

My China Story

Progressive Country of Openness, Inclusiveness

By LONG Yun & BI Weizi

Dr. Mashooq Khan is a young Pakistani scientist who has made a name for himself in the field of pharmaceutical sciences. He works at the Shandong Analysis and Test Center in China, where he conducts research activities in a wide range of areas, such as liquid crystal, sensors, biosensors, and single-cell analysis.

In March 2017, Khan arrived in China six months after completing his PhD in South Korea. Though he had researched China and its culture before arriving in the country, he realized that China was different from what he had perceived. Khan was really struck by Beijing's crowded streets, great varieties of food, enormous buildings and diverse cultures.

His journey to China was motivated by his desire to further his studies at one of the world's best universities. His interest in research led him to Tsinghua University (THU). THU is known for its world-class facilities, monumental buildings, and excellent faculty. For Khan, it was a dream that came true to be accepted into the university, where he found the environment supportive and friendly. The interactive nature of getting to know his advisor and colleagues has seen many of them become good friends.

Khan applauded China's openness to embrace international cooperation and its increasing presence in solving

global issues.

According to Khan, the world is facing a range of challenges that transcend national borders, and to resolve these issues requires a collective effort from all nations. The concept of building a community with a shared future for mankind, proposed by Chinese President Xi Jinping, is a visionary approach towards global cooperation to tackle the world's pressing challenges.

He was attracted to China's growing reputation as a hub for high-tech expertise and has been impressed by the government's inclusive efforts to attract international experts.

Khan said the Chinese government has introduced a series of policies that make it easier to recruit global talent. These include relaxed restrictions on age, educational background, and work experience, as well as allowing foreign talent to start a business without changing their work permit. The government has also eased visa application requirements for foreigners, making returning to China more efficient and convenient.

In addition, the National Natural Science Foundation of China has introduced a new category of research grants specifically for international scientists, allowing foreign researchers to benefit from funding for their research, said Khan, adding that these measures have created more opportunities for foreign researchers working in China, providing



Dr. Mashooq Khan. (COURTESY PHOTO)

more possibilities to solve problems confronting the world.

He noted that the research environment in China is collaborative, inclusive, supportive, and creative, and his team at the Shandong Analysis and Test Center is highly active in establishing collaborations with high-level researchers at home and abroad, where they can integrate their expertise for significant technological advancements.

Khan appreciates the natural inter-

actions he has developed with his colleagues without discrimination, social separation, or isolation. His research team is open to discussion and values the ideas proposed by team members, which helps them overcome challenges and facilitates innovative research.

This article is also contributed by Shandong Analysis and Test Center, affiliated with Qilu University of Technology (Shandong Academy of Sciences).

A New Era of Agricultural Prosperity Emerging in the Land

Letter to the Editor

By Khalid Khan

China has a rich history of agriculture that dates back over 4,000 years. The farmers in China have developed considerable expertise in growing crops, maintaining soil health, and preserving it. Agriculture has played a crucial role in China's economic development by providing raw materials and effective demand for a range of industries. Furthermore, agriculture offers affordable food and nutrition, making it an essential component of society.

With a population in excess of 1.4 billion, China is one of the world's most dynamic emerging economies. Since the reform and opening-up, agriculture has been a key part of China's economic growth. It has always been seen as a strategic industry that can help keep the country stable.

Meanwhile, science and technology play an important role in achieving sustainable development of agriculture and meeting the food demand of the world's growing population. Technology is primarily responsible for this new age. China is making substantial investments in sophisticated agricultural technologies, such as precision agriculture, biotechnology, and automation. These technologies not only increase yields, but also decrease expenses while enhancing the quality and safety of agricultural products. Moreover, these investments are opening new opportunities for companies to develop innovative goods and services that can meet the rising demand for safe, nutritious, and environmentally sustainable food among consumers.

The modernization of agriculture through science and technology is of paramount importance. With China's existing expertise in artificial intelligence (AI) and machine learning (ML), the implementation of these skills in farming could lead to increased productivity and efficiency. Precision agriculture, which employs sensors and aerial vehicles to avoid wasteful resource consumption in food production, could prove to be particularly advantageous.

Also, sustainability is an important part that can't be ignored for the sake of development. China has made a lot of progress in promoting methods that are good for the environment, such as organic farming and integrated pest management (IPM). China needs to keep invest-

ing in new technologies that help farmers use farming methods that are good for the environment if it wants to reach its goal of becoming an "agricultural powerhouse."

Putting the "agricultural powerhouse" strategy into action could be good for both China's economy and the agricultural industry around the world. Still, it is important to focus on how well and how long farming methods work by using scientific knowledge and international experience.

To reach its goal of becoming a world leader in agriculture, China needs to invest more in research and development, grow the agricultural supply chain, and help multinational agribusinesses grow. The government has emphasized science, technology and reforms as ways to create a robust agricultural industry, with China owning crucial components like seed production.

China's agricultural policies are currently undergoing significant transformation. The government has implemented several programs to promote a modern, efficient, and sustainable agriculture industry.

China's agriculture industry is strong, innovative, and has a lot of room to grow because of these successes. Farmers are producing more food than ever before, and they are also producing it better and safer. Companies not only create jobs and help the economy grow, but they also come up with new products and services to meet customers' changing needs.

However, several challenges must be addressed to sustain this agricultural growth. With prudent planning and investment, China can continue to maintain its position as a leader in agricultural innovation and prosperity for decades to come. China's agriculture industry has undergone significant changes in recent years, but some challenges remain.

Overall, China's agricultural revolution has been a huge success. It has helped farmers make more money, produce more, and grow their markets. China can keep this momentum going and make its farmers even more prosperous by continuing to invest in modernizing agriculture and helping rural areas.

Khalid Khan is an associate Professor of Economics at the Balochistan University of Information Technology, Balochistan, Pakistan. This article is an excerpt of his remarks made at the forum held by the Global Food Security Association for Young Scientists.

Traditional Eastern Wisdom

Yunnan, A Bamboo Biodiversity Center



A stunning view of bamboo forest in Yunnan province, China. (PHOTO: VCG)

By BI Weizi

Fossil bamboo leaf blades and culm from the Middle Miocene deposits of Sanzhangtian, Yunnan, southwest China, were discovered for the first time in 2013, indicating that bamboo began to diversify in Yunnan no later than the Middle Miocene and that Yunnan is one of the biodiversity centers of modern bamboo.

The reason why bamboo occupies such an important place in the history of the Chinese civilization is, firstly, that China is a land that produces bamboo in abundance. China is the country with the largest area of bamboo in the world, with bamboo forests covering 27 provinces in a total area of 641,600 hectares, accounting for more than one-third of the

world's bamboo growth. China is also the country with the richest diversity of bamboo species in the world, with 47 genera and 767 species, accounting for more than half of the world's total.

China has a long history of cultivating moso bamboo. More than 10,000 years ago, ancient Chinese began to cultivate and use moso bamboo first as an agricultural tool. In the Xia and Shang dynasties (2070 BC-1046 BC), the use of bamboo tools became more widespread, and the types of production tools and weapons increased. In particular, the invention of "bamboo slips" and "bamboo books" is undoubtedly one of the important cornerstones in the formation and development of the Chinese bamboo civilization, and has left a strong and colourful mark on the history of the country's writing.

Obesity's Impact, Ways to Lose Weight

Science Outreach

By Staff Reporters

Obesity is becoming more prevalent in many countries. *The Lancet*, after six large-scale surveys, estimates that there are 85 million obese adults in China in 2018. Of great concern is what health problems are hidden behind obesity.

Consequences of obesity

Overweight and obesity are defined as abnormal or excessive fat accumulation that presents a risk to health. A body mass index (BMI) over 25 is considered overweight, and over 30 is obese. The issue has grown to epidemic proportions, with over four million people dying each year as a result of being overweight or obese in 2017, according to WHO.

Obesity increases the likelihood of various diseases and conditions, which

are linked to premature death. Several research studies reveal that obesity has been linked to various chronic diseases, such as type 2 diabetes, cardiovascular disease, osteoarthritis, and certain types of cancer.

Obesity can be generally classified into the following three types:

1. Abdominal obesity, which has been defined as waist circumference (WC) ≥ 90 cm in men and WC ≥ 85 cm in women. Clinical data have confirmed that it is associated with cardiovascular disease and diabetes, as well as dyslipidemia and hyperuricemia. Compared to normal weight people, people suffering from this type of obesity have a two to five times greater risk of developing chronic diseases.

2. Female obesity. Women often have a higher risk of obesity-related comorbidities compared to men, and a two-fold higher risk of death than overweight men. While the disproportionate burden of this obesity-related disease in women is partly due to differences in medical comorbidities, it is also linked to emotional and psychologi-

cal issues. Overweight women have a higher incidence of menstrual dysfunction and anovulation. Clinical studies have also shown that endometrial cancer is twice as common in overweight women (BMI 25 to 29.9) in comparison with women who stay at a healthy weight.

3. Obesity in the elderly. The prevalence of obesity is rising even among the older population, which often results in poor muscle quality. It has been reported that the prevalence of oligomuscular obesity among the elderly in China is increasing rapidly. Obese individuals exhibit impaired muscle function, thus contributing to morbidity and mortality among the elderly.

How can overweight and obesity be reduced?

Since the main cause of overweight and obesity is the imbalance between energy intake and energy expenditure, reducing the number of calories consumed from fats and sugars, increasing the portion of daily intake of fruit, vegetables, legumes, whole grains and nuts, and engaging in regular physical activity (60 minutes per day for

children and 150 minutes per week for adults) will help to reduce obesity, according to WHO.

1. Dietary changes

A high-protein diet refers to a daily protein intake of more than 20 percent but no more than 30 percent of the total daily energy. Eating a protein-rich diet can help people lose weight, as it can help them avoid overeating and build lean muscle. Leaner meats help burn more calories throughout the day, which can also help with weight loss.

2. Physical exercise

Lack of physical activity is one of the important risk factors for overweight. When losing weight, more physical activity increases the number of calories the body uses for energy or burns off. Burning calories through physical activity, combined with reducing the number of calories you eat, creates a calorie deficit, which leads to weight loss. Aerobic exercise (walking, jogging, cycling, etc.) combined with resistance training (squats, push-ups, sit-ups, etc.) are recommended as an efficient way to reduce weight.

Photo News

Qingming Festival

By BI Weizi

On May 20, 2006, the Qingming Festival was approved by the State Council of China to be included in the first batch of the National Intangible Cultural Heritage List. The Qingming Festival has its origins in early human ancestral beliefs and spring rituals, and it has been a tradition of the Chinese people since ancient times to sweep tombs and pay their

respects to ancestors, which not only helps to promote filial piety and family affection and recall common family memories, but also promotes the cohesion and identity of family members and the nation. Qingming Festival integrates natural festivals and humanistic customs, which fully reflects the Chinese ancestors' pursuit of the harmonious unity of "heaven, earth and human" and the idea of following the laws of nature.



The picture shows a mother and her son going spring outing during the Qingming festival in Shandong province. The two main activities over the festival include tomb sweeping and going on a spring outing. (PHOTO: XINHUA)