal-based energy structure is not likely to change in the short term.

Pollutants such as nitrogen oxides, particulate matter and sulfur dioxide emitted when coal is burned are major causes of atmospheric pollution, including smog.

"So how to reduce the emissions of coal-fired power plants is of great significance to China's clean coal utilization and energy security, and it has become a national strategic imperative," Gao said.

His team has been studying technological answers to coal-fired pollution since the early 1990s. However, the diversity of China's coal resources — including their vast geographical distribution and the complex combustion features and pollutants — are some of the hardest problems to tackle.

"It requires that the clean system must adapt to these 'coal situations,'" Gao said, adding that variations in power plants' output also placed high demands on the system's adaptability and reliability.

After over 20 years of research, Gao and his team developed an integrated ultralow emission system capable of filtering out various types of pollutants from coal-fired flue gas quickly and cheaply.

The team has been working with Zhejiang Energy Group to apply the technology. In 2014, the company's Jiahua power plant was retrofitted with the ultralow emission system, and the emission indicators of all major pollutants are now about one-sixth of strict European Union standards.

It has been recognized as a model power plant in energy saving and emission reduction by the National Energy Administration.

By June 2017, Zhejiang Energy had upgraded 46 power plants. According to company data, emissions of sulfur dioxide have been reduced by 83 percent compared with national emission standards, nitrogen oxides by 50 percent and particulate matter by 67 percent.

In January 2018, the project earned the first prize in the National Technology Invention Award. The Ministry of Science and Technology said the system had drastically reduced the pollutants emitted by coal-fired power plants nationwide while boosting their profits by 1.19 billion yuan (\$173 million) from 2014 to 2017. "We aim to further lower the emissions of multiple pollutants and also foster more young talent in this area of study," Gao said.

Diplomats learn about operations of CPPCC

By ZHANG YI
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About 60 ambassadors and diplomats to China from 40 Asian countries, as well as representatives from two international organizations, paid a visit to the National Committee of the Chinese People's Political Consultative Conference on Monday to learn about China's political system.

The event aims to promote the implementation of the outcomes of international activities held in Asia, including the Second Belt and Road Forum for International Cooperation and the Conference on Dialogue of Asian Civilizations.

It also helps the diplomatic envoys deepen their understanding of the nature and functions of the country's political advisory body and promotes cooperation between the CPPCC and related organizations of those countries.

They watched a documentary featuring the history of the CPPCC, listened to the introduction of its work. During the discussion session, they raised questions on issues of concern to them.

Loh Ka Leung, Singapore's ambassador to China, said China's political advisory body is very special and plays an important role. He asked about the CPPCC's work in public diplomacy to enhance exchanges with Asian countries.

In response, Yang Yanyi, a member of the foreign affairs committee of the CPPCC National Committee, said many CPPCC members are experts from different fields who know China well and also have global vision, which gives it an advantage in conducting exchanges with other countries.

Last year, the foreign affairs committee organized some political advisers to conduct a survey on the problems in the construction of the Belt and Road Initiative in three Asian countries — Pakistan, Bangladesh and Sri Lanka, Yang said.

"During the survey, we talked with different sides, including governments, think tanks and enterprises in those countries to find out the real problems," she said.

The CPPCC will continue to carry out international activities and create new ways of conducting public diplomacy and people-to-people exchanges, according to its work report delivered during the annual two sessions in March.

Events to be held this year by the CPPCC include the Belt and Road Seminar for International Cooperation and the International Seminar on Peaceful Dialogue between Different Religions, the report said.

Perfect timing



Daredevils perform a stunt with a motorcycle and a biplane during an air show in Anshun, Guizhou province, on Monday. Six stunt aviation teams entertained a local audience at the 2019 Guizhou Anshun Huangguoshu Flight Conference, which concluded on Monday. LIU CHAOFU / FOR CHINA DAILY

Briefly

TIBET 26 prehistoric human activity sites found

Researchers have found 26 new prehistoric sites with evidence of human activities during an expedition to the Qinghai-Tibet Plateau, according to the Institute of Tibetan Plateau Research at the Chinese Academy of Sciences. The research covers 16 counties and prefectures in the Tibet autonomous region spanning around 8,000 square kilometers. Thirteen of the 26 are of great significance for archaeological studies, according to the researchers. The teams will also conduct studies on the 1,442 pieces of stoneware found at the sites.

XINHUA

BEIJING Chinese-Tibetan book to promote education

A Chinese-Tibetan dictionary of standard modern Chinese will be published to promote education in the country's Tibetan-inhabited regions. The compilation of the dictionary is underway and will be completed in two to three years, according to the Language and Culture Press. The bilingual edition will be based on the original dictionary of standard modern Chinese. It will promote the use of the official language and the development of education in Tibetan-populated areas, the publishing house said.

4 dead after sudden mountain torrent in Jiangxi

By HOU LIQIANG
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Four people were confirmed dead after a sudden mountain torrent ripped through a hiking route in Yichun city, Jiangxi province, trapping 283 outdoor adventurers as rainstorms continued to wreak havoc in other regions.

At around 2 pm on Sunday, the torrent resulted in a sudden rise of water in the creek in Lyuyangdong valley in Jing'an county and 84 of the trapped were reported missing, the Jiangxi emergency management department said on Monday.

Online video showed that the shallow creek had turned into a torrential yellow river. After evacuating 199, rescuers searched for a whole night for the missing people and managed to save 80 of them.

The other four were found dead, it said.

In addition to firefighters, police officers and members from civilian rescue teams, more than 300 officials were also mobilized to comb through the area to look for the missing people with help from unmanned aerial vehicles, it added.

Separately on Sunday, 118 tourists who were visiting Mingyue Mountain, a tourist attraction also in Yichun, were trapped after torrents resulted in a landslide and debris flow. All of them were saved



A trapped hiker is rescued in Jing'an county, Jiangxi province, on Monday. SHUAI YUTING / CHINA NEWS SERVICE

after five hours of efforts from rescuers.

On Monday, rainstorms continued in many areas across the country. The torrents resulted in floods in many of the cities in Sichuan province, forcing the closure of at least six highway sections there.

The metrological authority of Yibin city in the province, for exam-

ple, issued a blue alert, the lowest in the country's four-tier color-coded weather warning system, at 8 am on Monday, forecasting precipitation of up to 10 centimeters in the next three hours. The authority upgraded the alert to an orange one, the second highest, in the afternoon, saying the rainfall would last until Tuesday.



Online videos and reports from local media showed that water of more than 1 meter accumulated in some roads in Yibin's urban areas, leaving some vehicles inundated.

The wall of a vegetable market in the city collapsed because of the rainstorm, leaving one person dead and injuring two others, according to the local firefighting department.

The national observatory said on Monday that heavy rainfall was forecast to hit Sichuan Basin, North China and Northeast China on Tuesday.

The China Meteorological Administration and the Ministry of Water Resources jointly issued an alert for mountain torrents in the 24 hours after 8 pm on Monday, warning that there is a high possibility that the disaster will hit the southeastern part of Sichuan, western part of Guizhou province, and the northeastern and western parts of Yunnan province.