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A Window to the Nation A Welcome to the World

# CHINA PICTORIAL

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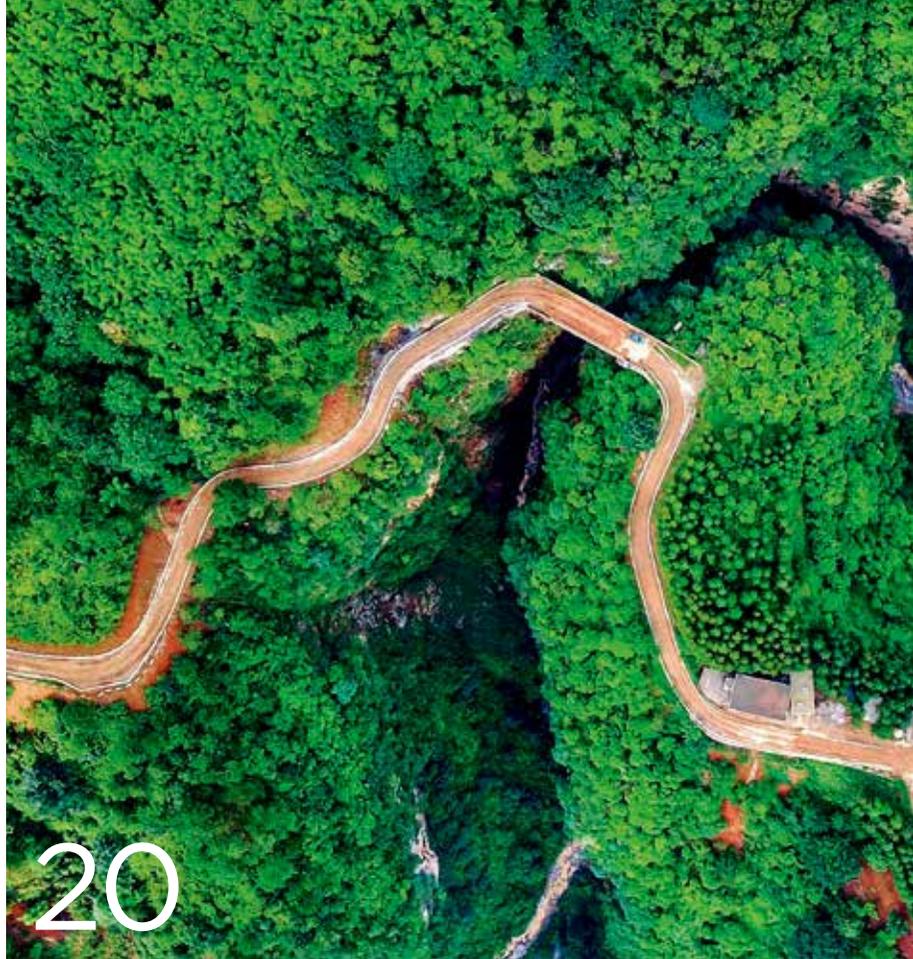
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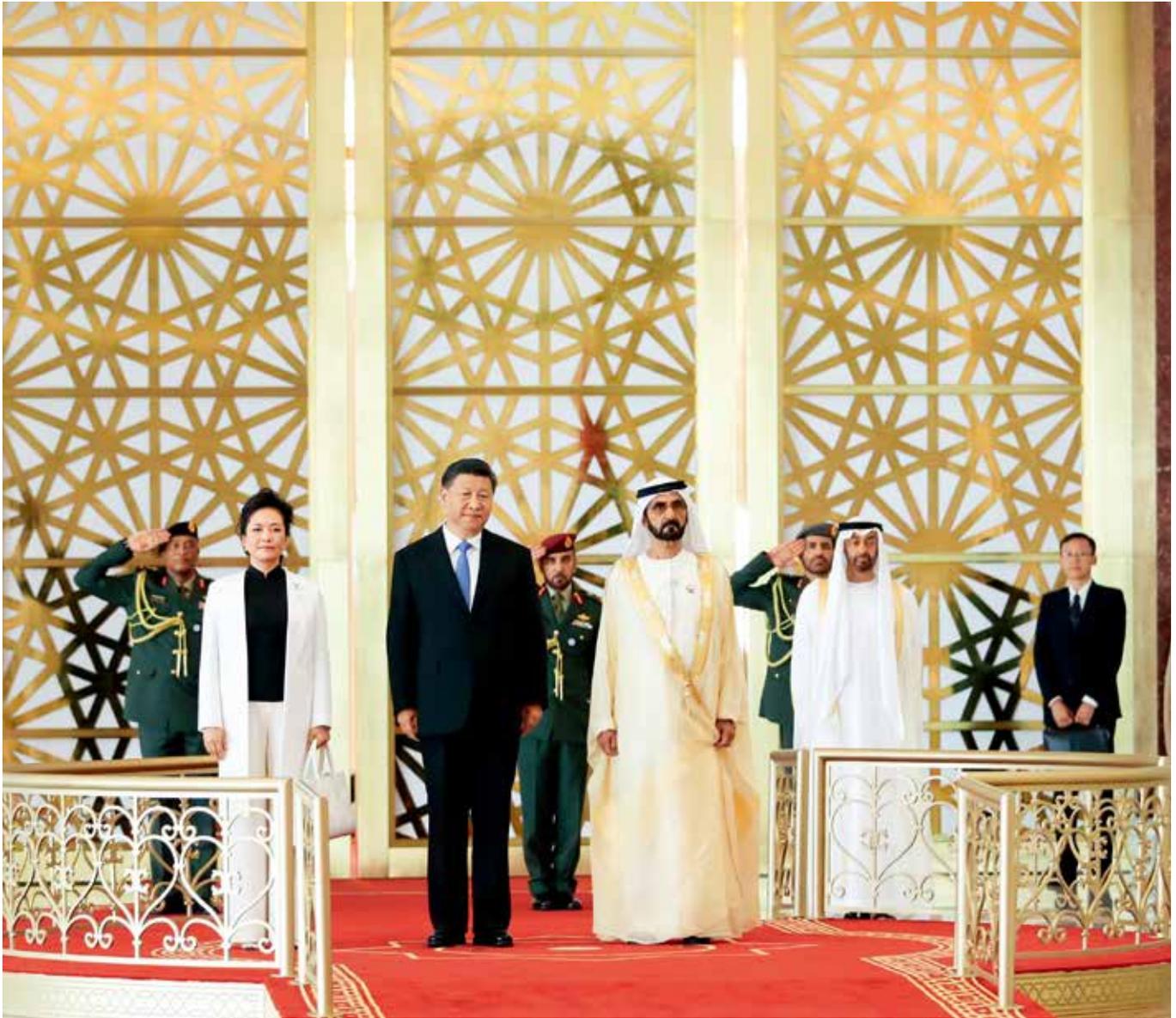
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by Xie Huanchi/Xinhua

## Xi's First Overseas Trip since Re-election

July 19, Abu Dhabi, UAE: Chinese President Xi Jinping, his wife Peng Liyuan and the United Arab Emirates (UAE) Vice President and Prime Minister Sheikh Mohammed bin Rashid Al Maktoum pose for the media. Xi kicked off his state visit to the UAE the same day, the first by a Chinese head of state to the country in 29 years.

Xi noted that the UAE was the first stop of this

overseas trip as well as the first country he visited since his re-election as president of the People's Republic of China. This shows that China attaches great importance to its relationship with the UAE, he stressed.

After departing from the UAE, Xi paid state visits to Senegal, Rwanda and South Africa, attended the 10th BRICS summit in Johannesburg and visited Mauritius during a stopover.



VCG

## Bracing for Peak Flow

July 14, Yichang City, Hubei Province: Floodwaters gush out of the Three Gorges Dam, a massive hydroelectric project on the Yangtze River.

After a period of continuous rainfall, the second flood peak of the Yangtze River this year formed in its upper reaches. To brace for the flood peak, the Three Gorges

Reservoir opened seven flood discharge holes, the most since 2012, to increase its discharge volume. According to statistics, peak flow at the Three Gorges Reservoir that day reached 60,000 cubic meters per second, beating the record set earlier this year. The flood peak eventually retreated, making the river navigable again.



VCG

## International Youth Dance Festival

July 21, Macao: Dancers perform during a parade of the International Youth Dance Festival 2018.

From July 21 to 26, the city became a huge dance floor. Themed around the Belt and Road Initiative, the festival attracted more than 550 young dancers from a total of 27 teams from the Chinese mainland, Macao and foreign countries along the Belt and Road routes.

Using the art of dance, the festival aimed to promote cultural and people-to-people exchange among the Belt and Road countries with an eye on young people along the routes working together to build a beautiful future.

The festival, launched in 1987, is held once every two years by the Education and Youth Affairs Bureau of Macao.



IC

## 🏆 Sprinting Gold

July 14, London, United Kingdom: Chinese sprinter Xie Zhenye powers to victory in the men's 200-meter event at the inaugural Athletics World Cup.

The 24-year-old clocked 20.25 seconds to win the top prize, China's first gold at the event, beating

South Africa's Luxolo Adams (20.45 seconds) and American Ameer Webb (20.51 seconds), adding fuel to Chinese sprinting fever after Chinese star sprinter Su Bingtian tied the Asian men's 100-meter record (9.91 seconds) last month.

# Unstoppable Industrial Upgrade

Text by Shi Dan

*The Trump administration blames the U.S.' domestic troubles on China and ignored WTO regulations to launch a trade war targeting the "Made in China 2025" development strategy. This move, which ignores laws of global industrial development, will hinder the economic development of the world.*

This year, the U.S. has persistently exerted trade friction on China, which eventually triggered the first shots of a total trade war. Additionally, the U.S. has targeted the "Made in China 2025" strategy, deeming China's aspirations to catch up with the technologies of developed countries and taking over global high-end manufacturing an "economic invasion" of the U.S. This accusation neglected objective law of industrial development, and the measures it prompts will heavily damage global economic order and the industrial division system.



May 25, 2018: Workers assemble products in a computer numerical controlled workshop in an electronics materials factory in Shandong Province. VCG

Since the 1980s, thanks to its reform and opening up as well as low labor costs, China has developed a sound business environment that has attracted a massive chunk of global manufacturing, greatly improving the country's industrial production system and increasing its production capacity. Eventually dubbed the "world factory," China has enriched the supply of industrial products worldwide, benefiting the entire planet. Trade between China and the U.S. shifted from deficit to surplus with the dramatic changes in trade structure: China exports mostly manufactured goods especially electronic commodities to the U.S. while importing agricultural products like soybeans.

The trade relations and structure between the two countries have resulted from their respective industrial competitiveness and comparative advantages. When the division of labor in global manufacturing transferred from industries to commodities, China's comparative advantage became prominent with stronger competitiveness in manufacturing low- and middle-end products than the U.S. and European countries. This has expanded China's market share rapidly. Relatively speaking, the U.S. and European countries lacked comparative advantages in some manufacturing sectors. And during global industrial transfer and re-division of labor, Chinese enterprises took over manufacturing and processing from U.S. and European companies, freeing them up to focus more resources on high value-added production chain steps like design and marketing, which facilitated the U.S. and European countries in their transfer to service-oriented economies.

China's manufacturing primarily features low- and middle-end products that exert tremendous pressure

on the country's environment. China's manufacturing needs to evolve to a new stage corresponding to its rising labor costs. The "Made in China 2025" strategy was thus designed to facilitate such an upgrade in accordance with objective laws of industrial development.

The adjustment of global industrial division objectively demands involved countries accordingly adjust their economic and social structures as well as patterns of income distribution. But during the industrial transfer of multinational corporations, the U.S. government has not handled well the issues like employment and wealth distribution, causing great trouble in the country. The Trump administration blames internal struggles on the conflicts with China and ignored WTO regulations to launch a trade war targeting "Made in China 2025" strategy. However, a trade war cannot solve American domestic problems and will only hinder the economic development of the world.

The "Made in China 2025" development strategy endeavors to solve problems plaguing Chinese manufacturing like modest product quality, rising labor costs, dense resource consumption and costly environmental pollution. Solving these problems will not harm other countries' interests, but improve the level and quality of global industrial division and cooperation while making constant contributions to the world. Over the past four decades since China implemented its reform and opening up, the country has gradually become more involved in global affairs and developed its economy by following international rules and norms, becoming a major driver of world economic growth. Oppressing the development of China—an emerging economy—is akin

to dragging world economic advance. Donald Trump seeks unilateral trade protectionism in an effort to change the established development track of global industrial division and lower the efficiency of it. This runs contrary to the objective law of global industrial development and harms both sides.

If the U.S. stops exporting high-tech to China and slaps tariffs on imported Chinese commodities, Chinese enterprises will only be impacted in the short term. In a long run, running contrary to the trend of globalization, Washington's move will eventually damage the interests of American enterprises and people. The U.S. cannot stop China from transferring and upgrading its manufacturing industry because the drive is rooted in Chinese people's aspirations for better lives. Innovation is becoming the driving force of China's economy. Following the objective law of industrial development, the "Made in China 2025" strategy presents a roadmap for China to accelerate technological innovation in manufacturing and outlines policies and a system to fully utilize the market economy laws to encourage enterprises' technological innovation inputs. China attaches great importance to intellectual property rights (IPR) protection, which is also an important part in implementing the "Made in China 2025" strategy and in building an innovation-oriented country. China has constructed and continued to improve its legal system for IPR. With its huge market, solid industrial system, innovation-oriented development and strict IPR protection, China's industrial upgrade will not be stopped by outside forces. 

■ The author is a researcher at the Institute of Industrial Economics of Chinese Academy of Social Sciences.

## America's Consequences for the Trade War

Text by Huo Jianguo

*Imposing more tariffs on China will inevitably lead to more troubles for the United States.*

In pursuit of trade protectionism, the United States has launched a series of trade wars around the world which will not only prove adverse to the long-term development of the U.S. economy, but also leave a serious negative impact and cause destruction to the recovering global economy. The U.S. has become a challenge and threat to the existing rule-based multilateral trading system. U.S. hegemony has raised opposition and criticism from other major countries. For starters, this policy choice of the U.S. is a backpedal. Opening and free trade are trends of the times and the goal of international multilateral trade organizations, and the principle of fair competition is generally accepted by all countries. Considering the development of international trade in the wake of World War II, the U.S.' tariffs on products on the Section 301 list from China and steel imports from the European Union and other countries oppose the basic principles of free trade. They reflect Trump's unconventional style and the adventurous behaviors of the administration. This move is bound to receive condemnation and opposition from other major economies and consequently cause the U.S. to suffer economic losses as well as being forced into isolation.

Moreover, the policy of trade protectionism benefits none but hurts America itself. The U.S. should have learned from its disastrously trade

protectionist policy of 1930—taxing steel and aluminum alone directly led to a sharp rise in domestic steel prices in the country, which caused an across-the-board rise in production costs and prices. After the introduction of counter measures from other countries, affected exporting industries of the U.S. will face even worse conditions. Once Sino-American bilateral taxation is imposed, a single sanction against American agricultural products could decimate the economies of any number of specific U.S. states.

The U.S.' choice to restrict imports will damage American exports and additional import tariffs will lead to a rise in domestic prices and affect domestic consumer spending. With the rise in domestic prices in the U.S., the Federal Reserve will be forced to raise interest rates to appreciate the dollar. Appreciation will result in a large deficit in the U.S. currency account, which will in turn suck the life out of the recovery process of the U.S. economy. When a new round of crises arrives, Trump's confidence will likely evaporate quickly.

At the end of the day, the U.S. will inevitably be caught in more troubles. If Trump re-raises on his conventional thinking as the self-proclaimed master negotiator has been prone to do, the available moves will soon devolve from call or raise to fold and cash out. 

■ The author is vice-chairman of the China Society for World Trade Organization Studies.

# Stop Moving the Goalposts Keeping China's WTO Commitments Clear

Text by Su Qingyi

*The accusing WTO member doesn't actually care whether China has fulfilled its WTO commitments. In its eyes, only when China reaches the opening and market operation levels it wants will China fulfill its WTO compliance.*

In terms of fulfillment of WTO (World Trade Organization) commitments, all members of the organization should be treated equally. First of all, China's WTO accession commitments, which were made when the country was admitted to the organization in 2001, were recorded in three documents: *Protocol on the Accession of the People's Republic of China to the WTO* and two reports from the working party on the accession of China to the WTO. The two reports specified China's promises to open up its services market. And the protocol defined the country's other promises outside the realm of the services market. Second, after years of China's accession to the WTO, members of the organization should be very clear of China's compliance with its WTO commitments. For questions as to whether China has opened up in compliance with its commitments, whether it met

targets on the time table and whether reforms have been carried out in some areas, the results should be clear. Third, since 2006, the WTO has been performing a trade policy review on China every two years. Every WTO member can supervise China's fulfillment of its WTO commitments within the WTO framework. If anyone has complaints about China, the two sides can solve the problem within the WTO review mechanism.

However, major disagreements exist between China and a certain developed WTO member on China's fulfillment of its WTO commitments. In reports submitted by the members' trade representative office to its Congress in the past few years, this country expressed disappointments about China, claiming that China was not fulfilling certain key commitments it made when it joined the WTO and that supporting China's admission to the WTO was a mistake. China, of course, strongly disagreed. Since its admission to the WTO, China has strictly abided by WTO rules and implemented its WTO commitments. As early as 2011, China issued a white paper, stating it had comprehensively fulfilled its commitments to the WTO. On June 28, 2018, China released



November 9, 2016: In the Moscow warehouse of a Chinese international e-commerce logistics enterprise, a local worker prepares goods for the upcoming Single's Day online shopping festival on November 11. Xinhua

another white paper titled "China and the World Trade Organization," which provides a detailed account of China's fulfillment of its WTO commitments.

China's account of its fulfillment of WTO commitments mainly consists of the comparisons between China's WTO accession promises and its current implementation. This method is falsifiable — if China were to lie, other WTO members could easily claim. In fact, using this method solely, the international community has reached consensus that China has fulfilled its WTO commitments. However, the aforementioned WTO member has a different understanding of this issue. In general, on whether China has obeyed WTO rules, the country reached its conclusion primarily based on China's status quo. As for whether China has broken any WTO rules and which specific WTO rules China has violated, it cannot provide any clear answers. The 2018 report on China's WTO compliance about intellectual property (IP) submitted by this member's trade representative office to its Congress is a prime example.

First of all, the report admitted that China has changed its laws and regulations on IP rights according to WTO's *Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS)*. However, the report went on to declare that it found China's acts, policies, and practices related to IP still discriminatory and a burden on the country's exports and investments. Thus, this member identified China on the Priority Watch List in its 2017 *Special 301 Report*. Under WTO framework, IP related rules are stipulated in the TRIPS agreement. Since this member already admitted that China has abided by the TRIPS agreement, it has no standing to attack China in the IP realm. It is a typical "my country first" theory: It blames China only because it believes China's

IP protection exerts a negative impact on its own interests. Actually, the two sides have little dispute on China's status quo. The major divergence is that China believes it has fulfilled its WTO compliance based on its WTO accession promises while this developed member state moved the goalposts on China's WTO accession promises and has deliberately set new standards based on its own interests. It believed that these new standards should be China's promises or the level China should reach. This country doesn't care whether China fulfilled the commitments that were made to the WTO. In its eyes, only when China reaches the opening and market operation levels it wants will China fulfill its WTO compliance.

This country believes that China's operation system hasn't been market-oriented enough, and that WTO rules cannot constrain China's "twisted" market behavior. It argues this harms its interests and causes losses to its domestic manufacturers, farmers, service enterprises, innovators, workers and consumers. This WTO member believes that although much of China's "improper" behavior can be managed by WTO rules, substantial loopholes exist to circumvent WTO direct supervision that were omissions from China's WTO accession promises.

China should take active measures to clearly exhibit how it has fulfilled its WTO commitments. China should also become more aware of the challenges it will face in future development. It should inspire more WTO members to realize that this specific member's reports on China's WTO compliance are inaccurate and biased. 

The author is vice director and associate researcher of the International Trade Research Division, Institute of World Economics and Politics under the Chinese Academy of Social Sciences.

## 中继卫星 Relay Satellite

Edited by Li Zhuoxi

The word "relay" in "relay satellite" refers to expanding the distance of network transmission by sending or forwarding data signals.

A relay satellite, sometimes referred to as "the

May 21, 2018: Technicians ready the Queqiao relay satellite for launch at the Xichang Satellite Launch Center in the Liangshan Yi Autonomous Prefecture, Sichuan Province. That same day, a Long March-4C rocket carrying the relay satellite was successfully launched from the satellite launch center. VCG



satellite of satellites," is a kind of communication satellite used to transmit massive volumes of data. By providing data relay, telemetry, tracking and command (TT&C) services for spacecraft and satellites, it greatly improves the efficiency and emergency response capabilities of various satellites. The technology enables real-time data transmission of resources satellites and environmental satellites, earning more warning time for major natural disasters.

Early on the morning of May 21, 2018, China successfully launched the world's first relay satellite named Queqiao ("Magpie Bridge") in orbit around the moon, which will provide a communication link between the earth and the planned Chang'e-4 lunar probe that will soft-land on and explore the moon's mysterious far side at the end of 2018.

The relay satellite will solve a major difficulty in lunar exploration. The tidal forces of the earth slowed the moon's rotation to the point where the same side always faces the earth. The other side, most of which is never visible from the earth, is known as the "dark side" of the moon.

Due to shielding from the moon itself, the detector landing on the far side of the moon cannot directly realize TT&C communication and data transmission with the earth.

The Queqiao relay satellite will assist the control center on the earth to enhance control of the lunar probe to ensure a smooth landing.

## 绿色物流 Green Logistics

Edited by Li Zhuoxi

Chinese e-commerce giant Alibaba recently launched the "Green Logistics 2020" plan across all its platforms, promising that by 2020, all of its express bags will be biodegradable and all boxes recyclable. And other e-commerce and logistics companies will follow suit to launch similar green logistics plans.

China has clearly become a big country for express delivery. The nation handled a total of 40.06 billion express deliveries in 2017, up by 28 percent from the previous year, consuming 19.2 billion boxes, 5.8 billion woven bags, 15 billion plastic bags and about 30 billion meters of packing tape.

In the process of building an ecological China, the express delivery industry has become a major area for improvement. In August 2016, the State Post Bureau issued a plan to advance green packaging in the express delivery industry.

In November 2017, ten ministerial-level government departments of China, including the State Post Bureau, the National Development and Reform Commission, the Ministry of Science and



Version 2.0 of the sharing express box, jointly developed by Suning Logistics and Shenzhen Huidu Technology Co., Ltd., can be reused over 60 times, with each-time usage price 30 percent lower than that of an ordinary carton. IC

Technology, the Ministry of Environmental Protection, jointly released guidance on collaborative promotion of green packaging in the express delivery industry.

According to industry experts, the Chinese government still needs to formulate national standards on green logistics to ensure the compatibility and interoperability of logistics technology, products and services among different enterprises to encourage them to strengthen cooperation in research and development of new technologies and new models and provide services that are more environmentally friendly. 



# Sensing Beijing

Text by Helena Villar Segura

*My Chinese family enabled me to better understand Chinese society, and more importantly, helped me feel right at home.*

## The Neighborhood

Across the alley from my apartment is a black-and-white six-story building with barred windows. Its entrance is flanked by an endless pile of bikes highlighted by yellow, orange, blue and green.

More than 30 grannies frequently gather to dance together in the small square, and sometimes a young woman and two men join them. They enjoy group exercise to the beat of Chinese music.

A street stall inhabits the corner next to a little shop. Under its big red umbrella is a fridge full of ice cream

The building in Beijing where the author lived for about 10 months.



and various local brands of water. The operator is a middle-aged woman with her husband and baby in tow. Her husband looks after the child while she sells lettuce, carrots, onions, tomatoes and potatoes. The shop also offers toilet paper, tobacco and chips.

Three old men shopping there are my neighbors. As usual, they soon begin to play Chinese chess and chat. Night has already fallen. In a couple of hours, they will return home with shopping bags and smiles. Tomorrow morning at five o'clock Beijing wakes up.

I witness this scene from the window of my tiny apartment. When I sit behind my desk to write, read and study, I periodically gaze outside and ponder my life in China.

Purple curtains brighten the beige walls offset by black flowers and a hanging television. The mattress is hard; the bathroom is small. I can sit on the toilet while taking a shower if I want. My headboard is made of faux leather, which frequently falls off onto my pillow at night.

My landlord's family lives next door, and ever since I moved in they have tried to make me feel at home.

## Chinese Choices

I have now been living in China for more than three years. I lived in Fuzhou, a coastal city in the south

of China, and elsewhere previously before settling in Beijing—dry, massive and cosmopolitan. The greatest thing about China's capital city is that it provides so many options.

In Beijing, you can find food from Russia, Vietnam, Iran, Spain and Argentina. You can drink mojitos on a rooftop while dancing salsa or drink *baijiu* (Chinese liquor) while singing karaoke. You can take a taxi, use a shared bike, call for a Didi (a Chinese taxi app) cab, ride the subway or hire a tuk-tuk. If you lust for authenticity, venture down a *hutong* (narrow lane)—a city inside a city—a community secluded from the rest of the capital but hidden right in the center of it. If you want to feel far from the traditional side of China, stroll down the packed and internationalized Sanlitun area. It is known for shopping centers, restaurants and foreigners from all walks of life, due to its proximity to the old embassy area. Or you can head to one of many parks for a peaceful break, to the Great Wall for breathtaking views or to a teashop to sip a cup of high-end tea. When people ask me why I like Beijing, I always give them the same answer: because you can find anything there.

My first year in Beijing was easy and fun. I was surrounded by students and foreigners, next to my university, close to beautiful and famous scenic spots and not far from an area where parties are frequently held. My apartment was new and comfortable, and I never felt alone. However, the second year changed things a bit. As with the many choices in life, in Beijing you can also choose where to live.

## My Chinese Family

Due to the size of Beijing, if you don't want to spend all day on the subway, you should try to live near



An aerial view of the Sanyuan Bridge in Beijing. VCG

your school or workplace. When I changed universities, I also moved. I had to stick within my scholarship budget, and the cost of renting an apartment in the area was extremely high. A friend advised: “When you find an apartment within your budget, just ask if you could live there—if the answer is ‘yes,’ don’t hesitate and take it—cheap places are hard to come by in Beijing!” And so I did.

It was the first apartment I saw. The building was pretty old. I didn’t see many young people around, or foreigners. A sixty-year-old couple opened the door. The husband was big, bold and cheerful. The wife was a short, round, energetic woman. Behind her hid a shy but curious seven-year-old girl. These were the landlord’s parents, and the child was their granddaughter. A narrow passage

separated their apartment from mine. They spoke as many Beijingers, adding a heavy “R” sound at the end of each syllable, which made it difficult for me to understand. I had to negotiate for nearly an hour, first with the lady, then with her husband, before finally getting the son on the phone.

“Nobody wants to live right next to the landlord. You can’t party at home!”

“I’m a student. How do you think I can pay that much... I’ll talk to your daughter in English, so she can learn... I won’t make any noise, just studying... Please, please, please...” I pleaded so earnestly in poor and desperate Chinese that eventually, he laughed and agreed to lower the price.

I lived there for ten months. In the flat across from me lived six people: the great-grandmother, the

grandparents, the parents and the little girl. Every day before class, I saw the grandmother take the girl to school by bike. Every time we met, she would ask me “Where are you going?” or “Have you eaten?” or advise me to be careful because of a certain weather forecast. Seldom was their door closed, so I felt like I lived with them. Once, the grandfather gave me a watermelon because he decided I was losing weight. I didn’t think watermelon would be much help, but it was tasty nonetheless. Despite the lack of privacy, my Chinese family not only allowed me to better understand Chinese society, but also made me feel right at home. 

■ The author was an international student from Spain who studied at Peking University. She currently works for a Spanish company in Ningbo, Zhejiang Province.



# Jointly Building the Future

Text by Jin Ruiting

*Joint construction of the Belt and Road is an innovative “Chinese solution” to promote a fair and reasonable global economic governance trend.*



October 15, 2017: The bustling container wharf of Rizhao Port, Shandong Province. IC

In recent years, the global economic outlook has generally been considered trending positively. But with recent developments of protectionism, isolationism and populism, profound adjustments in global governance, industrial structure, energy layout, monetary system and geopolitics are unfolding one after another.

The Belt and Road Initiative, which focuses on optimizing the process of economic globalization, advocates safeguarding the international order based on multilateralism and aims to achieve common development and prosperity in all countries. It is a new international public good provided by China to the whole world and an important conduit for China to promote building a community with a shared future for mankind in the new era, demonstrating China's key contributions to global peace, development, and win-win cooperation.

### Impressive Joint Construction

The Belt and Road Initiative has yielded fruitful results after only five years since its inception.

In terms of policy coordination, China has signed 103 cooperation documents with 88 countries and international organizations to jointly implement the Belt and Road Initiative and has completed alignment with the "Bright Road" initiative of Kazakhstan, the Eurasian Economic Union proposed by Russia, the Juncker Plan of Europe, the "Steppe Road" program of Mongolia, and the "Two Corridors and One Ring" initiative of Vietnam.

In terms of infrastructure connectivity, a number of railways, highways, ports, airports and cross-border bridges have been built. The Jakarta-Bandung Railway, Gwadar Port,

## **New Ideas and New Goals for a New Era**

China-Laos Railway, Hungary-Serbia Railway and the second line of the China-Russia oil pipeline are all proceeding well. More than 8,000 trains of the China Railway Express run to Europe, and the network now extends to 42 cities in 14 European countries. These projects are gradually paying out real development dividends and improving the people's wellbeing.

In terms of unimpeded trade, the total volume of goods trade between China and countries along the Belt and Road has reached more than US\$5 trillion, and China's outbound investment in those countries exceeds US\$70 billion. As of April 2018, China has built 75 overseas economic

and trade cooperation zones in countries along the Belt and Road routes, with a total investment of US\$25.5 billion. More than 3,800 enterprises have settled in those cooperation zones, creating nearly US\$1.7 billion of taxes for host countries and nearly 220,000 jobs for locals.

In terms of financial integration, the Silk Road Fund has signed financing contracts with 19 projects, promising investment of US\$7 billion in support for the projects. China Development Bank, the Import-Export Bank of China and China's commercial banks are increasing investment to support the construction of the Belt and Road.

In terms of closer people-to-people ties, China has signed cultural cooperation agreements with more than 60 countries, and the concept of the Belt and Road Initiative is becoming more understood, better recognized and optimistically supported by people of countries along the routes. Over the past five years, mutual visits made by tourists between China and countries along the Belt and Road routes exceeded 25 million.

### **Building a Community with a Shared Future for Mankind**

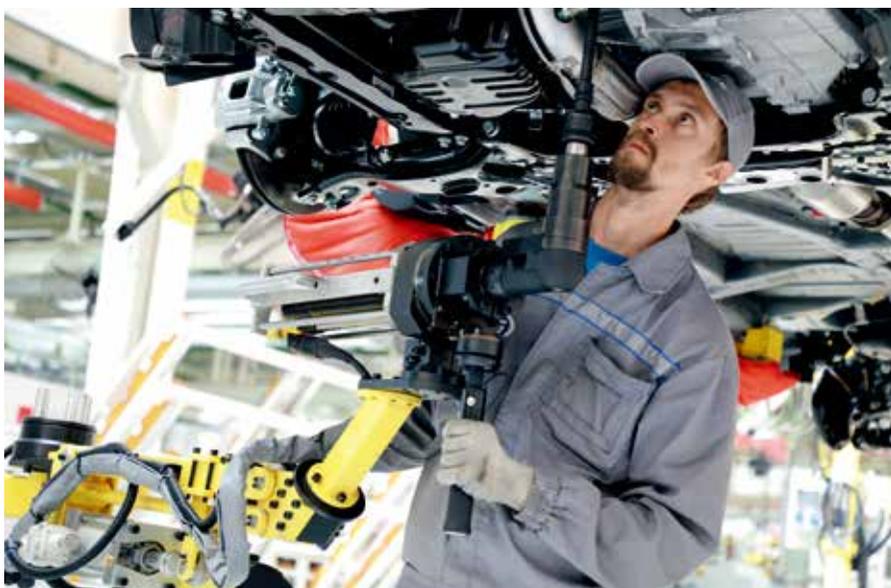
Building a community with a shared future for mankind is the core element of contemporary Chinese

May 13, 2018: Nearly 40 overseas students from 12 countries along the Belt and Road routes who are studying at Sichuan University learn and experience traditional Chinese art and culture such as Sichuan cuisine, tea ceremony and bamboo weaving at Meishan Vocational and Technical College in Sichuan Province. IC



foreign policy, as well as the most distinctive feature of major-country diplomacy with Chinese characteristics and the unique Chinese wisdom contributing to the development of greater human society. The idea of building a community of shared future is rooted in the achievements of ancient and modern civilizations. Proposed in response to the new era, it involves state-to-state relations, group-to-group relations, relations between various civilizations and relationship between man and nature, and radiates rich connotations. Joint construction of the Belt and Road and promoting broader, deeper and higher-level economic and trade cooperation among the Belt and Road countries are conducive to building consensus, carrying forward the new concept of mutual benefits and win-win outcomes and more accurately addressing vital interests of most countries. It also facilitates the construction of a community with shared interests and responsibilities. The community, in turn, provides fresh new opportunities and experiences for each of its members.

Jointly constructing the Belt and Road rides the tide of peace and development of the era and provides a solid guarantee for safeguarding the common interests of mankind. As the economic globalization trend continues, the flow of capital, technology, information and personnel around the world has become increasingly interdependent. The existing international order and international rules have formed a common interest bond around the world. The world is facing severe challenges, and the Silk Road Spirit, which features peace and cooperation, openness and inclusiveness, mutual learning and mutual benefit, is more needed now



July 5, 2018: A worker assembles a car at the assembly plant of Chinese carmaker Geely in Belarus. On average, the plant witnesses a vehicle rolling off its assembly line every 240 seconds. IC

than ever before. No matter how complicated and sharp contradictions between states, groups, religions, and social classes may be, human beings as a whole share the ultimate glories of victory and pains of defeat. Joint construction of the Belt and Road provides a practical path for realizing common interests of mankind under the theme of peace and development. By adhering to the cooperative concept of the Belt and Road, the international community will become more resistant to every kind of crises, and our collective strength will be continuously enhanced, thus more effectively safeguarding world peace and development.

The Belt and Road Initiative points the direction and designs a blueprint for the future development of human society and the constant promotion of people's wellbeing. It aligns with the United Nations millennium development goals to reduce poverty, promote development through cooperation and narrow development disparities. It embodies

China's commitment and new role in promoting global development. China advocates the principles of extensive consultation, joint contribution and shared benefits in international cooperation, and is willing to work with other countries to realize the ultimate goal of creating a better world free from want where all can live in dignity.

The Belt and Road Initiative is an innovation made by China for global economic governance, with an aim to promote a fair and reasonable global economic order. Ahead of the onset of the 2008 international financial crisis, global economic governance was dominated by the framework of the Washington consensus. After the outbreak, the Washington consensus lost much of its glory. The global economic governance system is obviously calling for reform to reinforce inclusiveness, representativeness, effectiveness and risk control. The concept of the Belt and Road calls for constructing an inclusive and coordinated world development governance structure, an open and

cooperative global trade and investment governance structure and a safe and efficient international financial and market governance structure. It is based on China's experience, which has inspired the scheme and concept for solving problems hindering world development and improving global economic governance. It is an institutional public good of great theoretical and practical significance in reshaping the international economic order that China provides to the international community to promote reforms towards a just and inclusive global economic governance system.

### Glaring Lags

The development disparity between countries along the Belt and Road is quite glaring, which increases difficulties in constructing an inclusive and universal cooperation mechanism. Those countries vary in economic, political and cultural conditions. In terms of economic development level, the Belt and Road Initiative covers developed economies in Western Europe, energy and resource-exporting countries of Central and West Asia, emerging industrialized countries of Central and Eastern Europe and ASEAN and underdeveloped agricultural countries. From the political point of view, both capitalist and socialist countries are included as are democracies and monarchies. From the cultural perspective, the Belt and Road Initiative covers six of the eight categories of civilizations identified by Samuel P. Huntington: Chinese, Hindu, Islamic, Western, Orthodox and African civilizations. Countries along the routes have different interests, values and cooperation modes. This diversity has increased the complexity and difficulty of building an inclusive and



The Czech freight train station of the Madrid-Yiwu line of China Railway Express to Europe, July 2, 2018. China Railway Express to Europe is an international container-shipping railway line that runs through countries along the Belt and Road routes. In the past five years, 52 service lines that extend to 12 countries and 32 cities in Europe were opened, and 33,882 TEUs of cargo were transported on 402 trips. IC

universal cooperation mechanism.

China has long been on the receiving end of global multilateral governance rules, and is not well prepared to build multilateral cooperation mechanisms. For a long time, China tended to follow and adapt to the rules of multilateral institutions such as the WTO, IMF and World Bank. In the past two years, China has been actively voicing its opinions and playing the lead role on multilateral diplomatic occasions such as the summits of the G20, BRICS and the SCO. But China has not been positioned at the center of the world stage for long and still lacks profound theories and experience in establishing multilateral cooperation mechanisms and setting standards and rules. The lack of talent reserves,

capital investment and effective support of domestic institutional mechanisms in the operation of multilateral mechanisms also demands China make preparations more carefully.

Furthermore, the geopolitical sensitivity and complexity of countries along the Belt and Road pose a major obstacle in strengthening multilateral and institutionalized cooperation. The Belt and Road Initiative involves sensitive areas of the Middle East, East Asia and Eastern Europe as well as India, Pakistan and other regions suffering conflicts. Many contradictions exist for countries along the routes in politics, economics, culture, religion and other realms. Some long-standing divergences are difficult to reconcile, while some exist



due to competition and maneuvering between global major countries. In the foreseeable future, China's efforts to promote a multilateral cooperation mechanism under the framework of the Belt and Road Initiative will easily be affected by sensitive geopolitical relations.

### Future Policies

The focus of China's future policies to promote the construction of the Belt and Road can be summed up in three aspects:

First, based on existing bilateral and multilateral cooperation agreements, China will establish a strategic planning and coordination mechanism under the Belt and Road Initiative. On the foundation of the existing

bilateral cooperation strategic agreements signed by China and countries along the routes or international organizations, a number of permanent working groups can be organized to map out future plans for alignments of development plans and carry out major cooperation projects. For the medium and long term, permanent mechanisms under the Belt and Road Initiative, such as strategic docking cooperation commissions and informal meetings of senior officials of strategic planning departments, can be set up to ensure coordination and communication on macroeconomic policies between relevant countries, such as formulating transnational or transregional economic development strategies and plans and promoting the deeper integration of countries along the routes.

The second aspect is consolidating the achievements of the existing free trade areas (FTAs) and designing rules and mechanisms for trade and investment under the framework of the Belt and Road Initiative. Based on previous international experience, FTAs are key platforms for coordinating trade in goods, trade in services, investment, intellectual property, environment and other related fields. Already, the China-ASEAN FTA, the Eurasian Economic Union (EEU) and other FTAs have been set up between countries along the Belt and Road despite their distinct differences in mechanism standards. By actively advancing the China-GCC FTA and the China-EEU FTA, the overall framework of FTAs along the Belt and Road routes has gradually taken shape. In particular, in addition to such topics as trade, investment, and technical barriers, the overall framework also includes issues that embody the concept of building a community of shared interests, responsibilities

and future, such as intellectual property protection, environment, infrastructure, capacity building and cooperation. However, considering the varying national conditions of relevant countries, specific rules and regulations should be flexible and differentiated. In the medium and long term, similar to the Free Trade Area of the Asia-Pacific (FTAAP), we should draw on the experience of the APEC model to establish a large-scale FTA that covers all countries along the Belt and Road routes led by China and ASEAN and is open to even countries beyond the region. Effective integration will provide a "Chinese solution" for reforming and improving global economic governance.

Finally, we should integrate the Asian Infrastructure Investment Bank and other financing platforms and improve the financing arrangement mechanism under the framework of the Belt and Road Initiative. Most countries along the routes are relatively underdeveloped and lack financial resources. Some projects along the Belt and Road routes require lengthy construction time and only produce modest commercial returns. In addition, significant geopolitical and economic risks reduce the motivation for international capital to invest in the region. Forming a unique Belt and Road financing system by integrating various types of financing platforms including development banks, commercial financial institutions and aid funds is the effective solution to the huge funding gap plaguing the construction of the Belt and Road. 

The author is an associate research fellow at the Institute of International Economic Research of the Chinese Academy of Macroeconomic Research.



# Green Development

## Ecological Governance with Chinese Characteristics

Text by Zhai Yong

*A secure and stable ecosystem is the most fundamental prerequisite for the survival and development of any country.*

July 10, 2018: Workers clean a watercourse near Shengzhimiao Harbor in Taihu Sub-district, Changxing County, Zhejiang Province. Taihu Sub-district has introduced a river ecorestoration system, which helps form a complete aquatic ecosystem, restore the concentration of oxygen dissolved in water and enhance the self-purification capacity of rivers and lakes, producing obvious results in ecological restoration. VCG





An aerial view of the Wumeng Canyon in Guizhou Province, July 20, 2017. VCG

### **Ecosystem: Bedrock of Human Development**

On the surface, a country's ecosystem is similar to a person's physical appearance or health, demonstrating morphology. But in nature, it determines the foundation and conditions influencing the country's survival and development. Since the beginning of human civilization, production

patterns and lifestyles of humankind have undergone tremendous changes. However, one thing remains constant: Natural resources have always been an indispensable foundation and guarantee for human survival and development. All natural resources are derived from the natural ecosystem. If the planet's ecosystem suffers structural and fundamental damage,

the natural resources it provides will become unavailable as well.

In China's long history, the collapse of some kingdoms or tribes was directly attributed to ecological degradation. China is the most populous country in the world. If its ecosystem suffers considerable damage, the water, soil, air and wildlife resources sustaining the country's 1.4



billion people would fall into shortage or even crises, eventually resulting in chaos, turbulence and even collapse of the nation. National development will then become empty talk.

A secure and stable ecosystem is the most fundamental prerequisite for the survival and development of any country. Nature may be able to recover from an ecological catastrophe,

but the majority of living beings that depend on the ecosystem, especially humankind, can easily go extinct.

For this reason, the Chinese government adheres to the principle of respecting, protecting and adapting to nature these days. Chinese President Xi Jinping has formulated a five-sphere integrated plan in which ecological progress is embedded

in the wider process of political, economic, cultural and social development. President Xi also calls for protecting the ecological environment “like protecting our eyes,” testifying to the Chinese leader’s wisdom and vision on green development.

### Ecological Progress: Road for China’s Future

President Xi calls for building a society of ecological progress, which represents an upgrade of the concept of environmental protection based on ideas on the relations between man and nature from a philosophical and rational perspective.

By reviewing human history, it is clear that evolution towards civilization was driven by uncivilized realities. The reason for making ecological progress is attributed to mankind’s “uncivilized” treatment of nature. In the early days of human history, mankind utilized nature in ways that conformed to the operational law of the ecosystem or at least didn’t severely hurt the natural ecosystem. Along with the enhancement of humans’ capacity to explore nature, human society entered a period of “industrial revolution” before fully understanding the natural ecosystem, during which the mass production of machines, equipment and power

June 5, 2018: The “environmental circuit court” of Duchang County, Jiangxi Province, hears a case involving 10 defendants accused of illegal fishing in Qinghui Village in the county’s Zuoli Town. VCG



resulted in destructive utilization and exploitation of nature. Moreover, the introduction of the concept of “capital” further fueled humankind’s “uncivilized” exploitation and utilization of nature.

A key strategy of China’s reform and opening up was to introduce Western production modes featuring industrialization. Consequently, such production modes motivated manufacturers to use fossil energy and all tools and means made available by “industrial civilization” to carry out large-scale exploitation of minerals, land, seas and other natural resources, resulting in destructive scars on the environment.

In its early days of industrialization, China had less awareness and capacity to constrain large-scale exploitation activities. Just as China was starting to develop heavy industry, Western countries were becoming aware of the ecological calamities arising from the first and second industrial revolutions and began to increasingly enhance their ability to mitigate environmental pollution via

technological and legislative means, fostering new production patterns and lifestyles. They began to transfer their low-end, backward and polluting industries to developing countries, resulting in the shift of environmental pollution and ecological degradation. The natural ecosystems of developed countries have been increasingly restored, enabling them to regain blue skies, clear rivers and dense forests. However, they have done little to help developing countries improve their capacity to prevent pollution.

Now facing severe pollution, Chinese people aspire for clean water resources, fresh air, safe food and a healthy ecosystem. For China, one of the most urgent tasks is to properly treat nature and shift into a healthier lane of development. China should no longer cling to traditional production modes that rely on fossil energy and mineral resources, but seek adjustment and transformation of its development pattern.

Achieving this goal requires both conscious efforts and objective

guarantees. Promoting ecological progress is to guide people to change their production modes and lifestyles and take a road towards green development.

So far, China has adopted measures to replace fossil energy and mineral resources with green energy like hydro-power, bio-power, solar power, wind power and nuclear power in industrial production and social development. As a result, a number of new technologies and green industries have emerged.

First and foremost, promoting ecological progress requires transformation of development modes. The current reality is that coal remains the primary energy source in China’s economic development. Thanks to the spread of the “ecological progress” concept, China has made remarkable achievements in clean utilization of coal. Ecological progress also involves ecological, resource, marine, energy and pollution control strategies, which are all interconnected yet independent of each other, and each has a comprehensive and fundamental influence on national development. Developed countries began to adopt marine, resource and pollution control strategies long ago, and have formed a complete legal system that has become the *de facto* global norm. Even during Western colonial expansion, an ecological strategy was adopted alongside increasing environmental awareness. Relevant evidence can be found in *Ecological Imperialism* by American scholar Alfred W. Crosby. Later, especially after the 1950s, energy strategy was widely adopted by Western developed countries, which formulated and enacted a series of laws to support its implementation.

In the past, developed countries promoted their resource, ecological, marine and energy strategies through zero-sum games or even armed

July 4, 2018: An emergency marine pollution control exercise is held in Sanya Bay of Sanya City, Hainan Province. Over 100 staffers, 12 vessels and a seaplane from Sanya Maritime Safety Administration, Sanya Emergency Management Office and other departments participated in the exercise. This was the first emergency marine pollution control exercise organized by Sanya City involving three different types of vessels. VCG



conflicts. In sharp contrast, President Xi aims at making China's ecological progress rooted in "innovative, coordinated, green, open and shared development." China opposes conflicts and advocates cooperation, harmony, coordination and mutual benefits.

### Legal Development Based on Actual Conditions

In recent years, China has attached great importance to building and improving the legal system concerning ecological progress. President Xi has made many important instructions on specific laws related to ecological progress. He pointed out that promoting ecological progress demands a revolutionary reform of production modes, lifestyles, ways of thinking, and values, which can only be accomplished by institutional evolution and rule of law. He also stressed that China should "implement the strictest environmental protection system." He also urged enhanced protection of wild animals by strengthening legislation and law enforcement to better protect the ecosystem and people's physical and mental health, foster better social mores and maintain a good international image of Chinese people. At two sessions of the Nuclear Security Summit he emphasized twice the importance of formulating a nuclear security law. Xi also made several important instructions on the formulation of laws on soil pollution prevention and control.

Over the past few years, China has made great achievements in building a legal system covering ecological protection as follows:

First, accelerated law-making. Since 2012, the proportion of draft laws related to ecological progress has increased in the legislation plan of the Standing Committee of the National People's Congress (NPC), China's

top legislature. Draft ecological laws accounted for over 18 percent of all laws to be deliberated by the Standing Committee of the 12th NPC, the highest percentage in its history. Some draft laws on ecological progress will be included in the legislation plan of the Standing Committee of the 13th NPC. However, China is still way behind some developed countries in environmental legislation.

Second, a transition from concept-oriented to problem-oriented. Previously, China's environmental legislation was strongly influenced by foreign legislation, and some new concepts and modes were introduced to China from overseas. Since these laws might not conform to China's realities, their enforcement was not effective. In recent years, the NPC Standing Committee has formulated and revised some laws based on the country's realities and needs, which have played important roles in promoting China's ecological progress.

Third, after further improving laws on pollution prevention and control, China has begun to pay attention to formulating laws aiming to strengthen ecological protection and enhance resource utilization efficiency. For instance, the NPC Standing Committee has deliberated twice on the soil pollution prevention and control law (which is expected to be approved after the third deliberation this year) and revised the wildlife protection law by adding content about protecting biodiversity, genetic resources and wildlife habitats. It also amended the marine environment protection law and formulated the *Law on the Exploration and Development of Resources in Deep Seabed Areas* to strengthen conservation of the marine ecosystem. Moreover, relevant commissions of the NPC launched a



May 31, 2018: A bird lands on the Moshui River in Qingdao, Shandong Province. After years of comprehensive renovation, the Moshui River features restored landscapes, clear water and lush banks, and has begun integrating functions such as flood control, ecological protection, sightseeing and recreation. VCG

feasibility study on the formulation of the law on integrated resource utilization in a bid to enhance resources utilization efficiency and establish norms and rules that cover the full life cycle of resource utilization from raw materials, production, sales and consumption to waste recycling.

Fourth, China is witnessing a shift from assimilation with international laws to participation in the formulation of international rules. In the past, when China ratified or joined an international convention, it placed greater emphasis on aligning itself with existing regulations of the convention. In most cases, however, developed countries seek to adjust international treaties and conventions before joining by amending or formulating relevant domestic laws. By so doing, these countries internationalize their domestic laws to better safeguard their national interests. In this context, the NPC Standing Committee has accelerated its pace in formulating relevant domestic laws according to the international conventions China has ratified such as the *Law on the Exploration and Development of Resources in Deep Seabed Areas* and the nuclear security law. 

The author is director of the Legislative Office of the Environmental Protection and Resources Conservation Committee of China's National People's Congress.

# Tracking China's Ecological Progress with Numbers

Text by Hu Zhoumeng

Designed by Andrey Maleev

**B**uilding a sustainable home is a common goal of all mankind. Moving away from the traditional development model that sacrificed the environment for economic growth, China has embarked on a road of green and sustainable development, and the drive to build an ecological civilization is impacting everyone's life across the board.

Over the past five years, notable ecological progress has been made across the country.

The institutional mechanism to promote ecological

progress has steadily improved, pollution control has seen encouraging improvement, green development has achieved remarkable results and the quality of ecological environment has been continuously enhanced. The idea that "clear waters and lush mountains are invaluable assets" is deeply rooted in the hearts of the people and has increasingly achieved broad consensus across society.

As harmonious coexistence between human and nature actually becomes reality, a brand new scroll of green China is unrolling in front of us. [EP](#)



# Biodiversity in China

## DIVERSITY OF ECOSYSTEMS

China has various terrestrial ecosystems, including:



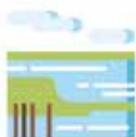
212 types of forests



36 types of bamboo forests



113 types of shrubs



77 types of meadows



52 types of deserts

China has complex freshwater ecosystems, and its natural wetlands include four major types: marsh, offshore and coastal wetlands, riverside wetlands and lake wetlands.

The Yellow Sea, the East China Sea, the South China Sea and the Kuroshio Current represent four major marine ecosystems in the offshore waters featuring various wetlands, mangroves, coral reefs, estuaries, bays, lagoons, islands, sandbars, seagrass beds and other typical marine ecosystems.

China is also home to many artificial ecosystems such as farmland ecosystems, artificial forest ecosystems, artificial wetland ecosystems, artificial grassland ecosystems and urban ecosystems.



## DIVERSITY OF SPECIES

A total of 92,301 known species and subordinate categories of lifeforms have been identified in China, including:



38,631 species of animals



44,041 species of plants



469 species of bacteria



2,239 species from the kingdom Chromista



4,273 species of fungi



1,843 species of protozoa



805 species of viruses

Among them, 420 rare and endangered species have been put onto the list of wild animals under state protection, including the giant panda, crested ibis, golden monkey, South China tiger and Chinese alligator that are unique to China.

## DIVERSITY OF GENETIC RESOURCES



From China's soil sprout 1,339 varieties of cultivated crops in 528 categories, more than 1,000 kinds of cash trees and some 7,000 kinds of native ornamental plants, in addition to 576 kinds of domestic animals.

### PROTECTING BIODIVERSITY



By launching and implementing major projects to protect biodiversity, China has established more than **440** biodiversity observation areas to carry out rescue and cultivation activities for rare and endangered species of wild plants.

### ESTABLISHING NATURE RESERVES



In 2017, the State Council of China approved the establishment of **17** state-level nature reserves, increasing the total number of the country's state-level nature reserves to **463**, with a total area of **974,500** square kilometers.

By then, a total of **2,750** nature reserves of different types and levels had been established nationwide, with a total area of about **1.47 million** square kilometers.

### STRENGTHENING SEWAGE AND GARBAGE TREATMENT



By the end of 2017, China's urban sewage treatment capacity had reached **157 million** cubic meters per day, with the annual sewage treatment volume reaching **46.26 billion** cubic meters.

By the end of 2017, China's harmless disposal capacity of household garbage reached **638,208** tons per day, with the harmless disposal rate of urban household garbage up to **97.14** percent.

### IMPROVING AIR QUALITY



In 2017, the average density of PM10 in 338 Chinese cities at the prefectural level and above decreased by **22.7** percent compared to the 2013 level, while the average density of PM2.5 in the Beijing-Tianjin-Hebei region, the Yangtze River Delta and the Pearl River Delta fell by **39.6** percent, **34.3** percent and **27.7** percent, respectively.

Among the 338 Chinese cities at the prefectural level and above, **99** cities met the air quality standard in 2017, accounting for **29.3** percent of the total, up by **4.4** percentage points from 2016.

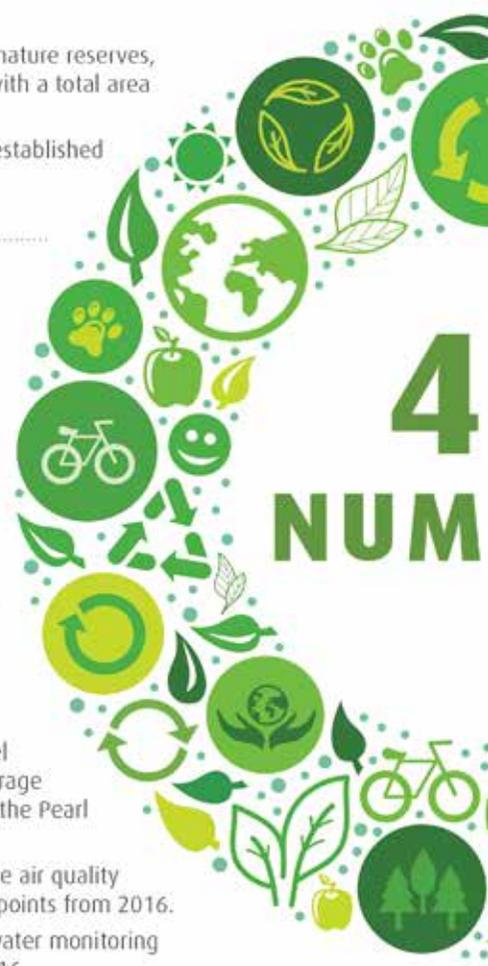
In 2017, **36.1** percent of the 463 Chinese cities (districts and counties) with rainwater monitoring facilities saw the occurrence of acid rain, down by **2.7** percentage points from 2016.

### ENHANCING WATER QUALITY



In 2017, the ratio of high-quality surface water has increased continually across the country. Water reaching the Grade III standard or above reached **67.9** percent, up by **0.1** percentage points from 2016.

Water deemed "inferior to Grade V," the worst in China's water quality grading system, fell to **8.3** percent, down by **0.3** percentage points from 2016.



## ADJUSTING THE ENERGY STRUCTURE



In 2017, coal consumption accounted for **60.4** percent of total energy consumption in China, down by **1.6** percentage points from 2016.

The consumption of clean energy such as natural gas, hydropower, nuclear power and wind power accounted for **20.8** percent of total energy consumption in China, up by **1.3** percentage points from 2016.

## REDUCING ENERGY CONSUMPTION AND CARBON EMISSIONS



In 2017, energy consumption per 10,000 yuan of GDP in China fell by **3.7** percent from 2016.  
In 2017, carbon dioxide emissions per 10,000 yuan of GDP in China fell by **5.1** percent from 2016.

## SHRINKING THE DESERTS



As of 2014, the total area of desertified land in China was about **2.61 million** square kilometers, and the area of sandy stretches was **1.72 million** square kilometers, decreasing by **12,120** square kilometers and **9,902** square kilometers, respectively, from 2009 levels.

## STOCKING FORESTS



According to the *Eighth National Forest Resources Inventory (2009-2013)*, China's forest area totaled **208 million** hectares, with the forest coverage rate reaching **21.63** percent and forest stock volume reaching about **15.14 billion** cubic meters.

## RESTORING GRASSLANDS



China's grassland area is close to **400 million** hectares, accounting for **41.7** percent of its total land area, which is the largest terrestrial ecosystem and ecological security barrier of the country.

## RESTORING COASTLINES AND ISLANDS



By steadily promoting the "Blue Bay," "Ecological Islands and Reefs" and other ecological restoration projects, China has improved more than **70** kilometers of coastlines and restored more than **2,100** hectares of coastal wetlands.

Note: Data courtesy of the *Report on China's Ecological Environment 2017* issued by the Ministry of Ecology and Environment. Unless otherwise specified, data was reported in 2017.

# New Energy for Global Transformation

Text by Tao Ye

*China utilizes the most renewable energy in the world, setting a model for global energy transformation and new energy development and utilization.*

**T**ireless efforts over more than a decade have resulted in stunning achievements in China's new energy development. The country has realized a structural transformation as it shifts from traditional fossil fuels such as coal to a package of clean solutions including nuclear power, hydropower, wind power, solar energy and biomass.

## Major Growth in Total Volume

According to statistics from China National Renewable Energy Center and China Electricity Council, by the end of May 2018, the installed capacity of hydroelectric plants above the designated size reached nearly 300 million kilowatts, installed capacity of wind power 170 million kilowatts, installed capacity of photovoltaic power generation 143 million kilowatts and installed capacity of biomass power generation 16 million kilowatts. In total, China's installed capacity of renewable energy generation has hit nearly 630 million kilowatts, accounting for nearly 37 percent of the country's total installed capacity of power plants above the designated size.

In the first five months of 2018, the amount of electricity generated

with renewable energy in China exceeded 625 billion kilowatt hours, accounting for nearly 24 percent of the country's total from power plants above the designated size. Non-fossil energy power generation has topped 731 billion kilowatt hours, accounting for more than 27 percent of the country's total from power plants above the designated size. New energy and renewable energy have already become the main force for the country's newly added electricity generation capacity, accounting for more than 65 percent of the newly installed capacity in 2017. The substitution role of renewable energy becomes increasingly prominent.

## Growing Industrial Strength

China has already formed a complete new energy industry chain covering research, manufacturing, design, construction and operation. The industry has entered a phase of rapid, comprehensive and large-scale development. Localization has witnessed a significant increase. China's production scales of wind turbine equipment, polycrystalline silicon, silicon chips and photovoltaic cells rank top in the world. New energy already accounts for a major proportion of China's newly installed electricity

generation capacity. And continuously improving equipment, technology and management of renewable energy have led to steady cost declines for wind and photovoltaic power generation.

The top 10 enterprises with the biggest installed capacities of wind power in the country produce a total installed capacity of more than 100 million kilowatts. Their manufacturing capabilities for some parts such as blades, gear boxes and generators are on par with advanced international standards. These enterprises are capable of providing reliable supporting equipment for mainstream wind turbine models. And the wind power service industry is becoming increasingly important.

In 2017, the production capacity of China's polycrystalline silicon development enterprises totaled 210,000 tons, accounting for half of the world's total. With ever improving production technologies, the comprehensive cost of polycrystalline silicon development has dropped to less than 90,000 yuan per ton and industrial efficiency has increased to nearly 19 percent. Total production capacity of silicon chips has witnessed a sharp rise to nearly 82 gigawatts, an increase of 35 percent on a year-on-year basis and



A photovoltaic power station in Nanping City, Fujian Province. In 2017, China's newly installed capacity of photovoltaic power accounted for half of the world's total. VCG

accounting for nearly 87 percent of the world's total. Prices for parts and components have dropped to around 2.5 yuan per watt this year. And the annual yield of components from China is more than 70 percent of the world's total.

### Improving Policy System

To promote the development and utilization of renewable energy resources, increase energy supply,

improve energy structure, safeguard energy security, protect the environment and realize sustainable economic and social development, the *Renewable Energy Law of the People's Republic of China* was implemented in 2006 and revised in 2009. The law stipulated basic rules and entity responsibility such as guaranteed full purchase related to renewable energy development.

Two governmental documents,

The 13th Five-year Plan (2016-2020) for Renewable Energy Development and Reform Strategies on Energy Production and Consumption (2016-2030), specified the 2020 and 2030 goals for renewable energy development. By 2020, the proportion of non-fossil energy and natural gas in primary energy consumption should reach 15 percent and 10 percent, respectively. By 2030, the figure should hit 20 percent and 15 percent, respectively.

Since the implementation of the 13th Five-year Plan, China has established a series of mechanisms and systems such as a renewable energy objective-oriented guidance system and guaranteed full purchase of renewable energy to ensure the realization of the non-fossil energy's proportion targets and expand the utilization of renewable energy. By controlling the pace of projects, construction and grid connection, the government has played a more active role in guiding enterprises in rational investment and efficient usage of renewable energy.

In February 2016, China's National Energy Administration issued guidelines on renewable energy development and utilization. It required the country's provincial-level administrative units to set consumption proportion targets for renewable energy based on their various renewable energy development conditions and energy consumption situations.

In terms of supervision and monitoring, the National Energy Administration issued its 2015 and 2016 supervision and assessment reports on the country's renewable energy power development. The reports evaluated absorption and consumption of non-hydroelectricity and renewable energy electricity of different provincial-level administrative



May 25, 2017: Anhui Tongling Wanjiang Biomass Energy Corporation transforms straw into solid biomass fuel. China already boasts the largest utilization of renewable energy globally. VCG

units. Besides, it also covered the policy implementation situation such as guaranteed purchase of wind power and photovoltaic power.

In March 2016, China's National Development and Reform Commission and National Energy Administration promulgated a document specifying measures for guaranteed full purchase of renewable energy. Based on the document, areas that have given up developing wind and photovoltaic power must meet minimum annual purchase amounts for wind and photovoltaic power. Additionally, a supervision and early warning mechanism for wind power has been established. In accordance with *Notification on the Results of 2017 Wind Power Investment Supervision and Precaution*, China designated red alert areas for wind power development and construction. No new wind power projects are allowed to be established in such areas. The country vowed to take measures to address problems related to abandonment of wind power.

### Major Innovation

Major renewable energy projects such as grid-connection of wind

power and photovoltaic power with state-set prices, base construction of leading photovoltaic technologies and solar thermal energy demonstration projects have been promoting technical innovation and industrial upgrade. These projects have also played a vital role in driving industrial scale and structure to higher levels.

In 2017, China's National Energy Administration issued a draft notification on the requirements for the construction of advanced photovoltaic power generation technology application bases. The draft designated the construction scale of each base at 500 megawatts. In three years, the construction of all these bases will be complete, related advanced technologies will reach industrialization and the technical indicators for 2017 industrial leaders should rise.

In September 2017, in accordance with pilot work requirements on grid-connection of wind power with state-set prices issued by China's National Energy Administration, the administration announced pilot projects in areas including Hebei, Heilongjiang, Ningxia and Xinjiang with a total scale of 707,000 kilowatts. Prices of wind power in these projects

are required to set the same as prices of local on-grid coal power. And efforts must be made to absorb and consume wind power in local power grids.

### Global Model for Energy Transformation

Although the large-scale development of China's new energy sector started late compared to the United States and some European countries, its second-mover advantages are obvious and have reaped major benefits. Today, major countries, mainstream media and numerous international organizations all highly recognize China's achievements in new energy development as well as the contributions of China's new energy sector in promoting sustainable development in economics, the environment and people's wellbeing. The development and contributions of China's new energy sector are considered important and outstanding achievements made by the country during the construction of a modern economic system with Chinese characteristics.

Since 2011, both China's newly installed capacity and cumulative installed capacity of wind power have ranked top in the world. In 2013, China's newly installed capacity of photovoltaic power surpassed Germany and Italy and has since topped the world. In 2015, the country's cumulative installed capacity of photovoltaic power beat Germany and became number one worldwide. In 2017, China's newly installed capacity of photovoltaic power accounted for half of the world's total. Statistics show that in 2017, China's utilization of non-fossil energy accounted for nearly 14 percent in its primary energy consumption. Its utilization of new energy ranks top in the world and accounts for 20 percent

of the world's total utilization of new energy. China already boasts the largest utilization of renewable energy globally and has set a model for global energy transformation as well as new energy development and utilization.

By now, China's new energy development has already become the calling card showcasing the country's soft power. It is also a prime embodiment of the country's development concepts including ecological civilization, green and low-carbon development, beautiful China and sustainable development. At the same time, the development of the new energy industry is not solely an idealistic mission. It serves as a key component of the advanced equipment manufacturing industry, an important engine for economic development, an effective means for economic restructuring and an efficient industrial carrier which perfectly combines the country's new development concepts with its new real economy and attracts participation from market entities with various forms of ownership.

### Promoting an Ecological Civilization

Against the backdrop of global climate change, international energy restructuring and China's reform of energy production and consumption, new energy development is looking at tremendous opportunities.

First, climate change has driven global energy restructuring. Facing increasingly pressing challenges related to energy security, climate change and ecology, the world's current energy structure is undergoing profound adjustments. A new round of energy reform has started. Propelled by new energy technology, information technology and pressure from global carbon emissions, green and

low-carbon energy development has become a central piece of the reform.

Second, China has entered a new era of socialism with Chinese characteristics that requires the country to strictly pursue green development in the energy sector. The report delivered at the 19th National Congress of the Communist Party of China in 2017 made energy requirements crystal clear. The report expounded on the importance of energy development to "speed up reform of the system for developing an ecological civilization and building a beautiful China," which testified to the importance China attaches to energy restructuring and green development in the new era. The country's future energy development will follow the general principle of building a clean, low-carbon, safe, and efficient energy system while maintaining a commitment to raise awareness of the need to respect, protect and accommodate nature and stick to the road to green development.

Third, China has begun to implement an energy revolution strategy. In accordance with the country's new development concepts, a blueprint for an energy revolution has been designed. Presently, the pace for energy restructuring has accelerated, and the idea of energy reform has taken root in the people's minds. Energy development with Chinese characteristics has witnessed new progress. The energy revolution strategy calls for accelerated construction of a green energy supply system reliant on diversified sources to promote sustainable and healthy development of renewable energy. 

■ This author is vice director of the Renewable Energy Development Center of Energy Research Institute under the Chinese Academy of Macroeconomic Research.

# The Yangtze River All-out Protection Efforts

Text by Dong Zhanfeng

*After decades of exploitation, the conflict between development interests and protection interests along the Yangtze River has reached a climax, and the river's ecological environment now faces a grim situation. Exploring and implementing a green development mode for the river has become imperative for the country.*

it, starting with a ban on large-scale development of the river," Xi said.

On July 13, 2017, China's Ministry of Ecology and Environment (formerly Ministry of Environmental Protection), National Development and Reform Commission and Ministry of Water Resources released a jointly compiled eco-environmental protection plan for the entire Yangtze River Economic Belt through promoting a new pattern of green development.

## Six Major Challenges

Currently, the Yangtze River's overdevelopment stands out. Considerable challenges must

The Yangtze River, the longest river in China and the third-longest in the world, fosters a unique and rich ecosystem. It is China's national strategic water source and an area concentrated with ecological security shelters. The Yangtze River Economic Belt covers 11 Chinese municipalities and provinces including Shanghai, Jiangsu, Zhejiang, Sichuan, and Yunnan across a total area of 2.05 million square kilometers. A key Chinese economic belt, it is home to a massive population and yields an impressive total output value, both exceeding 40 percent of the country's total.

Based on scientific research and analysis of the Yangtze River's ecological and economic situation, Chinese President Xi Jinping has set the tone for the river's green development. "We should raise restoration of the Yangtze River's ecological environment high on the agenda and do everything we can to protect

June 13, 2018: The Yangtze River in the evening, Wuhan. IC



be overcome to achieve green development.

First, the areas along the Yangtze River now receive inadequate overall protection. Over the past two decades, the total area of cities and towns along the river has expanded by more than 39 percent. The river's waterfront areas have witnessed excessive development. The development and utilization rate for its mainstems and waterfronts at the lower reaches has reached 40 percent. Rapid urbanization and vigorous development have caused drastic changes to the river's ecosystem, resulting in ecosystem fragmentation and degradation of its service

function. Areas of farmland, forest, grassland and wetland are shrinking.

Second, the persisting high volume of pollution emissions poses problems. The Yangtze River Economic Belt is plagued by excessive and widespread pollution. Wastewater discharge along the economic belt accounts for more than 40 percent of the country's total. Chemical oxygen demand on per unit area and emission intensities of ammonia nitrogen, sulfur dioxide, oxynitride and volatile organic compound in the region are 1.5 to 2 times the country's average levels.

Third, it is difficult to coordinate and design comprehensive plans to protect the economic belt's water quality, water yield and water ecology. The implementation of hydro-electric and water transfer projects along the Yangtze River's mainstems and tributaries has greatly influenced water resource allocation and the ecological environment of water transfer areas. However, effective coordination mechanisms and measures have been lacking.

Fourth, the clash between regional development interests and environmental protection is glaring. Pollution is severe in areas including the Yangtze River Delta, the middle reaches of Yangtze River and the Chengdu-Chongqing urban agglomeration.

Fifth, various provinces and municipalities along the Yangtze River contrast greatly in terms of green development level. The many provinces and municipalities along the river have widely varying development conditions in terms of resources, environment, transportation and industry. The development gap between different regions is large. Industrial development in areas of the

river's upper, middle and lower reaches hasn't been well coordinated, and industries are usually homogenous.

And finally, supporting systems and mechanisms designed for the Yangtze River Economic Belt's comprehensive management need to be further improved. Clearly, designing a comprehensive and cross-departmental management system for the economic belt is a tough task. The current coordination mechanism is not sound enough.

### Ecology First and Coordinated Protection

Through tireless efforts including compiling and issuing the eco-environmental protection plan for the Yangtze River Economic Belt, the Chinese government has made the general principle, targets, and roadmap of the economic belt's green development strategy very clear.

The green development strategy for the Yangtze River Economic Belt features four major points:

First, an "ecology first" strategy will be implemented. The natural law of the economic belt should be respected. For long-term benefits, the economic belt's ecological protection should be a top priority, which will promote the formation of a resource-saving and environmentally friendly industrial structure, growth pattern and consumption model.

Second, a systematic protection strategy will be implemented. With the Yangtze River's mainstems and tributaries serving as veins, systematic management of mountains, waters, forests, farmlands and grasslands along the river will be reinforced. Ecological regulation of water conservancy and hydropower projects will be carried out. An integrated regional environmental protection system will



be formed to promote systematic and comprehensive protection.

Third, a space control and management strategy will be implemented. Based on the Yangtze River Economic Belt's ecological and environmental features, various management and control measures to protect water, the atmosphere and the ecology by targeting different regions will be reinforced to build an ecological security pattern. Stricter regulations will be implemented to ensure that all economic activities related to the Yangtze River are regulated by targeted environmental protection and management measures.

Fourth, an institutional innovation strategy will be implemented. Greater importance will be placed on institutional reforms of the economic belt's comprehensive management, and a mechanism for ecological protection of the Yangtze River featuring extensive efforts, joint management and shared benefits will be created.

To realize these goals, the Chinese government has proposed two strategic goals for 2020 and 2030, respectively, which are based on systematic analysis of scientific findings. The 2020 goal aims at marked improvement of the economic belt's ecological environment. The 2030 goal aims at sufficient ecological flow of the Yangtze River's mainstems and tributaries. By then, the quality of the water environment, air, and water ecology along the river should be significantly better. Service function of the river's ecological system will be greatly improved, and its overall environment will be more beautiful.

### Concrete Measures and Long-term Mechanisms

China has implemented various management and control strategies

and measures on ecological and environmental protection for the Yangtze River Economic Belt. Limits on the usage of water resources have been set and ecological red lines and environmental quality bottom lines along the economic belt have been specified. Negative lists on industrial admissions have been promulgated. At the same time, the size and scale of cities and towns along the economic belt have been carefully controlled with water conservancy taken into consideration. Urban construction and regions absorbing industrial transfer are not allowed to surpass their limits on water resource carrying capacities. Specific management and control strategies and measures are as follows:

First, limits on the usage of water resources have been set. Presently, the limits on the usage of water resources in various regions along the Yangtze River have been determined to promote optimization and adjustment of regional economic layouts and structures. Unified management of water resources has been reinforced. Dual controls of both total water consumption volume and intensity have been implemented. An indicator system on total water consumption control covering three administrative levels, namely provinces, cities, and counties, has been established. And the total water control targets have been broken into smaller targets for different regions and industries.

Second, bottom lines for water environmental quality management have been set. Protection of water resources is now high on agenda. Protection of headwaters has been further reinforced. More emphasis has been placed on treating water bodies with quality lower than Grade V, the worst according to China's

water quality grading system.

Third, ecological red lines have been designated and implemented. Areas that carry important service functions to the ecological security of the Yangtze River have been designated for protection with red lines. A space governance system has been established.

Building a green development pattern along the Yangtze River Economic Belt requires the mobilization of various departments, parties and stakeholders. A long-term and effective mechanism is needed to achieve this goal:

First, reform on the economic belt's comprehensive governance system should go deeper. Water-related environmental supervision and law enforcement, which are now scattered in the hands of various departments, should be centralized and unified. A more effective environmental supervision and law enforcement agency for the economic belt should be established. Unified planning, standards, environmental impact assessment, supervision and law enforcement should be implemented.

Second, the joint prevention and control mechanism should be further improved to promote regional coordination and integration. The role of watershed management agencies should be given full play. Environmental supervision and law enforcement agencies should be established on basis of watershed. Trans-department, cross-regional and cross-basin supervision and emergency coordination should be further reinforced. A coordination mechanism on environmental protection and an early warning system covering related provinces and municipalities along the economic belt should be established.

Third, monitoring, early warning



May 8, 2017: The Huangbo River Wetland in Yichang City, Hubei Province, boasts a beautiful ecological environment. The Huangbo River is a tributary of the Yangtze. VCG

and assessment of environmental bearing capacity should be carried out. The environmental capacity of the economic belt should be designated. Regular assessments of environmental bearing capacity need to be carried out. An early warning control line and response line should be set. For areas discharging pollution exceeding or near their bearing capacities, early warning alerts should be issued and restrictive measures should be taken.

Fourth, environmental impact assessments should be promoted and implemented. When making development plans for regions along the economic belt, environmental impact assessment should be employed. Control requirements such as those on space, total volume and emissions should be made clear. The environmental impact assessment review

opinions should be used as an important reference for decision making.

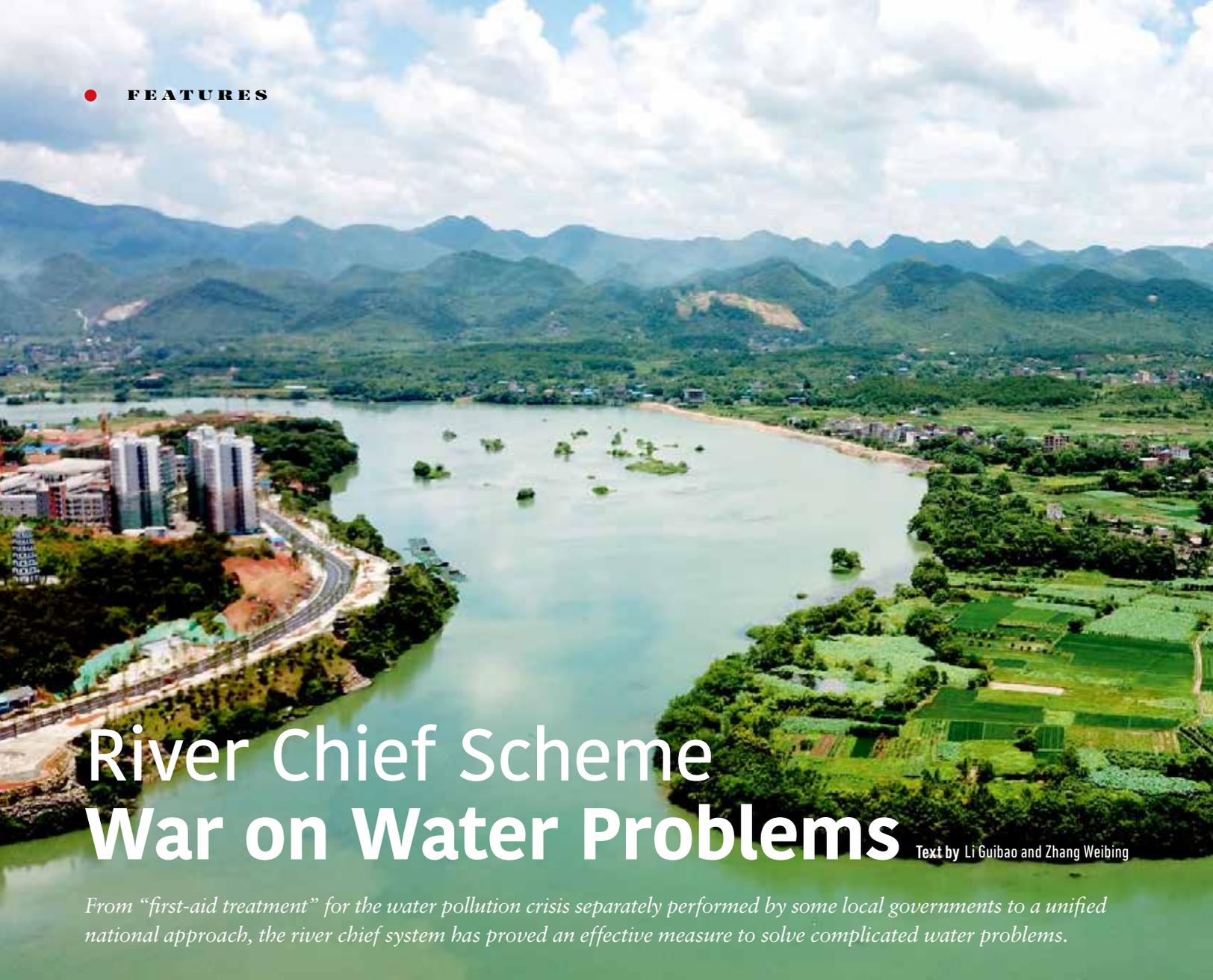
Fifth, a strategic evaluation and assessment system should be established. For important strategic tasks such as reinforcing ecological red lines, measures including tracking analysis, supervision, inspection and review should be strengthened. For provinces and municipalities that fail to pass the evaluation, relevant provincial and municipal officials should be sanctioned and efforts must be intensified to address persisting problems.

Sixth, a mechanism for ecological compensation should be established. A mechanism for ecological compensation involving development areas, benefited areas and conservation areas along the Yangtze River Economic Belt should be established.

The central government should adopt measures such as increasing its general transfer payments and using special transfer payments to pay out “rewards” instead of subsidies. Constructions of projects such as supporting networks and pipelines for sewage and sludge treatment facilities should be given full support.

Seventh, an economic policy mechanism covering the economic belt’s water environment governance should be built. Water rights within areas along the Yangtze River should be defined and allocated. A transaction mode for water rights between different regions and reaches along the river should be set. 

■ The author is vice director of the Environmental Policy Division of the Chinese Academy for Environmental Planning under the Ministry of Ecology and Environment.



# River Chief Scheme War on Water Problems

Text by Li Guibao and Zhang Weibing

*From “first-aid treatment” for the water pollution crisis separately performed by some local governments to a unified national approach, the river chief system has proved an effective measure to solve complicated water problems.*

In November 2016, the Central Committee of the Communist Party of China (CPC) and the State Council released a document aiming to roll out the river chief mechanism nationwide by the end of 2018. The document stressed that the management and protection of rivers and lakes is a complex systematic endeavor involving the upper and lower reaches and different administrative regions and industries.

In recent years, certain areas have actively explored the pilot scheme. Leaders from the Party and

government at all levels were appointed to serve as river chiefs and shoulder the major responsibility for river management according to the law and rules. By coordinating and integrating the strengths of all parties, they have effectively promoted water resource protection, coastline management, pollution prevention and control and ecological restoration.

The early results from pilot areas were encouraging, so the river chief scheme started to be implemented across the country, becoming an important tool to improve the

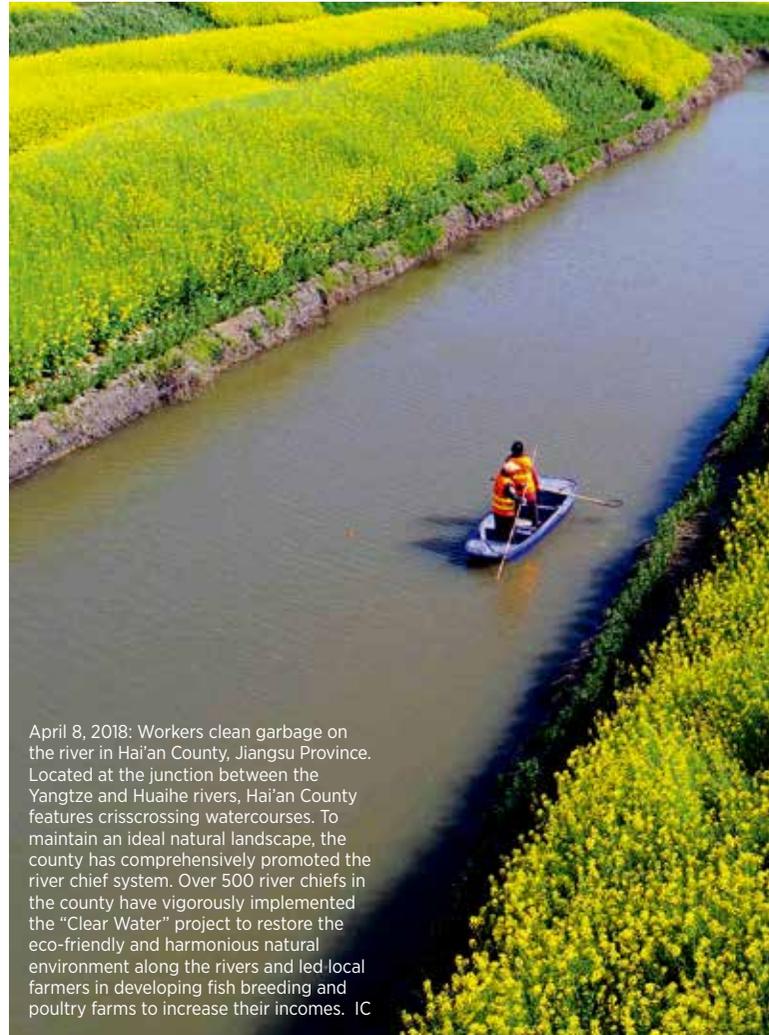
ecological environment and build a beautiful China.

Eleven years ago, to improve the worsening water quality of Taihu Lake in Wuxi City in eastern China’s Jiangsu Province, the local government of Wuxi took the lead in implementing a river chief system. Heads of local Party and government departments at various levels were appointed “chiefs” of 64 rivers to strengthen pollutant source control and supervise management work on water quality.

Soon after the measure was taken, outstanding effects emerged.



July 15, 2018: Clear water of the Xiangjiang River runs smoothly through Quanzhou County in the Guangxi Zhuang Autonomous Region. Quanzhou County has actualized the idea that “lucid waters and lush mountains are invaluable assets” by comprehensively promoting the river chief scheme. Through great efforts, the ecological environment and water quality of rivers in the county have continuously improved and eventually reached every water management goal. IC



April 8, 2018: Workers clean garbage on the river in Hai'an County, Jiangsu Province. Located at the junction between the Yangtze and Huaihe rivers, Hai'an County features crisscrossing watercourses. To maintain an ideal natural landscape, the county has comprehensively promoted the river chief system. Over 500 river chiefs in the county have vigorously implemented the “Clear Water” project to restore the eco-friendly and harmonious natural environment along the rivers and led local farmers in developing fish breeding and poultry farms to increase their incomes. IC

The ratio of Wuxi’s water functional zones that met relevant water quality standards increased from 7.1 percent in 2007 to 44.4 percent in 2015, and the water quality of Taihu Lake also improved significantly.

From “first-aid treatment” for the water pollution crisis separately performed by some local governments to a unified national approach, the river chief system has proved an effective measure to solve complicated water problems.

Since the scheme was rolled out across the country, related



July 22, 2018: The Shili River in Rongcheng City, Shandong Province. Rongcheng has enacted a comprehensive river chief scheme to promote ecological protection. IC

## ● FEATURES

departments of local governments have promoted it actively. As of June 2018, supporting systems paving the way for the scheme have been launched in more than 30 municipalities, provinces and autonomous regions. River chief offices were set up by local governments at county level and above. Special institutions such as the rivers and lakes management departments and work stations have been established in 26 provincial-level administrative units to perform more detailed work.

China has appointed more than 300,000 river chiefs across four levels of provinces, cities, counties and townships. Furthermore, the scheme has been extended to the village level in 29 municipalities, provinces and autonomous regions and designated monitoring responsibilities for the “last mile” by appointing more than 760,000 river chiefs (including river patrollers and stewards) in various villages.



April 10, 2018: Volunteers launch a promotional campaign in the local communities of Suzhou City, Jiangsu Province to improve residents' ecological protection awareness and facilitate the implementation of the river chief system in local areas. IC

July 1, 2018: More than 40 fishing vessels embark on the first fishing operation after the off season in Chongqing's Yunyang County, one of which brought in more than a ton of fish, with the largest fish weighing 12.1 kilograms. IC



## Everyone Involved

In areas that pioneered the implementation of the river chief system, the effects are outstanding. For example, in Zhejiang Province, where the system was implemented at the end of 2013, polluted rivers have essentially been eliminated. In Fujian Province, 12 main rivers consistently maintain excellent water quality after three years of embracing the scheme.

During the process, various measures have been taken by local governments such as organizing the public to clean up watercourses, hiring poverty-stricken households to serve as river cleaners and promoting local industrial transformation and planting structure adjustment.



Some regions have also promoted the system by establishing a river chief inspection and patrol mechanism, compiling a water problems list, revising the river chief performance evaluation and accountability system and creating rewards and honors for excellent working groups and individuals.

In 2017, Beijing focused on integrating the river chief scheme with the project to phase out non-capital functions and minimize low-end industries. By strengthening treatment of polluted waters and tightening water resources management, the city deploys measures to solve ecological problems. In evaluation of various local water

management systems and their strictness, Beijing has consistently ranked among the top five excellent municipalities and provinces. The water quality of rivers and lakes in the city has significantly improved, and the river chief scheme has achieved notable success.

In Guangdong Province, 13 cities were picked up from the Pearl River Delta region, the eastern and western parts of the province and the northern mountainous areas to carry out the “one county, one town, one village” provincial demonstration projects, forming plenty of replicable and promotable grassroots experience.

### Long Way to Go

However, many problems still persist.

First, some officials have unrealistic expectations of their work. Some river chiefs don't follow the long-term schedule and instead attempt to use drastic measures to instantly solve problems that have accumulated over decades.

Second, progress made in various places is quite unbalanced. The regions that implemented the scheme early have seen tremendous improvements in the conditions of local rivers and lakes. In other places, the river chiefs have just assumed office. Some work plans have not yet been smoothed out or need improvement. Also, staffing and investment in river management are also unbalanced.

Third, not all of the problems are fixed quickly. In many places, the chiefs have started to patrol the rivers and pinpoint water problems. The public also reported plenty of problems. Many river chiefs have managed to solve the problems swiftly and achieved quick results, but others have ignored problems or

failed to fix them effectively.

In decades past, there wasn't any unified national water management system. The implementation of the river chief scheme has made responsibilities much clearer, helping the ecosystem be gradually restored and the environment steadily improve. However, river management is a long-term task, so the establishment of the river chief system is just a start.

In general, water management is a systemic project involving a wide range of factors that influence the overall situation. So, river chiefs and related departments cannot shoulder all the responsibilities alone and need help from society, especially the public at large. By mobilizing volunteer river chiefs from the public, enterprises and social organizations to participate in water management can progress be advanced gradually.

We also need to do more to promote successful experience through various forces such as the government, enterprises, the public, the media and civil organizations to create a positive atmosphere for water management across all of society.

Therefore, in the future, we must not only make great efforts to solve the major problems that have emerged, but also prepare for a “protracted war” against water problems by designing long-term practical measures. 

Li Guibao is a professorate senior engineer and deputy secretary-general of the Hydraulic Specialist Certification Secretariat under the Chinese Hydraulic Engineering Society. Zhang Weibing is a professorate senior engineer at the China Institute of Water Resources and Hydropower Research. The contents of this article are based on a research project (Project Number: JZ0145C162017) sponsored by the China Institute of Water Resources and Hydropower Research.

# Plastic Waste A Tall Hill to Climb

Text by Xie Xinyuan

*As many new varieties of plastic waste emerge, the government needs to issue new restrictive regulations on plastic products.*

This year marks the tenth anniversary of China's implementation of the regulation restricting plastic bags. According to the National Development and Reform Commission, the regulation caused the usage of plastic shopping bags to drop by two-thirds in supermarkets and shopping malls from 2008 to 2013—a reduction of 67 billion plastic bags or 1 million tons of plastic.

Plastic bag restrictions aim to fight “white pollution.” But as time passes, the enforcement and effectiveness of the regulation have faced challenges. And with the rapid growth of new “Internet Plus” businesses, unrestricted plastic waste has emerged in great quantity.

## Cheap Plastic Bags

On May 31, 2018, China Zero Waste Alliance under Friends of Nature issued a report on the retailers' practice of restricting plastic bags. Of 1,101 surveyed retailers, 979 provided

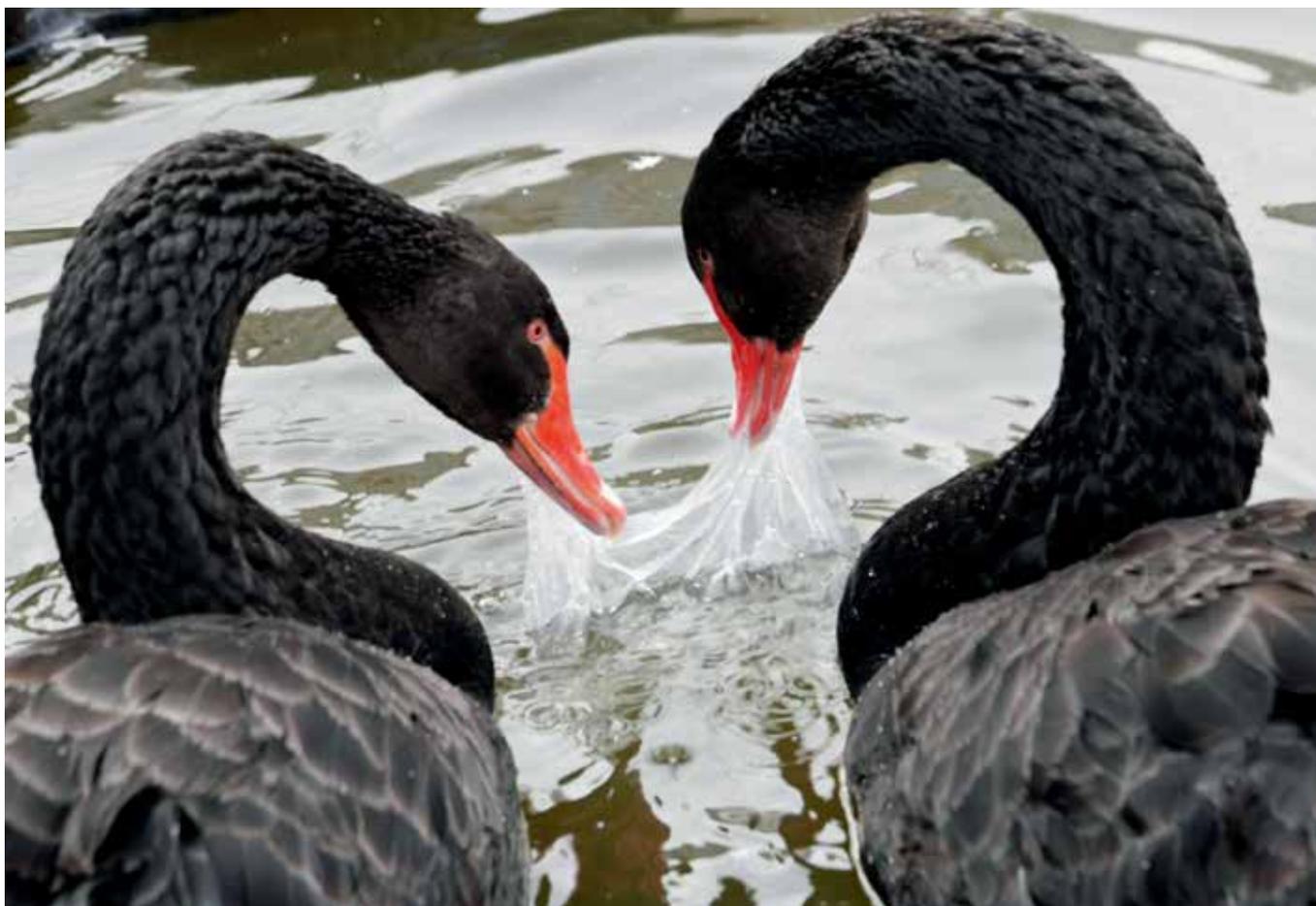
plastic bags, but only 89 sold plastic bags with clear marks and qualified thickness. Aside from large supermarkets and national chain retailers, 90 percent of retailers did not charge fees for plastic bags.

In regard of the current restrictive regulation on plastic bags, China Zero Waste Alliance thinks there are problems in both pricing and methods of restriction. Presently, a plastic bag costs 0.2 to 0.5 yuan, which hardly becomes a burden on consumers. Many retailers are even willing to provide such bags for free to avoid losing customers. Although some sellers charge fees for plastic bags, they collect the fees themselves rather than leveraging the tax to deter the pollution. Consequently, the “restricting plastic bags” regulation was accused of merely “selling plastic bags.” Unless the environmental costs of the usage of plastic bags are included in their production costs, the affordable price will motivate no one to invent reusable alternatives, and retailers and consumers will continue

using them.

The survey also showed that although 80 percent of large supermarkets and national chain retailers were charging fees for plastic shopping bags, they still provided free disposable plastic products like flat poly bags and wraps. The regulation only limits plastic bags with handles yet neglects these disposable bags which are also hardly recycled. This resulted in restocking plastic bags with substitutes that skirted the rules. So the total sum of plastic waste may not have dropped but increased.

Another NGO—Beijing Union of Grassland—also conducted a survey of a certain area where plastic shopping bags were almost completely eliminated. But the alternatives are free non-woven fabric bags of low quality, which are often discarded by consumers after a single use. “Their strict enforcement of the regulation deserves applause,” says the head of the Union. “But the plastic bags have been replaced by non-woven fabric



April 9, 2018: Two black swans in a park in Shenyang, capital of China's northeastern Liaoning Province, play with a plastic bag. Experts estimate that more than 8,500 birds and animals die from eating plastic bags each year worldwide. IC

substitutes. Actually, they are made from polypropylene, so fundamentally the fabric bag is also plastic. The problem is not solved.”

### **Precarious Degradable Plastics**

In recent years, Jilin, Hainan and Henan provinces and some regions issued regulations to restrict plastic bags and promote degradable plastics to replace plastic shopping bags and even disposable tableware. Last November, the State Post Bureau and nine other ministries jointly announced guidelines to promote green packaging in the delivery industry, according to which degradable green

materials will account for 50 percent of all packaging by 2020.

“We need to be careful because not all degradable plastics are good for the environment,” stresses Dr. Mao Da from Beijing Normal University. “If the authorities do not define and standardize ‘degradable package,’ there will be both good and bad products in the market.” Actually, “degradable package” is not the same as “green package.”

First, degradable plastic is virtually a disposable product. The culture of one-off consumption is the root of the waste problem. Disposable products fuel mass production and

massive waste. Disposable degradable plastic products are no exception. Some typical degradable plastics are made from starch. If they are widely used, they could squeeze the land for grain production. And excessive discarding of degradable plastics has also caused serious problems.

Second, materials for degradable plastics vary considerably. And degradation requires strict conditions. China presently lacks unified standards for degradable materials. Many degradable packages in the market can only be partially degraded. And the fragmented leftover can even cause more serious problems. Even materials which can

be degraded completely can only do so under certain conditions with specific technology and facilities. For example, the degradability defined by European standard EN 13432 requires particular composting facilities. Almost no plastic product can dissolve in the ocean or ordinary soil. Most cities in China have no composting facilities at all.

Third, for the foreseeable future, China's waste sorting system will not meet the requirements to recycle and degrade "biodegradable plastics." On the contrary, the promotion of degradable plastics could damage China's progress in garbage classification. The country has promoted waste sorting for many years. But only recently has kitchen garbage become the class requiring the most sorting work. It seems the best choice to compost "degradable plastics"

and organic food waste. But actually, some so-called "degradable plastic" products are just partially degradable and some are even ordinary plastics. And because most Chinese citizens have not developed the habit of separating trash by dry or wet, most of them will throw both ordinary plastics and degradable plastics into kitchen rubbish. And the burgeoning segregation of wet and dry waste in China will be destroyed.

Additionally, some "degradable plastics" cannot even enter a composting facility. For example, at Beijing's Nangong Composting Plant, before mixed kitchen rubbish enters the composting workshop, a roller will screen out possible non-kitchen rubbish and it believes by default that all plastic bags are not compostable. So, degradable plastic bags will end up

with ordinary plastic ones.

So, considering the production technology and standards for degradable plastics and the realities of waste classification in China, it should be prudent to make all plastic bags degradable.

### Suggestions on Plastic Restriction

Related government departments have raised plastic restriction regulation high on the agenda. In January, the National Development and Reform Commission used "restricting some plastics bags, replacing some and regulating some" as a guideline to solicit advice on controlling plastic waste.

First, charging producers rather than consumers for any and all plastic bags should commence as soon as



An exhibition presented by the Central Academy of Fine Arts, "What's Green?" is held in Beijing's 798 Art District, aiming to deter shoppers from asking for single-use plastic shopping bags. VCG

June 5, 2018: Hema supermarket at Shanghai's Huiyang Plaza launches a "plastic bag-free" campaign to urge consumers to use fewer plastic bags. VCG



possible. Plastic wrap and bags will still become waste, so the authorities should investigate the environmental cost of these kinds of products and then list them as dutiable pollutants in the Environmental Protection Tax Law or require their producers to pay a garbage disposal fee which could become a special fund for managing plastic pollution. The fundamental principle should be “including the environmental cost into production cost.” Tax revenue can be used to subsidize research on alternatives, thus creating a virtuous circle.

Second, the restriction should expand to all plastic wrap and bags and introduce “negative list” management. The authorities should research mixed rubbish in the recycling system,

landfills and incinerators as well as disposal methods outside the formal system to identify which kinds of plastics account for the majority. And then according to alternative plans, the authorities should formulate a list of forbidden and restricted plastic products and gradually expand the list based on maturity of alternative options.

Third, the authorities should set limits for the total quantity of plastic wrap and bags entering the market and adopt a market access system. By doing so, the government can regulate production of plastic wrap and bags through administrative approvals. Only disposal plastic wrap and bags that are recyclable can appear on the white list and enter the market, preventing the popularity of alternatives

such as low-quality non-woven bags.

Fourth, the authorities should encourage innovation while being cautious about alternative materials like “degradable plastics.” Non-disposal packaging and innovative carrying methods—like lending a cloth bag with a cash deposit, durable and recyclable delivery boxes and shops without packaging—should enjoy preferential policies. The government should subsidize reusable alternatives that truly reduce disposable plastic wrap and bags and offer favorable policies to companies that invent durable package for use in offices or warehouses. 

■ The author is director of the policy department of China Zero Waste Alliance under Friends of Nature.

# Green Finance

## China's Global Impact

Text by Wang Yao and Mathias Lund Larsen

*Considering the improved policies and growing market, China's green finance is usually considered a glowing success story. But challenges remain for expanding and harmonizing green finance at the global level.*

In China, green finance is a comprehensive program covering the entire financial system. Since its emergence, a number of key trends have shown up.

The policy system continues to improve. Since the launch of the *Guidelines for Establishing the Green Financial System* in 2016, government departments have been developing and implementing policies at increasingly detailed levels. One case evidencing the growing ambition of the Chinese government to develop green finance is the People's Bank of China (PBoC) using its medium-term lending facility (MLF) specifically to support the green economy by allowing green bonds as collateral. Furthermore, the Asset Management Association of China (AMAC) recently published a draft version of its green investment guidelines to get feedback from Chinese investors.

Many green finance tools are maturing. Today, green credit accounts for nine percent of all the credit issued by banks at around 8 trillion yuan. Green bonds remained stable at 248.6 billion yuan of annual issuance in 2017 and a similar level so far in 2018. The number of green

funds has increased to 265 with continued expansion predicted this year. Green PPPs now number more than 8,000 with a total value surpassing 7 trillion yuan. Green insurance has expanded to a total risk coverage of about 28 billion yuan after growing rapidly in 2017. Of particular note is the development of environmental rights trading. China is scaling up its carbon trading system. The plan to establish a national scheme, published in December 2017, has mapped out concrete steps. After two to three years, the national scheme will be in place. While it currently only covers the electricity sector, seven additional sectors, including the petrochemical industry, chemical industry, construction materials, steel, metal, paper and aviation, will be included to bring half of China's total emissions into the carbon trading system.

ESG (environmental, social and governance) integration is accelerating as investors become more conscious of green finance principles and practices. The main challenge is to convince investors that sustainable investments can be profitable, a concept that is supported by research results published by Morgan Stanley Capital International

(MSCI), Oxford University and Arabesque (a multinational asset management company). Green investment is often perceived as riskier, which is not necessarily true. In further support of the ESG business case, recent research by the Bank of International Settlements and Natixis pointed out that green bonds actually carry lower coupon rates than other bonds with similar maturities. To help investors grasp environmental risks, in 2018 the International Institute of Green Finance launched a report alongside UNEP FI and UNPRI specifically on ESG integration in the Chinese asset management industry.

Local green finance is expanding rapidly. This includes both designated green finance pilot zones and numerous voluntary programs. Currently, Zhejiang, Guangdong, Jiangxi, Guizhou provinces and Xinjiang Uygur Autonomous Region have become pilot areas. Such initiatives are predicted to expand in the coming years. All pilot zones have made progress in supporting policies, organizational structure, products and services innovation, market construction and institutional development. Guangdong has launched a number of incentive

schemes for green finance including guarantees and interest rate subsidies. Xinjiang has established green project platforms. Jiangxi is promoting the marketization of ecological compensation through a trading system that provides training for all relevant stakeholders. In response to the national top-level design for green finance, over 10 provinces and autonomous regions not covered by the pilot program have also released policy frameworks on green finance.

The Chinese government is including critical green components in the implementation of the Belt and Road Initiative. This is prominently underlined in the documents *Environmental*

*Risk Management Initiative for China's Overseas Investment* by the China Green Finance Committee and *Guidance on Promoting Green Belt and Road* by China's State Council. These documents highlight the importance that China attaches to reducing the environmental and social risks of its overseas investments. This is of great international importance because the Initiative welcomes contributions from many stakeholders around the globe.

### Key Challenges

One of the key challenges for further developing green finance in China is the lack of clear and harmonized standards. There are a

number of standards related to green finance in China, but they differ from international standards. To solve the problem of harmonizing standards, the National Development and Reform Commission is developing a green industry catalogue, which will lay the foundation for defining 'green' across the financial sector. China is the world's second-largest green bond market, and the increasing internationalization of Chinese bond issuers and investors is impacting global standards. It is important to understand that with different levels of development, economic structures and energy systems, countries will have different definitions of 'green.'

March 26, 2018: Lord Mayor of London Alderman Charles Bowman and Dr. Ma Jun, director of the Green Finance Committee of the China Society for Finance and Banking, sign an agreement on strategic cooperation at the launch ceremony of the China-UK Green Finance Center in Beijing. VCG



## ● FEATURES

As part of the efforts to harmonize green bond standards between China and the EU, the China Green Finance Committee under the PBoC and the European Investment Bank under the EU jointly issued a white paper outlining how international green bond standards can be harmonized. And work on compatibility will continue in the foreseeable future. While expected to be compatible, green finance standards should also be flexible to reflect local circumstances such as development stage, natural resource endowment, industrial layout and energy composition.

Another challenge is that investors and companies are not adequately

conscious of environmental risks. This is often due to a lack of relevant environmental information at corporate level that can be quantified and analyzed. To tackle this problem, environmental information disclosure is gradually becoming mandatory for listed companies. In 2018, all listed companies are required to either disclose this information or provide justification for refusing, which is expected to inspire a disclosure rate of more than 90 percent. By 2020, it will be mandatory for all listed companies to disclose relevant environmental information. In this regard, it is important to note that most large Chinese companies are publicly listed, even

state-owned enterprises. This provides critical information for all stakeholders to wisely make financing decisions.

While green finance in China is already considered successful, the scale needs to expand continuously. Despite the impressive growth of green loans and bonds, the numbers are still relatively small compared to the financial system as a whole and increasing demand for green investment. Expanding it requires public resources to maximize the ability to leverage private capital. To this end, a number of initiatives have been carried out, such as the expansion of green PPPs.

Also, better communication on green finance is needed to improve

May 27, 2017: The Chang'an Landfill Gas Clean Development Mechanism Project begins operation in Chengdu, capital of Sichuan Province. It generates power of about 166 million kilowatt hours while eliminating emissions of 900,000 tons of carbon dioxide each year. VCG



public understanding. Since more and more people are engaged in green finance, knowledge about green finance should better permeate all levels of stakeholders. Better communication between the government, financial institutions, companies, intermediaries, researchers, and the public is necessary. In this process, the Green Finance Committee of China Society for Finance and Banking plays a crucial role.

### Driving Green Finance Globally

The last couple of years have brought several monumental shifts, and the most glaring change is the United States' new approach to

foreign policy. Amid increasing unpredictability and fragmentation, China and many of its partners are working together as pillars of stability. This is particularly true of climate change governance and green finance.

Under the G20, China pioneered the agenda for developing and supporting green finance. During China's G20 presidency, green finance became a key theme at the meeting for the first time. The G20 Green Finance Study Group was launched as part of an effort to support the G20's goal of strong, sustainable and balanced growth. This initiative continues today through the latest G20 summit in Hamburg and will advance further in 2018 in Argentina.

Another international green finance initiative promoted largely by China is focused on central banks for their critical role in the effort to green the global financial system. To strengthen the global response to the goals of the Paris Agreement by ensuring the financial system's management of risk and mobilization of green finance, eight central banks and supervisors established the Central Banks and Supervisors Network for Greening the Financial System (NGFS). The network had expanded to cover 15 countries by mid-2018. The NGFS offers an opportunity to scale up and coordinate global efforts.

China works directly with a number of countries and groups. For example, China is working with the EU and the ASEAN on several areas to promote green finance on the global stage. Within the Belt and Road Initiative, China works with relevant countries to ensure the inclusion and prioritization of green finance. Another example is China-UK cooperation on green finance, which has been carried out over the

last three years and will continue in the future under the framework of the China-UK Economic and Financial Dialogue. China also works with France in particular to establish Paris as a European leader in green finance.

China also actively engages in global forums on green finance. These include a number of avenues under the UN system such as COP negotiations of the UNFCCC. From a research perspective, China also works with international organizations such as UNEP FI and UNPRI. Based on a report released by the Financial Stability Board's Task Force on Climate Related Financial Disclosure, China is carrying out pilot programs while coordinating efforts with the UK which is running similar pilot programs. These programs will shape recommendations on how climate finance should be carried out globally in the future. Such combined efforts have great implications for expanding and harmonizing green finance at the global level.

China's overseas green investment is on the rise, through both sovereign and non-sovereign backed channels. China has created or co-created 15 funds worth almost US\$150 billion. These funds primarily involve developing countries in Africa and Latin America, countries along the Belt and Road routes and ASEAN countries. 'Green' is among the primary topics for investment of these funds, two of which are specifically green-themed funds, namely the South-South Climate Cooperation Fund and the U.S.-China Green Fund. 

Dr. Wang Yao is director-general of the International Institute of Green Finance (IIGF) at the Central University of Finance and Economics (CUFE) and deputy secretary-general of the Green Finance Committee of China Society of Finance and Banking. Mathias Lund Larsen is head of the International Cooperation Department of IIGF.



# The Embroidery of Yao Jianping

Text by Wang Lei

Uncredited photos courtesy of Yao Jianping Art Studio

*On October 20, 2015, British Queen Elizabeth II received a fine piece of Suzhou embroidery as a gift from visiting Chinese President Xi Jinping and his wife Peng Liyuan. This piece vividly portrayed the Queen and her husband Prince Philip, Duke of Edinburgh.*

Suzhou embroidery, a traditional Chinese craft, emerged in areas around Suzhou City in Jiangsu Province. After more than 2,000 years of evolution, it has developed a unique style featuring elegant patterns, ingenious designs, exquisite needlework, clever stitches and graceful colors. One of the four most famous Chinese embroideries, Suzhou embroidery has been presented to foreign dignitaries as national gifts many times. Many pieces have been acquired by museums in China and around the world, and some have even been collected by royal families.

Zhenhu Town is the cradle of Suzhou embroidery. With a longstanding local culture and atmosphere related to the craft, the small town has cultivated many internationally recognized embroidery masters. Yao Jianping, a renowned embroidery artist and among the practitioners of the national intangible cultural heritage of Suzhou embroidery, hails from Zhenhu. After inheriting skills from her predecessors, Yao created a unique artistic style and used her work to showcase the era. She has not only produced a series of works representing the highest level of contemporary Suzhou embroidery, but also mentored a number of young Suzhou embroidery artists.

## “I Want to Reach Higher Levels”

Yao has become better known to the public in the past few years since her works

began being used as China’s national gifts. On October 20, 2015, British Queen Elizabeth II received a fine piece of Suzhou embroidery as a gift from visiting Chinese President Xi Jinping and his wife Peng Liyuan, which vividly portrayed the Queen and her husband Prince Philip, Duke of Edinburgh. This piece, *Song of Life*, boasted a total length of 1.18 meters and took Yao and her assistants more than three months to complete. Yao’s embroidery works have been presented to foreign political figures as national gifts on many occasions. Her first work to become a national gift was *Mahathir Mohamad*, an eponymous piece created in 1996 for the then-Malaysian prime minister.

Born in Zhenhu, Yao began learning

Yao Jianping, a renowned embroidery artist and the representative inheritor of the national intangible cultural heritage of Suzhou embroidery, used needles and threads to showcase her era. Her work is considered the top echelon of contemporary Suzhou embroidery.



embroidery from her mother at the age of seven. By her teens, the girl's pieces were already highly acclaimed and began exhibiting great potential. Due to her passion for embroidery, Yao skipped the college entrance examination and chose to attend the Suzhou Art & Design Technology Institute, a vocational school where she could study embroidery and work at the same time.

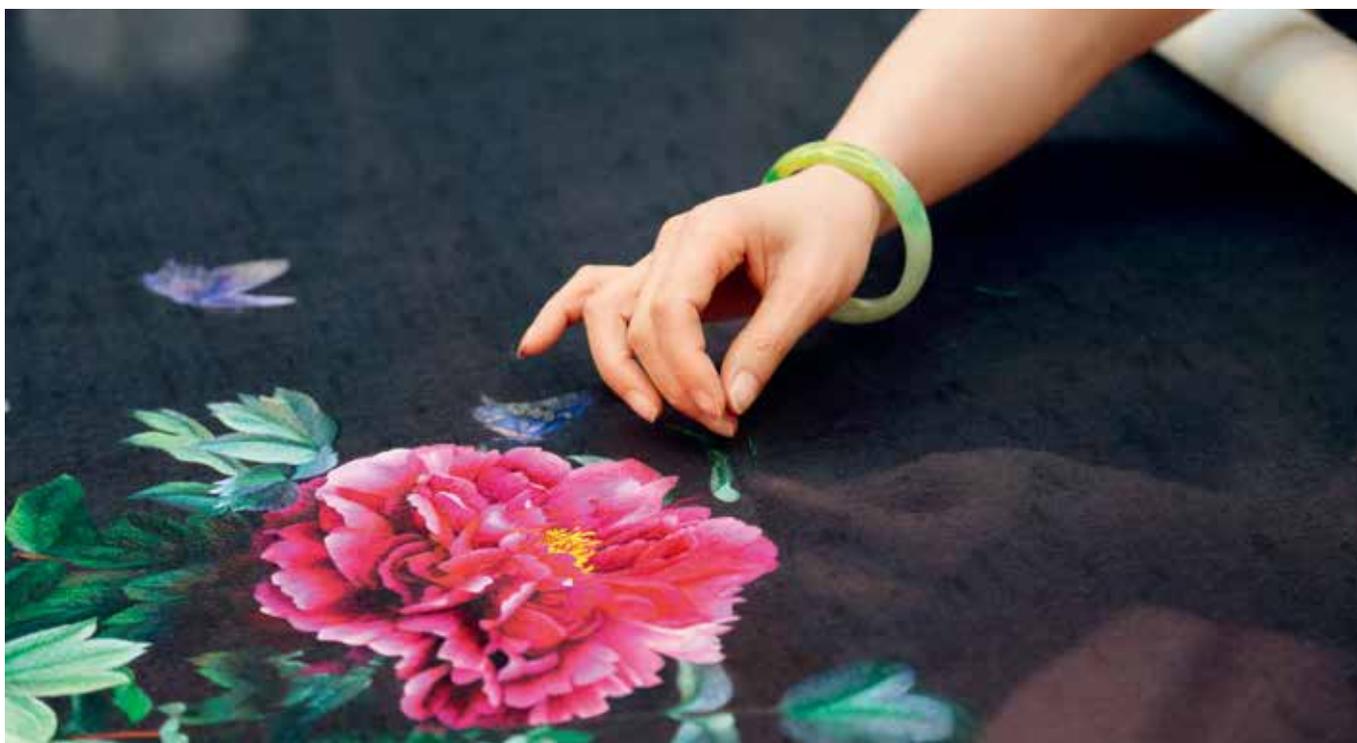
In the early 1980s, female embroiderers from Zhenhu began to sell their works in downtown Suzhou. Gradually, family-run embroidery stores emerged, with wives doing the embroidery work and husbands handling sales. Bucking this trend, Yao passed on opening her own store, and continued to learn skills from senior masters. "Actually, I was already an outstanding embroiderer by that time and could earn three times more than most of my peers," recalls Yao. "But I still felt my abilities were insufficient and wanted to reach higher levels. So I focused on continuing to learn from the masters."

The Suzhou Embroidery Research Institute, which was established in the 1950s, attracted many Suzhou embroidery masters. In 1990, Yao began studying under Xu Zhihui, a retired

embroidery master from the institute who was living alone at an advanced age. Yao proposed moving in with the master to act as her caretaker while studying, which resulted in her becoming Xu's final protégé. At the time, Yao's eldest daughter was only eight months old. In 1994, Yao finally completed her studies. Thanks in large part to Xu's guidance, Yao attained professional perfection and became proficient in embroidering traditional subjects including flowers, grass, fish and insects.

However, Yao wasn't content with her artistic achievements. Eventually, she began to expand her creative themes. Today, in the central position of the exhibition area on the second floor of Yao Jianping Embroidery Art Gallery, a small Suzhou embroidery piece is displayed in an independent cabinet. This piece is based on the renowned photo of former Chinese Premier Zhou Enlai captured by Italian photographer Giorgio Lotti in 1973 and now known in China as *Zhou Enlai in Deep Thought*. In 1995, transferring the image to an embroidery piece took Yao eight months, during which she lost nearly 20 pounds. Three years later, the work won the gold medal at the First China International Folk Art Expo for

Yao's graceful motions when performing embroidery present a visual feast. by Wang Lei



its fine texture, tasteful color matching, natural contrast between light and shade, and vivid depiction. Yao was conferred the title of “folk craft artist” by UNESCO. More importantly, the honor gave Yao great confidence in her skills at figure embroidery. Later, she created *A Great Man*, a piece depicting Deng Xiaoping, the “architect of China’s reform and opening up.”

### “I Want to Create Works for This Era”

The year 1998 was important for embroidery development in Zhenhu. That year, the local government designated a street especially for embroidery manufacturing and sales and started developing embroidered commodities. Soon, Zhenhu became a well-known hub of

embroidery. The town has witnessed a steady growth in annual embroidery sales revenue ever since. In 2002, its sales revenue exceeded three million yuan. However, instead of enjoying the success, Yao registered Zhenhu Embroidery Research Institute, which was launched in her own three-story house.

“I hope to become an artist of the caliber of my master and my many talented predecessors,” declares Yao. After years of hard work, Yao finally decided it’s time to give full play to her expertise. “I want to create works that define this era.”

Worried about similar embroidered commodities on the market, Yao decided to develop something totally unique. “I don’t want to simply copy paintings and photos. I want real creation.”

To this end, for the next 20 years, Yao

Yao’s embroidery portraying late Chinese Premier Zhou Enlai, completed in 1996, means a lot to her. The work won the gold medal at the First China International Folk Art Expo. Yao was bestowed the title of “folk craft artist” by UNESCO.





Yao's large-scale Suzhou embroidery piece *The Silk Road - Returning Home with Great Honor* is now held by the National Art Museum of China.



Yao's work *Song of Life* was presented to British Queen Elizabeth II in 2015 as a national gift.

developed her own team by recruiting students and professionals. She led the team in completing one breathtaking project after another, from large-scale Suzhou embroidery works including *What a Great Land*, *Harmony: China's Centenary Olympic Dream Realized* and *The Silk*

*Road* series to a dozen of works presented as national gifts. Among these works, *The Silk Road - Returning Home with Great Honor* from *The Silk Road* series took Yao and her team three years to finally complete in 2017. After being used in a number of activities related to foreign affairs, the piece is now collected in the National Art Museum of China.

"I grew up alongside the country's reform and opening up and have greatly benefited from this process," Yao admits. "If it weren't for this era, I would never have had a chance. The government helped develop the traditional art that was previously scattered in the hands of villagers. The support and encouragement of the government pushed Suzhou embroidery to an unprecedented height." Today when she is not working on embroidery, Yao puts all her energy into promoting the traditional craft. She teaches embroiderers and hosts exhibitions around the world. "The artistic road calls for continuous input and painstaking efforts." 

# Wen Muye

## Ready to Direct

Text by Xi Luo

*“I have always remained dedicated to making warm and touching films with a sincere attitude, so that when the spectators step out of the theater, they are filled with hope and courage to face the difficulties in life.”*

April 12, 2018: Director Wen Muye attends the premiere of *Dying to Survive* in Beijing. IC



Many have said that Wen Muye was born to be a director.

On July 5, 2018, the Chinese comedy film *Dying to Survive* hit cinemas across China, making its director Wen Muye a household name.

Despite the fact that *Dying to Survive* is Wen's debut feature, no trace of inexperience can be found in his sophisticated and fluent presentation. The acting is excellent, and the tightly crafted plot focuses on both entertainment and philosophy.

However, the previous creations in his career as a director are only a handful of short films.

### Directing with Courage and Insight

Acclaimed Chinese director Jia Zhangke opined that a director must honestly and solemnly capture and present the ups and downs happening on the land they live as well as the people's daily worries.

Wen has always been fascinated by realistic themes and stories. Most of the short films he shot during his early days in university depict deep realistic and humanistic concerns. Famous film critic Huang Shixian commented that it takes courage and insight to create such works.

Ning Hao, the producer of *Dying to Survive*, said that by watching Wen's short films he determined that the director excellently depicted marginalized people with humanist values, so he recruited him to direct the feature film.

The film is based on the true story of Lu Yong, a leukemia patient from China's eastern Jiangsu Province, who needs Gleevec, a Swiss medication, to survive. The patented medicine costs him nearly 300,000 yuan a year, which



Director Wen Muye and actor Zhang Yu interact with fans during a roadshow of *Dying to Survive* in Jinan, capital of Shandong Province. VCG

he can't hope to afford.

Eventually Lu discovers Indian generics that cost only one-twentieth of the price of the name-brand drug. After using it, he recommends the alternative to other cancer patients. However, because the Indian generic drugs have not received official

approval in China, they are deemed fake medicine—a real-world paradox.

It took a total of two years just to revise and adjust the script. During that time, Wen endured a lot of “self-struggle.” He continuously edited the script over and over again to balance commercial interests,

entertainment value and realism.

“To ensure that the realistic film is interesting rather than boring and sad, we have to add commercial elements into the realistic theme without damaging its core,” he explained.

Wen hopes more people watch the film and connect with the



Despite the fact that *Dying to Survive* is Wen Muye's debut feature, the film earned revenues of nearly 3 billion yuan in its first 25 days of release.

humanity in the story. “I have always remained dedicated to making warm and touching films with a sincere attitude, so that when the spectators step out of the theater, they are filled with hope and courage to face the difficulties in life,” he beamed.

### “Just Keep Shooting”

Wen still remembers standing before the entrance to Beijing Film Academy as a postgraduate student

who came to register for enrollment. The young man was shaking with excitement. “For me, the academy was the Promised Land,” Wen recalls. His passion for film blossomed as a freshman in university after he learned that “shooting earned dignity.”

In the early 21st century, many Chinese universities began launching radio and TV editing and directing departments. Wen was among the first 120 undergraduate students



to major in the field at Northeast Normal University in 2004. They lacked seasoned upperclassmen and experienced teachers, having only some equipment at their disposal.

During his four years at Northeast Normal University, Wen shot five short films. In four years following graduation, he shot three more. Later, during postgraduate studies at Beijing Film Academy, Wen made two more shorts. “Since the day I first arrived at

university, my life has been film-centered,” he notes. “I wrote a script and turned it into a film. Then I wrote another script and made it a film. My life continues to repeat this cycle to this day. Most recently, I wrote a feature-length screenplay and shot a feature film. The whole time, I have fully utilized every minute of my life, seamlessly transiting from one film project to another.”

To a large extent, continuous and tireless creation makes Wen the person he is today.

Every time he finished a short film, Wen searched online for relevant contests in which he could participate. Eventually, two of his short films won international awards and attracted massive domestic attention. “Attending international film festivals is the fastest way to be noticed.”

At the FIRST International Film Festival, held annually in Xining City, Qinghai Province, Wen once revealed that he dreamed of winning an Oscar. “When I look back on that goal today, I prefer to see China’s own ‘Oscar’ emerge in my lifetime,” he says. “China should construct a system to export its core culture and values. I feel a greater sense of responsibility to my countrymen and nation as a Chinese filmmaker.”

Even if he hadn’t been admitted to Beijing Film Academy, Wen believes he would still be shooting films today. “You just keep shooting and never stop,” he stresses. “It is the most important way to hone your abilities in self expression and communication while establishing your own style.”

### “Clear” Is Key

“Clear” has been an especially important word for Wen during his evolution as a director. From setting the goal of becoming a director to releasing

his first feature, Wen has remained clear on his intentions the entire time.

Wen ensures the set is exquisitely designed before filming almost every scene. His directions for actors are quite clear: “Slow the whole tempo down a little bit, and you can be a little bit more exaggerated when slumping down to the floor.”

Tan Zhuo, an actress in *Dying to Survive*, was impressed, declaring, “We were surprised the director was so prepared.”

Wen has everything he could possibly need at his fingertips during work, due to his thorough preparation. Long before shooting started, the actors gathered at least four times to read through the script. Two weeks before shooting, every actor was called for rehearsals of every scene from first to last.

“I ask everything to be clear, which I believe is the normal process for shooting a movie,” Wen explains. “If you don’t know what to do on set, you’re in the wrong place. All problems that emerge during shooting are the result of inadequate early preparation. That’s for sure.”

Wen believes that the biggest obstacle impeding the development of young directors is lack of self-knowledge. Many young directors don’t have a clear understanding of their strengths and weaknesses or what steps they need to take.

“People in any era may face the same objective problems of that specific era,” Wen argues. “How to handle new problems is an important issue. Young directors should first be clear about what kind of director they want to be or which road suits them. The second thing is methods, which is how to proceed on that road. After these things are clear, the road ahead will become smoother.” 



# Sustainable Social Security

Text by Ru Yuan

*For a large country like China, nationwide coordination of pension funds has become an irresistible trend. Building the central adjustment system represents China's resolution to address challenges in the realm of social security.*



October 9, 2016: Seniors practice tai chi in Liping County, Guizhou Province. In 2017, newly added Chinese seniors exceeded 10 million for the first time. VCG

This June, China announced a policy to establish a central adjustment system to cover basic pension funds of enterprise employees. The new policy went into effect on July 1, 2018, with the aim to balance pension payment burdens of local governments and realize sustainable development of China's retirement insurance system.

### Reasons behind the Central Adjustment

In recent years, reforms of China's basic pension system have delved deeper to achieve major progress. In general terms, its retirement insurance system features stable operation and strong funding support, guaranteeing timely and full pension payments to retirees. In 2017, the total revenue of China's pension funds reached 3.3 trillion yuan, and the total expenditure hit 2.9 trillion yuan. By the end of 2017, the cumulative account balance reached 4.1 trillion yuan.

However, hidden beneath the overall steady operation of China's pension system are widening gaps among various regions. The dependency ratio between the population typically not in the labor force (children and seniors) and working-age adults varies greatly among regions. The imbalance in regional pension funds has become increasingly glaring in recent years. Although numerous factors may come into play including diversifying employment and imbalanced economic development, the imbalance is primarily caused by an aging population and increasing population mobility.

By the end of 2017, China was home to 241 million seniors aged 60 and above, accounting for more than

17 percent of its total population. In 2017, its elderly population grew by more than 10 million year-on-year for the first time. This enormous figure and the massive population flow in the country exacerbated the regional imbalance of pension funds. Specifically, the surplus of pension funds has mostly occurred in eastern parts of China, while some western and northeastern provinces have been hit with great pressure on their pension funds. According to the *China Social Security Development Report 2016* issued by the Chinese government in November 2017, fund revenues of seven provincial-level administrative units including Qinghai and Jilin failed to cover their pension expenditures in 2016. Among them, the northeastern province of Heilongjiang was underfunded by 32 billion yuan in its pension fund in 2016, and its cumulative fund shortage reached more than 23 billion yuan. However, another nine provincial-level administrative units including Guangdong, Jiangsu, and Zhejiang each reported a cumulative pension fund surplus of at least 100 billion yuan. Guangdong Province topped the list with a surplus of nearly 726 billion yuan.

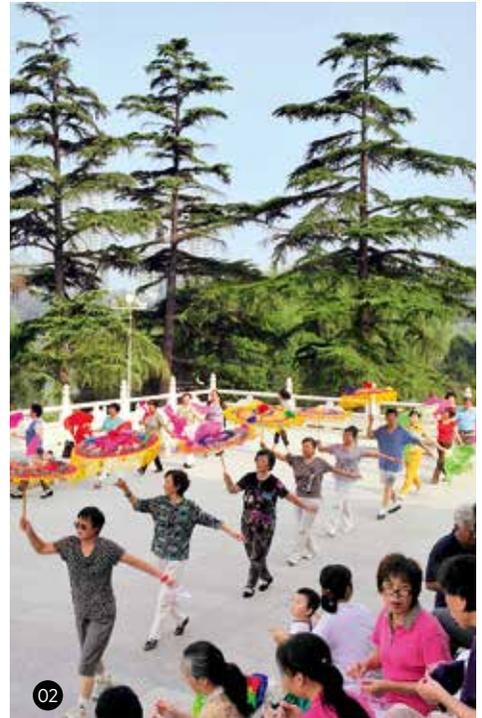
The imbalance in pension funds at the provincial level is a difficult issue to be addressed, so adjustment across the nation is needed. The new

April 15, 2018: A senior in a wheelchair in Julu County, Hebei Province, is aided by a nurse. In recent years, China has placed more attention on addressing the needs of its booming elderly population. by Mou Yu/Xinhua





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- 01 November 19, 2013: 100-year-old Su Fengzhu (left) and her 83-year-old friend Zhang Yunying inspect a scarf they have just finished knitting, in Yinchuan City. VCG
- 02 September 17, 2010: Seniors perform yangge, a folk dance featuring rich dance language, exuberant gestures and a vivid performance style, in Xi'an. VCG
- 03 October 9, 2016: Health workers perform physical therapy on seniors in Yangzhou City, Jiangsu Province. By the end of 2017, China was home to 241 million seniors aged 60 and above, accounting for more than 17 percent of its total population. VCG
- 04 An important occasion for Chinese people to show respect and gratitude to the elderly, Double Ninth Festival, the ninth day of the ninth lunar month, fell on October 8 in 2016. Grand celebrations were held in Liucheng County, Guangxi. VCG

policy covers the following aspects: First, the central adjustment system will draw a certain portion from provincial pension fund pools for redistribution later. Second, fund distribution of the central adjustment system will be based on the scale of the capital pool. Third, funds raised through the central adjustment system will be allocated to local governments for pension payments only, and not used to balance budgets. Fourth, the existing central fiscal subsidy policies will continue and the central government will continue supporting local governments in pension distribution.

### Addressing Concerns

The announcement of the central adjustment system for basic pension funds has generated heated discussion. Whether the new policy will create burdens on enterprises, employees and local governments has aroused great public concern.

“The central adjustment fund is comprised of pension funds paid by each provincial-level region,” explains You Jun, China’s Vice Minister of Human Resources and Social Security. “Establishing the central adjustment system is primarily aimed at balancing deficits and surpluses in provincial pension funds. The total volume of the national pension fund will not change. The new policy doesn’t raise the payment ratio of enterprises or individuals, nor does it change existing methods of pension calculation and payment.” Thus, the new policy will not create burdens for enterprises or employees, nor will it have any negative impact on the welfare of retirees.

“The central adjustment system for basic pension funds was designed to balance the payment burdens of local governments and promote fair sharing of social

security funds among the public at large,” opines Jin Weigang, head of the Chinese Academy of Labor and Social Security.

During the implementation process of the central adjustment system, balancing the interests of various parties will be tricky. Many have also weighed in on fair and reasonable turn-in and distribution solutions for funds raised through the central adjustment system.

These concerns can be resolved by institutional design. For example, in terms of incentive and restrictive mechanisms, the new policy stipulated that after receiving subsidies and funds allocated by the central government, remaining provincial funding gaps needs to be covered by local governments. The new policy also proposed that an evaluation system be established. Various issues such as pension payment and fund management will be included in the work evaluation list for provincial-level governments.

### Nationwide Coordination

*The Social Insurance Law of the People’s Republic of China* called for the country’s basic pension funds to become coordinated nationwide gradually to achieve unified collection and allocation of funds by the state. The report delivered at the 19th National Congress of the Communist Party of China placed nationwide coordination of pension funds high on the agenda. However, because regional economic development is still unbalanced across China, nationwide coordination of pension funds poses a huge challenge. Even only a handful of provinces could realize provincial-level pension funds coordination in any real sense. Most Chinese provincial-level administrative units

are doing provincial-level adjustment or building other mechanisms to promote reform of their respective pension systems.

Thus, the central adjustment system is the first step towards nationwide coordination. As a transitional policy, the system can ease the serious imbalance in pension funds among different provinces and regions and facilitate a sustainable basic pension scheme. During the transition period, the central government should carefully consider economic development disparities across the country, increase efforts to formulate methods for trans-provincial pension transfers and renewals, and rationally divide responsibilities between central and local governments. The central adjustment system presents an opportunity for China to invest greater efforts to plan and realize nationwide coordination of the country’s basic pension funds.

For a large country like China with a rapidly aging population and unbalanced regional development, nationwide coordination of pension funds has become an irresistible trend. Building the central adjustment system represents China’s resolution to address challenges in the realm of social security. “The central adjustment system enables the country to allocate and distribute pension funds from an overall perspective,” says Chu Fuling, professor with the School of Insurance at China’s Central University of Finance and Economics. “In this crucial period marked by an accelerated aging process and rapid transformation and upgrading of economic structure, China faces long-term pressures from pension payments. The central adjustment system will help strengthen the sustainability of China’s pension system.” 

# Healthcare Reform in Luohu

## The Potential of General Practitioners

Text by Xi Luo

*As a pilot zone for community-level healthcare reform in China, Shenzhen's Luohu District has implemented a general practitioner system which has proven very successful.*

June 8, 2017: Local residents sign service agreements with family doctors at a community healthcare center. IC



The report to the 19th National Congress of the Communist Party of China (CPC) called for the Healthy China initiative, which aims to “improve community-level healthcare services and strengthen the ranks of general practitioners.” The initiative is intended to enhance rational allocation of medical resources, increase healthcare efficiency, reduce excessive reliance on first-class hospitals and improve patient experience.

In early 2018, the Chinese government announced plans to train more qualified general practitioners and expand deployment of contracted family doctors. In China, general practitioners are physicians who diagnose, treat and manage a wide array of patient conditions and provide medical services ranging from early treatment of regular illnesses, prevention, healthcare and rehabilitation to chronic disease management at community level as well as routine, integrated and customized healthcare services for individuals or families. According to the National Health Commission of China, less than 200,000 community-level general practitioners are providing services across the country, which is only about half of the number needed.

In 2015, as a pilot zone for community-level healthcare reform in China, Shenzhen’s Luohu District began to implement a general practitioner system which has proven very successful.

### Gatekeepers for Community Healthcare

Wenhua Community in Luohu District has a population of 25,000, of whom many are migrants. The community hospital is staffed with 10 general practitioners and 12 nurses. Wu Tianlong is a general practitioner posted there.

Before she met Wu, community resident Xu Yanyan preferred to see doctors at prestigious Hong Kong hospitals like many high-income Shenzhen residents. About six years ago, her two-year-old son came down with a cough that persisted even after consulting several

doctors in Hong Kong. So she decided to try her luck at the community hospital.

“Frankly, seeing Doctor Wu was so young, I didn’t have much confidence in his expertise,” Xu recalled. To her surprise, three days later her son’s cough was cured after taking medicine Wu prescribed.

Two years later, Xu’s younger son came down with a cough. This time, Wu recommended a very cheap drug. “Each bottle contains six grams of tablets, and they’re very affordable,” Xu said. “Doctor Wu helps my family save a lot of money on medical care.”

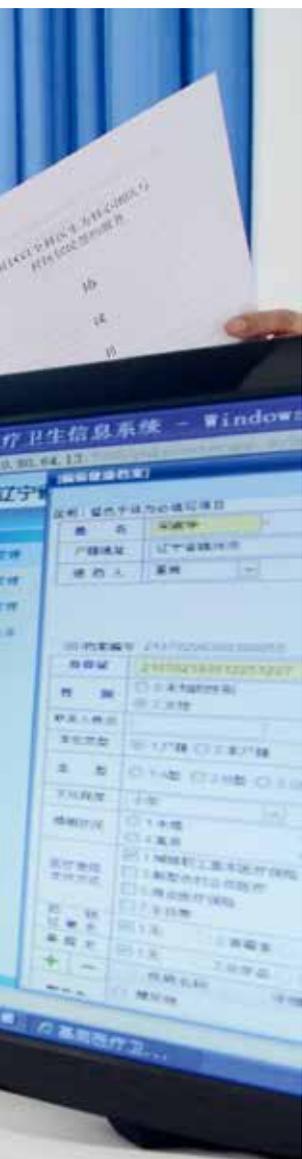
Back then, the contracted family doctor system had yet to be implemented in Shenzhen. But, whenever her sons got sick, Xu habitually consulted Wu over the telephone. “Every time I called, he asked in detail about my sons’ symptoms and then dispensed useful advice,” she said. “He knows key physiological information about every member of my family, even our heights and weights.”

Compared to specialized physicians at large hospitals, community-level general practitioners not only treat illnesses, but also focus on individual patients’ health.

“You shouldn’t interrupt patients when they talk to you but encourage them to ask whatever they want,” explained Zhang Xiaoxiao, a doctor at the Health Service Center of Luohu Community. “By conversing with patients, you get information that can be very helpful for diagnosis. Sometimes I feel like a detective.” In her eyes, how general practitioners communicate with patients is totally different from specialized physicians.

Once, a boy suffering from frequent stomachaches came to see Doctor Zhang. “In most cases, a specialized physician would suspect gastric diseases and order a gastroscopy or helicobacter pylori infection examination,” Zhang said.

After talking with the boy, she realized that his stomachaches occurred only in the morning from Monday to Friday, but never in the afternoons or evenings. On pressing further, she learned that the boy was walking quite far to school since reaching middle





April 3, 2018: Zhao Sheng, a physician at Erqibei Community Healthcare Center in Fengtai District, Beijing, conducts a physical examination of a local resident. VCG



June 19, 2017: Local residents sign service agreements for family doctors at community healthcare centers in Luohu District, Shenzhen City, Guangdong Province. courtesy of the website of the local government of Luohu District

school, so he didn't have time for breakfast. And his stomachache usually subsided after the first morning class.

Zhang diagnosed that the boy had temporal abdominal cramping and suggested he get up earlier in the morning to eat breakfast before going to school. Following her advice,

the boy never again had such pains. When the boy came back for a follow-up visit, Zhang only talked with him instead of performing an examination or ordering tests.

In Zhang's opinion, general practitioners usually provide medical services through heart-to-heart communication with patients,

rather than with medicine and procedures.

### Luohu Experience

Three years ago, before the general practitioner system was introduced to Luohu, Zhang Xiaoxiao didn't get much satisfaction from her work. At that time, second- and third-tier hospitals and community healthcare centers in Shenzhen lagged far behind hospitals in Guangzhou, capital of Guangdong Province, in terms of medical resources—never mind institutions in Beijing and Shanghai. Many local patients preferred to see doctors in Beijing, Shanghai, Guangzhou or even Hong Kong and Southeast Asian countries. Shenzhen became known as a “healthcare desert.”

The new healthcare reform that began in 2015 quickly became a game-changer. That year, with its Luohu District as a pilot area, Shenzhen launched a reform focusing on community-level healthcare. Luohu merged five hospitals and 23 community healthcare centers into Luohu Hospital Group.

Sun Xizhuo, president of Luohu Hospital Group, and his healthcare reform team committed to ensuring local residents access to quality, effective healthcare services within a 15-minute walk. The hospital group pays great attention to disease prevention and health management to “free residents from illnesses and hospitalization, cut their healthcare burdens and enable them to enjoy high-quality medical services.”

Since 2015, a series of new medical reform policies have been carried out in Luohu District.

A mobile app developed by the district, Healthy Luohu, is now used by every local doctor. With the app, patients can make an appointment, pay for medical services and consult contracted doctors. Every hospital and healthcare center under Luohu Hospital Group can share information via the app. Moreover, it helps doctors regularly monitor the health of local residents, diagnose illnesses earlier and reduce disease prevalence rates. If a patient needs to be transferred

to another hospital, his or her medical data can be immediately delivered accordingly. Transferred patients need not register at the new hospital.

In Luohu, medical insurance funds adopt a management approach called a “capped budget.” Local residents are free to choose local hospitals or clinics as their contracted medical service institutions. Each year, the medical insurance administration pays Luohu Hospital Group a certain amount of money according to the number of the insured who chose it as their contracted medical service institution the previous year. The amount is based on per capita medical insurance in Shenzhen plus the annual growth rate of medical insurance in the city. If the amount does not cover the medical expenditures of the contracted patients each year, Luohu Hospital Group will bear the loss itself. If there is a surplus, the hospital group will keep it.

Under these terms, the hospital group can maximize its profits in only two ways: one is to ensure contracted residents are healthy and reduce their medical spending, and the other is to attract more contracted residents by improving service quality.

According to Sun, China still lacks a complete academic and assessment system for general practitioners, and some overlapping services affect the efficiency of community-level general practitioners. “For instance, public health education such as teaching children how to wash their hands should be overseen by centers for disease control, leaving community hospitals to focus on treatment of chronic diseases and providing basic public healthcare,” he added.

“I don't think our practice should be called the ‘Luohu Model’ because it's merely a reform,” Sun noted. “I hope more medical insurance categories will be introduced to promote community-level medical services so that large hospitals can concentrate on medical teaching and research as well as treating acute and severe diseases. That would help China form a better medical service system.” 



Sketch at U.S. West Coast, 168×96cm.

# Dong Xiyuan Painting Tomorrow

Text by Fan Di'an

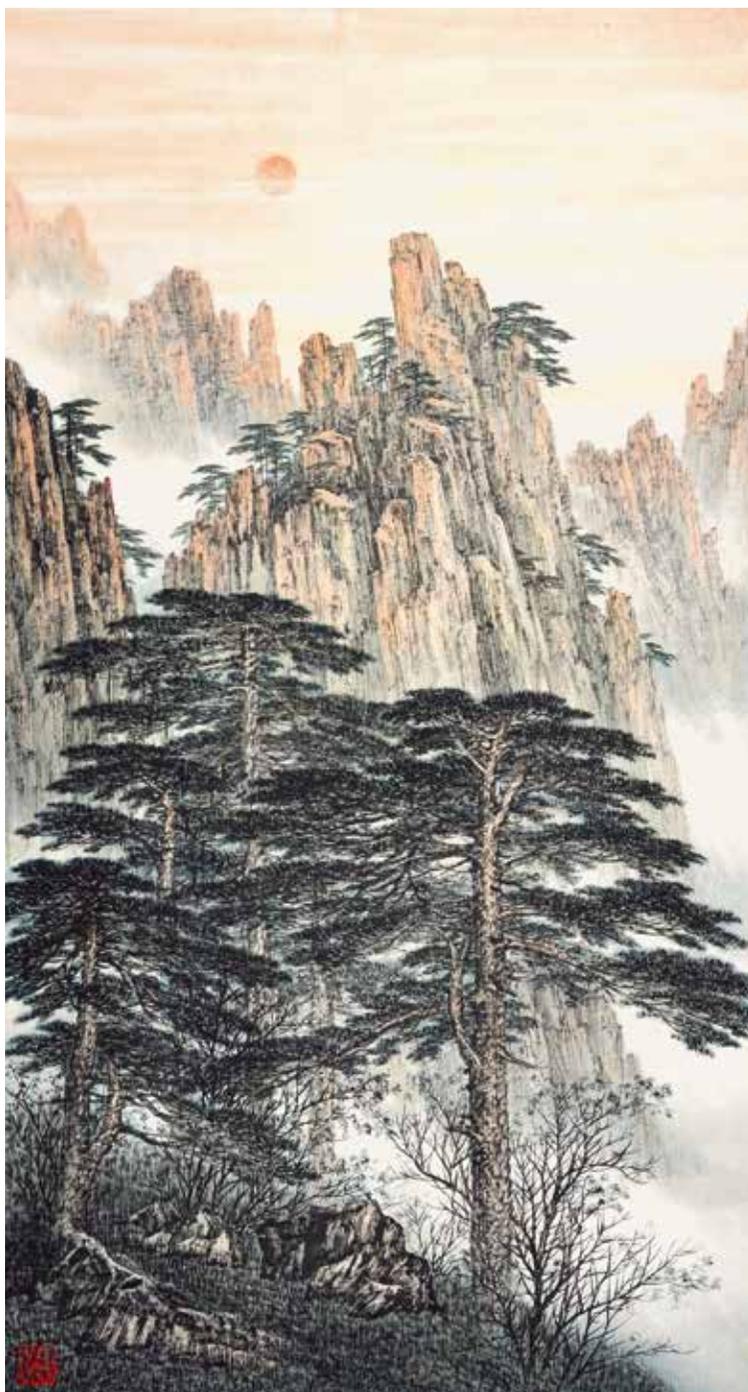
*On the foundation of inheriting the artistic tradition of Chinese painting, contemporary Chinese painter Dong Xiyuan has built an artistic language that reflects the spirit of the times.*

The long history of Chinese painting art is sated with numerous great artists and works alike. How can people today inherit tradition while developing a new artistic language that captures the spirit of the times? Dong Xiyuan, a contemporary Chinese painter, has come up with some answers. After a long period of exploring specific techniques and painting languages, Dong successfully internalized the most important elements of traditional Chinese painting and injected them into his own experiences and expressiveness, resulting in an impressive combination of tradition and innovation.

As an artist, Dong is firmly grounded in his own era and determined to do it justice. Chinese society is witnessing dramatic changes, and Chinese culture is receiving increasing attention from around the world. For many years, Dong has remained passionate and idealistic in his art philosophy. He is determined to write a chapter in art history with his brush.

The overall goals for Chinese painting of this new era have posed serious challenges for painting practitioners: How should they interpret tradition, and what specific language style should be used? At the same time, this era has also provided many possibilities. Dong has worked hard on landscape paintings and flower-and-bird paintings, and become proficient in visual expression in both fields.

Traditional Chinese landscape paintings must depict objects, and more importantly, express emotions because the practice embodies the spiritual pursuit of “harmony between man and nature” in ancient Chinese philosophy, awe and respect for nature, and connections between the artist and the world. Dong’s landscape paintings demonstrate a harmonious fusion of objects and emotions. His paintings are known for two distinctive features. The first is the pursuit of the aesthetic beauty of mountains and rivers. Dong followed the academic method of ancient Chinese artists to “sketch a draft from nature itself.” He often ventured



*A Sketch of the Yellow Mountain, 96×178cm, 2011.*

through mountains and over waters to inject the scenery into his landscape art. In his work, we see myriad mountains and valleys, tumbling clouds, running streams and majestic waterfalls, all of which demonstrate the magnificence of nature.

The other trait is that Dong’s landscape paintings feature an ingenious combination



of realistic and freehand styles. In general, his landscape works feature elaborate and fine brushwork, but are a bit different from traditional Chinese realistic painting. He provides details on the landscape structure and remains meticulous in the usage of lines and colors. With his contemporary landscape paintings, Dong has formed a unique style marked by close attention to details, which evidences his excellent techniques in painting.

An old Chinese saying goes, “fullness is beauty,” in reference to an aesthetic state

of fullness and abundance. In this respect, Dong’s landscape paintings have achieved a rare balance between a fascinatingly majestic appearance from a distance and meticulous details up close. Despite the fact that his style remains imperfect for now, Dong’s pursuit represents his independent exploration of landscape paintings.

Dong’s bird-and-flower paintings share a similar inner structure. He depicts vivid forms of flowers and birds the same way he composes landscape paintings: with intricacy

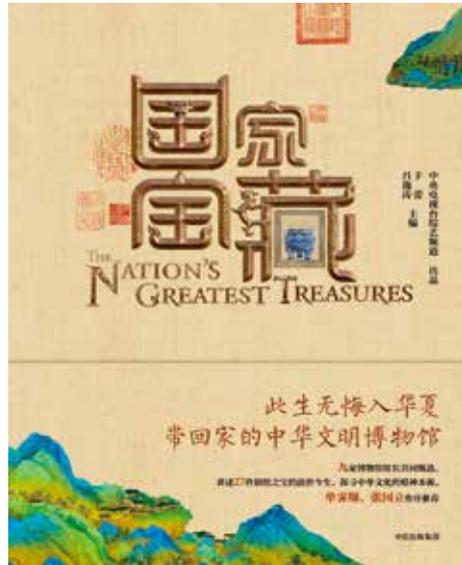


*Scenic View of  
Towering Mountains,  
375×145cm.*

of detail and outstanding line shaping. But in these pieces, the focus is on displaying a life form of hope.

Bird-and-flower paintings and landscape paintings are two different realms, but Dong has managed to transcend different realms of art. He can express his feelings naturally with his paintings, embodying his deep immersion in art. He is also an artist persistent in creation and has paid his dues in exploring art. More importantly, he considers it his own duty to promote the development of Chinese

painting in the new era and views innovation in Chinese painting as his academic goal. This motivates him to keep moving and challenging himself to reach new artistic heights. The essence of Chinese painting is a continuous march to a higher spiritual realm. Dong is well-experienced just as he reaches the prime age for artistic creation. In the future, his painting style will probably branch out into more diverse forms. From the perspectives of painting techniques, spirit and competence, he has great potential. 



# National Treasure

Produced by CCTV-3, editors-in-chief Yu Lei and Lu Yitao, published by CITIC Publishing House, May 2018

*National Treasure recounts the “past and present life stories” of 27 Chinese relics.*

At the end of 2017, a CCTV series titled *National Treasure* aired across China. The docu-series featured 27 cultural relics from the country’s nine leading museums: the Palace Museum, Shanghai Museum, Nanjing Museum, Hunan Provincial Museum, Henan Museum, Shaanxi History Museum, Hubei Provincial Museum, Zhejiang Provincial Museum and Liaoning Provincial Museum. Short vignettes were produced to bring to life stories related to the history of the relics.

After two years of research, producers invited influential public figures to serve as “guardians” of the relics to tell their “past and present life stories.”



*Ceremony of Honor at Side Tower*, a mural found in the tomb of crown prince Yide. The piece embodies the exquisite painting skills of the Tang Dynasty (618-907). Excavated in 1971, it is now housed in the Shaanxi History Museum.



A *Panorama of Rivers and Mountains*, a painting scroll extending nearly 12 meters in length, is a representative work of Chinese landscape art. The genius behind the painting was 18-year-old Wang Ximeng, whose potential was discovered by Emperor Huizong of the Song Dynasty (960-1279). The painting is now housed in the Palace Museum.

第一卷  
王希孟《千里江山图》卷  
绿水青山



The bronze *jin* (a ceremonial utensil) with cloud designs is an artifact of the Spring and Autumn Period (770-476 BC). It is 28.8 centimeters tall, 102 centimeters long and 46 centimeters wide. It is now housed in Henan Museum.

第五卷  
云纹铜禁  
强回智造

The TV program *National Treasure* focuses on the stories of 27 Chinese cultural relics. The Chime Bells of Marquis Yi of Zeng, a set of 65 bronze bells dating back more than 2,000 years, are the best preserved and most exquisitely cast ancient percussion instruments China has ever unearthed. They are now housed in Hubei Museum.





The bronze tiger-shaped tally of Du County was used to mobilize and command an army in the Qin Dynasty (221-207 BC). The tally is 4.4 centimeters wide, 9.5 centimeters long and 0.7 centimeters thick. It is now housed in the Shaanxi History Museum.

Wangong sedan chair, a Ningbo-style bridal sedan chair from the Qing Dynasty (1644-1911). The sedan chair is 275 centimeters high, 150 centimeters long and 90 centimeters wide. Due to its complicated craftsmanship, it is estimated to have required around 10,000 working hours to complete. It is now housed in Zhejiang Provincial Museum.

Legends related to the 27 national treasures are told from a modern perspective, which helped the series win rave reviews from critics and viewers alike.

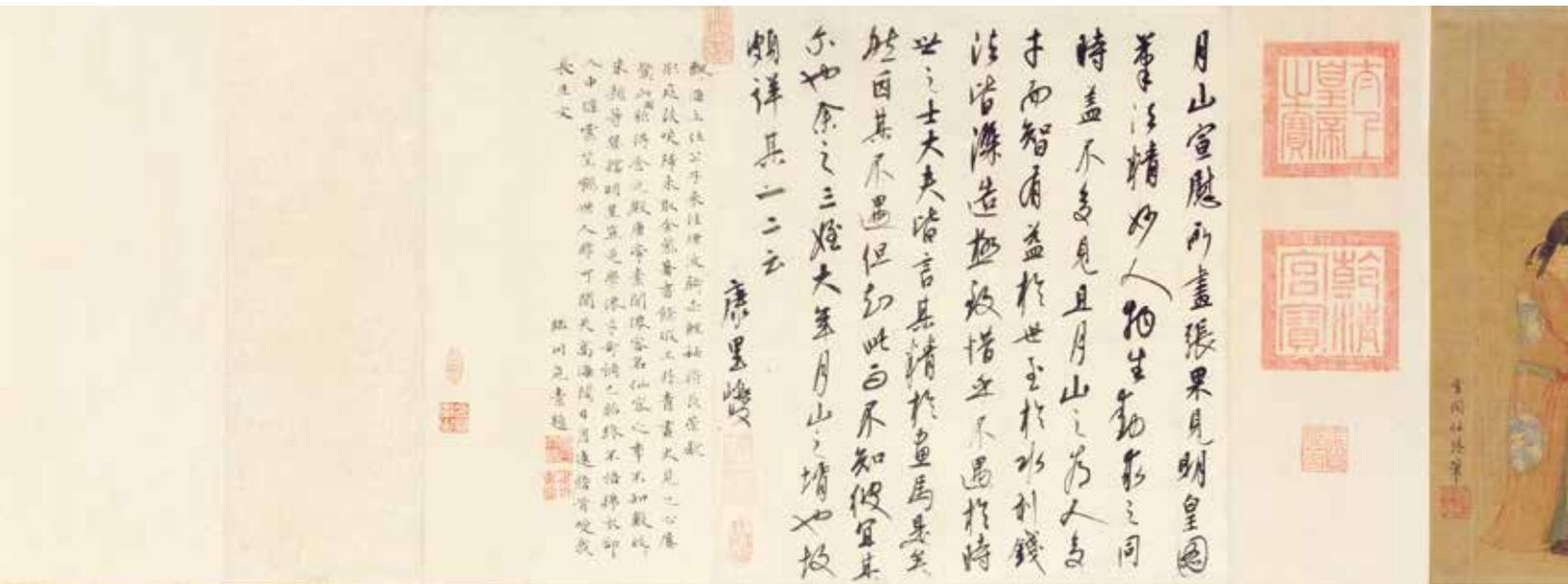
“We wanted to present the cultural relics as if they were people who had survived the ups and downs of the ages,” said Yu Lei, producer and chief director of the show. “They represent the spirit and values of the Chinese nation. Some are still affecting our ways of life to this day.” *National Treasure* aims to “create connections between objects in museums and people and life.” The program was displayed at the 2018 Hong Kong International Film and TV Market and the Cannes TV Festival this year.

An accompanying book of the same name was published to share considerable content that wasn’t included in the original broadcast. Most of it is related to historical materials and research on the relics. All data was edited and revised by experts from the nine museums.

The book also contains 27 exquisite pictures and multi-angle detailed photos, which fully capture the beauty and ingenuity of every national treasure.

Shan Jixiang, director of the Palace Museum, wrote the preface for the book. He declared the book a thorough excavation of the historical genealogy and value inheritance of cultural relics. Historical details unfit for visual presentation are documented in the book, so it enables readers to further savor cultural relics, seize historical memories and increase their understandings of history and culture.

Yu Lei is chief director and producer of *National Treasure*. She studied journalism at the Communication University of China and served as a CCTV director and producer. She was the chief contributor of the 2012-2014 CCTV Spring Festival Galas. Lu Yitao, director of the Program Department of CCTV-3, is chief producer of *National Treasure*. 



Zhang Guolao Meets with Emperor Xuanzong of the Tang Dynasty by Ren Renfa, silk scroll, 4.15×107.3cm, 1254-1327.

# Orient to Occident—Silk Road Meets the Renaissance

Text by Xu Baicheng

*More than 200 relics from 21 Italian museums and 17 Chinese museums evidence ancient cultural exchange between Asia and Europe.*

Three Steeds by Ren Xianzuo, silk scroll, 32.2×188.7cm, 1342.





This is a story narrating the communication between the Orient and the Occident in ancient times. In modern times, Western culture has strongly impacted Chinese society. But throughout history, Chinese civilization exerted profound influence on the West. Numerous travelers like Marco Polo connected the continents of Asia and Europe by bringing

Oriental novelties and stories to the West. Their activities left a lasting influence on both continents.

Such is the narration of the exhibition “Embracing the Orient and the Occident—When the Silk Road Meets the Renaissance,” which features more than 200 relics from 21 Italian museums and 17 Chinese museums. These exhibits testify to the cultural exchange between Asia

and Europe.

Li Jun, a professor at the School of Humanities of the Central Academy of Fine Arts, curated the exhibition after he was inspired by one of his overseas experiences. Between 2002 and 2004 when Li Jun worked at France’s Musée Guimet for a short time, he visited an exhibition featuring furniture from China’s Ming Dynasty (1368-1644). It opened with



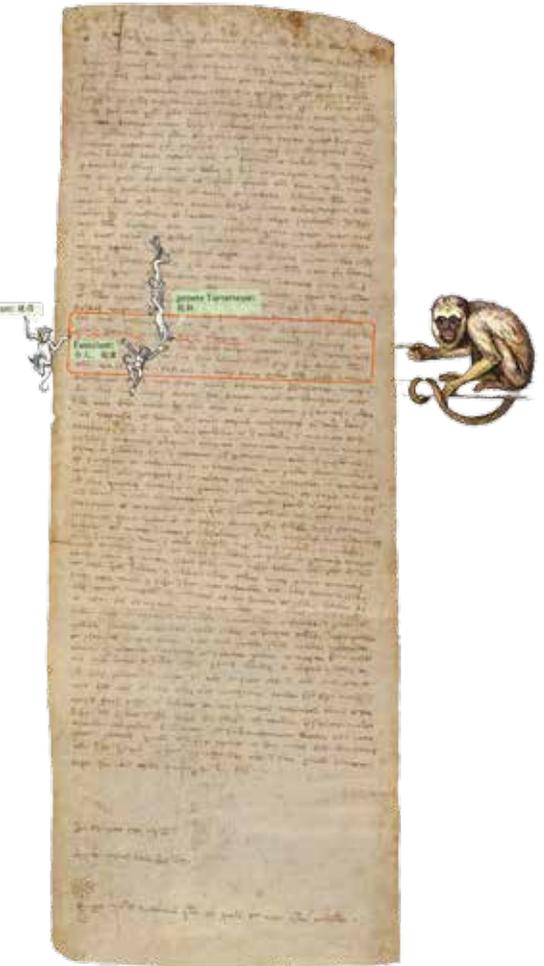
a comparison of Ming furniture and Rococo-style European furniture from the 18th century. In terms of both design and decoration techniques, the latter obviously imitates the former. “At that moment, I was stunned by the realization that the ancient has shaped the modern and the East has influenced the West,” says Li. In his subsequent research, Li found more Oriental traces hidden behind many Western artworks and cultural phenomena.

A few years ago, Li visited an exhibition about the Maritime Silk Road at Guangdong Provincial Museum. He was stunned by a pair of wooden

female statues that looked eerily familiar but he couldn’t place them—until he curated this exhibition. While organizing this show, it dawned him that they resemble protagonists in the Fontainebleau-style painting *Gabrielle d’Estrées and One of Her Sisters*, which is housed in the Louvre. The two pairs of females share similar appearances but differ in posture. The wooden pair was once a print on a gate of a Mazu temple. After careful examination, he discovered that they originated in a Western oil painting. But how they came to China remains a mystery.

This is just one case dating back to the 16th century. Many similar cases are presented in the exhibition, which is divided into six parts, based on the category of the exhibits and their themes. Juxtaposed for comparison, many relics have never before been displayed together, but from the perspective of cultural communication, they have always been “old friends.”

The exhibition begins with a mural depicting Flora unearthed from Pompeii and *The Feast of Gods* painted by Giovanni Bellini, the founder of the Venetian School. The mural depicting the Roman goddess of flowers, which dates back to the 1st century, shows her in a silk gown, while the figures in *The Feast of Gods* hold blue-and-white porcelain. Next to the painting, two Chinese blue-and-white porcelain pieces from the Ming Dynasty were placed



Testament of Marco Polo, ink on parchment, 67×24.5cm, 1323.

for comparison.

The first part of the exhibition is titled “Land Silk Road” and presents cultural exchange along the route. Bronze vessels, glass beads and silk items discovered in Italy and China evidence the mutual influence between the two countries. Glass beads resembling the dragonfly’s eye were once used in ancient Egypt as amulets to guard against evil forces and became popular throughout Eurasia. When the bead arrived in

Marble statue of Aphrodite, 129cm tall, dating back to the 1st to 2nd century.



the Chu State during China's Eastern Zhou Dynasty (770-256 B.C.), the Chu people adapted it to their own aesthetics. The fact that the two continents conducted such far-reaching and profound exchange back then is incredible.

The second part, "Traversing the Seven Seas," features stories of the Maritime Silk Road. After the compass, invented by the Chinese, was introduced to Europe, the continent's oceanic navigation abilities increased dramatically, which helped European countries more conveniently reach rich and mysterious Eastern nations by water. In this part of the exhibition, the earliest navigational maps from China and the West reveal ancient assumptions about the world. A map drawn in 1459 by Fra Mauro, an Italian cartographer from Venice, included Beijing, then capital of the Yuan Dynasty (1271-1368), and even its Lugou Bridge. It also noted that a Chinese sailboat had reached and passed the southwestern tip of Africa, while Portuguese navigators had only explored the middle of the western African coast. This graphic clue helped the Portuguese reach the southern tip of Africa, heralding their further expeditions to India and other Eastern countries.

From the perspective of a traveler like Marco Polo, the "Silhouette of an Empire" section revives the magnificence of the capital (now Beijing) of the Yuan Dynasty. European travelers were enchanted by the city's buildings, porcelain and art, which were recorded in historical materials and displayed in this exhibition. Those cultural ambassadors opened the door to a wealth of culture from the Eastern country. The section "Phoenixes Back to West" displays commodities and gifts carried back



*The Coronation of the Virgin* by Sano di Pietro, 239×197×14.5cm, 1406-1481.

by those travelers, which served not only as souvenirs but also as carriers of Eastern culture, later fusing into Western lifestyles and culture.

The "Silk Dream" section demonstrates interaction between Eastern and Western cultures via the commodity of silk. The patterns on ancient silk pieces from Italian and Chinese museums resemble each other considerably. More interestingly, silk embroideries on the robes of ancient Chinese officials became fashionable designs for the garments of upper-class Westerners on important occasions at the time. The "World of Integration" part emphasizes that cultural exchange is mutual and traces how Chinese culture was influenced by the West as evidenced by material,

cultural and artistic marks.

Traditional exhibitions often highlight the influence that Western art exerted on China, but this exhibition took a converse approach to illuminate Chinese art's influence on the European Renaissance. "Before the dominant 'modern world system' evolved from the Renaissance, there were many world systems," Li explains. "Among them, many diverse countries across the vast Eurasian supercontinent conducted interaction so intimately and profoundly that it's hard for us to fathom today. Regardless of the era, mutual exchange, mutual learning and common development among different cultures have remained the mainstream trend." 



*The Great Wave off Kanagawa* by Katsushika Hokusai, woodblock painting, 24.3×37.2cm, 1804-1807.

## Integrated Visions

June 26 - August 12  
Shanghai Minsheng Art Museum, Shanghai

This exhibition features 245 Asian and European classical prints dating from the 16th to the 21st century, including about 30 Chinese woodblock paintings from the Ming (1368-1644) and Qing (1644-1911) dynasties, 140 Japanese Ukiyo-e prints and 70 European copper plate etchings and woodblock paintings.

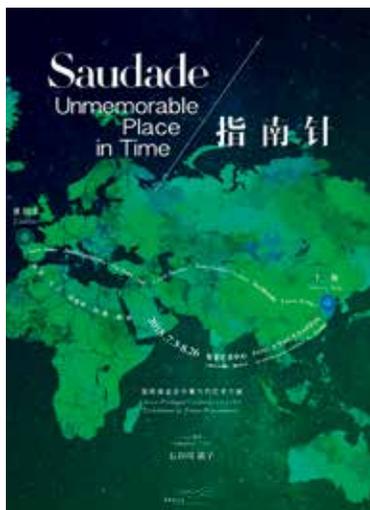
The exhibition presents representative and relevant prints from China, Japan and Europe across five centuries. By observing and comparing those masterpieces, artistic features and cultural connotations of the ages are preserved, documenting the aesthetics and cultural value of the art. The exhibition narrates the historical context of development of the prints with an eye on fostering greater art exchange between the East and the West.

## Saudade

### Unmemorable Place in Time

—China-Portugal Contemporary Art Exhibition by Fosun Foundation

July 3 - August 26  
Fosun Foundation, Shanghai



China continues to actively promote the Belt and Road Initiative, and this exhibition was inspired by its core concept. By gathering nearly 100 pieces by 12 contemporary Chinese and Portuguese artists working with diverse media such as painting, found materials, installation, and digital imagery, it aims to perform systemic comparison and academic sorting of the development path of contemporary Chinese and Portuguese art.

Poster for Saudade: Unmemorable Place in Time—China-Portugal Contemporary Art Exhibition.



Poster for Dunhuang Mural Special Exhibition.

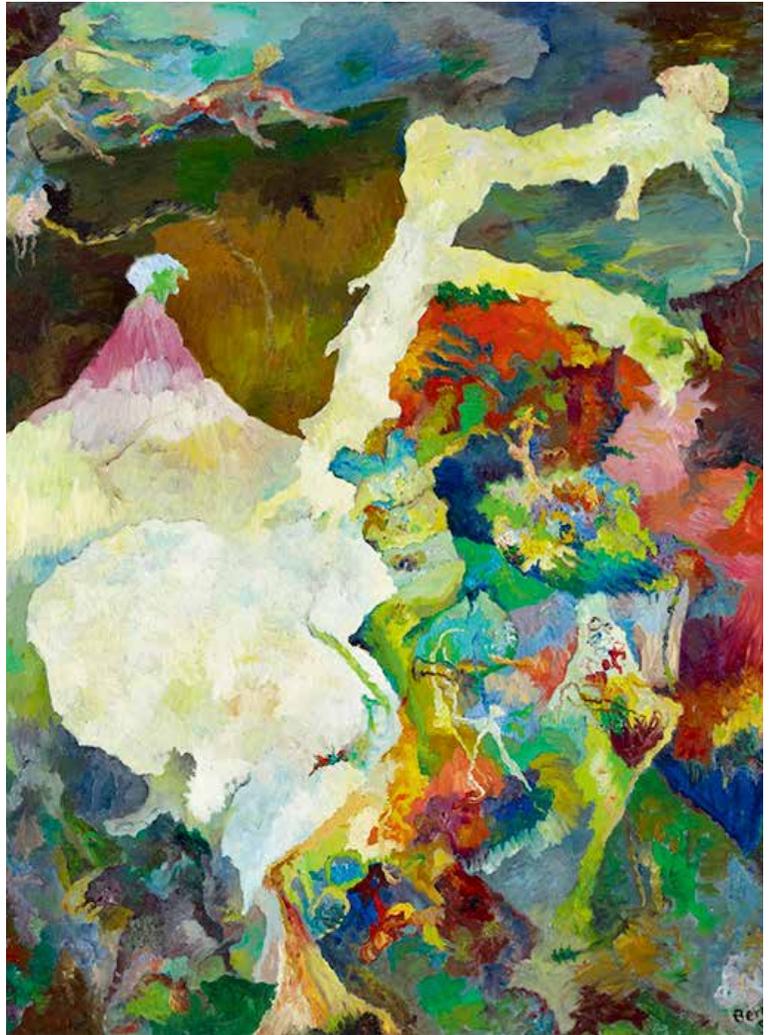
## Abstraction as Painterly Rhetoric

### A Case Study between Germany and China

July 23 - September 2  
PIFO Gallery, Beijing

In the development of China's abstract art, Germany, a country with an extraordinarily strong tradition in abstract painting, has been a source of reference for many Chinese artists.

Inspired by this influence, this exhibition presents paintings by 16 Chinese and German artists including influential contemporary Chinese artist Tan Ping as well as famous German artists Bernard Schultze (1915-2005) and Karl Fred Dahmen (1917-1981) to explore the connection in abstract art the two countries share.



*Leibhaftig* by Bernard Schultze, oil on canvas, 140×120 cm, 1989.

## Dunhuang Mural Special Exhibition

June 9 - August 31  
Xuhui Art Museum, Shanghai

For the first time ever, interactive technology that embeds virtual images on physical objects is being employed to display ancient Chinese art.

The exhibition floors of the museum have been transformed into a dynamic virtual Dunhuang cave. A figure on one of the Dunhuang murals was brought to life with modern technology. By using motion capture technology, the two-dimensional frescoes become moving pictures while maintaining the artistic beauty of the line-drawings. Holographic projection technology produces virtual features on physical figures to create an unmatched immersive experience.

The exhibition also includes entertaining and interactive activities to arouse interest of people of different ages in the history of the Chinese civilization.



*Untitled* by Tan Ping, acrylic on canvas, 200×300 cm, 2016.



中国儿童少年基金会  
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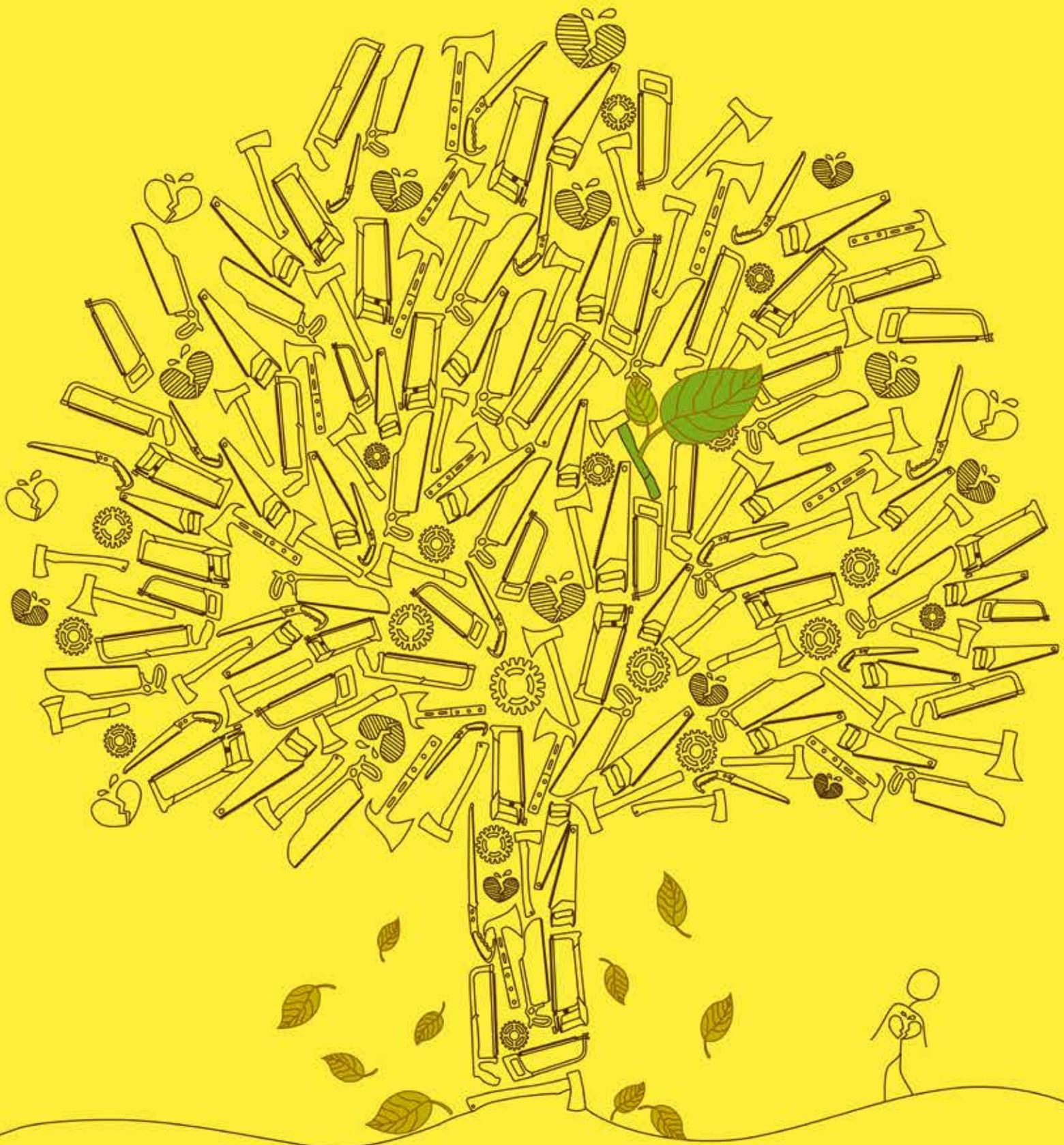
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