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Asia-Pacific: Towards Community with a Shared Future

By Staff Reporters

President Xi Jinping on November 11 urged the Asia-Pacific region to face up to the responsibility of the times, be in the driver's seat, and strive hard to meet the goal of building an Asia-Pacific community with a shared future, via video at the Asia-Pacific Economic Cooperation (APEC) CEO Summit.

Xi first called for making all-out efforts to fight COVID-19. The region should translate the consensus that vaccines are a global public good into concrete actions, ensure their fair and equitable distribution as well as their accessibility and affordability in developing countries, and thus work together to close the immunization gap, said Xi.

He then urged openness and cooperation, and said, "We should advance trade and investment liberalization and facilitation, keep industrial and supply chains stable and functioning, and promote the orderly flow of resources and inputs to boost economic recovery and achieve interconnected development."

When talking about promoting green transition, Xi said that the Asia-Pacific should follow the principle of common but differentiated responsibilities and deliver on what was agreed upon in the Paris Agreement on climate change and at the 15th Meeting of the Conference of the Parties to the Convention on Biological Diversity.

Xi also called on the region to actively promote innovation. "We need to scale up cooperation between member economies of the Asia-Pacific on scientific and technological innovation, and foster an open, fair, equitable and non-discriminatory environment for the development of science and technology," he said.

In terms of digital economy, Xi said that the region needs to commit to innovation-driven development, harness the power of the digital economy as a new growth engine, and spread the fruits of digital technologies to more people in the region while addressing the 28th APEC Economic Leaders' Meeting via video link.

In his speech at the APEC CEO Summit, Xi pledged that China will remain firm in advancing reform and opening-up so as to add impetus to economic development in the Asia-Pacific. China has ratified the Regional Comprehensive Economic Partnership (RCEP), and it has applied for joining the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP).

China will also advance green transition on all fronts and make its due contribution to boosting ecological conservation in the Asia-Pacific and beyond. The country will strike a balance between low-carbon transition and ensuring the living needs of its people, and between development and carbon reduction, and will achieve carbon peak and carbon neutrality within the time frame set previously.

China's carbon reduction action will also require massive investment, thus creating huge market opportunities and room for cooperation, said Xi, noting that the business communities across the Asia-Pacific are warmly welcome to join in this endeavor.

Xi added that China will stay committed to promoting win-win cooperation and contribute to the economic development of the Asia-Pacific.

China will also inject impetus into economic recovery and sustainable development in the Asia-Pacific, and strive to build a global community of development with a shared future, he noted.

COP26 Reaches New Global Deal on Climate

By Staff Reporters

Nearly 200 participating countries adopted the Glasgow Climate Pact at the end of 26th session of the Conference of the Parties (COP26) to the United Nations Framework Convention on Climate Change.

The deal makes unprecedented mention of fossil fuels in the climate crisis. It calls for the phasing down of coal, the dominant source of carbon dioxide emissions in the process of electricity generation.

The Article 6 of the pact asks to establish a robust framework for countries to exchange carbon credits, which is expected to facilitate emissions reduction.

During COP26, more than 100 countries have promised to end deforestation by 2030. More money for developing countries to help them adapt to climate impacts are promised in the deal. COP26 President Alok Sharma expressed his "deep regret" over climate finance failures, for rich countries still had not kept their word to raise 100 billion USD in annual climate finance.

The Glasgow Climate Pact "will help kick-start a new journey of global efforts to tackle climate change," said Zhao Yingmin, head of the Chinese delegation to COP26 and China's vice minister of ecology and environment.

COP26 is the first climate change conference after the five-year review cycle under the Paris Agreement inked in 2015. COP27 will be held next year in Egypt with updated plans on how to slash greenhouse gas emission by 2030.

The closing plenary of COP26 to the United Nations Framework Convention on Climate Change in Glasgow, Nov. 13, 2021. (PHOTO: XINHUA)

Fuel loading has started at China's second nuclear power unit using Hualong One technology, after the first one entered commercial operations earlier this year. (PHOTO: XINHUA)

Editor's Pick

Hualong One Drives China's Nuclear Energy Surge

By Staff Reporters

A small atomic nucleus holds incredible energy. Nuclear technology uses the energy released by splitting the atoms of certain elements to produce electricity. So, this technology can have a bearing on the power supply security and international status of a country.

Starting from scratch, China's nuclear power industry has seen steady growth over the past 30 years, from relying on imported technology to achieving self-reliance in design, construction and project management.

The commercial operation of Hualong One, China's indigenous third-generation nuclear technology, marks a new milestone for the development of the country's nuclear industry.

Early nuclear beginnings

Nuclear technology has been of strategic importance for major countries. During the Second World War, the research initially focused on producing bombs, and attention turned to the peaceful use of nuclear fission from the start of the postwar years. From then almost all parts of the world are involved in nuclear power development.

China's nuclear industry commenced from the early 1950s. On October 16, 1964, when its first atomic bomb was successfully tested, China became one of the five nuclear weapons states under the Treaty on the Non-Proliferation of Nuclear Weapons.

China's civil nuclear effort began in the 1970s. After years of effort, the construction of Qinshan 1, China's first nuclear power plant, with a capacity of 300 MWe, officially began in 1986, with first grid connection coming in December 1991.

China's concerted nuclear expansion began from the 21st century, with electricity consumption increasing sharply in coastal areas due to rapid economic growth.

Through its construction experience and technology transfer from companies such as CANDU Energy Inc., Westinghouse and AREVA, China's nuclear industry gained increased self-reliance.

For example, the CPR1000 developed by the China Guangdong Nuclear Power Corporation (CGNPC) is a significantly upgraded version of the 900 MWe French M310 three-loop technology.

Even though CGNPC has a nearly complete domestic supply chain for the CPR1000, the intellectual property rights are retained by the French company AREVA, which restricts its use to domestic market.

Xing Ji, the chief designer of Hualong One, said that without the exclusive intellectual property rights, China cannot export its technology to the overseas market.

Indigenous design of nuclear reactor

China was determined to build a megawatt nuclear power plant with exclusive technology, all the way through from designing and construction to operation.

In 2011, the Fukushima Daiichi nuclear accident in Japan caused great concern over nuclear safety worldwide. Subsequently, China required better safety attributes for its independently developed nuclear technologies.

In 2013, the China National Nuclear Corporation (CNNC) announced that its independently developed ACP1000 (or CP1000), and CGNPC launched the advanced CPR, ACPR1000+, with full Chinese intellectual property rights. Featuring a double containment, their safety attributes comply with international requirements. *See page 2*

BSE: Bigger Chance for Innovative SMEs

By Staff Reporters

Aiming to serve innovative small and medium-sized enterprises (SMEs), Beijing Stock Exchange (BSE) started trading on November 15, only two months after China announced to set up a new stock exchange.

On the bourse, 81 companies comprised the first batch, ten out of which were newly listed.

By the close on the first day, the turnover of the companies hit 9.57 billion RMB, and the share price of the ten debuted firms rocketed by nearly 200 percent on average.

BSE is established based on the selected tier of China's National Equities Exchange and Quotations, also known as the "new third board." The listed companies in BSE can choose to transfer to Shanghai or Shenzhen market.

Why is BSE necessary when there are already stock markets in Shanghai and Shenzhen? Zhao Xijun, joint dean of China Capital Market Research Institute at Renmin University of China, said that the new third board is not able to fully transfer the sci-tech innovation resources of Beijing to economic values due to its limited capability of allocation.

According to Zhao, Beijing has gained abundant sci-tech innovation achievements thanks to the research institutes, universities and sci-tech enterprises located in the city. The platform offered by BSE and the market mechanism can make such sci-tech research and achievements develop sustainably.

There are a great many SMEs that wish to be listed every year. However, the STAR Market in Shanghai and the ChiNext board in Shenzhen can only provide a limited amount of opportunities, leaving a large gap to be filled. "I think this is also an important aspect to think over when BSE is established, that is, to solve the problem of the imbalance and insufficiency in allocating financial resources," said Zhao.

China-U.S. Declaration on Climate Action

By TANG Zhexiao

China and the United States released the *China-U.S. Joint Glasgow Declaration on Enhancing Climate Action in the 2020s* on November 10, at the 26th session of the Conference of the Parties (COP26) to the United Nations Framework Convention on Climate Change.

The two sides are committed to tackling the climate crisis through accelerated actions this decade, reiterating they will observe the Paris climate agreement to hold the increase in the global average temperature to well below 2℃ and pursue efforts to limit it to 1.5℃.

To try to keep those temperature limits "within reach," China and the United States agreed to strengthen climate action and cooperation aimed at accelerating the green and low-carbon transition and climate technology innovation, seizing this critical moment to engage in the transition to a global net zero emission. *See page 2*

WEEKLY REVIEW

Northeast Asia Biodiversity Research Center Established

A research center dedicated to Northeast Asia biodiversity conservation was established on November 13 in Northeast Forestry University, China's Heilongjiang province, to boost cooperation of research institutes in China, Russia, Japan and the Republic of Korea.

World's First Inhaled COVID-19 Vaccine Exhibited

The world's first inhaled form of COVID-19 vaccine was unveiled at the 5th Hainan International Health Industry Expo 2021 in south China's Haikou city on November 12. The vaccine is inhaled through the mouth into the respiratory tract and lungs to stimulate mucosal immunity.

Second Reactor of China's HTR-PM Reaches criticality

The No.2 reactor of the Shidaowan nuclear power plant in China's Shandong province, which is the world's first High Temperature Gas Cooled Reactor-Pebble-bed Module (HTR-PM), has reached the critical stage of success on November 11.

World's Largest Metabolism Research Platform Starts Operation

On November 11, the world's biggest digital metabolism monitoring platform was set up in Shanghai's Ruijin Hospital. With 10 rooms simulating different conditions, the platform will help in the study of human metabolism and other key life data for medical research.

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