Beijing to cut emission in winter heating season

Beijing plans to cut over 1,800 tonnes of nitric oxide emissions during this year's winter heating season, said Beijing Thermal Group Sunday.

Boilers were upgraded using low nitrogen combustion technology to cut nitric oxide emissions to 15 milligram per cubic meter.

According to Beijing Environmental Protection Bureau, Beijing has eliminated 24,400 tonnes of water per hour (T/h) coal fired boilers in the past four years. Nearly 10,000 T/h gas fired boilers have been upgraded using low nitrogen combustion technology.

Air pollution is more prevalent in north China in winter. While high concentrations of industrial and vehicle emissions are the main culprits, static air and the use of coal for winter heating worsen the situation.

Global talent flocking to work in China

China is becoming attractive to global talent on an unprecedented level because of the nation's economic size and vibrancy, according to a report released on Saturday by U.S. business magazine Forbes.

The 2018 Global Talent Mobility and Wealth Management Report predicts the country will be a major exchange hub for global talent flow by 2022.

"By that time, China will be not only the largest export country of students studying abroad, but also a major destination for global talent to settle down," said Russell Flannery, Shanghai bureau chief of Forbes China.

No country in history has met both criteria, he said, adding that although India used to have the largest number of students overseas, it has not been attractive enough to global talent, such as people from the United States.

"China's role as a hub in global talent mobility will further consolidate, and it will help the country to integrate its educational resources globally. Meanwhile, it will provide more competitive job opportunities for overseas talent," Flannery said.

It is the third year in a row the report has been jointly released by Forbes and Wailian Overseas Consulting Group, a Shanghai-based investment and

immigration company.

Kenneth Jarrett, president of the American Chamber of Commerce in Shanghai, said he has witnessed a growing number of US workers coming to China over the past few years, as well as more Chinese students returning to China to set up their own businesses.

To him, this is an indicator of China's increasing participation in the global economy.

The Chinese government has also attached greater importance to global talent, especially since the Recruitment Program of Global Experts, also known as the Thousand Talents Plan, was introduced by multiple government agencies in late 2008.

As of the end of last year, the country had attracted more than 6,000 high-level overseas workers through the program.

At the same time, the return of talented Chinese who studied or worked overseas has been noticeably increasing. Experts in the science and technology sector have made up the majority of returning talent, prompted by the government's policies and rising domestic companies, according to the Forbes report.

"While other countries are tightening their immigration policies, China should seize the opportunity to come up with more open and friendly talent policies to attract world-class talent," said Wang Huiyao, founder of the think tank Center for China and Globalization.

Fungus used in traditional medicine can fight cancer

Strains of Cordyceps militaris grow on a silkworm pupa. The fungus has been found to contain chemicals that carry anti-cancer benefits. [Photo/China Daily]

Chinese scientists have found evidence that a fungus used in traditional Chinese medicine widely sought by the public for its healing powers, also carries anti-cancer benefits.

The scientists found there was an interaction between two anti-cancer compounds in the fungus Cordyceps militaris.

The first, cordycepin, was noted in Cordyceps militaris in 1950, but how it interacted remained unknown. The second, pentostatin, was first identified from a bacterium and was developed as a commercial drug to treat leukemia and other cancers in the 1990s.

“For the first time, we decoded the biosynthesis mechanism of cordycepin in the fungus, and during the research we unexpectedly discovered pentostatin,” said Wang Chengshu, head of the research team at the Institute of Plant Physiology and Ecology, a branch of the Shanghai Institutes for Biological Sciences of the Chinese Academy of Sciences.

“These two compounds coexist in fungal cells in the form of a protector and protege – that is to say, cordycepin is synthesized with the coupled production of pentostatin to protect the stability of the former,” he said.

Their research also showed that the fungus initiates a detoxification process

when the cordycepin in the body reaches an excessively high level, which can be toxic.

“It reminds us that excessive intake of the fungus may not be healthful,” Wang said.

A paper about the team’s findings after nearly eight years of research was published on the website of the international journal Cell Chemical Biology on Thursday.

Cordyceps militaris, bright orange-yellow mushrooms sold as a fresh supplement for soups and stews, is a much more affordable alternative to caterpillar fungus.

“However, in the research, we’ve proved that neither of the compounds is produced in caterpillar fungus,” Wang said.

Cordyceps fungi are popular in China for their widely believed immunity-enhancing and energy-strengthening properties. Their uses in medical treatment date to the Compendium of Materia Medica, a book widely deemed the encyclopedia of traditional Chinese medicine written in the Ming Dynasty (1368-1644).

“There have been long-running arguments as to whether such fungi are antibacterial or anti-cancer, and people use them based on experience in most cases. It’s a major advance that our team scientifically proved that Cordyceps militaris really carries such properties,” said Guo Jinhua, Party chief of the institute.

China to build more marine research vessels

China has around ten marine research vessels under design or construction by the end of August 2017, according to the Oceanic Scientific Research Vessel Technology Summit 2017 held in Shanghai on Friday.

It is learned at the summit that the country’s first domestically built polar research vessel and icebreaker is expected to be put into use in 2019. The vessel will be able to break polar ice with both its bow and stern.

China has 50 marine research vessels at present, which fall into series including Dongfanghong, Xiangyanghong, Yuanwang, Haiyang, Kexue and Shiyan, said Xing Wenhua, president of Shanghai Society of Naval Architects and Ocean Engineers.

Qu Tanzhou, head of science and technology department under the State Oceanic

Administration, said the number and performance of these research vessels are far from adequate in terms of global marine research and international cooperation.

2nd World Congress on Marxism to be held in Beijing

The 2nd World Congress on Marxism is scheduled to be held in Peking University in Beijing next May, the organizer said Sunday.

The congress, to be held from May 5 to May 6, is expected to attract more than 300 Marxism researchers to discuss Marxism in the 21st century and its developments in China.

The congress coincides with the 200th anniversary of Karl Marx's birth and 40th anniversary of China's reform and opening-up, said Gu Hailiang, head of the academic board of the organizing committee.

It will be a significant event for the world Marxism research and scientific socialism, Gu told a press conference.

The conference, with the theme of "Marxism and the current world and China", will have 17 subforums covering topics like Chinese solution and modernization approach by the developing countries, said Sun Daiyao, vice president of the School of Marxism of Peking University.

Gu said the congress will focus on Marxism research by the global academic circle and Marxism in current China.

The congress will help to interpret to the world academic circle the "China road, China theory and China experience", Gu said.