China's Progress Report

on Implementation of the 2030 Agenda for Sustainable Development

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Center for International Knowledge on Development

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Contents

Summary

The period from 2016 to 2020 is the first five years of the global implementation of the *United Nations 2030 Agenda for Sustainable Development* (hereinafter referred to as the 2030 Agenda). It is also the five years of China's 13th Five-year Plan for National Economic and Social Development (hereinafter referred to as the 13th Five-year Plan), and of winning final victory in building a moderately prosperous society in all respects. Over the past five years, under the strong leadership of President Xi Jinping, China attached high importance to implementing the 2030 Agenda and advanced it with a people-centered approach and the new philosophy of innovative, coordinated, green, open and shared development. China integrated the implementation work into its medium- and long-term development strategies such as the 13th Five-year Plan. An inter-ministerial coordination mechanism comprising 45 government agencies was set up to promote the realization of Sustainable Development Goals (SDGs). Having achieved progress on many of the SDGs, China has also helped other countries achieve sustainable development to the best of its capacity.

Historic achievements of ending absolute poverty and establishment of a moderately prosperous society in all respects. Winning the fight against poverty is the bottom line of building a moderately prosperous society in all respects. By the end of 2020, China had completed its poverty eradication target on schedule, with altogether 98.99 million

rural residents living under the current poverty line[1] lifted out of poverty, meeting the poverty eradication goal of the 2030 Agenda 10 years ahead of schedule. Of all those escaped poverty, 55.75 million have been lifted out of poverty since the end of 2015. All the population lifted out of poverty have reliable access to food, clothing, basic medical services, safe housing, and clean drinking water. No children from registered poor households have dropped out of school during the compulsory education stage. The poverty-stricken areas have seen rapid improvement in infrastructure, full coverage of stable and reliable power supply, over 98% coverage of fiber-optic and 4G connections in poor villages, much improved production and living conditions, and markedly enhanced power and capacity for endogenous development.

China has brought about a historic resolution to the problem of absolute poverty and built a moderately prosperous society in all respects, providing a more solid material foundation for achieving common prosperity and the great rejuvenation of the Chinese nation. It is also a major contribution to the cause of global poverty reduction and human development.

Steady economic growth and more resilient development. First, the national economy has maintained steady growth. From 2016 to 2019, China's average annual GDP growth rate reached 6.6%, significantly higher than the world average, and its contribution to global economic growth remained at around 30%. In 2020, GDP growth rate reached 2.3%, making China the only major economy in the world to achieve positive economic growth; China's GDP exceeded the RMB 100 trillion mark for the first time in history and GDP per capita exceeded USD 10,000. During

1 The current poverty line is at an income of 2,300 renminbi (constant 2010 prices) per person per year for rural residents. Based on household survey, this income standard is adequate in meeting necessary nutritional needs for keeping a person healthy enough to work, as well as in meeting important non-food consumption needs, provided basic housing is already available. The line is estimated to be USD 2.3 per person per day using 2011 PPP. The basic criteria of poverty eradication are for people to have adequate food and clothing and reliable access to compulsory education, basic healthcare and safe housing. The minimum living allowance for urban residents is higher than the rural poverty line.

the 13th Five-year Plan period, more than 60 million new urban jobs were created.

Second, the economic structure has improved with rising quality and efficiency. Agriculture has gained a more solid foundation and the rural revitalization strategy has been implemented in full. By the end of 2020, there had been 17 consecutive years of bumper harvests. The rice bowl of the Chinese people is held firmly in their own hands. With accelerated industrial transformation and upgrading, China has maintained and consolidated its position as the world's top manufacturer. From 2016 to 2020, the manufacturing value added grew at an average annual rate of 6.14% in nominal terms, increasing from RMB 20.95 trillion to RMB 26.59 trillion, accounting for about 28% of the global total. China has embarked on a new level in terms of high-quality trade development and its status as a major merchandise trading nation has been further consolidated. From 2016 to 2019, the average annual growth rate of trade in goods reached 7.5%, and China remained the world's second largest importer. The digital economy has developed rapidly, and the modern service industry has become an important support. In 2020, the value added of new industries, new business forms and new business models was equivalent to 17.08% of GDP, increasing from 15.4% in 2016. The value added of tertiary industry increased from 52.4% to 54.5% of GDP. In 2020, the value added of core industries in China's digital economy accounted for 7.8% of GDP. During the 13th Five-year Plan period, high-speed railroads covered nearly 95% of cities with a population of over one million, and expressways covered nearly 100% of cities with a population of over 200,000.

Third, micro, small and medium-sized enterprises have continued to grow. From 2016 to 2020, the number of market entities of all types in China increased from 87.05 million to 138 million, an average annual net increase of 12.48 million. During the same period, the total scale of new tax and fee cuts exceeded RMB 7.6 trillion.

Fourth, balancing epidemic control and socio-economic development. Since the outbreak of COVID-19, China has been doing its utmost to prevent and control the epidemic, while at the same time striving to reopen the economy, and ensuring stability on six key fronts and maintaining security in six key areas[2]. Economic recovery was quickly achieved. While ensuring the stability of the domestic supply chains and industry chains, China has also contributed to global fight against the COVID-19 and to global economic recovery.

As China enters the new development stage, implements fully, accurately and comprehensively the new development concept and builds the new development paradigm, its economic resilience will be further enhanced, its development will be of higher quality, more efficient, more equitable, more sustainable and safer, and its role as a stabilizer and powerhouse of the world economy will become more prominent.

Residents' income and public services have improved across the board, and people's living standards, both material and cultural, have continued to rise. First, the per capita income of residents has been growing steadily. In 2020, the per capita disposable income of residents increased to RMB 32,189, a nominal growth of 46.5% compared to 2015. It saw an average annual nominal growth rate of 7.9% between 2016 and 2020, and a real growth rate of 5.6% after deducting price factors. In 2020, the per capita disposable incomes of urban and rural residents were RMB 43,834 and RMB 17,131 respectively. The ratio of per capita disposable income of urban residents to that of rural residents decreased from 2.72 in 2016 to 2.56 in 2020, and the urban-rural gap has continued to narrow.

Second, upgrading of residents' consumption structure has accelerated.

2 The six fronts refer to employment, the financial sector, foreign trade, foreign investment, domestic investment, and expectations. The six areas refer to job security, basic living needs, operations of market entities, food and energy security, stable industrial and supply chains, and the normal functioning of primary-level governments.

During the 13th Five-year Plan period, the Engel coefficients of urban and rural residents remained stably at a low level, at 29.2% and 32.7% respectively in 2020. During the same period, mobile phone penetration increased from 95.6 to 112.9 per 100 people, and Internet penetration increased from 53.2% to 70.4%. The number of automobiles per 1,000 people increased from 133 in 2016 to 195 in 2020.

Third, the levels of public services such as medical care, education and social security have continued to rise, and the key national health indicators have steadily improved, putting China among the top of upper-middle-income countries. By 2020, China had established the world's largest social security system, with basic medical insurance covering more than 1.36 billion people and basic old-age pension covering nearly one billion. From 2016 to 2020, the national maternal death rate dropped from 19.9 to 16.9 per 100,000, the mortality rate of children under five years from 10.2‰ to 7.5‰, and the infant mortality rate from 7.5‰ to 5.4‰. Average life expectancy increased from 76.34 years in 2015 to 77.3 years in 2019. In 2020, the completion rate of nine-year compulsory education reached 95.2%. In the face of COVID-19, China has put people and life first, taken the strictest and most thorough measures and basically stopped the spread of COVID-19 in about three months. Regular prevention and control efforts have been put in place, together with emergency response to local outbreaks. Public health facilities have been strengthened and a line of defense for regular prevention and control has been established.

The key to China's two miracles, namely achieving rapid economic development and long-term social stability, lies in the inclusive and shared nature of its development. China always takes the realization, maintenance and development of the fundamental interests of the broadest possible majority of the people as the starting point and purpose of all work. In the new journey toward building a great modern socialist country, China will continue to uphold the people-centered development approach and always take the people's aspiration for a better life as its

striving goal.

The environment has improved overall, and green and low-carbon transformation has been advanced steadily. First, adhering to the concept that lucid waters and lush mountains are as good as mountains of gold and silver, China has launched three environmental campaigns to preserve clear waters, blue skies and clean soil. The environment has been significantly improved. In 2020, the emission reduction targets for main pollutants were over fulfilled, days of clean or fairly clean air accounted for 87% of the year in cities at or above the prefecture level, the proportion of surface water of good or moderate quality rose to 83.4%; and over 90% contaminated farmland and polluted land slots became safe for use.

Second, China has scored marked results in managing mountains, waters, forests, grassland, farmland, lakes and deserts as inherent parts of one whole ecosystem and made good progress in protecting biodiversity. During the 13th Five-year Plan period, desertification has been checked across 10 million hectares, leading to a drop in both area and intensity of desertification in three consecutive monitoring periods. From the end of 2015 to 2020, forest coverage rate increased from 21.66% to 23.04%, with the volume of forest reserves up from 15.1 billion to 17.5 billion cubic meters. The size of newly increased vegetation areas in China accounts for a quarter of the global total, and the net restored land in China accounts for about one fifth of the global total. An all-out ban on wildlife consumption has been imposed, and populations of more than 300 species of rare and endangered wildlife, including giant pandas and crested ibises, have risen steadily.

Third, China has implemented a national strategy to respond to climate change through mitigation and adaptation, and accelerated transition to green development. With a firm commitment to the *United Nations Framework Convention on Climate Change* and its *Paris Agreement* and

active participation in global climate governance, China has increased its nationally determined contributions. In 2020, the share of clean energy consumption accounted for 24.3% of the total, and the installed capacity and generation of photovoltaic and wind energy in China ranked top in the world. In 2020, China's carbon dioxide emission per unit of GDP dropped by 18.8% compared to 2015, and by 48.4% compared to 2005, exceeding the pledged target on carbon emission reduction.

To protect the ecological environment is to protect the productive forces, and to improve it is to improve productivity. Facing the serious challenges to human survival and development posed by climate change, loss of biodiversity, increasing desertification and frequent extreme weather events, China will adhere to the concept of ecological conservation and work with the international community to promote a community of life for man and Nature.

China has promoted synergy between the Belt and Road Initiative (BRI) and the 2030 Agenda and strived to build a community with a shared future for mankind. First, China supports the integration of the implementation of the 2030 Agenda into high-quality Belt and Road development, advocates the values of peace, development, fairness, justice, democracy and freedom, values shared by humanity, aligns itself with internationally accepted rules, standards and best practices, and promotes economic growth, social development and environmental protection in an integrated manner so that all countries can benefit from the BRI and achieve common and sustainable development. By the end of 2020, the Chinese government, with 141 countries and 32 international organizations, had signed over 200 cooperation documents on jointly building the Belt and Road. There had been over 40,000 freight train trips between China and Europe, connecting to more than 170 cities in 23 European countries and effectively improving infrastructure and connectivity.

Second, China has continued to promote South-South Cooperation with a healthy approach to the relationship between the greater good and self-interest. The China-United Nations Peace and Development Trust Fund, the South-South Cooperation Assistance Fund, the China South-South Climate Cooperation Fund, the Center for International Knowledge on Development, and the Institute of South-South Cooperation and Development were successively established. China has actively engaged in practical cooperation and, within the South-South Cooperation framework, provided a great deal of assistance for other developing countries to implement the 2030 Agenda to the best of its capacity.

Third, China has assumed responsibility as a major country. Facing the impact of COVID-19, China has carried out the largest global humanitarian action since the founding of the People's Republic of China, providing more than 290 billion masks, more than 3.5 billion pieces of protective clothing, and more than 4.5 billion testing kits to foreign countries. China has fulfilled its commitment to giving China's vaccines as a global public good, first to developing countries, joined the World Health Organization's COVID-19 Vaccine Global Access (COVAX) facility, and provided vaccines to more than 100 countries and international organizations, contributing to the global fight against COVID-19.

China's development has benefited from the international community and has in turn contributed to global development. With its great achievements in Chinese-style modernization, China has expanded the path to modernization for other developing countries and contributed Chinese wisdom and Chinese solutions to solving the problems facing mankind. China will always proceed from the height of global prosperity, assume the responsibility as a major country, share its development opportunities, contribute wisdom and strengths, and promote a community with a shared future for mankind.

The world is undergoing major changes unseen in a century, while peace

and development remain the theme of the times. At the same time, the international environment is becoming increasingly complex, uncertain and unstable. The sudden outbreak of COVID-19 has caused a huge impact on the implementation of the 2030 Agenda in countries around the world, and global progress on several SDGs is facing setbacks. It is against this special backdrop that the Center for International Knowledge on Development has compiled and released the *China's Progress Report on Implementation of the 2030 Agenda for Sustainable Development (2021)*, a comprehensive review of China's progress and achievements in implementing the 2030 Agenda since 2016, and a summary and sharing of classic cases and experience, in the hope of helping global SDG implementation process getting back on track and providing useful lessons for the international community's post-pandemic recovery.

Looking ahead, China will continue to attach importance to implementing the 2030 Agenda and integrate it with major national development strategies such as the 14th Five-year Plan and the Vision 2035, with a view to making a new and greater contribution to the common development and prosperity of mankind in the new journey of building a modern socialist country.

This report was prepared under the guidance of the Ministry of Foreign Affairs and with the support of 45 ministerial-level member agencies under China's coordination mechanism for the implementation of the 2030 Agenda, including the Development Research Center of the State Council. To them we owe our sincere gratitude. Where data and information in the report are not individually attributed to a source, they are obtained from relevant ministries or other Chinese official sources which are publicly available.

SDG 1
End poverty in all its forms everywhere

I. Implementation progress

With a people-centered development philosophy, the Communist Party of China (CPC) and the Chinese government have given top priority to the eradication of extreme poverty and building a moderately prosperous society in all aspects. The target set in the "Decision on Winning the Fight Against Poverty" adopted in November 2015 was that by 2020, all rural poor would have reliable access to food, clothing, compulsory education, basic healthcare and safe housing and all population living under the current poverty line and all poverty-stricken counties on the national list would be lifted out of poverty. China has taken unprecedented resolve and efforts, reforming and innovating poverty alleviation systems and mechanisms, and adhering to the targeted poverty alleviation strategy. The target was met by the end of 2020 as scheduled, and the poverty reduction targets on

the 2030 Agenda were also met 10 years ahead of schedule, contributing China's strength and wisdom to the global cause of poverty reduction.

The comprehensive goal of poverty reduction has been achieved. By the end of 2020, 98.99 million poor rural people had been lifted out of poverty (Figure 1-1) and 832 counties and 128,000 villages had graduated from their poverty-stricken status, according to the current poverty standards. The people who have come out of poverty no longer have worries about food or clothing. They generally have enough food, and sometimes a nutritional diet. They can afford clothing and bedding suitable for the seasons. Their children go to school for compulsory education. They all have basic healthcare, safe housing and clean drinking water. (Table 1-1)

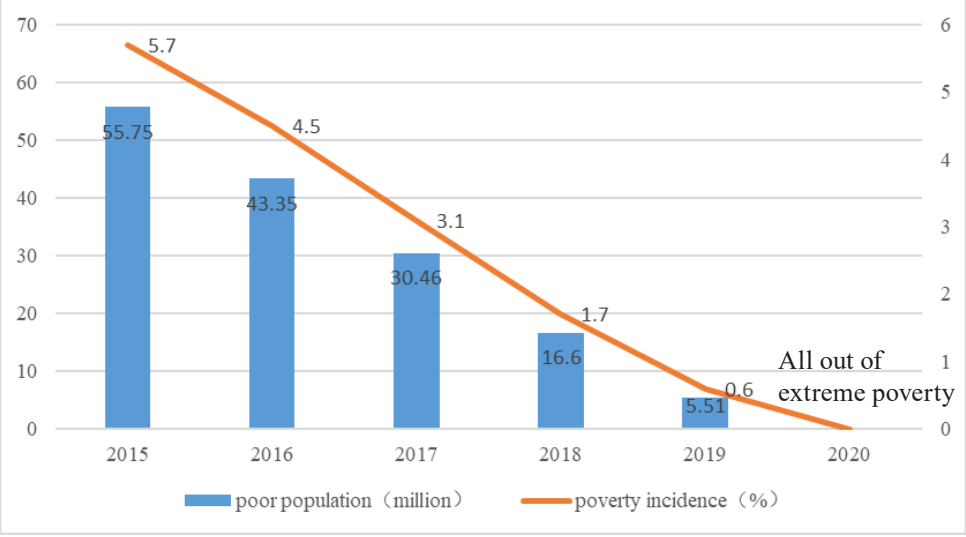


Figure 1-1 Rural poor population and poverty incidence from 2015 to 2020

Source: National Bureau of Statistics, 2021.

Table 1-1 Access to compulsory education, basic healthcare and safe housing and drinking water by registered households

Unit: %

Indicators	Poor counties on national list	Poor counties not on national list
Guaranteed access to compulsory education	Fully realized	Fully realized

Indicators	Poor counties on national list	Poor counties not on national list
Proportion of school-age children in compulsory education educated at school	98.83	99.06
Proportion of school-age children in compulsory education educated by schoolteachers at home	0.26	0.57
Proportion of school-age children in compulsory education not in school due to physical conditions, suspension, delayed enrollment, or graduation from junior high school	0.91	0.37
Guaranteed access to basic healthcare	Fully realized	Fully realized
Proportion of registered poor covered by basic medical insurance for urban and rural residents	99.85	99.74
Proportion of registered poor covered by basic medical insurance for urban employees	0.14	0.24
Proportion of registered poor who were newborns or others in the process of applying for medical insurance, people in military services or others covered by special healthcare programs or those temporarily not in need of medical insurance	0.01	0.01
Guaranteed access to safe housing	Fully realized	Fully realized
Proportion of registered households whose current housing were appraised as safe, or having other safe housing	43.74	58.26
Proportion of registered households whose housing were made safe through policy-supported renovation	42.25	34.70
Proportion of registered households who acquired safe housing through relocation program	14.01	7.04
Guaranteed access to safe drinking water	Fully realized	Fully realized
Proportion of registered households with tab water in the house	93.67	84.25
Proportion of registered households with easy access to water outside the house	6.33	15.75
Proportion of registered households in no shortage of water	99.86	99.95
Proportion of registered households with basically reliable water supply, but with water shortage for a small number of days	0.14	0.05

Source: National survey of poverty alleviation.
Note: Data in this table was registered during the national survey of poverty alleviation. The first batch of registration was from July to August 2020, and the second from December 2020 to January 2021.

Infrastructure in poverty-stricken areas has seen significant improvement. During the 13th Five-year Plan, a big step was made in infrastructure construction in poverty-stricken areas. Lack of roads, electricity, communications and drinking water is now a thing of the past. By 2020, in poor counties on the national list, 99.6% of the administrative villages were accessible by paved roads, 99.3% had access to industrial electricity, 99.9% were covered by communication signals, 99.6% had access to broadband internet, 99.9% were covered by radio and television signals, 62.7% had e-commerce delivery stations, 65.5% fully and 31.9% partially realized centralized water supply, 89.9% fully and 9.0% partially realized centralized garbage collection and disposal, over 98% of the poor villages had fiber-optic and 4G connections.

Public services in poverty-stricken areas have witnessed major improvement. The levels of education, healthcare, culture and other public services in poverty-stricken areas have been greatly improved. Since 2013, a total of 108,000 compulsory education schools in poor areas have been improved. Accumulatively, more than 8 million students from poor families received secondary and higher vocational education, and over 40 million students benefited from the nutrition improvement program for students receiving compulsory education. In poor areas, medical and health institutions and personnel are now available in all counties and villages, making it possible for common and chronic diseases to be treated locally. All poor people are covered by the three systems of basic medical insurance, serious diseases insurance and medical assistance. 391,700 multipurpose cultural service centers have been established in local communities of 22 central and western provinces, making almost all villages equipped with cultural facilities.

The employment and skills of the poor have been improved through cultivating local industries. The targeted poverty reduction efforts have broken the development bottleneck and released great potential for development. New industries, such as e-commerce, photovoltaic and rural

tourism, have grown fast (Figure 1-2). By 2020, more than 15 million poor households had received more than 710 billion in micro-credit to support their businesses; 8.7 million women had increased income through secured micro-credit and micro-credit for poverty alleviation. As large numbers of migrant workers return to their hometowns to start businesses, new entities such as farmers' specialized cooperatives are becoming full-fledged, bringing more than 70% of poor households out of poverty. More people from poor rural areas are able to find jobs in towns and cities, thanks to policies that support skills training, labor services cooperation between eastern and western regions, leading enterprises' poverty reduction efforts, workshops that hire the poor, and creation of public service jobs. Such migrant workers had grown from 12.27 million in 2015 to 32.43 million in 2020. Over 90% of poor households have received employment assistance. A total of 10.21 million poor women and rural women leaders have received skills training. More than 5 million poor women have earned more income and thus been lifted out of poverty through handicrafts, farming and breeding, e-commerce and tourism.

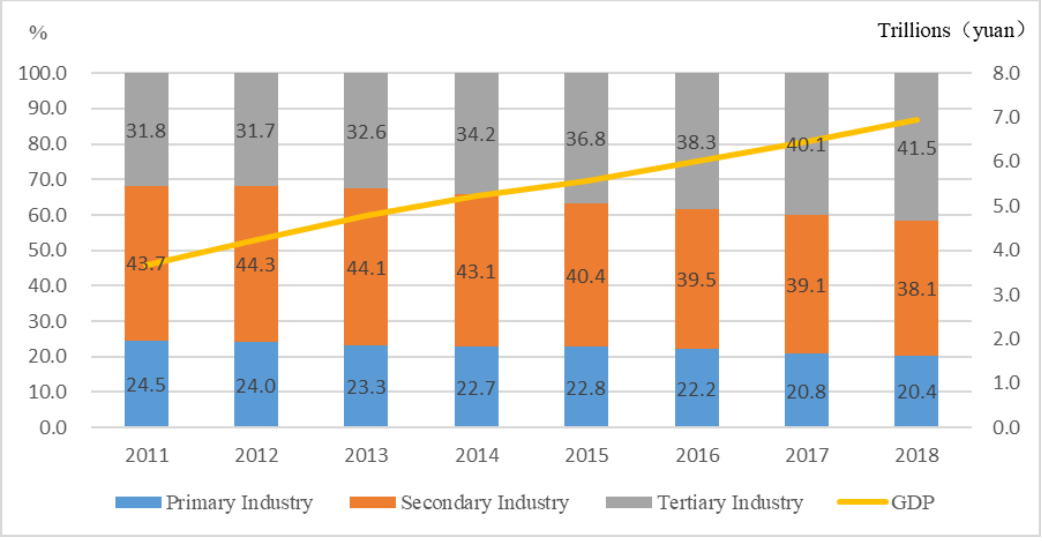


Figure 1-2 GDP and industrial structure changes in poverty-stricken areas

Source: Based on *Report on Rural Poverty in China* 2020 released by the National Bureau of Statistics.

Relocation and ecological protection have fundamentally improved the living conditions of nearly 10 million poor people. For those

living in remote areas with tough natural conditions, fragile ecosystems or frequent natural disasters where finding livelihood locally is hard, relocation is offered to them on a voluntary basis. More than 9.6 million such people have left their poor hometowns and settled in new places, breaking free of isolation and backwardness. In poor areas, 46.44 million *mu*[3] of farmland has been converted to forests or grassland, and 1.102 million poor people have been hired as forest rangers. 23,000 afforestation cooperatives have been established in 22 provinces and equivalent administrative units in central and western China to achieve poverty alleviation as well as ecological conservation.

The poor's resilience to disasters and various risks has been greatly strengthened. Since 2018, governments at all levels in China have increased fiscal expenditures on 9 key disaster prevention and control projects, including disaster investigation and identification, rehabilitation of key ecological function areas, housing fortification in earthquake-prone areas, improvement of flood control and drought relief and water conservancy, geological disasters management and relocation of people away from disaster areas. Communities have improved capacity for disaster prevention and mitigation. There is a contingent of disaster information workers, basically one in each community, urban or rural. Since 2013, 25.68 million poor people from 7.9 million households, cumulatively, have moved out of dilapidated houses and into safe housing. Meanwhile, 10.75 million rural households, covering more than 35 million people, on minimum living allowance, or in serious difficulties or with disabilities have had their run-down homes renovated through aid and thus become more resilient to extreme weather conditions and natural disasters.

Social security system has been continuously strengthened. Since

3 Translator's note: *mu* is a Chinese unit of land measurement equivalent of 666.5 square meters.

2015, the incomes of urban and rural residents in China have continued to grow, and so has the level of social assistance. By the end of 2020, there were 44.27 million recipients of minimum living allowances in the country, of whom 36.22 million were in rural areas, with women accounting for 46%. Nearly 20 million registered poor people received minimum living allowances or special poverty allowances. A total of 60.98 million poor people were covered by the basic old-age insurance for urban and rural residents, and basically everyone eligible was covered. From December 2017, all counties in China began to provide rural minimum living allowances at or above the national standard. A fairly good digital poverty monitoring system has been established to ensure that "no one is left behind."

Making historic contributions to global poverty reduction. China's tremendous achievements in poverty reduction have promoted the advancement of global poverty reduction and have boosted confidence for the early realization of global poverty reduction goals. Rooted in national circumstances and the law of poverty reduction, China has formed an anti-poverty theory with Chinese characteristics, which enriches the international experience. All the major initiatives announced by President Xi Jinping have been implemented to advance poverty reduction in developing countries, including 100 poverty reduction programs, the Ten Cooperation Programs for poverty reduction and livelihood improvement in Africa, an Assistance Fund for South-South Cooperation and a China-UN Peace and Development Fund. Under deepened South-South cooperation, China has helped other developing countries build infrastructure and brought them agricultural technologies, benefiting poor people directly. Since 2015, 112 training programs have been organized for more than 3,200 officials from over 100 countries and international organizations, where they share experience and build capacity for poverty reduction and development.

II. Basic experience

Firstly, adhering to the people-centered development approach and motivating the poor's initiative and creativity. The CPC is committed to eliminating poverty, improving people's livelihood, and realizing common prosperity. It endeavors to build a moderately prosperous society in an all-round way, and in this process no one or area should be left out. This mission fits perfectly with the 2030 Agenda's pledge of leaving no one behind. China's poverty eradication strategy focuses on impoverished individuals, regarding them not just as recipients of assistance, but more importantly as capable of lifting themselves out of poverty. Policy measures are tailor-made to enable them to use their own intellect and resolve, together with assistance, to get rid of poverty. A strategy that is for the people, relies on the people and motivates the people to work with initiative and creativity is a proven solution to poverty. It can release great potential and form a powerful synergy.

Secondly, a targeted strategy and a path with Chinese characteristics. China has created the targeted strategy of poverty eradication, which has 6 clear targets[4], 5 approaches[5], 10 major programs[6], and monitoring and support mechanisms to prevent relapse. This strategy addresses the issues of "who to help whom", "how to help", "how to exit" and "how to consolidate the results." Practice has shown that poverty eradication efforts must be targeted toward localities and individuals with their particular circumstances considered as well as be suitable to the country's national conditions.

4 Targeted recipients, projects and funding; targeted measures of individual households; government workers selected to meet the need of the villages; and clearly defined results.

5 The 5 poverty eradication approaches are production/business, relocation, compensation for ecological conservation, education and social security.

6 The 10 programs involve government workers staying in villages, vocational training, micro credit, relocation of impoverished population, e-commerce, tourism, photovoltaic, mulberry tree farming, rural entrepreneurial training, and support from leading companies.

Thirdly, a clear responsibility system. At the top, the CPC is in charge of poverty eradication. At the working levels, the central government coordinates national efforts; provinces assume overall responsibility; cities and counties work to meet the targets. Within this system, each has clear responsibilities and perform its functions accordingly. From the central to the local governments, each signs a written pledge for poverty eradication, fulfils its part in a coordinated national effort, and is held accountable through multi-channeled monitoring and the most stringent evaluation, including that done by a third party. Practice has proved that poverty eradication requires a top-down strategy and good policy implementation throughout the system by means of accountability, sound policy-making, adequate input, support mechanisms, mobilization, monitoring and evaluation.

Fourthly, social synergy based on the broadest possible consensus and widest participation. Since 2015, President Xi Jinping has chaired over 7 central poverty alleviation meetings to create a common will for joint action to combat poverty. Under China's system which allows resources to be concentrated on priorities, the poverty eradication endeavor involves all stake holders from government to industries and the private sector, where the eastern and western regions have collaborated, Party organizations and government agencies have paired up with poor localities, enterprises, social organizations and the private sector are encouraged to participate. To accomplish poverty eradication, there must be a powerful synergy, with the government playing a leading role, and all the other stakeholders participating.

Fifthly, active international exchanges and cooperation on poverty reduction. Every person is entitled to the right to a good life. As a responsible major country, China has actively participated in global poverty governance, deepened exchanges and cooperation in poverty reduction, and supported other developing countries in poverty reduction and development. China promotes a new type of international exchange

and cooperation on poverty reduction featuring mutual respect and win-win cooperation, and works together with other countries to improve the well-being of all people. Practices have proved that to eradicate global poverty, every government should shoulder the responsibilities to their own people, and actively advance international cooperation in poverty reduction, making due contribution to the building of a community with a shared future for mankind.

III. Future work

Eradicating absolute poverty is not the end, but a starting point for a new life and new effort. There is still much work to do before we can address unbalanced and inadequate development, narrow the gap between urban and rural areas and among different regions, ensure well-rounded development of people and achieve common prosperity. China will work to consolidate and expand its achievements and continue to make contribution to global poverty reduction.

Firstly, consolidate the achievements and prevent major relapse. The current supportive policies for the counties will basically remain in place for a five-year transitional period. The monitoring and support mechanisms will be improved to detect and prevent any relapse at the earliest through intervention and assistance. Relocated people will continue to receive help. Low-income rural population will receive regular assistance based on their category and level.

Secondly, promote development through the Rural Revitalization Strategy. We will continue to improve the policies, working mechanisms and institutions, accelerate agricultural and rural modernization, and promote high-quality and efficient agriculture and villages where people can have jobs and live in decent conditions. We will promote the creation

of stable jobs, provide more training, boost local industries and achieve self-sustaining development.

Thirdly, form an international synergy. We will continue to urge the international community to prioritize poverty reduction in international cooperation and increase investment in development, by taking the opportunity of the Decade of Action to deliver the poverty reduction goal on the 2030 Agenda. We call for a global partnership for win-win cooperation and an open world economy, so that developing countries will have a favorable external environment for their fight against poverty.

Fourthly, make international development cooperation a new driver of poverty reduction. We will continue to align the high-quality BRI with the 2030 Agenda, deepen South-South cooperation in poverty reduction, promote experience sharing in and coordination of development strategies, and roll out more poverty reduction projects and demonstrations. Our goal is to build a poverty-free global community with a shared future.

SDG 2 End hunger, achieve food security and improved nutrition and promote sustainable agriculture

I. Implementation progress

China attaches great importance to agricultural development and takes food security as the top priority in state governance. Chinese government has established a national strategy on food security featuring self-sufficiency based on domestic grain production, guaranteed food production capacity, moderate imports, and technological support. China has advanced institutional and system reforms and improved the quality and efficiency of agricultural production. From 2016 to 2020, China's grain production capacity improved steadily, national nutrition continued to improve, key productive factors such

as land and capital were activated, and major progress was achieved in sustainable agricultural development. In 2020, faced with the impact of COVID-19, China sought to maintain security in six key areas, which includes "maintaining food and energy security", to ensure the supply and prices of food and oil stable and help prevent and control the epidemic. China has actively engaged in international cooperation in the field of food and agriculture to promote food security and sustainable agricultural development in developing countries.

Committed to the strategy of "asking land for food, asking technology for food", China has achieved overall stability on the food security front. From 2016 to 2020, the sown area of grain crops remained above 116 million hectares, the yield kept above 650 million tonnes, and the per capita grain possession reached over 470 kilograms, higher than the international food security standard of 400 kilograms; the self-sufficiency rates of rice and wheat were kept at above 100%, and the self-sufficiency rate of corn exceeded 95%. China has practiced the strictest farmland protection system, and strictly observed its 120 million hectares red line of total farmland. It has established 72.53 million hectares of functional areas for grain production and protected areas for the production of important agricultural products. By 2020, 53.33 million hectares of high-standard farmland, which were weather-resistant and high-yielding, had been built. The level of science and technology in food production has continued to improve. By 2020, the comprehensive mechanization level for cultivation, seeding and harvesting had reached 71%, and the share of advances in agricultural science and technology in the growth rate of total agricultural output had exceeded 60%.

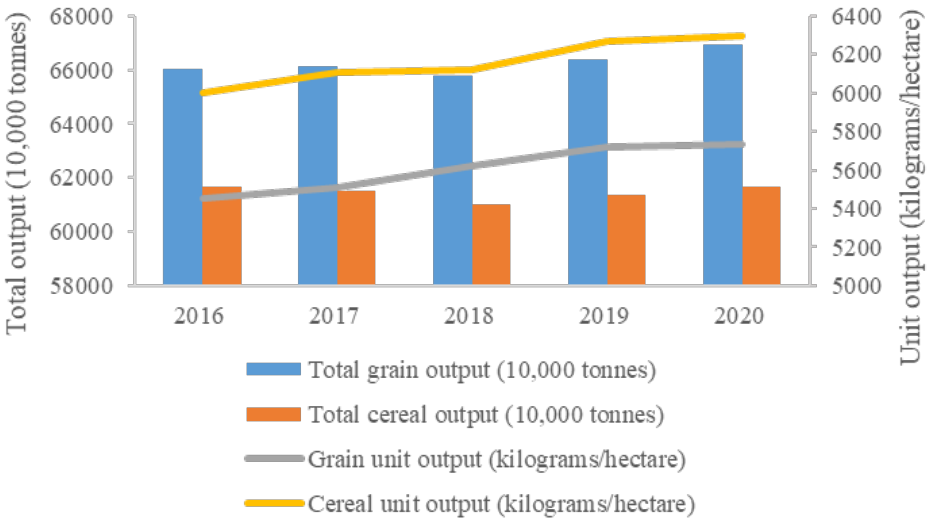


Figure 2-1 Grain and cereal production, 2016 to 2020

A nutrition guarantee system has been established, and national nutrition levels have improved. China has continued to implement the *China Food and Nutrition Development Program (2014-2020)* and *National Nutrition Plan (2017-2030).* Nutritional intervention programs for women and children were carried out to monitor and assess the health status of different population groups. In 2020, in children under six years of age the rate of stunting dropped below 7%, and the rate of wasting dropped below 5%, while the rate of stunting in children in rural areas decreased to 5.8%. The anemia rate among pregnant women decreased from 17.2% in 2015 to 13.6% in 2020. Nutritional interventions, which have been carried out for key populations in poor areas, have been incorporated into health and medical assistance programs for poverty alleviation. Nutrition sachets were provided for 11.2 million children aged 6 to 24 months. More has been done in science popularization, publicity, and education to raise people's nutrition and health awareness.

The modern agricultural business system has been improved to ensure the accessibility of basic production factors. China has cultivated new agricultural business entities such as family farms and farmers' cooperatives, and vigorously developed the socialized agricultural service system and service organizations responsible for

managing agricultural production. By the end of 2020, there had been more than 3.48 million family farms, nearly 2.25 million farmers' cooperatives, and almost 900,000 socialized agricultural service organizations in China. The rural land system reform has been deepened, the second round of land contract would be extended for another 30 years after its expiration, and the system of the "Separation of Three Rights" for contracted land in rural areas was improved[7]. Bank branches have continued to extend to rural areas, and the scope of basic financial services and credit to rural households has continued to expand. In 2020, basic financial services covered 99.97% of administrative villages, with a balance of RMB7.56 trillion in inclusive rural loans, and around 34% of the rural households received credit. In 2020, the per capita disposable income of rural residents reached RMB17,131, with a growth rate higher than that of urban residents for 11 consecutive years (Figure 2-2).

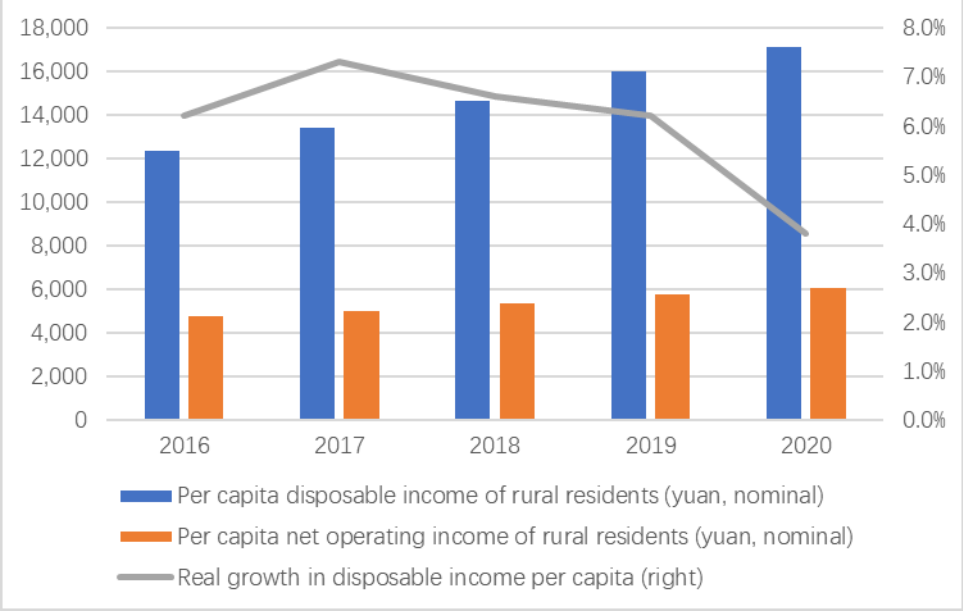


Figure 2-2 Income of rural residents, 2016 to 2020

Sustainable agricultural development has been promoted and ecological conservation strengthened. China has vigorously developed

7 The "Separation of Three Rights" further breaks down the land contracting right in rural land property rights into contracting right and management right. The land ownership, contracting right and management right are three separated and parallel rights.

eco-friendly agriculture and implemented the *National Sustainable Agriculture Development Plan (2015-2030)*. A green and ecologically oriented agricultural subsidy system has been preliminarily established. Actions to protect and improve the quality of farmland have been carried out, and water-saving agriculture in dryland has been actively developed. The coefficient of effective water utilization in farmland irrigation exceeded 0.56 in 2020. China has carried out comprehensive prevention and control of agricultural non-point source pollution, advanced the action to pursue zero growth in the use of chemical fertilizers and pesticides, and promoted the utilization of livestock and poultry manure. The Measures for the Management of Agricultural Film was issued, with the goal of putting the whole life cycle of such film under oversight. In 2020, 80% of the agricultural film was recycled. The use of chemical fertilizers and pesticides has decreased for three consecutive years. In 2020, the utilization rate of fertilizers in rice, wheat and corn reached 40.2%, five percentage points higher than in 2015; the utilization rate of pesticides was 40.6%, four percentage points higher than in 2015. An agricultural non-point source pollution management program was carried out across the Yangtze River Economic Belt, and comprehensive prevention and control of pollution and coordinated conservation of whole river basins were implemented.

Germplasm resources have been protected, and levels of independent innovation have risen. A modern seed industry upgrading project was implemented, supporting the protection and utilization of seed resources, breeding innovation, testing and evaluation, seed production (breeding) bases and other infrastructure construction. The resource conservation capacity of China ranks first in the world. There are 520,000 copies preserved at the long-term national storage of crop germplasm resources, ranking second in the world. China has kept pushing ahead the third national crop germplasm resource survey and collection. With many new breakthrough varieties cultivated, greater integration of industry, academia, research and application has been achieved. A big data platform

for the seed industry was established, making the governance of the seed industry more digitalized, scientific and informatized. Over 95% of the crop varieties are independently developed, and the self-sufficiency rate for core breading sources of livestock and poultry has exceeded 75%.

International cooperation has been promoted in the field of food and agriculture for mutually beneficial and win-win development. China has continued to deepen South-South Cooperation on agriculture and helped developing countries build agricultural production capacity by organizing international forums, conducting training exchanges and hosting capacity building missions for aid recipient countries. China's hybrid rice has been promoted across more than 60 countries and regions, including India, Bangladesh, Indonesia, Vietnam, the Philippines and Brazil, with an overseas planting area of about seven million hectares. Yuan Longping, father of hybrid rice, trained more than 14,000 hybrid rice technicians for nearly 80 developing countries, making a great contribution to solving the world's food security problems. From 2016 to 2019, Chinese agricultural enterprises investing abroad paid a cumulative total of USD1.51 billion in taxes to the host countries, employed nearly 590,000 local workers, and improved the technology and operating practices of local agriculture through experiments, demonstrations, and scaling-up. By the end of 2019, the first batch of 10 overseas agricultural cooperation demonstration zones had attracted about 70 agriculture-related enterprises, with about USD600 million investment completed in total. China has actively engaged in global food security governance and agricultural trade rulemaking, and promoted greater representation and right of speech of developing countries such as African countries in food-related international organizations.

II. Basic experience

First, strengthening the scientific and technological support for grain production while staying primarily self-reliant in food supply. Being a country with a large population and large consumption of food, China must ensure self-reliant agricultural production and have control over its own food supply. The COVID-19 epidemic has shown the vulnerability of the international food market, and at the same time highlighted the importance of having a self-sufficient, domestic based food supply. Technological progress provides important support for food security. Strengthening scientific and technological innovation, enhancing the ability to promote and apply it, and strengthening food production capacity and disaster prevention and mitigation capabilities are the fundamental solution for China's food security and a contribution to global food security.

Second, continuously improving the agricultural operation system based on national conditions. Based on the national condition of being "a large country with smallholders" and the realities of rural development, China has taken the sound relationship between producers and land as the main thrust and established a contracting system for rural land. China respects the principal status of producers and ensures the basic means of production affordable and accessible, effectively mobilizing farmers' enthusiasm and initiative. At the same time, innovations like family farms, farmers' cooperatives and socialized agricultural service organizations have been adopted to adapt to the needs of economies of scale, socialized mass production and big markets.

Third, actively promoting the green development of agriculture with balance and coordination. Green development and sustainable development are a must in modernizing agriculture. China has maintained a balance between the industrialization and urbanization processes

and farmland protection, between raising agricultural efficiency and controlling surface pollution, and between quantity and quality of agricultural products. Through institutional reform and policy innovation, China has been accelerating green agricultural development, making scientific and technological innovation and labor force improvement as a fundamental task.

III. Future work

China is facing such problems as rising agricultural production costs, insufficient technological innovation, and relatively inadequate resources, and its agricultural base needs further consolidation. The COVID-19 epidemic keeps spreading, causing a severe impact on the global balance of grain production and trade. China will continue to prioritize agricultural development and rural areas, vigorously implement the rural revitalization strategy, and continue to modernize agriculture.

First, improving food security. China will strengthen food security and ensure grain production. It will speed up infrastructure development such as grain storage and logistics, and make sure that the various links of grain production, purchase, storage, processing, and marketing are smooth. China will promote the high-quality development of the grain industry to meet the needs for domestic consumption upgrade. Legislation on food security will also be accelerated.

Second, strengthening the supply of basic factors. China will continue to implement the strictest farmland protection system, and further liberalize the rights to operate contracted land in rural areas. It will step up efforts to build high-standard farmland and continue to invest in farmland water conservancy infrastructure. The rural financial service system and the incentive mechanism for financial support for agriculture

will be improved. Agricultural supply-side structural reform and institutional innovation will be continuously promoted.

Third, stepping up scientific and technological innovation. China will improve the agricultural science and technology innovation system, adopt new approaches to agricultural extension services, develop intelligent agriculture, and build the industrial, production and business systems for modern agriculture. With a focus on scientific and technological research, China will promote independent innovation and cultivate innovative enterprises with core competitiveness in the seed industry. It will also focus on research and development of input-saving, efficiency-boosting technologies, on waste resource utilization technologies, and on ecological restoration and conservation technologies to solve the difficulties confronting green agricultural development.

SDG 3 Ensure healthy lives and promote well-being for all at all ages

I. Implementation progress

China has always put ensuring people's rights to health and life in a prominent place. With strategic planning made to "promote the building of a healthy China", the country has implemented the Outlines of the Healthy China 2030 Plan, and in keeping with the times proposed the health work guidelines for the new era. During the 13th Five-year Plan period, China's main national health indicators improved steadily, and the country ranked among top middle- and high-income countries. Its medical and health system withstood the test of COVID-19. At the same time, it actively engaged in international cooperation on health and provided assistance to international organizations and relevant countries and regions to the best of its capacity.

The health of women, children and other key populations has continued to improve, and the rights to health and life of the entire population have been fully protected. The supply of health services has increased and the project of guaranteeing maternal and child health services has been taken forward. The inpatient delivery rate stayed above 99%, and the maternal mortality rate decreased from 19.9 per 100,000 people in 2016 to 16.9 per 100,000 people in 2020. Neonatal health care has been improved and early childhood development promoted. China issued the *Healthy Children Action Plan (2018-2020)* and made free preconception checkups universally available in all counties (cities and districts), with an average coverage of 96.4% of the target population in 2020. To ensure the safety of newborns, a total of 3,070 care centers for critically ill newborns have been established nationwide, with full coverage at the provincial and prefecture levels and a coverage rate of 90.7% at the county level. With the promotion of neonatal resuscitation techniques, neonatal deaths nationwide due to asphyxia have been reduced by 75%. Immunization rates for the combined diphtheria-tetanus-acellular pertussis vaccine and the hepatitis B vaccine have maintained at over 90%. China has implemented a health management program for children between 0 and 6 years old. The national neonatal visit rate, the systematic management rate of children under 3, and the health management rate of children under 7 have increased respectively from 94.6%, 91.1%, and 92.4% in 2016 to 95.5%, 92.9%, and 94.3% in 2020. From 2016 to 2020, the under-five mortality rate was reduced from 10.2‰ to 7.5‰ and the infant mortality rate from 7.5‰ to 5.4‰, achieving the relevant sustainable development goals ahead of schedule. Average life expectancy increased from 76.34 years in 2015 to 77.3 years in 2019.

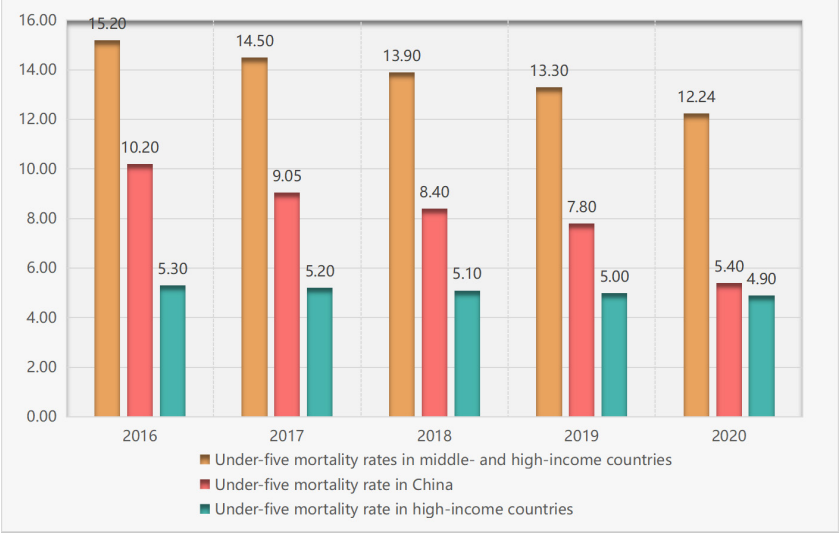


Figure 3-1 Under-five mortality rate (‰), 2016 to 2020

Source: National Bureau of Statistics, *China Health and Family Planning Statistics Bulletin,* 2016 to 2021.

China has deepened the reform of the medical and health system, with a full coverage of medical services and protection and a continuous decline in the burden of medical care for residents. Health equity and accessibility have continued to improve. There has been full coverage of medical service systems in urban and rural areas, with nearly 90% of the residents having access to the nearest medical point within 15 minutes. The capacity of primary-level medical and health services has continued to improve. Urban and rural residents' medical insurance systems have been integrated, and the participation rate has stayed above 95%. Three mechanisms, i.e. basic medical insurance, serious disease insurance, and medical assistance have been put in place to ensure basic medical needs are met. The excessive growth of medical costs has been effectively curbed, with the proportion of residents' personal health expenditure decreasing from 28.8% in 2016 to 27.7% in 2020, the lowest level in the past 20 years. A national drug catalog for basic medical insurance was developed and has since been under dynamic adjustment. Drugs included in the catalog are reimbursed according to the regulations. The catalog has a total of 2,800 types of Western and proprietary Chinese medicines, enough to meet the clinical needs for medicines. By the end of 2020, in the first three batches of state-organized procurement, the prices

of 112 types of drugs saw an average reduction of 54%.

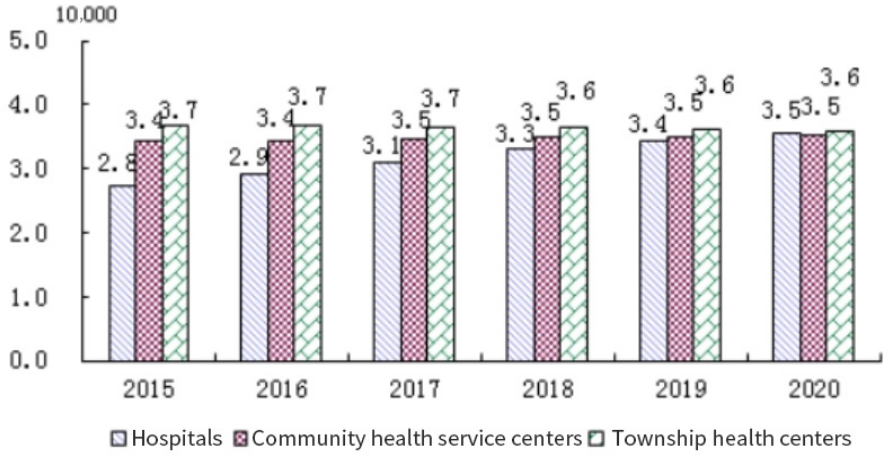


Figure 3-2 Growth in the number of medical institutions, 2015 to 2020

Source: *Statistical Bulletin on China's Health and Family Planning 2021.*

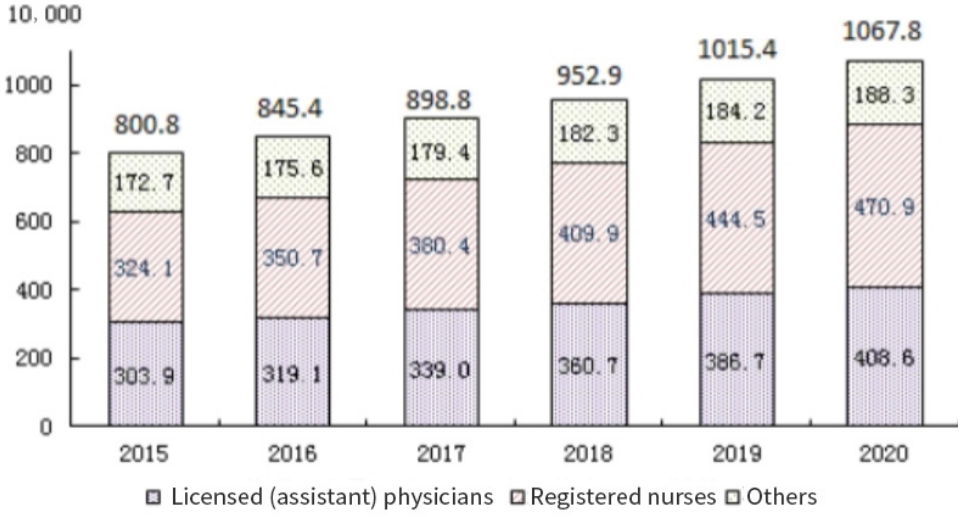


Figure 3-3 Growth in the number of medical workers, 2015 to 2020

Source: *Statistical Bulletin on China's Health Development 2020.*

China has focused on preventing the risks of major infectious diseases and building a strong public health system. First, the prevention and control of traditional infectious diseases have been strengthened in an all-round way. HIV/AIDS transmission through blood transfusion has been basically blocked, and transmission through intravenous drug

use and mother-to-child transmission have been effectively controlled. The rate of mother-to-child transmission of HIV/AIDS has dropped to 3.6%. The overall national epidemic continues to be controlled at a low epidemic level. The hepatitis B vaccination rate has remained above 90% for many years. The population infection rate for key parasitic diseases was successfully reduced to single-digit levels during every season of epidemics. **Second,** the whole country was mobilized to respond to COVID-19 and significant strategic results have been achieved in the prevention and control of the epidemic. China has struck a balance between the prevention and control of the epidemic and medical treatment. It has adopted the most comprehensive, stringent, and thorough prevention and control measures, implemented the largest ever isolation and quarantine measures, mobilized medical resources, and had not abandoned a single patient. It managed to stop the spread of COVID-19 in three months. To ensure that medical treatments are not impeded by fees and payments, relevant policies have been introduced in a timely manner, and the medical insurance authorities have allocated a special fund of about RMB19.4 billion to medical institutions designated for COVID-19 treatment. After regular prevention and control measures were put in place, emergency response to local outbreaks and regular prevention and control efforts have been carried out simultaneously, and the epidemic has been kept at a low level for a long time. China has actively promoted the development, production, and supply of the COVID-19 vaccines. As of August 1, 2021, 1.65 billion doses of the COVID vaccines were administered in China cumulatively.

The Healthy China initiative has been implemented in great depth to improve the capacity of all-round and whole-cycle health services. China has fully implemented the Healthy China initiative (2019-2030), and formulated the Medium-to-Long Term Plan for the Prevention and Treatment of Chronic Diseases (2017-2025), incorporating chronic disease management and health management for the elderly into national basic public health service programs. A total of 488 national

demonstration areas for the comprehensive prevention and control of chronic diseases have been established. An initiative to reduce dietary oil, salt and sugar intake, and ensure oral, body weight and bone health has been introduced to advocate a healthy lifestyle nationwide. Guidelines on diagnosis and treatment have been revised, and the use of narcotic and psychotropic drugs regulated. *China's Guidance on Strengthening Mental Health Services* was released at the end of 2016, and pilot programs of the psycho-social service system were launched in 2019. A program on the early diagnosis and treatment of cancer has been implemented. 138 types of anti-cancer drugs have been included in the medical insurance reimbursement catalog. Nearly 9 million people at high risk of cardiovascular and cerebrovascular diseases were screened, and more than 1.85 million interventions were made. The premature mortality rate of major chronic diseases was reduced by 13.5% compared to 2015.

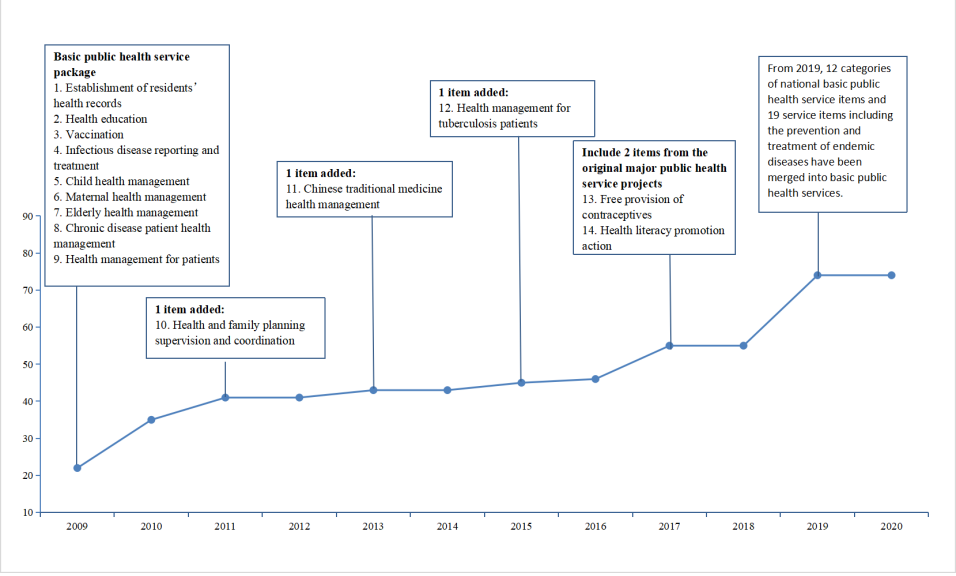


Figure 3-4 Changes of basic public health service programs from 2009 to 2020

China has controlled social influence factors on health to create a healthy production and living environment. China has improved the responsibility system for road traffic safety, strengthened air and soil pollution prevention and control, and promoted the implementation of the tobacco control convention. In 2020, road traffic fatalities decreased

by 13.98% compared to 2018. Programs to monitor urban and rural drinking water quality have covered all counties and townships, while those monitoring the impact of air pollution on population health have covered 164 monitoring sites in 84 cities in all provinces. China has been implementing the *WHO Framework Convention on Tobacco Control.* China issued the Guiding Opinions of *the National Health Commission on Strengthening the Technical Support System for Occupational Disease Prevention and Control.* By the end of the 13th Five-year Plan, there were 589 occupational disease diagnosis institutions and 4,520 occupational health inspection institutions nationwide.

China has been pushing for a global community of health for all through inclusiveness and openness. In the face of the global challenge of COVID-19, President Xi Jinping proposed the concept of building a global community of health for all, with plans to support the global fight against COVID-19 through a series of major initiatives, including providing USD3 billion in international assistance over the next three years, working with the United Nations to set up a global humanitarian response depot and hub in China, establishing cooperation mechanisms for 30 China-Africa paired-up hospitals, and making Chinese COVID-19 vaccines a global public good once they are developed and put into use. China has donated USD50 million to the WHO to help developing countries improve their capacity for pandemic response. It has fulfilled its commitment to making vaccines a public good, pledged to donate USD100 million to COVAX, and supplied two billion doses of COVID-19 vaccines globally, actively promoting the equitable distribution of vaccines worldwide. China has shared its experience with 180 countries and more than 10 international and regional organizations, sent teams of medical experts to more than 30 countries, assisted more than 150 countries and four international organizations to combat the pandemic, and supplied and exported anti-epidemic materials to more than 200 countries and regions.

II. Basic experience

First, creating synergy between advancing the Healthy China initiative and implementing the 2030 Agenda for Sustainable Development. China is committed to ensuring its people's rights to life and health to the greatest extent possible, and has made the continuous improvement of national health and well-being a fundamental goal of its policy formulation. The Outlines of the Healthy China 2030 Plan and related health policies have incorporated relevant health and well-being indicators of the 2030 Agenda into specific policies. Each policy has a guideline and implementation rules to ensure that the policy ideas are put into practice.

Second, continuously improving the equity and accessibility of basic health services with an inclusive policy orientation. China has always provided public health services and basic medical and health services to all people as public goods. China incorporated 12 types of national basic public health services and 19 services including the prevention and treatment of endemic diseases into basic public health services, which are provided to all urban and rural residents free of charge. Per capita fiscal subsidies for basic public health services reached RMB79. These have played an important role in improving the health literacy and health level of the nation. The public hospital-based health care service system and the multi-level basic medical insurance system covering the whole population have effectively promoted the accessibility of basic medical services.

Third, being committed to a scientific health improvement strategy and integrating health into all policies. China is committed to improving the social determinants of health. To implement the *Outlines of the Healthy China 2030 Plan and the Opinions on Implementing the Healthy China Action,* China has established the Healthy China Promotion Committee at the national level to coordinate the work of various central government ministries. In practice, a single policy or action plan is often

jointly promoted by multiple ministries.

III. Future work

China is still faced with serious challenges in balancing epidemic prevention and control and economic and social development. Its health system is still under unprecedented pressure, with much room for improvement when it comes to the equity and accessibility of basic health services. China will continue with its efforts to improve national health and well-being.

First, strengthening the bottom-line thinking and accelerating the construction of a strong public health system. China will ensure the implementation of regular COVID-19 prevention and control measures. It will strengthen the monitoring, early warning and response to public health emergencies, innovate the synergetic mechanism of medical treatment and disease prevention, and continuously improve the professional capacity for disease prevention and control. It will strengthen the major epidemic treatment system and build a strong public health protection network.

Second, comprehensively improving the quality of medical and health service supply, chiefly on a non-profit basis. To balance regional distribution of medical resources, China will focus on promoting the high-quality development of public hospitals, and facilitate the sharing of high-quality medical resources through medical consortia. It will accelerate scientific and technological innovation and talent training, vigorously promote core technology research in the prevention and control of infectious diseases and the development of new drugs and step up the training of general practitioners in multiple ways. China will stick to putting equal emphasis on Chinese and Western medicine and give full

play to the role of the market in meeting people's needs for non-basic medical services.

Third, deepening the implementation of the Healthy China initiative, with a focus on controlling the main risk factors affecting the health of the people. China will strengthen the comprehensive prevention and control of major infectious diseases, endemic diseases, and chronic diseases, conduct monitoring and intervention for obesity, poor eyesight, and other key childhood diseases, carry out special projects to address key occupational hazards, and effectively mitigate the risks of major diseases on people's health. It will continuously improve the environmental and social factors that affect health, and integrate health into all policies.

Fourth, actively carrying out international cooperation and jointly building a global community of health for all. China will strengthen international cooperation in health, both multilaterally and bilaterally, and support the WHO's leadership role in the global fight against the pandemic. It will strengthen international monitoring and early warning, information sharing and technical cooperation regarding infectious disease risks, and jointly promote the global development, production, and distribution of COVID-19 vaccines. It will engage deeper in the development of relevant international standards, norms, and guidelines, and innovate health assistance mechanisms and cooperation models.

SDG 4 Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

I. Implementation progress

China adheres to the basic strategy of "prioritizing education development" and continues to increase its fiscal investment to make education more inclusive, equitable and high-quality. Between 2016 and 2020, new progress was made in education development at all levels and of all types, with greater equity and better quality achieved. The landscape of education has been undergoing substantial transformation.

China has been steadily promoting the integration of urban and rural compulsory education and has embarked on the stage of quality and balanced development of compulsory education. From 2016 to 2020, the central government invested more than RMB600 billion in urban and rural compulsory education guarantee funds, including RMB137.1 billion in 2020. In 2019 and 2020, the central government invested RMB29.5

billion each year to support local efforts to improve the weak links and enhance capacity in compulsory education. By the end of 2020, a total of 2,809 counties (cities and districts) nationwide had achieved basic balance in developing compulsory education, accounting for 96.76%. A nutrition improvement program for rural students receiving compulsory education has been implemented. From 2016 to 2020, the central government arranged a cumulative total of RMB103 billion in meal subsidy funds for the nutrition improvement program. In 2020, nearly 38 million students nationwide benefited from the subsidies. From 2016 to 2020, the gross (net) enrollment rate[8] in basic education remained high and increased steadily (Figure 4-1); in 2020, the completion rate of nine-year compulsory education reached 95.2%.

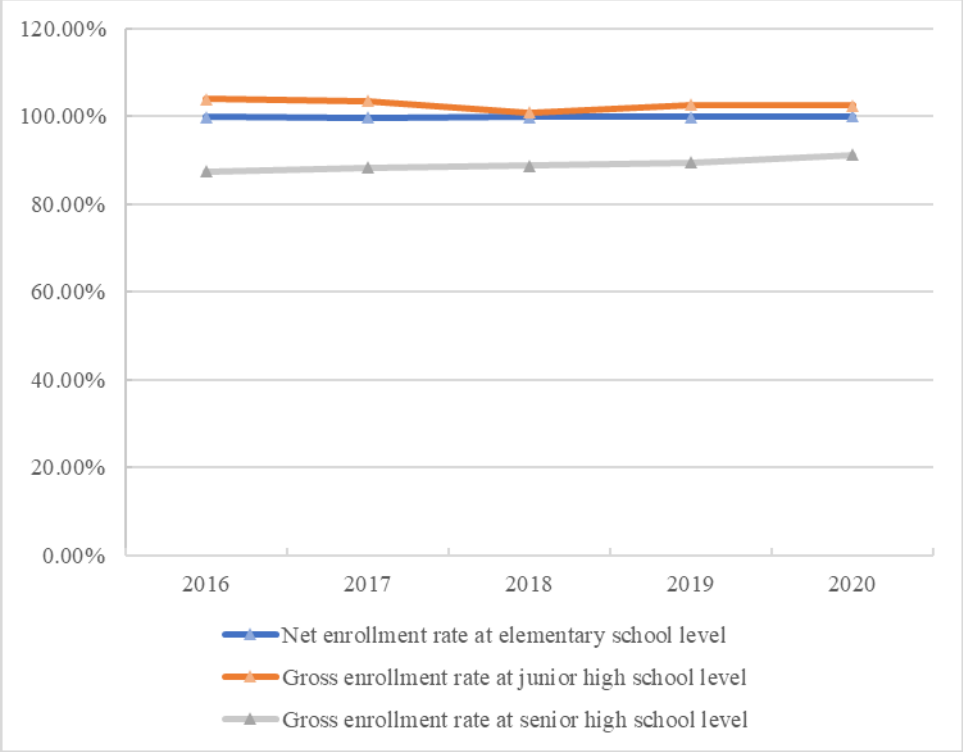


Figure 4-1 Gross (net) enrollment rates at the elementary, junior high and senior high school levels (2016 to 2020)

8 The gross enrollment rate is the total number of students enrolled in school at a given level of education regardless of age as a percentage of the population in the nationally defined age group for that level of education; the gross enrollment rate may exceed 100% due to the inclusion of students in informal age groups (under- or over-age). The net enrollment rate is the number of school-age students enrolled at a given level of education as a percentage of the population in the nationally defined age group for that level of education (calculated separately for each locality for different ages of enrollment and school systems).

Committed making education non-profit and inclusive, China has been expanding the coverage of preschool education resources. Since 2010, Chinese government has introduced a series of policies and measures to deploy the continuous preparation and implementation of Preschool Education Action Plans on a county-by-county basis. The central government arranged preschool education development funds, investing more than RMB80 billion from 2016 to 2020. In 2020, there were 234,100 inclusive kindergartens[9], accounting for 80.24% of kindergartens nationwide, and 40,828,300 children in inclusive kindergartens, accounting for 84.74% of children in kindergartens nationwide. The gross enrollment rate of preschool education steadily increased from 77.40% in 2016 to 85.20% in 2020 (Figure 4-2). Using the 2018 data as a reference, China's overall preschool participation level is well above the world average and close to the average of high-income countries (Figure 4-3).

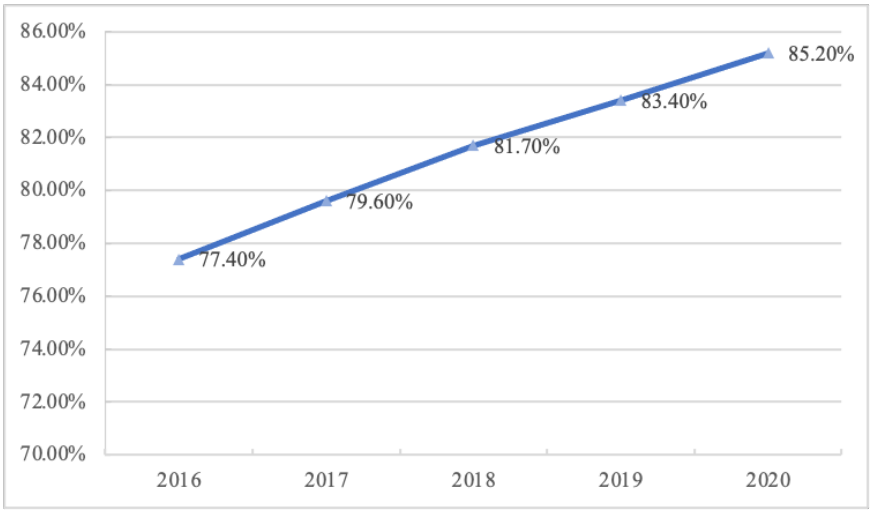


Figure 4-2 Gross preschool enrollment rate (2016 to 2020)

9 Inclusive kindergartens are kindergartens that charge nursery and accommodation fees at government-guided prices, including kindergartens of a public nature organized by the education department and other departments, as well as inclusive private kindergartens.

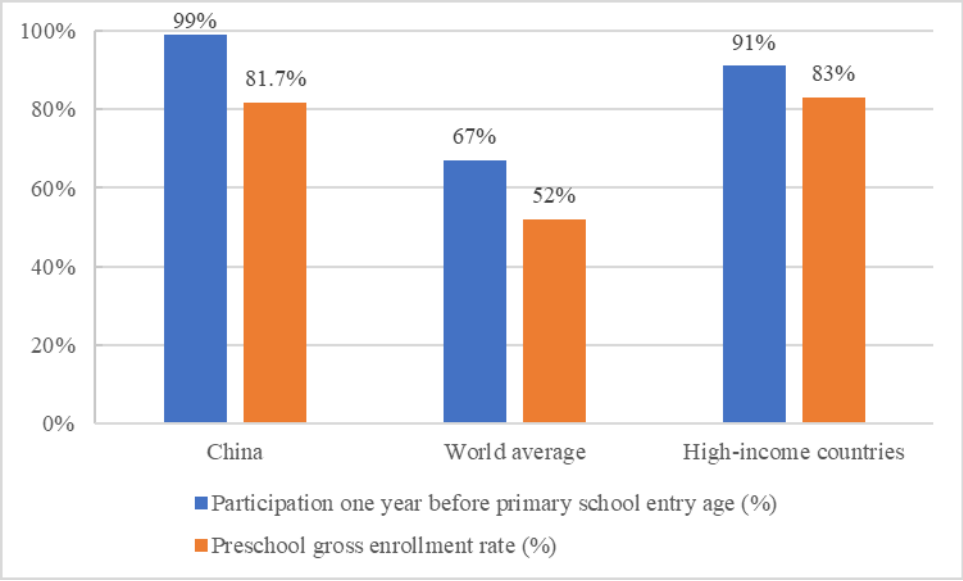


Figure 4-3 International comparison of preschool participation (2018)

Source: Chinese data for "Participation one year before primary school entry age" is substituted by "proportion of students with preschool education in elementary school enrollment" from Education Development Statistics; international data are from UNESCO's *Global Education Monitoring Report 2020.*

China has stepped up the effort to universalize upper secondary education, with rapidly increasing access to vocational and higher education. China has implemented the plan to tackle the universalization of upper secondary education, focusing on supporting poor areas in central and western China to expand education resources and improve school conditions. The gross enrollment rate at the upper secondary level increased by 3.7 percentage points from 2016 to 2020, achieving the goal of exceeding 90%. The country has built the world's largest vocational education system. In 2020, China had 11,300 vocational colleges and universities, offering about 100,000 academic programs covering basically all fields of the national economy. The gross enrollment rate of higher education increased from 42.70% in 2016 to 54.40% in 2020, achieving a leap from mass to universal higher education (Figure 4-4). The average years of education for the working-age population increased from 10.23 years in 2015 to 10.8 years in 2020, and the average years of education for the new working-age population has reached 13.8 years, meaning that they have already entered the higher education stage.

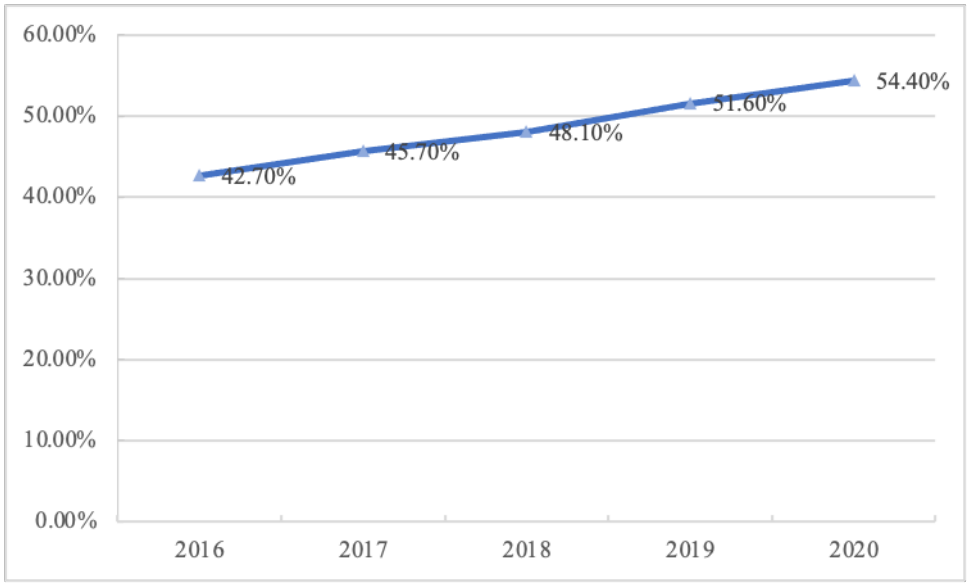


Figure 4-4 Gross enrollment rate in higher education (2016 to 2020)

China has strengthened policy preferences and financial support, with the right to education of various special and disadvantaged groups effectively guaranteed. Through such ways as poor student registration, education subsidies, collaboration between the eastern and western regions, targeted enrollment and skills training, the poor are guaranteed access to all levels and types of education. To ensure the right to education for people with disabilities, the second phase of the Special Educational Enhancement Program was fully completed from 2017 to 2020. By the end of 2020, the enrollment rate of children with disabilities in compulsory education exceeded 95%; a total of 880,800 special education students had been enrolled, 388,800 more than in 2016. Every year, more than 80,000 students from poor ethnic areas are admitted to study in the inland regions to enjoy the quality education resources. China has placed emphasis on the right to education for children of migrant workers in cities. In 2020, the number of children at compulsory education stage who migrated with their parents reached 14.297 million, of whom 85.8% were enrolled in public schools or enjoyed the government-purchased education services.

China has optimized the learning environment at the basic education level, with leapfrog development in education information infrastructure. Schools at the basic education level are well-equipped with basic facilities. In 2020, 99.2% of schools at the basic education level were equipped with basic public health facilities. The informatization level of education has been rapidly improving. During the COVID-19 epidemic, the high level of education informatization ensured that "classes were suspended but learning continued"; moreover, the level of education informatization was further improved nationwide, especially in the central and western regions during this period. By the end of 2020, the national Internet access rate for elementary and secondary schools (including teaching points) had risen to 100% from 69.3% in 2015, and 98.35% of elementary and secondary schools had multimedia classrooms. The national public service platform for digital education resources has been connected with 212 platforms at all levels, including all the 32 provincial platforms. More than 14 million elementary and secondary school teachers have uploaded high-quality courses to the platform, effectively promoting the joint development and sharing of high-quality education resources.

China has been continuously promoting international exchange and cooperation in education and helping other countries achieve their education development goals. By the end of 2020, China had established an all-round, multi-level and broad educational exchanges and cooperation network, signed mutual recognition agreements of higher education degrees with 55 countries, and 75 countries around the world had incorporated Chinese language into their national curriculums. From 2016 to 2019, about 54.7% of the international students studying in China were from countries along the Belt and Road. From 2017 to 2019, Chinese universities implemented many education assistance projects in the countries along the Belt and Road and trained many vocational and technical talents for these BRI countries.

II. Basic experience

First, upholding the strategy of prioritizing education and increasing investment of public resources. China has taken education as a priority in its efforts to advance various national undertakings and highlighted the fundamental and overall status of education. It has prioritized education development in economic and social development planning and given priority to education when it comes to government investment and to human resource development when it comes to the need for public resource allocation. From 2016 to 2020, China upheld the "one guarantee, two ensures" requirement[10], and saw total investment in education increase year by year, with the proportion of the country's fiscal expenditure on education to GDP maintained at above 4%.

Second, optimizing the overall education plan to meet the demand for developing talents. The Chinese government leads the development of education and adjusts its plan according to sci-tech frontiers, major economic and national needs, and people's wellbeing. China encourages and supports higher education institutions to adjust their academic program settings and arrangement of disciplines to meet the needs of regional economic, social and industrial development. China has been vigorously developing vocational education and professional skills training, delivering many high-quality application-oriented and skill-oriented talents for economic and social development.

Third, deepening education reform and innovation to respond to the concerns of the people. Focusing on the outstanding education issues of people's concern, China has been making bold explorations and innovation. It has focused on education equity and introduced a series

10 The "one guarantee, two ensures" requirement refers to guaranteeing that the proportion of fiscal expenditure on education to the GDP is generally not less than 4%, to ensuring that the general public budget expenditure on education will only increase, not decrease year by year, and to ensuring that the general public budget expenditure on education based on the average number of students in school will only increase, not decrease year by year.

of preferential policies for poor areas and disadvantaged groups, so that the fruits of education development can benefit all people more and in a more equitable manner. At the same time, it has focused on education quality, deepened comprehensive education reform, accelerated education modernization, and strived to make sure that people are satisfied with education.

III. Future work

As the new round of technological revolution and industrial transformation continues to deepen, China's education system is facing a huge demand for high-level innovative talents. At the same time, the achievements of developing balanced compulsory education still need to be consolidated, and there is still much room for improvement in terms of the inclusive development of preschool education. China will pursue the overall goal of building a high-quality education system and endeavor to fully achieve the development goals of the 14th Five-year Plan. By 2025, the gross enrollment rate of preschool education will rise to over 90%, the gross enrollment rate of senior high school education will rise to over 92%, the gross enrollment rate of higher education will rise to 60%, and the average number of years of education for the working-age population will increase to 11.3 years.

First, promoting the quality and balanced development of basic public education. China will further improve the long-term mechanism that ensures compulsory education, consolidate the results of controlling school dropouts, expeditiously make up for the inadequacies of schooling in rural areas, especially basic infrastructure for online education, and further promote the quality and balanced development of compulsory education and urban-rural integration.

Second, expanding inclusive preschool education resources through multiple channels. China will launch the implementation of the fourth Preschool Education Action Plan, vigorously develop public kindergartens, actively support private kindergartens to provide inclusive services, increase the supply of preschool education resources in rural areas, remote and poor areas and urban areas where newly increased population is concentrated.

Third, comprehensively strengthening the construction of county high schools. China will implement the County High Schools Development and Upgrading Plan, increase investment, fill the gaps in teaching conditions and improve education quality of county high schools. China will also promote the coordinated development of the county and urban high schools, further narrowing the gap between urban and rural education.

Fourth, enhancing the adaptability of vocational and technical education. China will implement the *Vocational Education Quality Improvement Action Plan (2020-2023)* and implement the National Vocational Education Reform Implementation Plan in an all-round way.

Fifth, promoting the innovative development of higher education. China will improve the training of quality talent in short supply, optimize the structure of university disciplines, increase the supply of high-quality resources for higher education, promote the construction of Double First-Class[11], and improve the employment support system for university graduates.

Sixth, accelerating the high-quality development of education informatization. China will actively develop "Internet+ education" and implement thoroughly the Education Information 2.0 Action Plan.

11 Double First-Class refers to first-class universities and disciplines of the world.

Seventh, promoting high-level education opening up. China will further implement the BRI Education Initiative, build global education partnerships and deepen exchanges in the field of education with other countries. China will encourage colleges and universities to cooperate with enterprises to establish schools abroad, build high-quality Luban Workshops, and cultivate talents for vocational education through multiple channels. China will strengthen the brand of "Studying in China" and increase the competitiveness and attractiveness as a study destination for overseas students. China will actively participate in global education governance, share the ideas, concepts and experience of China's education modernization and contribute to global poverty reduction through education. China will continue to support international education awards.

SDG 5 Achieve gender equality and empower all women and girls

I. Implementation progress

The CPC takes "adhering to the basic state policy of gender equality and protecting the legal rights of women and children" as an important part of its ruling program and governing philosophy. The Chinese government attaches great importance to promoting gender equality and the all-round development of women. Protecting the rights of women and children has been incorporated into the overall national development plans, laws and regulations. Women's rights in political, economic, cultural and social fields are under effective protection. Good progress has been made in international exchanges and cooperation in this area.

Improving the legal system and policy system for gender equality and women's all-round development. A legal system for women's rights and interests has taken shape, a system based on the Constitution, centered the *Law on the Protection of Women's Rights and Interests*, and supplemented by more than 100 laws and regulations. China revised and improved

the *Law on the Protection of Minors*. The *Outline for the Development of Chinese Women (2011-2020)* was fully implemented. In 2020, the State Council Working Committee on Women and Children issued the *Opinions on Establishing and Improving the Mechanism for Evaluating Gender Equality in Regulations and Policies*. By the end of 2020, 31 provinces (autonomous regions and municipalities) had established such mechanisms. Seventeen provinces (autonomous regions and municipalities) had launched education on gender equality in primary and secondary schools.

Improving the assistance and aid system to protect women's personal rights as well as marital and family rights. Since the *Anti-Domestic Violence Law* entered into force in 2016, central government departments and various provinces have issued more than 60 judicial interpretations, regulations and policy documents to deter anti-domestic violence. Women's federations at all levels have carried out more than 270,000 law-promotion activities against domestic violence, involving nearly 50 million women, leading to the decline in the number of complaints of domestic violence. The *Civil Code* adopted in 2020 offers explicit protection of women's family property and other rights and interests. In China's response to COVID-19 in 2020, local authorities issued guidelines to protect women's legitimate rights and interests, and the whole society worked together to protect physical health rights of female health-care workers on the front-line.

Expanding the channels for women's political participation and safeguarding their political rights. The proportion of female deputies to the National People's Congress (NPC) and female members of the National Committee of the Chinese People's Political Consultative Conference (CPPCC) keeps rising. The percentage of the 13th NPC female deputies reaches 24.9%, 1.5 percentage points higher than that of the previous one; and the share of female members of the 13th CPPCC National Committee stands at 20.4%, 2.6 percentage points

higher than that of the previous one. A growing number of women have participated in legislative decision-making as well as decision-making and management in government agencies. In 2019, more than half of new civil servants in central government departments and their directly affiliated agencies were women, and more than 40% of new civil servants in local governments were women. Women's participation in democratic governance at the grassroots level has become more extensive. As of 2019, women accounted for 50.9% and 23.8% of community neighborhood committees and village committees respectively, and about 39.7% of neighborhood committee directors nationwide. Article 7 of the *Election Law of the People's Republic of China*, revised in 2020, makes clear that the proportion of female representatives shall be gradually increased. Many places issued regulations to set specific targets of women's political participation. They tapped outstanding female talents in public organizations such as state-owned enterprises, universities and research institutes, while placing emphasis on education and training for female officials to enhance their professional capacity.

Implementing the Healthy China Initiative and protecting women's health rights. Documents such as the *Outlines of the Healthy China 2030 Plan* provided policy support for improving maternal and child health. The screening rate for common diseases among women increased significantly to 86.6% in 2020, up 22.2 percentage points from 2016 (Figure 5-1). From 2016 to 2019, 63.16 million rural women received free cervical cancer screening and 40 million rural women received free breast cancer screening. By the end of 2019, such screening programs on the two cancers for rural women had covered more than 90% of counties (cities and districts) nationwide. In 2020, the national maternal mortality rate stood at 16.9 per 100,000, down three points per 100,000 from 2016 (Figure 5-2), well below the median level of the upper-middle-income countries. In 2020, the number of women covered by basic medical insurance nationwide stood at about 650 million. The number of women participating in maternity insurance reached 102.98 million, an increase

of 22.78 million from 2016. In 2019, the number of women covered by unemployment insurance and work injury insurance reached 86.77 million and 96.84 million respectively, an increase of 11.26 million and 15.55 million compared with 2016.

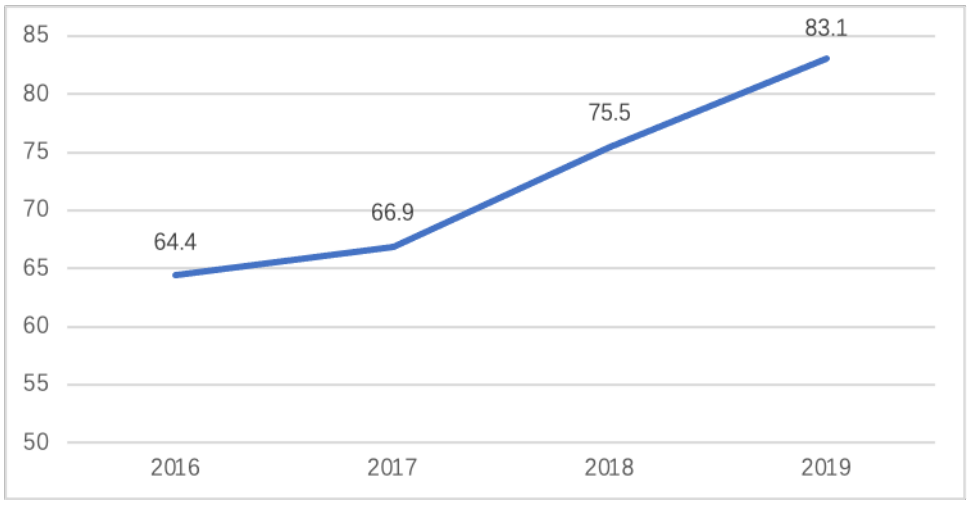


Figure 5-1 Screening rate for common diseases among women (%)

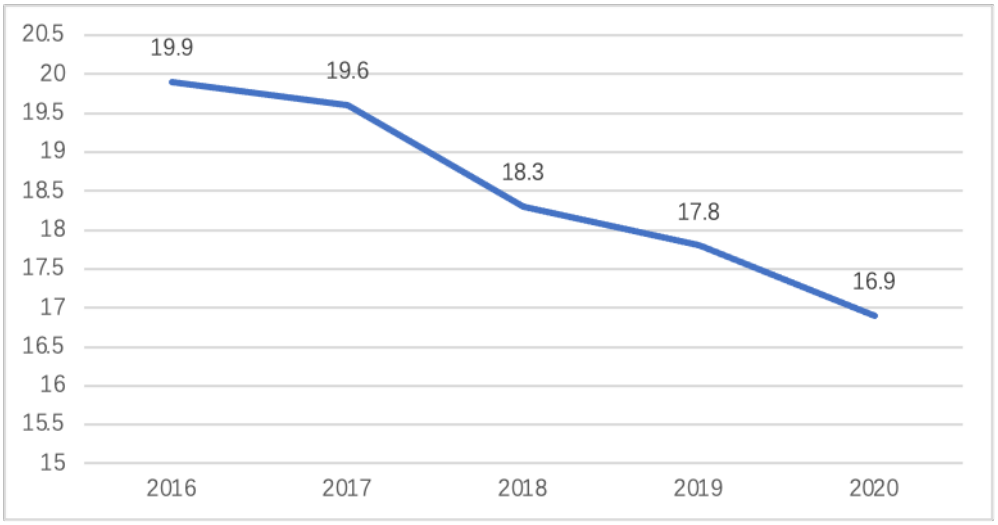


Figure 5-2 National maternal mortality rate (per 100,000 people)

Promoting women's equal access to employment and protecting their economic rights. The number of employed women kept growing. The proportion of females employed in total workforce was 43.2% in 2019, up 0.1% from 2016; females hired by urban non-private employers totaled

66.842 million, 1.57 million more than in 2015. China is committed to labor safety of female workers. In 2019, nearly 69.6% of enterprises implemented the *Special Provisions on Labor Protection for Female Workers*. The year 2018 saw the revision of the Law on the Contracting of Rural Land, which stipulates that family members in farm households enjoy all rights and interests of land contracting equally in accordance with the law, ensuring that rural women enjoy the same management right in land contracting. The number of complaints on women's land rights and interests decreased year by year. Gender digital divide narrowed, with female Internet users accounting for 49% of the total, according to China Internet Network Information Center.

Conducting women's international exchanges and cooperation to promote global development of women. Friendly exchanges were conducted with 145 countries, 429 women's organizations, as well as with relevant UN organizations and specialized agencies. From 2015 to 2020, China helped fellow developing countries implement 100 maternal and child health projects, invited more than 30,000 women to China for training, and trained 100,000 local female professionals and technicians. It set up training (exchange) centers for Chinese and foreign women in 13 countries and organized workshops for female officials from the Lancang-Mekong River Basin and Latin American countries. Since 2015, the All-China Women's Federation has trained more than 2,000 female officials from 98 developing countries. China has actively participated in relevant international affairs and global governance. China has participated in exchanges with relevant UN agencies, shared China's experience, and actively carried out cooperation on women's development, rights protection, and children's development. To promote global gender equality and women's empowerment, China has been deeply involved in women's exchanges within the frameworks of APEC, G20, BRICS, Shanghai Cooperation Organization, CHINA-ASEAN and China-Arab States Cooperation Forum, etc. As of October 2018, there were 2,065 female Chinese diplomats, accounting for 33.1% of China's foreign

services, including 14 female ambassadors, 21 female consuls-general, and 326 female counsellors at or above the director level.

II. Basic experience

First, China is always highly committed to promoting gender equality and women's development. It put the cause of women high in the broader agenda of reform, opening up and modernization. It made a series of top-down designs, institutions and decisions in light of its basic national and women's conditions.

Second, China improved the working mechanism of NPC legislation to protect women's rights and interests and CPPCC consultation to push for their development. The legitimate rights and interests of women and girls are under concrete and effective protection at the political and legal levels.

Third, China has put in place a sound organizational structure for the government to implement the basic state policy of gender equality. In 1990, China established the Coordination Committee for the Work of Children and Women of the State Council, specifically responsible for organizing, coordinating, guiding and supervising relevant departments in safeguarding women's rights and interests as well as promoting gender equality and women's development.

Fourth, China strengthened the role of women's federations as a bridge between the CPC and the government and women. An organizational system was established, consisting of women's federations at six levels—national, provincial (regional and municipal), city (prefectural), county (city and district), township (sub-district) and village (community), women's committees or women's working committees

in government departments and public organizations, and institutional members.

III. Future work

Gender equality still faces challenges in practice, as more should be done in women's employment, women and girls' education and health, and protection of their rights and interests. China will remain firmly committed to the basic state policy of gender equality, do a good job for women, and promote their all-around development.

First, China will improve the laws and policies to optimize underlying institutions for gender equality. It will revise the *Law on the Protection of Rights and Interests of Women* and formulate *Program for the Development of Chinese Women (2021-2030)*, and promote the elimination of prejudice, discrimination and violence against women, so that gender equality can truly become a code of conduct and value standard followed by everyone.

Second, China will protect the rights and interests of women and girls in accordance with the law, and care for women and girls in need. It will put the protection of women and girls' rights and interests high in the agenda of promoting public health and reopening the economy, and crack down on violations of women's rights and interests. It will step up social services and give priority to special groups such as pregnant women, new mothers and girls, especially low-income women, elderly women, and women with disabilities. It will offer more special labor protection for female workers during pregnancy, childbirth, and breastfeeding. It will improve infrastructure for women and girls' health services, and further close the gender digital divide.

Third, China will strengthen international exchange and cooperation in the field of women, and press ahead with women's development assistance projects. It will fully implement the *Beijing Declaration* and *Platform for Action* adopted at the Fourth Conference on Women in 1995. We will support the United Nations in giving priority to women's work and promote gender equality as an important issue in multilateral and bilateral exchange mechanisms. It will improve mechanisms for women-to-women exchanges and promote sustained international cooperation in women's health, education, economic development, poverty reduction, the environment and other areas. It will step up exchanges and cooperation with women and women's organizations in other countries, especially in other developing countries.

SDG 6 Ensure availability and sustainable management of water and sanitation for all

I. Implementation progress

The Chinese government is committed to Xi Jinping Thought on Ecological Civilization and the principles of "prioritizing water conservation and promoting spatial balance, systematic management and dual efforts". It worked hard to conserve, protect and administer water resources and notably improved urban and rural water supply and sanitation conditions, leading to a significant increase in people's sense of happiness and making major contribution to the comprehensive green transformation of economic and social development.

Adopting a host of measures to enhance water supply

capacity to ensure water security in urban and rural areas. First, China built major water supply projects to keep improving distribution of water resources. It constructed projects to divert water from the Yellow River to Baiyangdian Lake in Hebei and from the Niulan River to Dianchi Lake in Yunnan, and these projects work well. It started the projects to divert water to Dianzhong area, from the Yangtze River to the Huaihe River, and in the Pearl River Delta. China treated overuse of groundwater in a systematic way, leading to the recovery of underground water level in some areas. Capacity was further improved for ensuring water security in priority areas. **Second,** China stepped up the building of urban water supply facilities to support urbanization and economic and social development. By the end of 2020, the comprehensive production capacity of urban water supply reached 320 million cubic meters per day, and the length of water supply pipes totaled 1,007,000 kilometers, an increase of 8.1% and 41.8% respectively compared with those in 2015. Urban water supply meets the needs of 530 million people, an increase of 18.0% over 2015. Urban water supply coverage reached 99.0%. **Third,** China carried out the rural project to consolidate and enhance water safety. The centralized water supply rate in rural areas reached 88%, and the tap water penetration rate reached 83%. Water safety for poverty-stricken population was resolved in a comprehensive way, and water security was ensured and further improved for 270 million rural residents. **Fourth,** China launched a special nationwide initiative to protect the environment of water sources of centralized drinking water supply. It cleaned up the environment of water sources at county or above levels across the country, enhancing water safety for 770 million residents.

Sewage treatment capacity further enhanced, and water and environmental sanitation further improved. First, China built more urban sewage treatment facilities. It implemented the 13th Five-year Plan on building urban sewage treatment and recycling facilities all over the country, and promulgated revised standards, which put the building of such facilities on a scientific and standardized basis. China

has carried out the Three-Year Action Plan to Enhance Effectiveness and Efficiency in Urban Sewage Treatment (2019-2021) to close the gaps in domestic sewage collection and treatment facilities. By the end of 2020, the national urban sewage treatment capacity reached 190 million cubic meters per day, an increase of 37.2% over 2015, and the sewage networks totaled 468,000 kilometers, an increase of 40.1% over 2015 (Figure 6-1). **Second,** China treated black and odorous water bodies in urban areas. An implementation plan was issued and, by the end of 2020, 98.2% of such water bodies in cities at prefectural level or above had been cleaned up. **Third,** China further treated rural living environment. A three-year action plan was launched, focused on "toilet revolution" and sewage treatment. Thanks to concrete steps in the "toilet revolution", the national penetration rate of sanitary toilets in rural areas jumped from 35.3% in 2017 to more than 68% in 2020, with toilets renovated in more than 40 million rural households. China pressed ahead with treatment of rural domestic sewage according to local conditions, and guided local authorities in formulating and revising standards of rural domestic sewage treatment and discharge, formulating county-level special plans on rural domestic sewage, and scientifically forming the sewage treatment model suited for rural areas. It promulgated national standards on rural domestic sewage treatment technology and revised technical standards on drainage engineering technology in towns (townships) and villages. 120 model counties (cities, districts) in two batches were awarded for treating rural domestic sewage. The investigation of the status quo of black and odorous water bodies in rural areas has been completed, and pilot work of water governance has been promoted.

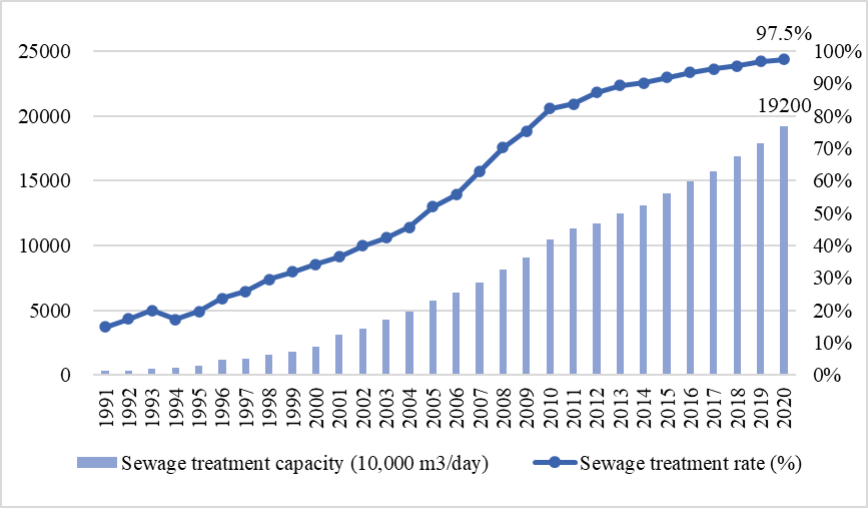


Figure 6-1 Daily urban sewage and treatment rate

Source: *China Urban Construction Statistical Yearbook.*

Deeply implementing the national water conservation initiative, and significantly enhancing the national water efficiency. First, China kept improving its top-down design of water conservation actions. In the 13th Five-year Plan period, China issued the *National Water Conservation Action Plan,* the *13th Five-year Plan for Building a Water-Saving Society,* and the *National Water Conservation Action Program.* **Second,** China pressed ahead with loss reduction in water conservation in urban areas. One hundred and thirty cities became National Water-saving Cities, exerting a pulling effect on water conservation in other Chinese cities. From 2016 to 2020, about 5 billion cubic meters of water was saved in Chinese cities every year, equivalent to 10% of the total annual water supply of cities. China promoted the use of non-conventional water sources, and the national utilization rate of recycled water in urban areas reached 24.7% in 2020. **Third,** China enhanced efficiency in agricultural water conservation. It deepened the comprehensive reform of agricultural water prices, and actively developed water-saving agriculture, and built and renovated water-saving facilities. By the end of 2020, water-saving irrigation areas had reached 567 million *mu*, including 350 million *mu* with efficient water-saving irrigation such as sprinkling irrigation, micro-irrigation and pipeline irrigation (Figure 6-2). In 2020, the effective

utilization coefficient of agricultural irrigation water stood at 0.565. **Fourth,** China promoted water conservation in industry. It improved the distribution, structural adjustment and process transformation of high water-consuming industries, and built water-saving industrial parks and enterprises. In 2020, at comparable prices, water consumption of 10,000 yuan of industrial added value dropped by 39.6% compared with 2015.

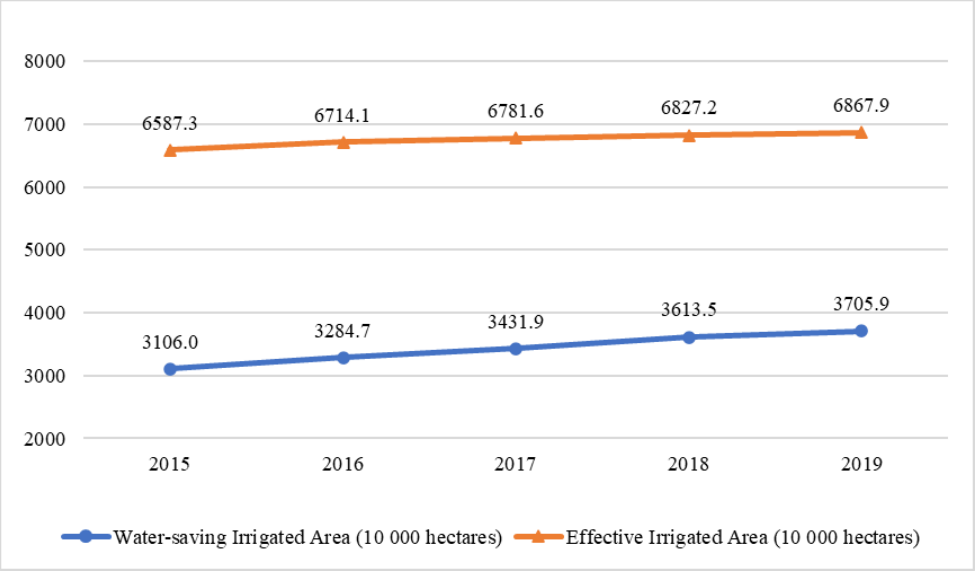


Figure 6-2 Changes of irrigated area and irrigation utilization rate in China

Source: *China Statistical Yearbook.*

Protecting and restoring watershed water ecosystems, focusing on eco-environmental protection in the Yangtze River and Yellow River basins. All stakeholders worked together in large-scale protection of the Yangtze River economic belt and refrained from large-scale development, and promoted ecological protection and high-quality development in the Yellow River basin. By the end of 2020, we had investigated all the sewage draining exits to the Yangtze River and launched the pilot initiative to investigate and rectify such exits in the Yellow River basin. We eliminated the V category—the worst category in sections directly regulated by the central government in our initiative to address the worst polluted sea-bound rivers in the Yangtze River basin, and brought the whole main stream of the Yangtze River to Class II and above water

quality. In 2020, the proportion of good surface water quality (I-III) sections nationwide stood at 83.4%, 17.4 percentage points higher than that in 2015 when the *Water Pollution Prevention and Control Action Plan* was issued (Figure 6-3).

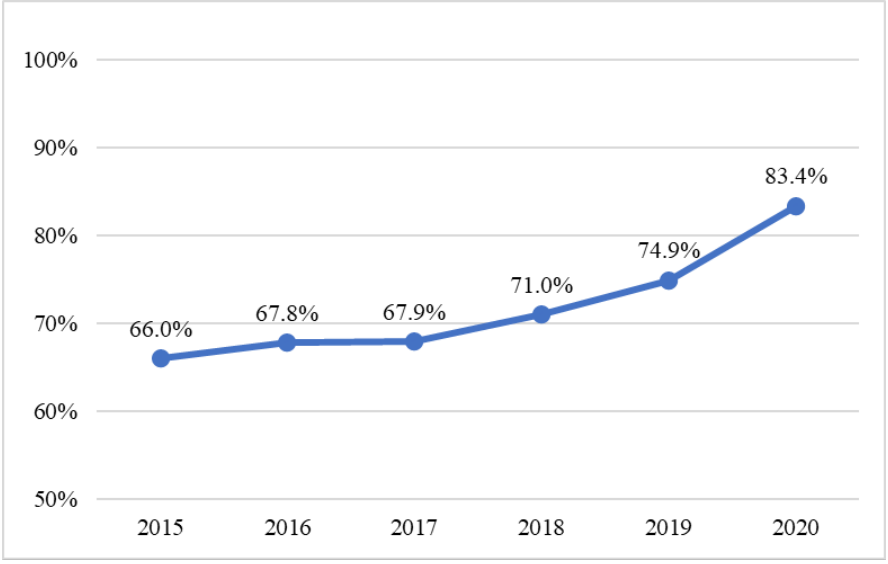


Figure 6-3 Proportion of good surface water quality (I-III) sections in China

Conducting international cooperation on water and sanitation and promoting global water-related goals. First, China renewed the agreement on the UNESCO Intergovernmental Hydrological Program (IHP) category II center, participated in important UN water-related conferences such as the high-level meeting in Dushanbe, improved and updated China-related information in the AQUASTAT database, and provided information to UNESCO and the Economic Commission for Europe on SDG transboundary water cooperation indicators (SDG 6.5.2). **Second,** China actively participated in global water governance. By the end of 2020, it had signed a total of 72 bilateral cooperation agreements with 57 countries, 8 multilateral cooperation agreements with 6 international organizations and related countries, and established 34 regular multilateral and bilateral exchange mechanisms. **Third,** China strengthened its South-South cooperation. It launched the Lancang-Mekong Environmental Cooperation Center to carry out research projects

and organize technical training to jointly address global and regional environmental issues and challenges. It specifically set up the Lancang-Mekong Water Resources Cooperation Center as a comprehensive support platform for advancing pragmatic cooperation among the six Lancang-Mekong countries, and supporting the response to regional water resources challenges and the sustainable use and protection of regional water resources. China actively implemented the Green Silk Road Envoys Program as well as capacity building activities on water environment management and integrated management for Belt and Road countries and regions.

II. Basic experience

First, China put in place a sound institutional mechanism for river and lake management. Since its nationwide roll-out in 2016 and 2017, China has established a system of river and lake chiefs at the provincial, municipal, county and township levels, focused on the accountability of party and government officials. For rivers and lakes, it strengthened spatial control, stepped up management and protection of shorelines, promoted cross-basin collaborative management, enhanced water resources protection and water pollution prevention, carried out ecological treatment and restoration, and improved the enforcement and supervision mechanism.

Second, China gave priority to ecology and pursued a path of green development. It has given top priority to the eco-environmental protection and restoration of the Yangtze River and the Yellow River; promoted ecological building along the Yangtze River and the Yellow River economic belts; developed green ecological corridors with good environment; coordinated water resources, water environment, and water ecology; and promoted synergy among the upper, middle and lower

reaches as well as among the eastern, central and western regions in development.

Third, China put emphasis on the universality and inclusiveness of drinking water and sanitation. Focusing on the rural population, especially the poor, China worked hard to close the "last mile" gap in rural drinking water safety, to ensure that rural residents have permanent and stable access to safe water. It pressed ahead to improve rural environment and sanitation in an all-round way, targeting village environment and sanitation, the most immediate and urgent issues about which rural residents were most concerned.

III. Future work

Despite good progress in water resources management and environmental sanitation, China faces severe challenges in water resources. Water shortage, water ecological damage, and water environment pollution need to be further addressed. To realize the SDG on water and the environment in the 14th Five-year Plan period and beyond, China will focus on the following.

First, China will continue with the *Water Pollution Prevention and Control Action Plan* and deepen protection of water resources. It will further coordinate treatment of water resources, water ecology, water environment, and guarantee basic ecological water. It will intensify efforts in both reducing pollution and building ecological capacity; coordinate efforts on land and on sea and promote treatment of the whole system; and deepen pollution prevention and treatment of key rivers and lakes, enhance protection and development of "beautiful rivers and lakes", and build "happy rivers and lakes" for the benefit of the people.

Second, China will balance high-quality protection with high-level development, and keep improving the eco-environment of river basins. China will enforce the *Yangtze River Ten-Year Fishing Ban Plan* with a view to continuous improvement in the eco-environment and ecological functions of the Yangtze River. We will implement projects to enhance conservation of water sources, treat soil erosion, and restore the ecosystem of the Yellow River Delta wetland, and press ahead with the ecological protection and restoration of the Yellow River basin.

Third, China will take further steps in building the national water supply system and enhance efficiency of water allocation and utilization. Committed to water conservation and based on basins as a whole and the spatial configuration of water resources, China will improve its ability to optimize the allocation of water resources. It will build and renovate urban and rural water supply facilities, enhance the security of urban and rural water supply, and promote urban and rural water conservation. It will enhance capacity and efficiency in urban sewage treatment, move faster in closing the gap in sewage collection and treatment facilities, and press ahead with the use of recycled water.

Fourth, China will establish and improve the mechanism to realize the value of ecological products, with a view to the comprehensive green transformation of economic and social development. Centered on institutional reform and innovation, it will promote the industrialization of ecology and the role of ecology in industry; speed up the emergence of a path to realize the value of ecological products, featuring government guidance, extensive participation by the business community and all walks of life, market-oriented operation, and sustainability; and strive to build a policy system which can turn good environment into valuable assets.

SDG 7 Ensure access to affordable, reliable and sustainable modern energy for all

I. Implementation progress

Energy sustains and drives the progress of human civilization and is vital to promoting economic and social development and enhancing people's well-being. China is always committed to ensuring access to affordable, reliable and sustainable modern energy for all. Over the 13th Five-year Plan, China pursued an innovation-driven development strategy, with the focus on deepening the supply-side structural reform. China strived to build a clean, low-carbon, safe and efficient energy system, and promoted international energy cooperation. China significantly improved the use of energy for production and living, continuously optimized energy production and consumption mix, and substantially increased its energy efficiency, bringing itself into a new stage of high-quality development in energy.

Improving energy infrastructure in poor areas and basically realizing full coverage of power supply services. In response to the relatively backward energy infrastructure in poor areas, China launched projects to build power supply infrastructure in areas without such facilities, upgrade and renovate rural power grids, and construct backbone power grids. By the end of 2015, China had completely resolved the problem of people with no access to electricity and achieved full coverage of power service, indicating China had realized this sustainable development goal 15 years ahead of schedule. By the end of 2020, all county-level administrative districts nationwide had been connected to large power grids; 99.3% of administrative villages in national poverty-stricken counties had been connected to dynamic electricity; and all rural areas basically had enjoyed access to stable and reliable power supply services. In poverty reduction on the energy sector, China rolled out the photovoltaic poverty alleviation project nationwide. It built a total of 26.36 million kilowatts of PV power stations for poverty alleviation, to the benefit of 4.15 million poor households. China built large and medium-sized hydropower stations, modern coal mines, clean and efficient coal power and wind power projects in poverty-stricken areas where a large number of employment opportunities were created in the process of energy development.

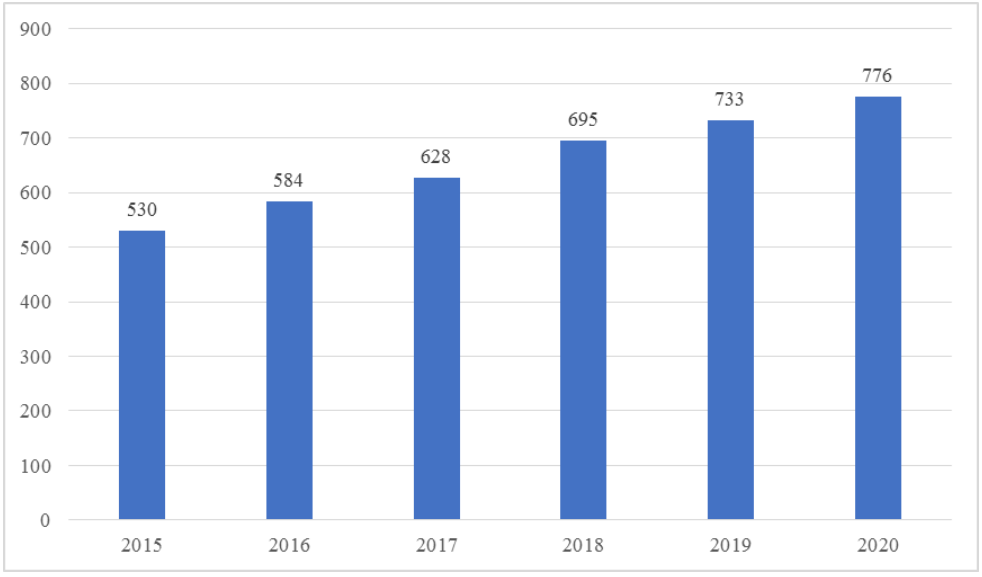


Figure 7-1 Per capita domestic electricity consumption in China (kWh/person)

Promoting clean energy industry and continuously improving energy production and consumption mix. China has deepened the supply-side structural reform in the energy sector by giving priority to non-fossil energy, leading to further increase in the share of clean energy. In terms of energy production mix, from 2015 to 2020, the proportion of non-fossil energy increased from 14.5% to 19.6%, while that of raw coal decreased from 72.2% to 67.6% (Figure 7-2). In terms of energy consumption mix, the share of non-fossil energy grew from 12% to 15.9%, and that of coal dropped from 63.8% to 56.8% (Figure 7-3). China has become the largest power generator of renewable energy in the world. By the end of 2020, installed capacity of renewable energy power generation totaled 935 million kilowatts, accounting for 42.4% of the total installed capacity in China. In 2020, newly installed capacity of grid-connected wind power and solar power generation totaled 119.87 million kilowatts, taking up 62.8% of the total newly installed capacity of power generation and representing the majority of newly installed power generation for four consecutive years in China. Newly installed capacity of thermal power was 29.6%, 21 percentage points lower than that of 2015 (Figure 7-4).

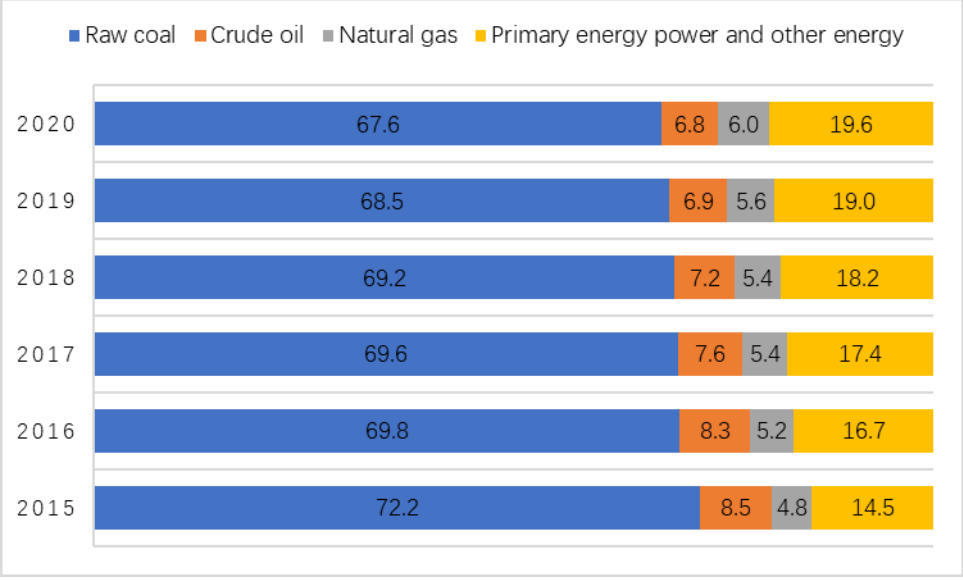


Figure 7-2 Energy production mix in China (%)

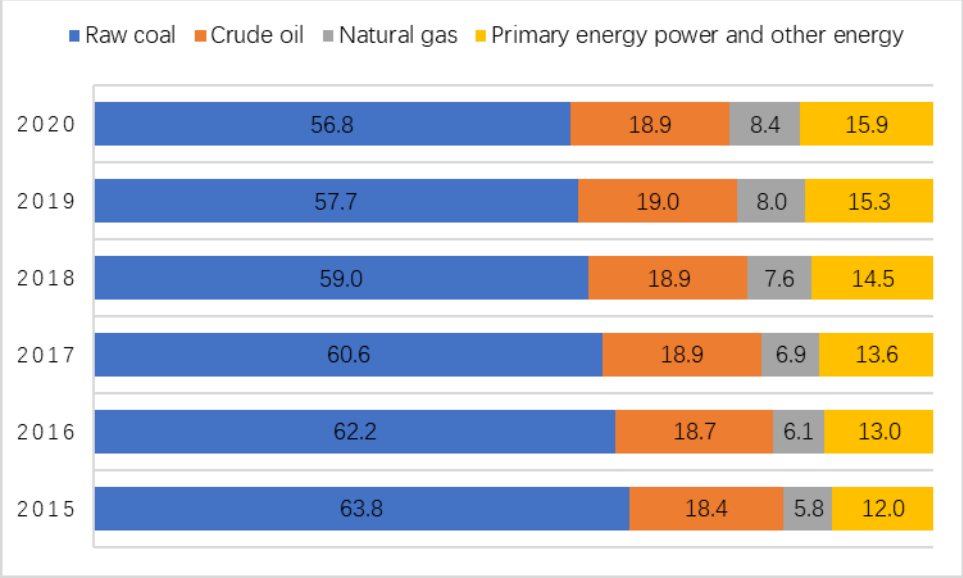


Figure 7-3 Energy consumption mix in China (%)

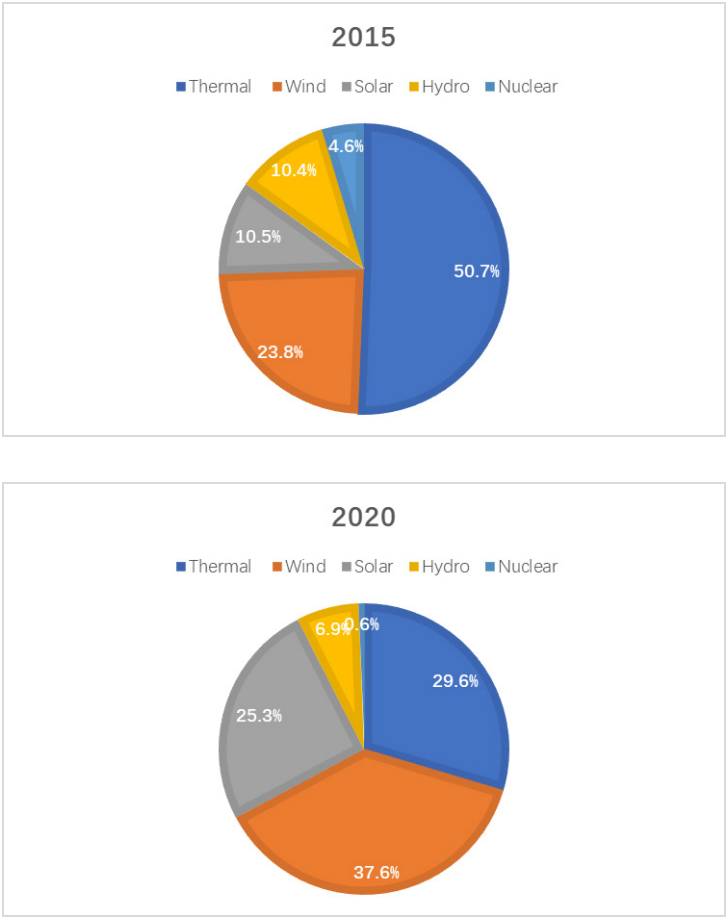


Figure 7-4 Mix of newly installed capacity in 2015 and 2020

Promoting the efficient use of energy and cutting energy consumption and carbon intensity. From 2015 to 2020, China's energy intensity per unit of GDP kept declining. In 2020, energy consumption per unit of added value from industrial units above designated size slipped by 0.4% year-on-year; and comprehensive power and fossil-fuel energy consumption per unit of output in key energy-consuming industrial enterprises decreased by 2.1% year-on-year (Figure 7-5). Rising up to the challenge in air pollution prevention and control, China took solid steps to reduce and replace the consumption of coal and promote electricity as alternatives, leading to more efficient use of clean energy and sustained decline in carbon dioxide emissions per unit of GDP. In 2020, the carbon dioxide emissions for every 10,000 yuan of GDP decreased by 1.0% year-on-year.

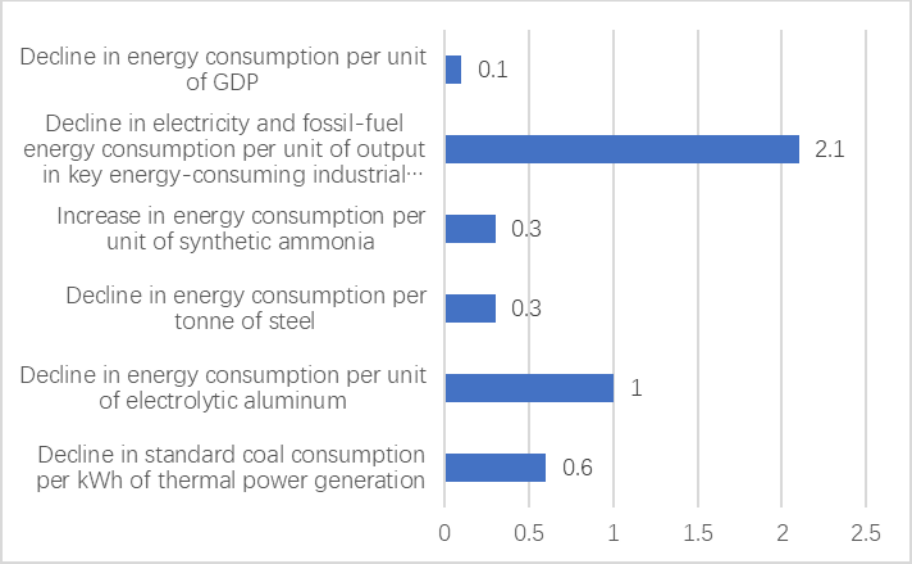


Figure 7-5 Energy consumption per unit of GDP and per unit of output in key energy consuming industrial enterprises in 2020 (%)

Actively participating in global energy governance and promoting practical energy cooperation. China actively participated in international cooperation on energy under multilateral mechanisms such as the United Nations, G20, APEC and BRICS; established more than 90 multilateral and bilateral intergovernmental energy cooperation mechanisms, and entered into cooperation with more than 30 international organizations

and multilateral mechanisms in the energy field; built regional energy cooperation platforms with ASEAN, the Arab League, the African Union and Central and Eastern European countries, and established the East Asia Summit Clean Energy Forum; and forged the Belt and Road energy partnership. In promoting practical energy cooperation, China worked together with more than 100 countries and regions around the world in energy trade, investment, production capacity, equipment, technology, standards and other fields. China promoted cooperation in capacity building and technological innovation. For example, it provided training in clean energy utilization and energy efficiency for more than 100 countries. China strengthened energy infrastructure connectivity. It built and put into operation a number of major energy projects such as the China-Russia, China-Central Asia and China-Myanmar oil and gas pipelines, and connected its power grid with those in seven neighboring countries. China pushed for green and low-carbon transformation of the global energy sector and conducted extensive energy cooperation. For example, a number of high-quality energy projects were put in operation, including the Kaleta hydropower plant in Guinea, the Kaposvar solar power plant in Hungary, the Možura wind farm in Montenegro, the CSP and PV hybrid project in Dubai, UAE, the Karot hydropower project and the Quaid-e-Azam Solar Park (Phase I) in Pakistan.

II. Basic experience

First, the concept of high-quality energy development. China kept promoting the energy consumption revolution and curbed unreasonable energy consumption; promoted the energy supply revolution and established a diversified supply system; promoted the energy technology revolution and drove industrial upgrading; promoted the energy system revolution and opened up fast track for new energy development; and stepped up international cooperation in all aspects and achieved energy

security in an open environment.

Second, energy transformation on the supply side. Based on its basic national conditions and development stage, China gave priority to ecology and pursued green development to strive for balance in environmental protection and development. It deepened the energy structural reform on the supply side, prioritized non-fossil energy, pushed for clean and efficient development and utilization of fossil energy, and built a diversified and clean energy supply system, with a view to economic and social transformation led by energy revolution.

Third, energy transformation driven by technological innovation. China strived to make scientific and technological progress as a leverage for energy transformation, quickened the pace on making innovation in energy technology, gave into full play the role of businesses in technological innovation, and encouraged deep integration of industry, academia and research. It kept promoting basic research and innovations in common technology and disruptive technology in the energy sector. It also boosted integration and innovation by applying digital technology, big data and artificial intelligence technology to clean and efficient development and utilization of energy.

III. Future work

Green and low-carbon transformation has been a general trend in China's energy sector, with significant progress achieved. Centered on energy revolution, China will prioritize the following work.

First, China will build an energy supply system that is clean, low-carbon, economical, efficient, safe and diversified. Committed to green development, it will move faster in developing non-fossil energy, both

centralized and distributed, enhance the scale of wind power and solar power generation. It will promote faster development of distributed energy in the eastern and central regions, orderly development of offshore wind power, faster construction of hydropower bases in the southwest, green transformation of small hydropower plants, construction of coastal nuclear power station in a safe and sound manner, and building of a number of clean energy bases featuring complementary among multiple energy sources. By 2030, the proportion of non-fossil energy to primary energy consumption will increase to about 25%. At the same time, it will promote clean and efficient use of fossil energy, encourage coal production to concentrate in resource-rich areas, exert strict control on the scale and development of coal-fired power stations, and push for the replacement of coal by electricity. It will develop and utilize biomass energy and geothermal energy according to local conditions.

Second, China will keep improving its energy consumption mix. Committed to energy conservation, it will improve management of total energy consumption, step up control on energy consumption intensity, and include energy conservation throughout the entire process and all areas of economic and social development. It will make substantial adjustment to its industrial structure, pay close attention to energy conservation in urbanization, and help build a green and low-carbon transportation system. It will advocate thrifty consumption in the general public, cultivate energy conservation and the use of green energy in production and living, and promote the building of an energy-saving society.

Third, China will further optimize the distribution and flow of energy. It will move faster in the intelligent transformation of power grid infrastructure and the building of intelligent micro-grids, improve the pooling of power systems and intelligent regulation of power systems, strengthen the connection of power grids and storage facilities, enhance its capacity to absorb and store clean energy, increase its capacity to transmit and distribute power to remote areas, promote flexible renovation

of coal-fired power, and quicken the pace in building of pumped storage power plants and applying new energy storage technology in a large scale. China will improve inter-regional transportation channels and the collection and distribution system for coal, speed up the construction of natural gas trunk pipelines, and improve the interconnected network of oil and gas.

Fourth, China will step up international energy cooperation in an all-round way in building a green Silk Road. It will keep strengthening clean energy cooperation with Belt and Road countries, with a view to high-quality BRI development. It will actively participate in global energy governance, strengthen international exchange and cooperation in the field of energy, smooth international trade in energy, promote energy investment facilitation, jointly build a new pattern of international cooperation in energy, and safeguard the stability and shared security of the global energy market.

SDG 8 Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

I. Implementation progress

Focusing on supply-side structural reform, China steadfastly pursued the new development concepts, continuously optimizing economic structure and enhancing the quality and efficiency of development. With the deep-going implementation of the strategy for innovation-driven development, micro, small and medium-sized enterprises grew rapidly. Employment was prioritized and unemployment rate kept at a low level. Owing to its coordinated COVID-19 response and economic and social development, China emerged as the only major economy reporting positive growth in 2020, making a positive contribution to world economic recovery.

Economic growth remained stable with coordinated domestic

and international development. A strong domestic market developed fast with investment as key and consumption playing a foundational role. From 2016 to 2019, China's economic growth averaged 6.6% annually, significantly higher than the global average and contributing about 30% to world economic growth and exceeding USD10,000 in per capita GDP (Figure 8-1). In the face of economic risks and challenges, the Chinese government set itself the task of ensuring stability on six key fronts and maintaining security in six key areas with strengthened macro-economic policy regulation and enforcement, managing orderly economic recovery. In 2020, GDP reached RMB101.6 trillion, up 2.3% year-on-year (Figure 8-2). Large-scale tax and fee cuts continued, combining institutional arrangements, periodic policies and interim measures. From 2016 to 2020, new tax and fee cuts amounted to over RMB7.6 trillion, effectively stimulating innovation, optimizing economic structure, promoting resident consumption and expanding employment. The sound monetary policy was more flexible and moderate, further reducing the financing costs of the real economy and providing precise financial services for COVID response, the resumption of work and production and the development of the real economy. The development of a high-level open economy was expedited and pilot free trade zones and free trade port furthered. As its foreign trade expanded to over 230 countries and regions, China remained the world's second largest importer.

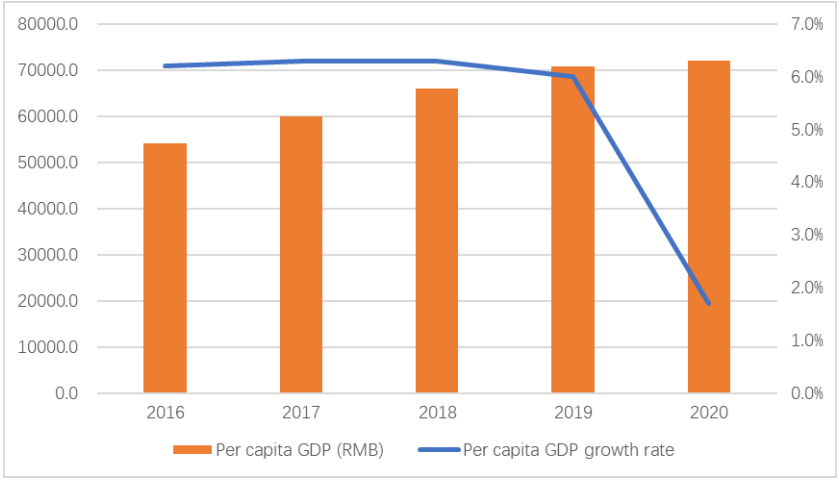


Figure 8-1 China's per capita GDP and its growth

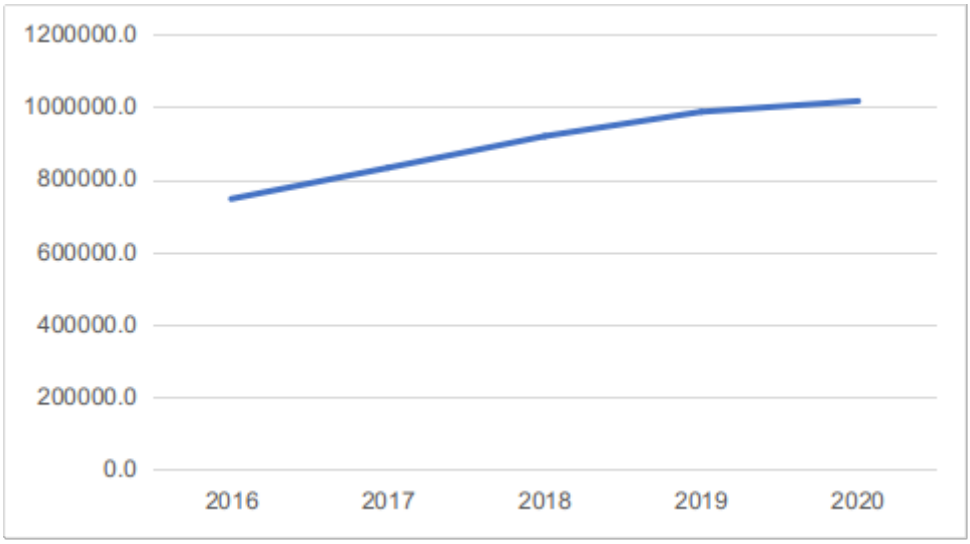


Figure 8-2 China's GDP (RMB hundred million)

Supply-side structural reform deepened as growth engine shift accelerated amid sustainable economic growth. The 13th Five-year Plan period saw the continued elimination of obsolete industrial capacity, a rebound in capacity utilization, and a remarkable improvement in business operation. From 2016 to 2018, steel and coal cut 150 million tonnes and 810 million tonnes of obsolete capacity, while coal-fired power generation shut down outdated units of over 20 million kilowatts, all meeting targets ahead of schedule. Investment in industries of "two highs and one excess"[12] and property was strictly restricted. Industrial structural optimization and upgrade kept accelerating, channeling labor and funds faster into hi-tech and equipment manufacturing. The "three news" economy featuring new industry, new business type and new business model grew rapidly. In 2020, the value added of "three news" economy was equivalent to 17.08% of GDP, rising from 15.4% in 2016 (Figure 8-3), making up to some extent for diminishing traditional growth drive.

12 "Two-highs" refers to resources-based sectors of high pollution and high energy consumption; "one excess" refers to industries of excess capacity.

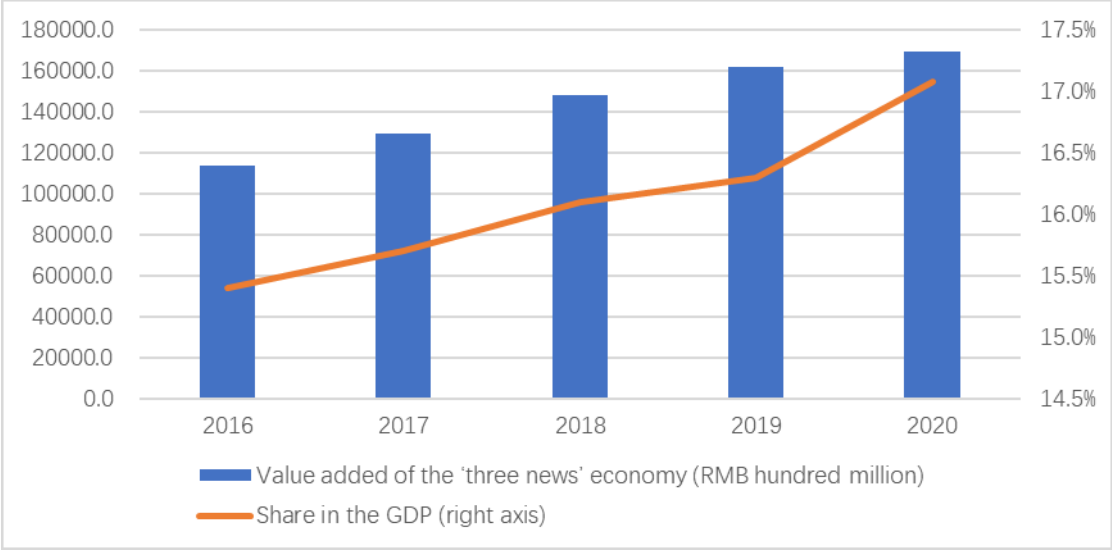


Figure 8-3 Value added and share of the "three news" economy

Popular entrepreneurship and innovation furthered and MSMEs went from strength to strength. Market access threshold was lowered further, and entrepreneurial environment continuously bettered to help integrate innovation and entrepreneurship into all sectors and links of economic development. From 2016 to 2020, China's market entities of all kinds jumped from 87.05 million to 138 million, with an annual net increase of 12.48 million (Figure 8-4). 2020 saw the registration of 25.02 million market entities, including 8.04 million enterprises and 16.82 million individual businesses. The inclusive financial system was improved to increase effective credit supply to MSMEs. During the pandemic, innovative credit loans and loan extension instruments were introduced for SMEs for wider access to more finance at lower costs. In 2020, banks made inclusive small and micro loans of RMB3.9 trillion, up RMB1.6 trillion year-on-year, supporting 32.28 million operating entities. The balance of inclusive small and micro loans stood at RMB15.1 trillion, up 30.3% year-on-year (Figure 8-5). Besides, a policy framework allowing lower required reserve ratio for small and medium-sized banks and classified regulation assessment mechanism were established to enhance the precision of financial institutions' support for SMEs and reduce their financing costs.

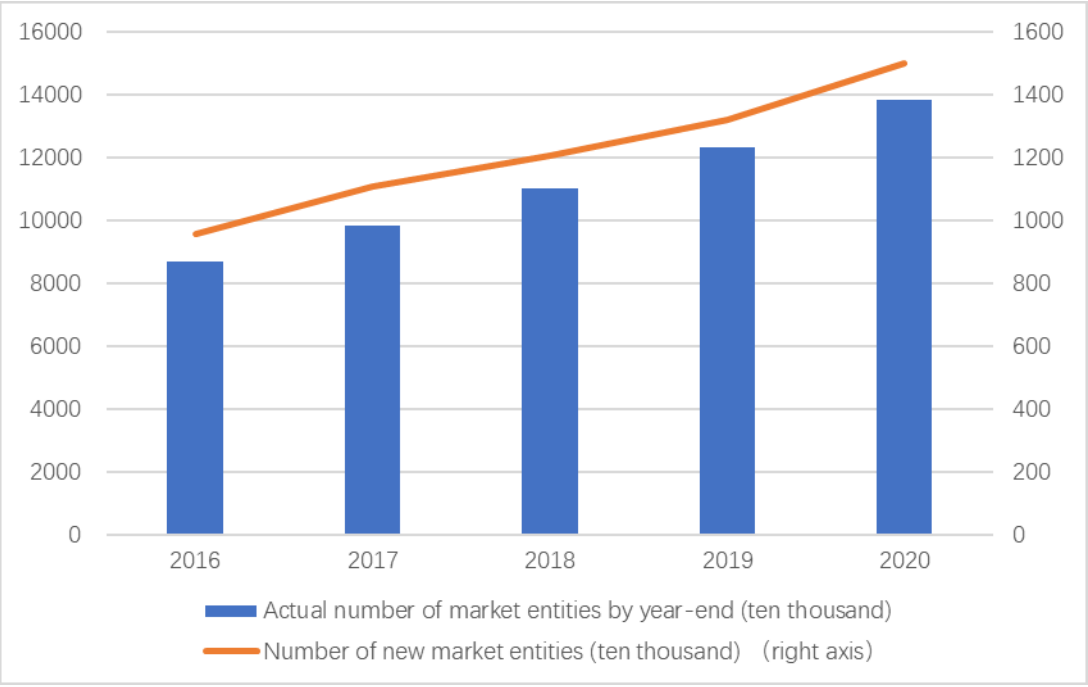


Figure 8-4 State of market entities of all kinds in China

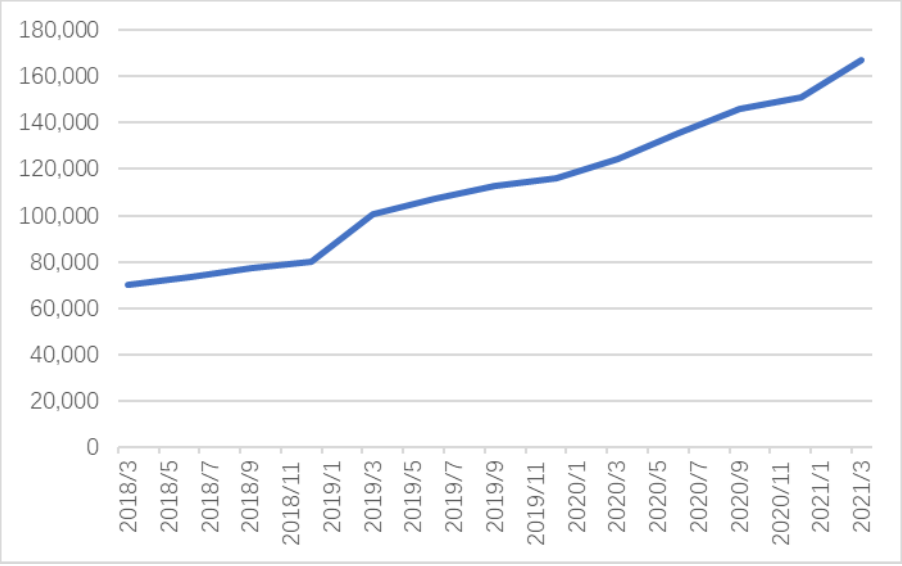


Figure 8-5 Balance of inclusive small and micro loans (RMB100 million)

Employment was prioritized to promote fuller and higher-quality production employment. The proactive employment policy system was perfected to promote the benign interaction between jobs growth and economic development. From 2016 to 2020, employment scale continued

to expand, including 65.64 million new urban jobs, 27.2 million jobs for the reemployed, and 8.73 million jobs for disadvantaged job-seekers. Unemployment was kept within a reasonable range, with registered urban unemployment rate basically under 4.2%. Surveyed urban unemployment rate was included in monitoring and it was 5.2% at the end of 2020 (Figure 8-6). Services were optimized to promote employment for key groups. For migrant workers, an urban-rural equal employment system was installed to push for the reemployment of migrant workers and the entrepreneurship of returnee migrant workers. Employment assistance was provided to older job seekers and those with disabilities, among other disadvantaged job seekers. From 2016 to 2020, 1.81 million people with disabilities got employed in urban and rural areas. As of the end of 2020, 2.39 million people with disabilities obtained flexible employment (including community and home employment). Backstop arrangements were made for those who failed in market channels, so that the number of jobless families could stay at zero in a dynamic fashion. At the same time, employment guidance for enterprises was further strengthened to urge them to enforce equal pay for equal work in accordance with law.

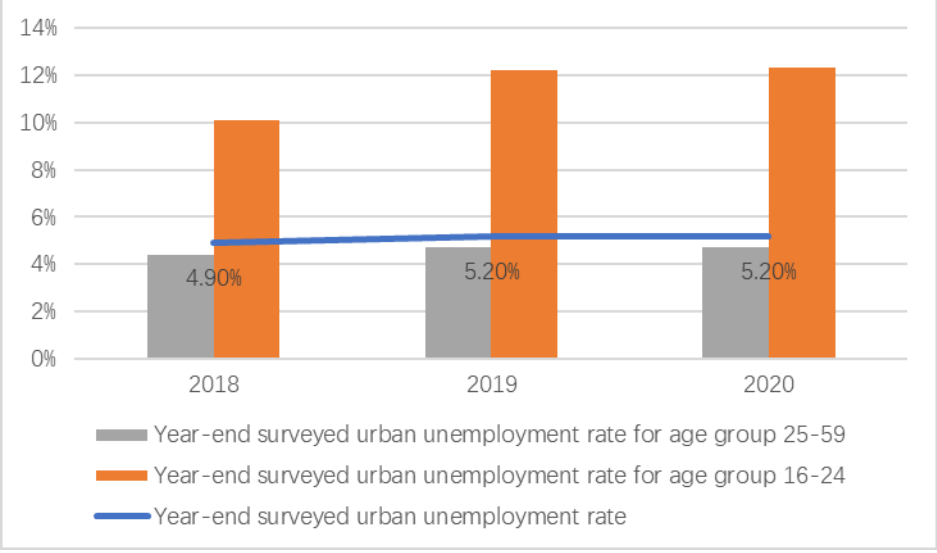


Figure 8-6 Year-end surveyed urban unemployment rate (by age group)

II. Basic experience

First, bottom-line thinking is essential to promoting steady economic growth. China upholds the underlying principle of pursuing progress while ensuring stability. Instead of focusing on growth rate, it pursues high-quality, cost-effective and reasonable growth. Bottom-line thinking and precision policy are emphasized and the policy orientation to ensure stability on six key fronts and maintain security in six key areas strengthened. The macro-control system and methods are continuously improved and innovated, providing stable expectations for market entities of all kinds.

Second, cost reduction is leveraged to unburden enterprises for market competition. Deleveraging, tax and fee cuts and continuous improvement of business environment are all meant to lower institutional costs for enterprises. Especially during the pandemic, China took various policy measures to secure enterprises and market entities as seeds for future growth. Practice shows that massive tax and fee cuts along with timely and inclusive financial support have played a key role in helping many small and medium-sized enterprises through the crisis.

Third, case-based policies are adopted to enable fuller employment. Secure market entities are a key premise for full employment. Building on overall stable employment, for those with employment difficulties such as college graduates, migrant workers and disadvantaged job seekers, precise assistance is provided. The focus is on increasing market employment. Besides, stimulating the vitality of entrepreneurship-led employment, strengthening employment assistance for those with difficulties, and supporting flexible employment are also important. A policy system for employment support has been established. Labor skills are further enhanced through vocational training.

Fourth, workers' legal rights are protected. The three-in-one working

mechanism for professional training, job seeking service and labor rights protection has been perfected. The linkage between labor protection supervision and enforcement and criminal justice has been strengthened to effectively ban and stop child labor. To protect labor rights and interests, China gives full play to the role of the tripartite mechanism for coordinating labor relations.

III. Future work

Despite the general upbeat trend of the Chinese economy, there is unevenness among sectors and enterprises; key demand indicators are yet to return to pre-COVID levels; SMEs face great difficulties as finance accessibility and affordability remain problematic; and aggregate employment pressure persists. China will stick to the underlying principle of pursuing progress while ensuring stability, with focus on the following aspects.

First, China will continue to improve macro-economic governance, and maintain policy consistency, stability and sustainability. Given the uncertainties in global economic recovery and the COVID situation, China will continue to improve its macro-economic governance system, which features national development planning as the strategic guide, fiscal and monetary policies as the main instruments, policies on employment, industries, investment, consumption, environmental protection, and regional development closely coordinated, as well as optimized objectives, appropriate division of labor and efficient coordination.

Second, market entities will be energized through reform in a continuously improving innovation and entrepreneurship environment. China will continue to deepen the reform to delegate power and streamline administration, deregulate, and improve services, maintain

fair play through just regulation, and continue to build a market-oriented, law-based and international business environment. Small and medium-sized banks will be urged to enhance capital, improve governance and better serve MSMEs. China will continue to strengthen policy support for popular innovation and entrepreneurship and create a favorable development environment for innovation and entrepreneurship.

Third, a multi-tiered, extensive and differential financial system will be built to boost financial inclusiveness. China will improve the regulating mechanism for money supply, leverage multiple monetary policy tools and further optimize financing structure to provide relief to MSMEs.

Fourth, employment support will be strengthened for key sectors and groups to continuously stabilize and expand employment. China will further prioritize employment while boosting job creation by promoting entrepreneurship. Migrant workers will be able to benefit from local employment service policy, with assistance for vulnerable groups, such as people with disabilities and jobless families.

SDG 9 Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

I.Implementation progress

China sees innovation as the primary driver of development. In 2016, China published the *Outline of the National Strategy of Innovation-driven Development*. The past five years saw increased investment in infrastructure construction and improved accessibility, reliability and resilience of infrastructure. Industrial transformation and upgrade and high-quality development were promoted and industrialization became more inclusive and sustainable. Financing environment was optimized for small and medium-sized enterprises, with enhanced accessibility of financial services and credit. International development cooperation was deepened with support for other developing countries in infrastructure,

industrialization and informatization.

With increased investment in infrastructure, infrastructure accessibility kept rising. During the 13th Five-year Plan period, over 1.4 million kilometers of rural roads were built or upgraded; more than 33,500 administrative villages were added to the bus service network; high-speed railway was extended to nearly 95% of the cities with population of over one million; almost 100% of the cities with over 200,000 residents were accessible by expressway; civil airports covered 92% of the prefecture-level administrative units; the percentage of urban area within 500m of bus stop approached 100% in cities with population of over one million. In 2020, China registered 146,000 kilometers in rail operating mileage, 5.2 million kilometers in road mileage, 127,700 kilometers in inland waterway mileage and 9.43 million kilometers in airline routes (Table 9-1). By the end of 2020, China ranked the world's No.1 by network scale and user scale, with fiber optic users and 4G users accounting for 93.9% and 80.8%. It had built over 770,000 5G base stations in total connecting about 200 million 5G devices. During the 13th Five-year Plan period, mobile phone penetration rose from 95.6 per 100 people to 112.9 per 100 people, while internet penetration rate jumped from 53.2% to 70.4%.

Table 9-1 Operation mileage and passenger and freight volumes of main transportation modes

	2016	2017	2018	2019	2020
Operating mileage (ten thousand kilometers)					
Railway	12.4	12.7	13.2	14.0	14.6
Road	469.63	477.35	484.65	501.25	519.81
Inland waterway	12.71	12.70	12.71	12.73	12.77
Scheduled flight	634.81	748.30	837.98	948.22	942.63
Passenger volume (hundred million people)					
Railway	28.1	30.8	33.7	36.6	22.0
Road	154.3	145.7	136.7	130.1	68.9
Waterway	2.7	2.8	2.8	2.7	1.5
Civil aviation	4.9	5.5	6.1	6.6	4.2
Freight volume					
Railway (hundred million tonnes)	33.3	36.9	40.3	43.9	45.5
Road (hundred million tonnes)	334.1	368.7	395.7	343.5	342.6
Waterway (hundred million tonnes)	63.8	66.8	70.3	74.7	76.2
Civil aviation (10,000 tonnes)	668.0	705.9	738.5	753.1	676.6

With the implementation of the innovation-driven development strategy, the innovation capability was enhanced remarkably. Science and technology innovation was promoted vigorously to deliver key and core technology breakthroughs. International science and technology innovation centers and comprehensive national science centers were developed and the first batch of national labs successfully established, with successive groundbreaking outcomes such as Tianwen-1, Chang'e-5 and Striver. China ranked the 14th in the Global Innovation Index 2020 published by the World Intellectual Property Organization, up by 11 places as compared to 2016, becoming a major contributor to global science and technology innovation. The integrated application of science and technology in industry was deepened, prompting leap-frogging development of the digital economy and rapid expansion of new business types and models. Systematic and institutional innovation was promoted to promote the synergetic development of enterprises of all sizes. The penetration rate of platforms of popular innovation and entrepreneurship for backbone companies of key manufacturing sectors exceeded 80%. In 2020, expenditures on research and experimental development activities (R&D) reached RMB2.44 trillion, up 55.8% on 2016 and equivalent to 2.4% of the GDP (Figure 9-1).

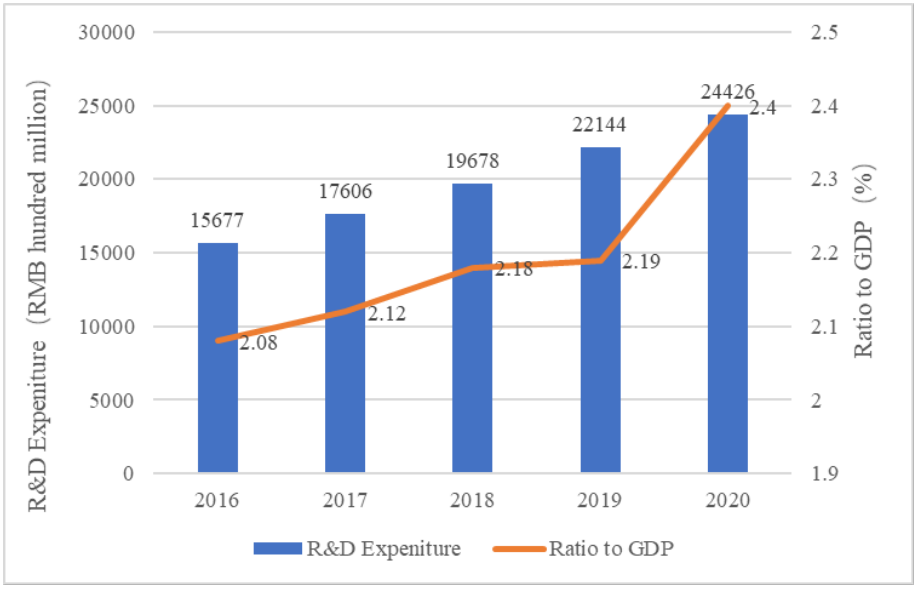


Figure 9-1 R&D expenditure and its ratio to GDP

Industrial transformation and upgrade were advanced, with inclusiveness and sustainability rising steadily. The transformation and upgrade of traditional industries accelerated, resulting in significantly improved capacity utility and business performance. Strategic emerging industries and advanced manufacturing grew rapidly, with industrial internet-of-things on fast-track, smart manufacturing meeting higher standards, and a batch of digital workshops and smart factories largely completed. During the 13th Five-year Plan period, the growth of value added of hi-tech manufacturing ranged from 7.1% to 13.4%. Its share in the value added of industries above designated size rose from 12.4% to 15.1% (Figure 9-2). Green manufacturing continued to advance. From 2016 to 2019, the energy consumption per unit of value added from industrial units above designated size fell by over 15% accumulatively. Water consumption per RMB ten thousand of industrial value added was down by 27.5% in total.

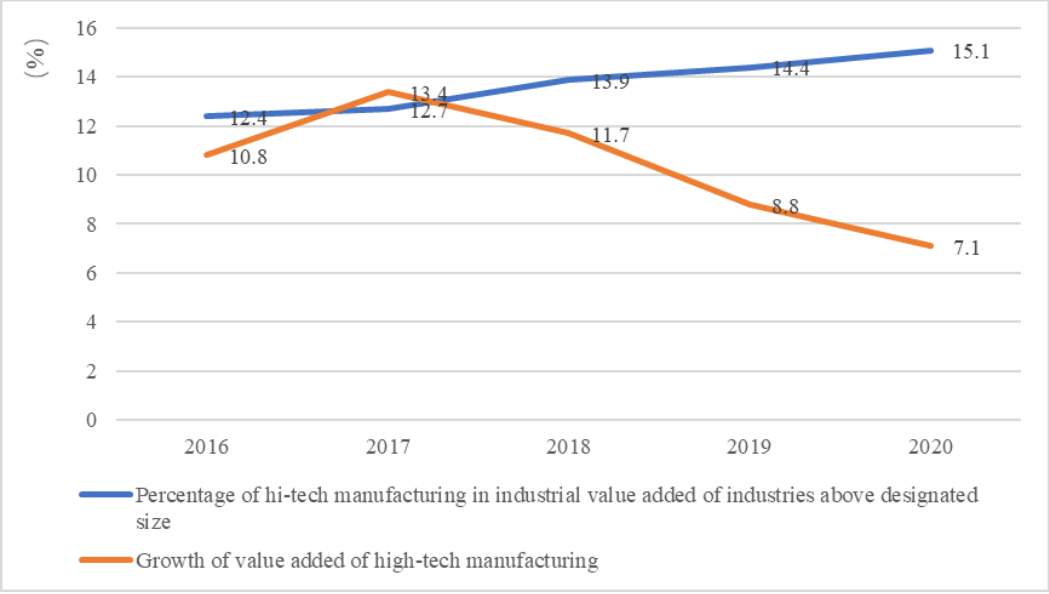


Figure 9-2 Growth of value added of high-tech manufacturing and its percentage in industrial value added of industries above designated size

Financing environment for SMEs was optimized, with enhanced accessibility of financial services and credit. The *Measures for Regulating and Assessing Commercial Banks' Financial Services for*

Small and Micro-Enterprises (Trial) was promulgated, introducing preferential policies such as targeted RRR cuts and re-lending for loans to small and micro-enterprises, and reduction and waiver of value added tax and stamp tax. Large and medium-sized banks were encouraged to set up the department of inclusive finance to enhance the capability of inclusive financial service based on the principle of business sustainability. At the end of 2020, the balance of loans to small and micro-enterprises (based on the national standard) stood at RMB31.7 trillion, up 13.3% year-on-year. The balance of inclusive loans to small and micro-business reached RMB15.1 trillion, up 30.3% year-on-year. Among them, the balance of loans to small and micro-business with a credit line of RMB10 million and below was RMB5.6 trillion, up 36.2% year-on-year and 10.3 percentage points higher than the growth at the end of 2019.

International development cooperation was deepened to provide infrastructure and information technology support for other developing countries. Belt and Road development was advanced to enhance infrastructure connectivity with other developing countries. With international fiber optic cable access extended to more than 70 countries and regions, information expressways to the new Eurasia land bridge, Central Asia, Russia, Mongolia, Southeast Asia and South Asia, among other countries and regions were basically set up. As of the end of 2019, 37 telecommunications infrastructure projects were constructed with Chinese support, including telecommunications transmission networks and government information networks, advancing the information communications industry in related countries. Through the International Outstanding Youth Scheme, 755 young scientists from Egypt, Pakistan, Myanmar and India were invited to do research work in China and over 7,700 trainees from over 100 developing countries and regions attended training sessions in China. Knowledge and technical exchanges were strengthened with other developing countries. The South-South Cooperation Center for Technology Transfer was established to actively explore the transfer and application of renewable energy technology

in developing countries, promoting the popularization, application and dissemination of renewable energy technology in developing countries.

II. Basic experience

First, diversified investment and financing models are introduced to secure infrastructure development. Through market-based operation and credit enhancement, all kinds of market investment entities are mobilized to provide sustained and adequate financing guarantee for infrastructure development through multiple financing models, including building-operation-transfer, asset securitization and public-private partnership.

Second, integration into the global production system through comparative advantages helps industrial transformation and upgrade. China fully capitalizes on domestic and international markets and two sets of resources, gradually integrates itself into the global industrial labor division system and steadily improves its manufacturing capability and global industrial competitiveness, moving up global value chains towards mid- and high-ends and making positive contribution to world economic growth.

Third, effective market combines with capable government to promote science and technology government. China gives the market a decisive role to play in resources allocation and continuously improves business environment to boost the dynamics and vitality of business innovation. Meanwhile, government functions of planning and guidance, policy motivation and organizing and coordination are improved to leverage the institutional advantage of mobilizing forces to get things done for the development of strategic and key science and technology areas.

III. Future work

As the new wave of global science and technology revolution and industrial reform gathers pace, China's infrastructure construction, course of industrialization and innovation capability enhancement face new opportunities and challenges. China will continue to lead development with innovation, coordinate infrastructure construction, enhance the inclusiveness and sustainability of industrialization, optimize the inclusive finance system, and deepen international cooperation on connectivity, so as to provide strong support for socioeconomic development and post-pandemic global recovery.

First, a modernized infrastructure system will be established promptly that is systematic, complete, efficient, practical, smart, green, secure and reliable. China will deploy new infrastructure in a systematic way to accelerate the construction of 5G mobile communications, industrial Internet and big data centers. Comprehensive transportation corridors, hubs and logistics networks will be improved, rail networks for city clusters and metropolitan areas expedited and access to the countryside and border areas enhanced to build the country into a transportation powerhouse.

Second, innovation will remain at the center of the modernization drive with science and technology self-reliance and self-empowerment as the strategic pillar of national development. The role of enterprises as innovators will be strengthened to promote the deep integration of the industry, the academia, and the research community, leverage the leading and underpinning role of big businesses, and encourage synergetic innovation by companies of all sizes across the industrial chains. Science and technology system reform will be deepened to improve national science and technology governance system and optimize the national science and technology planning system and operating mechanism. The talent development system and related institutions will be reformed

further to develop, introduce and employ talent in an all-round way.

Third, the development of modern industrial system will step up to promote more advanced industrial base and modernized industrial chains. China will push traditional industries to be more advanced, intelligent and green and develop service-based manufacturing for clustered development of advanced manufacturing. It will promote industrial energy conservation, pursue green and environment-friendly industries, implement industrial low-carbon actions and further the green manufacturing project, so as to meet the carbon peaking and neutrality targets.

Fourth, a multi-tiered, extensive and differential financial system will be developed to boost financial inclusiveness. China will continue to promote the high-quality development of small and micro-finance services by improving regulatory policies. Effective credit supply for small and micro-enterprises will be increased continuously for precision irrigation of the small and micro-customer base by banks of all kinds. Banks will be encouraged to explore and introduce innovative financial services for small and micro-companies in the technology sector and those at the two ends of industrial and supply chains.

Fifth, high-quality Belt and Road development cooperation will be deepened to advance the construction of key cooperation projects in an orderly fashion. China will promote the green silk road and the digital silk road and actively contribute to the connectivity and socioeconomic sustainability of related countries and regions. We will continue to work with the least developed countries in information technology to help raise the penetration of information and communications technology in these countries.

SDG 10 Reduce inequality within and among countries

I. Implementation progress

Committed to the coordinated and shared development, China ensured people's rights to equal participation and equal development while promoting high-quality development, increasing the sense of gain and happiness for all with joint contribution and shared benefits. As urban-rural gap narrowed gradually, access to basic public services became significantly more equalized, with the multi-tiered social security system improving. At the same time, China deepened practical cooperation with other developing countries and worked for a fairer and more reasonable global governance system, promoting the equality of rights, opportunities and rules in international development.

To ensure people's rights to equal participation and equal development, coordinated urban and rural development was advanced steadily, and education equality and full employment were promoted. First, the poverty alleviation and rural rejuvenation strategies were implemented to promote integrated urban-rural development and narrow the gap between cities and the countryside. As of the end of 2020, all the 98.99 million poor people under the current poverty standard in the countryside had been lifted out of poverty. The integrated development of primary, secondary and tertiary industries continued to make progress. In 2020, the revenue of agricultural product processing stood at RMB23.5 trillion, raising the ratio of the output value of agricultural product processing to that of agriculture to 2.4:1, up 11.1% compared to 2015 (Figure 10-1). Agriculture-related e-commerce widened the channel to cities for agricultural products. In 2019, rural online retail sales totaled RMB1.7 trillion, including RMB397.5 billion in online sales of agricultural products, which was up 1.5 fold on 2016. Urban-rural infrastructure connectivity made great headway, with 99.61% of the administrative villages accessible by paved roads, safe drinking water for farmers ensured, and over 98% of the administrative villages enjoying fiber optic network and 4G access.

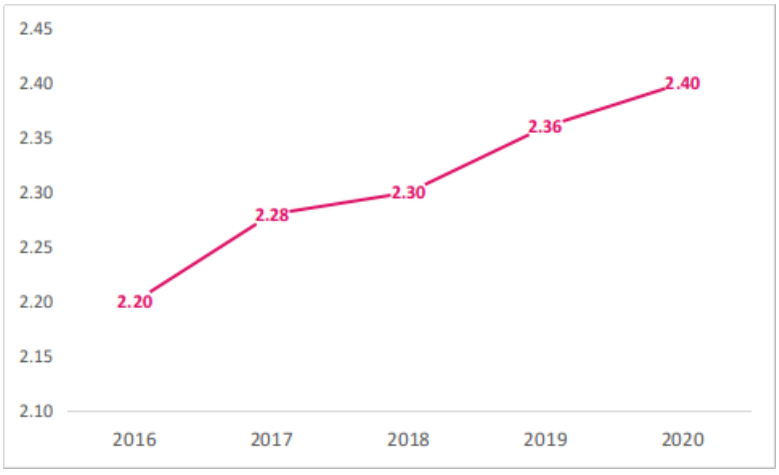


Figure 10-1 Ratio of the output value of agricultural product processing to the total output value of agriculture

Second, education was developed in a fair and balanced way. By the

end of 2020, the completion rate of nine-year compulsory education reached 95.2%, with zero dropout for students from poor rural families. 85.8% of the accompanying children of migrant workers were enrolled at public schools or provided with government-funded school placements. During the 13th Five-year Plan period, major universities enrolled 525,000 students from rural and poor areas, providing financial assistance to 391 million students in total. **Third,** the employment first strategy was implemented and popular entrepreneurship and innovation was conducted in an in-depth manner. During the 13th Five-year Plan period, new urban employment increased by over 13 million annually and the surveyed urban unemployment rate was included in monitoring, which was 5.2% at the end of 2020 (Figure 10-2). Inclusive financial supply system was improved and tax and fee cuts were carried out. The *Law of China on the Promotion of Small and Medium-sized Enterprises* was revised to support the innovation and entrepreneurship of small and micro-enterprises. As of the end of 2020, the balance of small and micro-business loans in China's banking sector stood at RMB42.75 trillion and that of agriculture-related loans was RMB39 trillion, up 82.21% and 47.8% respectively over the course of five years. From 2016 to 2020, newly reduced taxes and fees amounted to over RMB7.6 trillion. To help MSMEs through the COVID shock, 2020 saw tax and fee cuts worth over RMB2.6 trillion. The inclusive lending from the five large commercial banks to small and micro-business was up more than 50%.

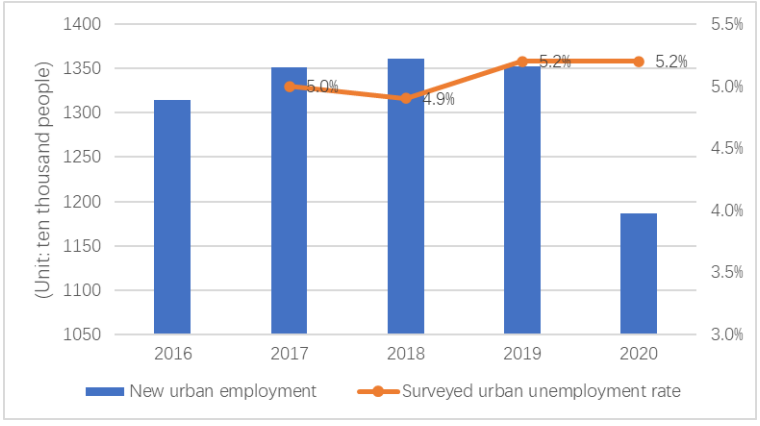


Figure 10-2 New urban employment and surveyed urban unemployment rate

Note: The National Bureau of Statistics did not publish the surveyed urban unemployment rate of 2016.

To make the development outcomes benefit all people in a better and fairer manner, the structure of national income distribution was improved, and the equalization of basic public services and full coverage of social security were promoted. First, income of the low-income group was increased continuously by stepping up redistribution and narrowing the income gap. From 2016 to 2020, the disposable income of the bottom 40% of the residents kept rising. The ratio of the disposable income of urban residents to that of rural residents fell from 2.72 in 2016 to 2.56 in 2020 (Figure 10-3). The *Personal Income Tax Law* was revised and introduced a personal income tax system consists of both general and targeted tax policies. The general deduction standard was raised to RMB60,000 per year (RMB5,000 per month), the tax rate structure was optimized, and special expense deductions were introduced, reducing the burden of taxpayers, especially that of the low-income group. **Second,** promoting equal access to basic public services, increasing assistance for areas and people in poverty, and narrowing the service gap. The transition of rural migrants to citizens was accelerated. From 2014 to 2020, over 100 million rural migrants obtained urban hukou, pushing the urbanization of permanent residents over 60%. Between 2016 and 2020, construction started for over 23 million homes under the shantytown renovation program and over 50 million residents left shantytown for apartment buildings. 7.6 million dilapidated homes of 24.93 million people were renovated. The penetration rate of rural sanitary toilets exceeded 65%. The coverage of household waste disposal system in administrative villages was over 90%. Public services such as healthcare and elderly care in rural areas kept improving. **Third,** the world's largest social safety net was developed with over 1.36 billion people enrolled in basic health insurance and nearly 1 billion people covered by the basic pension system. Unified basic pension system, basic health insurance and major disease insurance were gradually put in place for urban and rural residents. To tide vulnerable groups over the COVID shock, the coverage of unemployment insurance was widened substantially in 2020 to extend subsistence allowances and special support to 6.35 million people, with interim relief delivered to 9.53 million people.

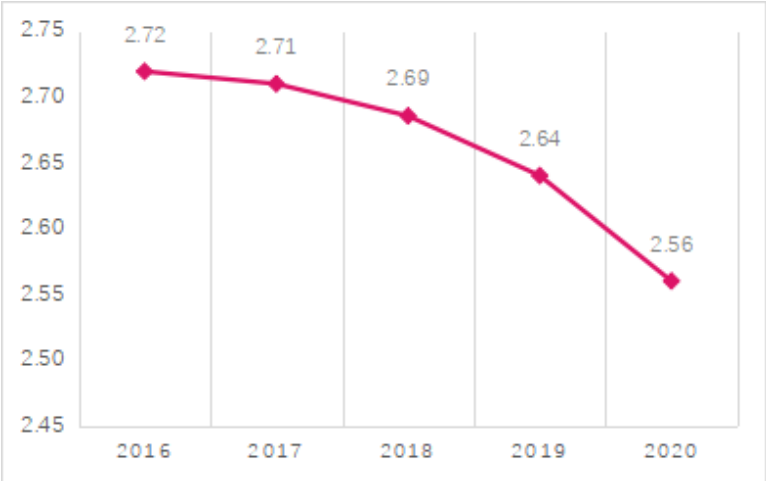


Figure 10-3 Ratio of per capita disposable income of urban residents to that of rural residents

International development cooperation was conducted actively to help narrow inequality among countries and build a community with a shared future for mankind. First, preferential tariff treatment was given to the least developed countries. As of 2020, zero tariff policy was applied to 97% of the tariff lines of products originating in 40 countries and 95% of those originating in 3 countries. Preferential treatment was accorded to Bangladesh and Laos under the Asia-Pacific Trade Agreement and to Myanmar, Laos and Cambodia and other ASEAN countries. From 2015 to 2020, China imported goods enjoying preferential treatment worth RMB125.35 billion from the LDCs mentioned above, waiving RMB11.99 billion in import duties. **Second,** Belt and Road development was advanced continuously with increased investment in developing countries to promote local economic and social development. From 2016 to 2020, China's direct investment in Belt and Road countries rose from USD15.34 billion to USD22.54 billion. By the end of 2020, USD37.6 billion had been invested in overseas trade and economic cooperation zones in Belt and Road countries, creating 330,000 local jobs. **Third,** China actively helped developing countries counter COVID-19 and its economic and social impact. The G20 Debt Service Suspension Initiative was carried out roundly by China, who suspended the largest amount among all creditor countries by the end of 2020. SDR5.58 million was contributed to COVID response facilities such as the Catastrophe Containment and Relief

Trust of the IMF, in support of its efforts to help low-income countries fight the pandemic and attain debt sustainability. Developing countries were prioritized in the provision of Chinese vaccines as international public goods. As of August 2021, vaccine assistance was provided to 105 developing countries and 4 international organizations. **Fourth,** efforts were made to actively improve the regulation and monitoring of global financial markets and institution. China fully participated in the drafting, discussion and deliberation of the plan for reforming the global financial regulatory system and worked to ensure that international rule-making reflect the actualities of financial sector in various countries and incorporate the calls and voices of emerging markets. **Fifth,** reforming immigration management institutions and innovating relevant policies. In 2018, the National Immigration Administration was set up to improve the immigration management system. Immigration policies were optimized to promote safe and orderly flows of people. In 2019, immigration authorities inspected 670 million people crossing the border, an increase of 3.8% year-on-year. Among them, 97,675,000 were foreigners. Since the outbreak of COVID-19, the Chinese government has actively helped foreigners in China, providing timely guidance on epidemic prevention, facilitating their stay and residence, and protecting their health. China has been adjusting immigration policies according to circumstances related to the epidemic, resuming personnel exchanges with other countries in a steady and orderly manner, and contributing to the recovery of economic and social development.

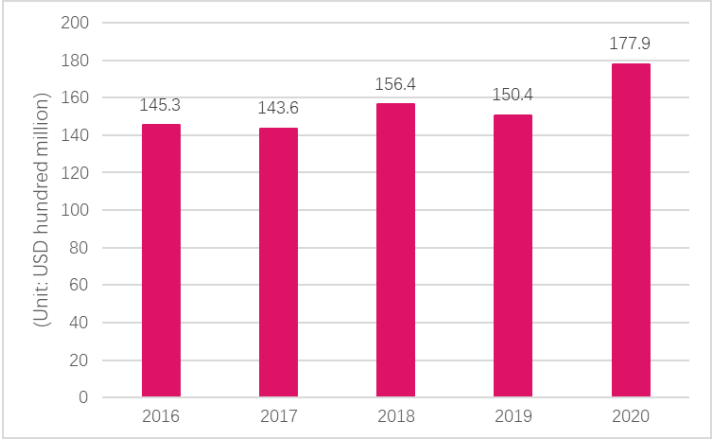


Figure 10-4 Non-financial direct investment from China to the Belt and Road countries

Source: MOFCOM Public Service Platform for Going Global.

II. Basic experience

With the commitment to common prosperity, the goal is gradually realized step by step. The CPC and the Chinese government see increasing people's wellbeing as the motivation and purpose of economic development, promoting all-round human development and achieving common prosperity step by step. Under the guidance of the strategic idea and in view of China's reality and level of economic and social development, the Party and the Government crafted the three-step[13]development strategy by the middle of the century. In the past five years, the Party and the Government focused on addressing the imbalances and inadequacies in development and implemented the strategy of precision poverty alleviation, accomplishing the historic feat of eliminating absolute poverty, delivering a moderately prosperous society in all respects and laying down a solid foundation for common prosperity.

Second, a balanced and inclusive development model is pursued continually for fairness and inclusiveness. China has a vast territory and an uneven distribution of natural endowments and population, resulting in an unbalanced economic and social development. After the East taking the lead and taking off, regional coordinated development strategies such as the development of the western region and the rejuvenation of the northeast were prioritized to drive industrial development, boost employment and income and narrow the regional gap through wealth spillover and East-West coordination. To narrow the wide urban-rural gap, a series of strategies, including urban-rural coordination, urban-rural integration, integrated urban-rural development and rural rejuvenation, were laid out to perfect the systems and mechanisms for integrated urban-rural development and promote equal development opportunities.

13 Step One aims to meet subsistence needs; Step Two targets moderate prosperity; and Step Three will deliver basic modernization.

Third, the distribution system balancing equity and efficiency is improved for shared benefits. China sticks to the distribution system with labor compensation as the mainstay complemented by other forms of distribution, with a view to aligning resident income growth with economic growth, and pay rise with productivity growth, continuously optimizing national income distribution, and improving the redistribution regulating mechanism featuring taxation, social safety net and transfer payment for narrowed income gap and shared benefits for all. China continues to build a multi-tiered social security system, which is universal, balanced between urban and rural areas, fair, unified, and sustainable. China steps up to fill in the gaps in people's welfare, and enhances support and relief for vulnerable groups to promote social equity and justice.

III. Future work

At the new development stage, the imbalances and inadequacies in China's development remain pronounced, with wide gaps in urban-rural and regional development and income distribution, uneven access to and patchy quality of basic public services. There is a long way to go from eliminating absolute poverty to achieving common prosperity. China will stay committed to coordinated development and the new development concepts with emphasis on the following areas.

First, systems and mechanisms will be perfected for integrated urban-rural development and coordinated regional development. To advance rural rejuvenation roundly, the transition of rural migrants to citizens will be accelerated, and urbanization underpinned by county seats will be promoted. China will accelerate the optimization of the housing security system, which features mainly public rental housing, government-subsidized rental housing and housing with joint property

rights. The employment first policy and high-quality education system will be strengthened for sound and balanced development of compulsory education and urban-rural integration. By building city clusters and metropolitan areas, the new urbanization strategy and the coordinated regional development strategy will be coordinated to explore new mechanism for more effective coordinated regional development. Support will be provided to Zhejiang in its development of the demonstration zone for common prosperity.

Second, people's wellbeing will be further increased to raise the standards of joint contribution, co-governance and shared benefits. The share of labor compensation will be raised in primary distribution and the role of secondary distribution will be leveraged by increasing the regulating effectiveness and precision of taxation, social safety net and transfer payment. Access to basic public services will be made more equal and the multi-tiered social security system perfected to raise the coverage of basic pension scheme to 95% and optimize the social relief and charity system. The action plan for promoting common prosperity will be formulated to proactively narrow regional, urban-rural and income gaps, so that development outcomes can benefit all in a fairer manner.

Third, China will actively engage in global governance system reform and help steer it toward a more just and reasonable direction. China will maintain and improve the multilateral economic governance mechanism, build a high-standard FTA network and open new chapters in win-win cooperation. China will actively develop global partnerships, strengthen trade and economic cooperation with developing countries and help developing countries, especially the LDCs as best as we can.

SDG 11 Make cities and human settlements inclusive, safe, resilient and sustainable

I. Implementation progress

The Chinese government has adhered to people-centered urbanization as it conscientiously implements the *National New Urbanization Plan (2014-2020)*. Safeguarding citizens' right of habitation and equal access to public services has been regarded as a priority in meeting people's aspiration for a happy life. Efforts have been made to ensure people's access to not just housing but housing with safe and decent conditions. Human settlement has seen significant improvement. Urban public transportation hub networks have been steadily improved. Capacity of cultural heritage protection and disaster resilience has been further enhanced. Solid progress has been made in sustainable urban development.

China has accelerated the improvement of the diverse basic housing system with ever-improving housing conditions for urban and rural residents. China has built the world's largest housing security system, building more than 80 million units of government-subsidized housing or housing that has been renovated or resettled in run-down areas, and improving the living conditions for more than 200 million people. Public rental housing has been provided in a targeted manner to eligible recipients of subsistence allowance in urban areas and low-income households. By the end of 2020, more than 38 million impoverished people had moved into public rental houses and over 22 million impoverished people had received rental subsidies. Rebuilding of urban rundown areas has proceeded steadily with great improvement in infrastructure. During the 13th Five-year Plan period, more than 23 million rundown areas were rebuilt, with over 50 million residents moving from rundown areas to new buildings. Annual renovation plans have been drafted in a scientific and reasonable manner and implemented steadily to revamp old and dilapidated urban communities. From 2019 to 2020, the central government provided over RMB140 billion subsidies for local governments to renovate around 60,000 old and dilapidated urban communities, benefiting more than 11 million families. Per capita floor area of urban households increased from 36.6 square meters in 2016 to 39.8 square meters in 2019.

China has made continuous efforts to systematically manage environmental pollution and adverse per capita environmental impact in cities has been significantly mitigated. The *Three-Year Action Plan for Winning the Blue Sky Defense Battle* has been accomplished in all respects. In 2020, cities at or above the prefecture level recorded clean or fairly clean air during 87% of the days, up 5.8 percentage points from 2015. Annual average concentration of fine particles (PM2.5) and inhalable particles in major cities dropped from 42 micrograms per cubic meter and 71 micrograms per cubic meter in 2016 to 33 micrograms per cubic meter and 56 micrograms per cubic meter in 2020 respectively.

Urban garbage decontamination capacity has been enhanced remarkably. By the end of 2020, the amount of urban garbage decontaminated had reached 963,500 tonnes per day, up 67% over 2015, and urban sewage treatment capacity reached 190 million cubic meters per day, up 35.5% over 2015. Comprehensive reform of urban solid waste management has been pushed forward steadily. The *Law on Prevention and Control of Environmental Pollution by Solid Waste* has been revised. Pilot projects of comprehensive utilization of industrial solid waste and resource recycling have been implemented. Pilot programs to build zero-waste cities has been launched to minimize landfills and the environmental impacts of solid waste.

China has vigorously built green city parks and green spaces to expand people's access to leisure and recreational facilities. The areas of parks and green spaces in urban built-up areas have continued to expand with a better layout. By the end of 2020, the green area and the rate of green space in urban built-up areas had amounted to 2.40 million hectares and 38.24%, up 25.6% and 1.88 percentage points over 2015 respectively. The green area of city parks had reached 797,900 hectares with a per capita area of 14.78 square meters, an increase of 29.9% and 10.7% respectively over 2015. Urban transformation and upgrade as well as green development has been greatly promoted with continued efforts to build forest cities, garden cities and eco-park cities. Between 2016 and 2020, 98 cities became national forest cities, 74 cities became national garden cities, and 12 cities were granted as national eco-park cities .

China has implemented the strategy to prioritize public transportation development in earnest and gradually improved urban transportation infrastructure. China has pressed ahead with construction of urban rail lines in an orderly manner and accelerated the development of urban slow transit systems to better meet people's diverse travel needs. By the end of 2020, 42 cities had opened and operated urban rail lines with an operational mileage of 7,597.9 kilometers and

bike sharing services had been available in more than 360 cities. Urban road networks featuring well-designed expressways, trunk roads and sub-branch roads suitable for green travel have been developed. The total length of urban roads amounted to 493,000 kilometers, with the density of road networks in built-up areas reaching 7.07 kilometers per square kilometer. Per capita urban road area increased from 15.8 square meters in 2016 to 18.0 square meters in 2020 (Figure 11-1). Road space has been better allocated to promote green travel and meet the needs of people with disabilities. Construction of bicycle lanes and urban barrier-free facilities has been expedited. Barrier-free parking space in residential areas has been built, and low-floor buses and barrier-free taxis are promoted.

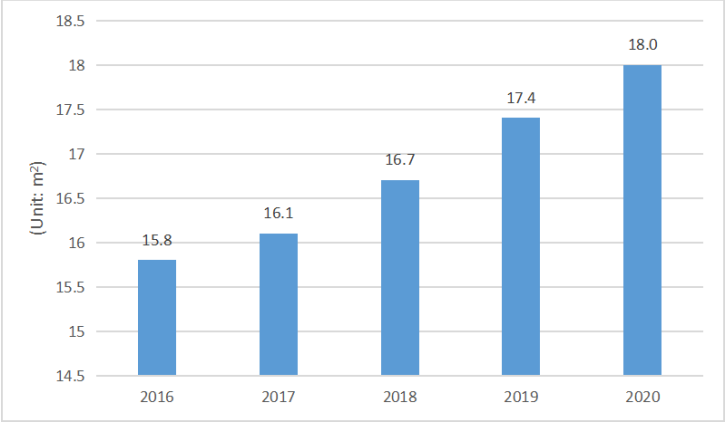


Figure 11-1 Per capita urban road area

China has stepped up protection of historical, cultural and natural heritage and provided diverse public cultural services. Selection of national scenic spots and the application for world cultural heritage have been advanced. Protection of key cultural relics has been strengthened. By the end of 2020, there had been 5,058 key historical and cultural sites protected nationwide and 5,214 museums open for free, with a total of 1.23 billion annual visitors. For public cultural services, the goal of building one museum for every 250,000 people has been achieved. From the beginning of 2020, more than 2,000 digital exhibitions on cultural heritage have been launched, attracting a total of 5 billion viewers. Protection of national cultural relics and heritage has been strengthened, with national per capita annual expenditure on cultural relics up from

RMB25.65 in 2016 to RMB33.92 in 2019 (Figure 11-2).

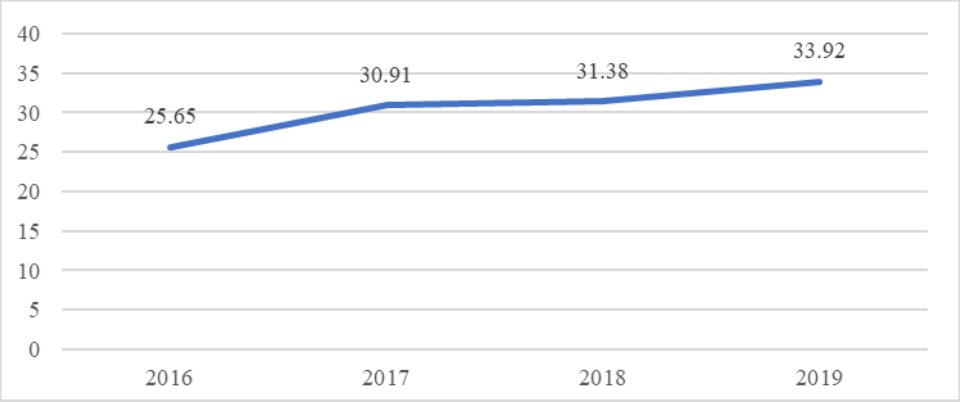


Figure 11-2 National per capita annual expenditure on cultural relics (RMB)

China has massively reinforced the capacity of urban planning and disaster resilience to support sustainable urban development. Spatial planning has been made at all levels in a science-based fashion, factoring in population distribution, economic layout, land use, ecological and environmental protection, among others. Community-level disaster prevention and reduction capacity has been strengthened with rising public awareness of disaster prevention and reduction and self-rescue and mutual assistance capability. From 2016 to 2020, natural disasters of all sorts affected 149 million people, left 964 people dead or missing, brought down 199,000 houses and caused direct economic losses of 0.4% of GDP on average each year, down by 52%, 38%, 71% and 39% respectively compared to the period between 2011 and 2015. Pilot programs to build sponge cities have been launched in 30 cities, with a total investment of about RMB160 billion, eliminating 76 black and odorous water bodies and 384 flood-prone locations. By the end of 2020, a total of 39,000 sponge city construction projects had been completed nationwide, expanding urban green spaces and waterfront spaces, significantly enhancing disaster prevention and reduction capabilities, and continuously increasing the supply of quality ecological products.

China has actively participated in cross-border international rescue

and disaster relief with the awareness of building a community with a shared future for mankind on the rise. China promoted the establishment of the international cooperation mechanism for natural disaster prevention and emergency management under the Belt and Road Initiative, and actively carried out international exchanges and cooperation in the field of emergency management. High-level rescue teams have been set up to carry out humanitarian relief operations and played an important role during natural disasters and humanitarian crises such as the Cyclone Idai in Mozambique, the outbreak of Ebola virus disease in the Democratic Republic of the Congo. China has supported the construction of disaster prevention and reduction projects in Asia-Pacific countries through the Silk Road Fund alike.

II. Basic experience

First, maximizing access to housing with multi-player supply through multiple channels. China has introduced and improved a housing security system featuring mainly public rental housing, government-subsidized rental housing and housing with joint property rights. Public rental housing is mainly provided for urban families with poor housing or low income by the government, who provides real houses or monetary subsidies. Government-subsidized rental housing is supported by land, fiscal, tax, and financial policies, and the market is fully leveraged to guide multi-party investment and multi-channel supply. This type of housing is provided to solve housing difficulties for eligible new citizens and young people. Large cities with a net inflow of population are encouraged to develop jointly owned housing in accordance with local conditions. Rebuilding of urban rundown areas and old and dilapidated districts has been pushed forward.

Second, enhancing the quality of sustainable urban development

with efforts oriented to providing sound and decent living conditions. Driven by pilot projects of sponge cities, climate-resilient cities and ecological restoration cities, urban planning and construction has been managed in a coordinated manner to continuously optimize urban spatial structure and management layout and massively improve the quality of ecological environment in cities. Efforts have been made to systematically enhance the overall urban governance capability in such areas as living environments, health care, safety, resilience, transportation, unique landscape, city appearance, diversity, inclusiveness and innovation.

Third, improving basic urban public services in line with the vision for green, shared and inclusive development. Keeping in step with new ideas and trends of modern urban development, construction of municipal public utilities and public transportation has been prioritized and the supply of basic public services has been increased to strengthen the capability to support and serve more people. In order to better preserve culture and upgrade the quality of cities, priority has also been given to protecting historical and cultural heritage, culture styles and traditional appearance of ethnic groups in the process of renovating urban areas.

III. Future work

There are still many challenges and difficulties despite the positive progress China has made in advancing people-centered urbanization. Building harmonious and livable cities remains a daunting task. Group like new citizens and young people still face prominent housing difficulties. A final solution to urban diseases has not been found. Cities lack experience in adapting to climate change. There is room for improvement in resilience against severe disasters. Much remains to be done to make urban public services more timely, equitable and accessible. Committed to making cities and human settlements inclusive, safe,

resilient and sustainable, China will make efforts in the following areas.

First, China will continue to improve the housing security system. Government-subsidized houses will be effectively increased, with still more supply of subsidized rental houses. Efforts will be made to guarantee the supply of public rental houses. Measures will be tailor-made to promote housing with joint property rights. Rebuilding of urban rundown areas and old and dilapidated houses will be pushed forward.

Second, China will provide guidance for local governments to improve urban planning and park systems. Construction of green ecological networks will be stepped up including urban green corridors and green roads, providing residents with more green public spaces and enhancing urban carrying capacity and livability.

Third, China will improve the capability of providing flexible governance and thoughtfully-designed services. Continued efforts will be made to rebuild and upgrade urban roads, public transportation, living communities and public service facilities. Barrier-free environments will be developed expeditiously featuring well-functioning supporting infrastructure, smooth connectivity and comfortable living conditions.

Fourth, China will continue to make cities more disaster resilient. China will comprehensively press ahead with pilot programs of building green cities, forest cities, climate-resilient cities and barrier-free cities, promoting sponge cities construction where the conditions permit, so as to make cities more livable, inclusive, safe and sustainable.

SDG 12 Ensure sustainable consumption and production patterns

I. Implementation progress

China has adhered to the philosophy of green development and pursued green transition. During the 13th Five-year Plan period, green development was incorporated into the national five-year plan for the first time. Efficiency of resource utilization increased notably. Energy-saving and environment-friendly industries went from strength to strength. Production and lifestyle became increasingly green and low-carbon. In 2020, China announced the vision of peaking carbon dioxide emissions before 2030 and achieving carbon neutrality before 2060. China will build a sound, green, low-carbon and circular economic system expeditiously to achieve greener economic and social development across the board.

China has enhanced the efficiency of resource and energy development and utilization and controlled total carbon dioxide emissions effectively. First, China has further put under strict control both the total intensity and consumption of energy through a mechanism of prioritizing the control of carbon dioxide emission intensity, accompanied by controlling total carbon dioxide emissions. **Second,** China has improved laws, regulations and standards including the *Law on Energy Conservation* and created incentives such as preferential tax policies to promote energy-saving and low-carbon growth. **Third,** China has actively optimized industrial structure and enhanced energy efficiency in key sectors. In 2020, China's energy consumption per unit of GDP dropped a cumulative total of 24.4% from 2012; carbon dioxide emissions per unit of GDP went down by 18.8% and 48.4% compared with 2015 and 2005 respectively, overshooting the targets set by the 13th Five-year Plan and international commitments and reversing the rapid growth in carbon dioxide emissions.

China has improved the post-production service system and cut food loss across the whole cycle thanks to scientific and technological innovation. First, the "Quality Grain" projects have been implemented to build specialized operational post-production service centers, which provide services such as cleaning, drying, storing, processing, and sale. **Second,** the "Green Storage Improvement Project" were pushed forward to reinforce storage facilities and improve their technical levels. **Third,** new technologies have been developed and rolled out to reduce food loss during storage, transportation and processing. **Fourth,** the social awareness of valuing and saving food has been promoted through campaigns and publicity as well as setting up national educational bases on food security. With scientifical food storage techniques, the food loss rate of major state-owned grain storage in one storage cycle has been brought down to below 1%. Newly introduced milling equipment has reduced the broken rice rate by around 5 percentage points. China has continued to build modern food storage facilities and to fix and rebuild

dilapidated storage facilities, eliminating most open-air grain storage. Ninety-nine percent of the planned 5,000 post-production service centers have already been built.

China has enhanced prevention and control of solid waste pollution with significantly improved waste utilization and handling capacity. First, the *Law on Prevention and Control of Environmental Pollution by Solid Waste* has been revised and administrative regulations and standards formulated. **Second,** a sound system covering the whole process of waste management has been established and the imported solid waste management system has been improved. **Third,** efforts have been made systematically to push for core technological breakthroughs in areas such as utilization of solid waste resource. In 2019, 354 million tonnes of renewable resources were recycled, up 38% over 2016; in 2020, the capacity of utilizing and handling hazardous waste in a centralized way exceeded 140 million tonnes per year, with the capacity of utilization and handling increasing 1.6-fold and 2.3-fold respectively compared with 2015; by the end of 2020, the daily decontamination capacity of municipal household garbage reached 963,500 tonnes, up 67% from 2015 (Table 12-1); decontamination rate of household garbage was 99.17% in 2019. From 2018 to 2020, Operation Demeter IV targeting illicit trafficking of solid waste seized 430,000 tonnes of illicit waste.

Table 12-1 Decontamination rate of household garbage

Year	2016	2017	2018	2019
Rate	96.6%	97.7%	99.0%	99.2%

Source: *China Statistical Yearbook*, National Bureau of Statistics of China.

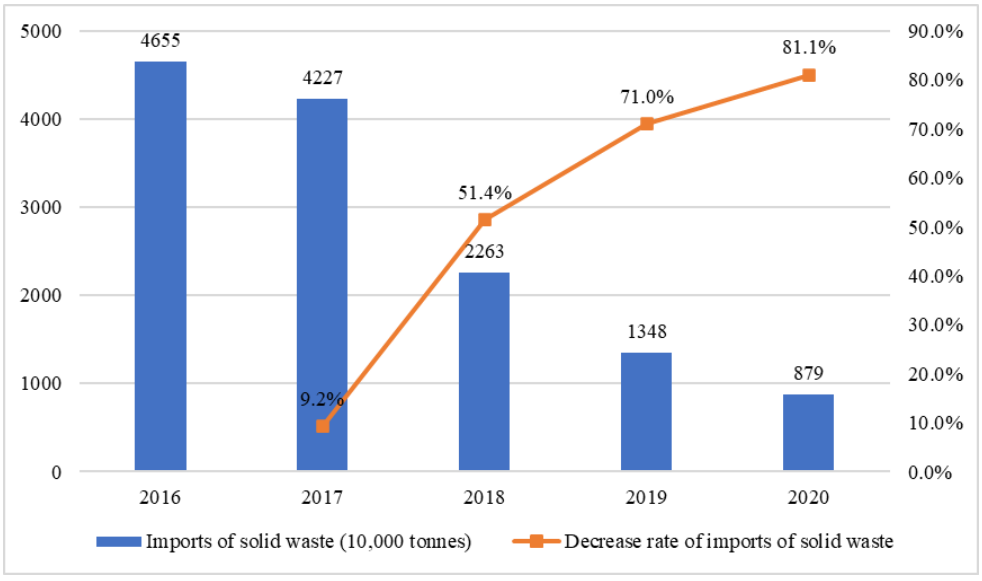


Figure 12-1 Imports of solid waste by China

Note: In July 2017, the State Council General Office released the *Implementation Plan on Banning Entry of Foreign Garbage and Reforming the Administrative System of Solid Waste,* imposing a sweeping ban on the import of foreign garbage, improving the administrative system for imported solid waste, and enhancing the administration of recycling and utilizing solid waste. This figure shows progress in the management of imported solid waste since the reform. The base of decrease rate of imported solid waste is of 2017.

Source: Ministry of Ecology and Environment, China

China has advanced pilot programs of zero-waste cities steadily and made positive progress in garbage sorting. First, pilot programs of zero-waste cities have been launched, promoting the reduction of solid waste sources, recycling and decontamination. A quantitative indicator system was established. **Second,** garbage sorting and recycling has been rolled out widely with guidance of relevant standards. Efforts have been made to establish tailor-made garbage classification systems featuring the rule of law, government support, public participation, and coordinated efforts. The 16 pilot zero-waste cities and regions have produced a batch of replicable and scalable patterns of green life and production. By the end of 2020, 46 major cities had set up garbage sorting systems by promulgating regulations or rules; other cities at and above the prefecture level had started garbage sorting; the proportion of administrative villages where household garbage was collected and handled had exceeded 90%.

China has worked to promote sustainable development of tourism in pursuit of economic, social and ecological benefits. The revision of

the *Standards for Building and Operating Ecotourism Demonstration Zones* has been initiated. The *Development Plan for National Ecotourism (2016-2025)* has been published to coordinate ecotourism development nationwide, strengthen coordination and interaction between tourism development and ecological protection, and explore new ways of revitalizing rural areas through ecotourism. Around 200 major ecotourist sites have been built with 50 quality ecotourism routes. By 2019, rural areas had attracted 3.09 billion tourists, creating RMB1.81 trillion revenues. In 2020, recreational agriculture registered a revenue of RMB604.9 billion with the proportion in national tourism market up over 10% compared with 2019.

China has promoted a green way of life and production with multiple measures to drive sustainable consumption and production. First, central supervision over ecological and environmental protection has continued to tackle the prominent problems that prompt strong public reaction and follow up typical events exposed by the press. **Second,** tax policies on green, low-carbon and circular development have been implemented with collection of environmental protection tax. **Third,** the government has improved its green procurement system for energy-efficient products and green packaging. Pilot programs have been launched to promote green buildings and green building materials with government procurement support. to raise public awareness of ecological protection, green government procurement systems have been improved, and pilot programs have been launched. **Fourth,** the *Code of Conduct for Environmental Protection (pilot)* and the *Work Towards a Beautiful China: Action Plan for Raising Public Awareness of Ecological Conservation (2021-2025)* have been drafted, and themed activities have been organized. **Fifth,** authoritative information on ecological and environmental issues has been released through multiple platforms and ways in a timely manner. Annual reports on solid waste pollution prevention and control in medium to large cities have been published for five consecutive years. Relevant information on nationwide solid waste

pollution prevention and control has been made public. The new media account of the Ministry of Ecology and Environment has been viewed by 2.43 billion times by the end of July 2021.

China has actively participated in global environmental governance and continued to facilitate development of relevant international environmental conventions. First, China has been deeply engaged in negotiations on the *Basel Convention,* the *Stockholm Convention,* the *Minamata Convention* and the *Rotterdam Convention* and strictly fulfilled the obligations set by the conventions. **Second,** China has strengthened dialogues, exchanges and practical cooperation on tackling solid waste pollution with other countries, regions and international organizations. Production, use and import and export of 19 categories of persistent organic pollutants (POPs) have been phased out. Production and import and export of nine categories of mercury-added products regulated by the convention have been stopped. The use of mercury in production processes has been banned in seven industries. China has hosted the Asia Pacific regional preparatory meeting for the 2019 meetings of the conferences of the Parties to the Basel, Rotterdam and Stockholm conventions, and established the Basel Convention Asia-Pacific Regional Center for Hazardous Waste Management Training and Technology Transfer and the Stockholm Convention Asia-Pacific Regional Center for Capacity building and the Transfer of Technology.

II. Basic experience

First, advancing the rule-of-law and governance innovation with ever-improving regulatory standards and institutional frameworks. Green and low-carbon development has been incorporated in the medium- to long-term plan for national economic and social development. The strictest possible laws and policies have been implemented to protect

ecology and environment. Legal environments and institutional guarantee for saving energy and reducing emissions, pollution and carbon dioxide emissions have been improved. New pilot programs for zero-waste cities and carbon emission trading have been launched. Preferential tax policies, among other green and low-carbon development polices, have been implemented. China has also released the *Anti-Food Waste Law* and the *Regulations on Food Circulation* and stipulated rules of reducing food waste.

Second, promoting high-quality economic development and environmental protection in sync with targeted, scientific and law-based measures to tackle pollution. China has fought the tough battle against pollution, put in place a quantitative indicator system, drafted technical standards and relevant specifications and pooled resources to make breakthroughs in core technology. Ecological conservation supervision and law enforcement have been intensified. The status of pollution prevention and control is made public on a regular basis to form a network of joint supervision and management.

Third, implementing the innovation-driven development strategy in real earnest to build a modern economic system expeditiously. Reform of science and technology management system has been deepened and new technologies have been developed and promoted to achieve sustainable management and efficient use of resources. Industrial structure has been optimized with energy efficiency in key sectors improving. Carbon emissions have been controlled through legal, administrative, technological and market-oriented measures. Green government procurement systems have been improved. Sustainable ways of consumption and life such as ecotourism have been encouraged to continuously engage the public in ecological conservation.

III. Future work

There is still much to do to make China better-positioned to achieve green transformation in all respects. It is an arduous task for China to peak carbon emissions given the tight schedule, high intensity and multiple challenges. China's *14th Five-year Plan for National Economic and Social Development and the Long-Range Objectives Through the Year 2035* put forth that "green modes of production and living will broadly take shape and carbon emissions will decline steadily after reaching a peak", with clear requirements for thorough implementation of the sustainable development strategy, comprehensive and green transformation of economic and social development and modernization featuring harmonious coexistence of human and nature. To this end, China will focus on the following aspects.

First, China will accelerate transformation to green development. China will continue to prioritize ecological conservation and green development, manage resources in a science-based way, and advocate conservation and recycling across the board. Concerted efforts will be made to promote high quality economic growth and ecological conservation. China will enhance resources utilization efficiency comprehensively, build resource recycling systems, vigorously develop green economy and put in place a policy framework for green.

Second, China will continue to reduce food loss. Top-down design will be improved to provide farmers with guidance for scientific food storage, implement green storage improvement projects, promote appropriate processing of food and oil, advance comprehensive utilization of byproducts of food and oil processing, refine relevant standard systems, implement the *Anti-Food Waste Law*, enhance the publicity and education on saving food and reducing food loss, and deepen international cooperation in this regard.

Third, China will deepen the battle against pollution. Waste pollution will be better dealt with through screening solid waste and preventing pollution along the Yangtze River Economic Belt, handling lead battery scrap and strengthening pollution prevention and management of tailings. China will improve regulation of solid waste, expedite law-making on chemical products, continue to evaluate, manage and control the environmental risks of chemicals and facilitate management of new pollutants. Efforts will be made to promote implementation of international conventions in a steady manner.

Fourth, China will practice the idea of circular economy on all fronts. Circular ways of production, green design and clean production will be promoted. Waste recycling systems will be advanced to improve resource recycling capacities. China will work on making and revising standards and specifications related to solid waste and hazardous waste screening. Efforts will be made to promote garbage sorting, integrated utilization of industrial solid waste and reuse and recycling of agricultural solid waste to achieve high quality development of the renewable resource industry in China. Pilot zero-waste cities will deepen the reform and play a leading role in innovation.

Fifth, China will encourage green and low-carbon lifestyle broadly. Publicity and education will be enhanced to raise public awareness of green and low-carbon development. A unified framework of green products standards, accreditation and labelling will be put in place. The mechanism to promote green products will be improved to expand supply of low-carbon and green products. Actions will be taken to promote a green way of living.

SDG 13 Take urgent action to combat climate change and its impacts

I. Implementation progress

China has always attached great importance to addressing climate change. China has continued to strengthen its capability to address climate change by improving top-down design, accelerating the implementation of policies and speeding up fundamental research. China has fulfilled its international commitment to carbon intensity reduction ahead of schedule. In September 2020, President Xi Jinping announced that China will strive to peak carbon dioxide emissions by 2030 and achieve carbon neutrality by 2060, which speaks volume for China's determination to actively address climate change and reflects its commitment to promote the building of a community with a shared future for mankind.

China has advanced the implementation of national strategy

on responding to climate change and achieved its carbon intensity target ahead of schedule. China has incorporated response to climate change into the 13th Five-year Plan and put forth for the first time the target of controlling total carbon dioxide emissions, focusing on effective control of greenhouse gas emissions and proactive adaptation to climate change. The *Work Plan for Greenhouse Gas Emissions Control during the 13th Five-year Plan Period* has been formulated. Provinces and government departments have drafted and published relevant work plans in accordance with actual conditions. Formulation of the *National Adaptation to Climate Change Strategy 2035* has been launched. In December 2020, Chinese President Xi Jinping pledged to the world at the Climate Ambition Summit that by 2030, China will lower its carbon dioxide emissions per unit of GDP by over 65 percent from the 2005 level, increase the share of non-fossil fuels in primary energy consumption to around 25%, increase the forest stock volume by 6 billion cubic meters from the 2005 level, and bring its total installed capacity of wind and solar power to over 1.2 billion kilowatts. The 14th Five-year Plan has clearly set forth that the energy consumption and carbon dioxide emissions per unit of GDP will be reduced by 13.5% and 18% respectively, as one of the main objectives of economic and social development. With national leaders heading the Leading Group on Climate Change and Energy Conservation, and the Leading Group on Carbon Emission Peaking and Neutrality, synergy between multiple agencies is created and promoted. In 2020, China's energy consumption per unit of GDP decreased by 24.4% compared to 2012; carbon dioxide emission per unit of GDP dropped by 18.8% compared to 2015, and by 48.4% compared to 2005. China has hit those targets for 2020 ahead of schedule as it pledged to the international community.

China has worked to enhance the capability of disaster prevention, reduction and relief and actively adapt to climate change. Disaster risks investigation and screening of major potential risks have been implemented to intensify the assessment of disaster risks. Disaster

monitoring, early warning and assessment system has been improved. In 2018, the Ministry of Emergency Management was set up, introducing a new type of disaster management system to explore the mechanisms such as the national command system based on flat organization for disaster emergency response and an integrated approach to disaster prevention, rescue and relief. Community-based disaster prevention and reduction capacity has been strengthened, enhancing the county-level comprehensive disaster reduction capacity. Efforts have been made to enhance people's awareness of disaster prevention and reduction, and capacity of self-rescue and mutual assistance. Between 2016 and 2020, various natural disasters in China affected an average of 149 million people, with 964 dead or missing, and brought down 199,000 house per year, with direct economic losses accounting for 0.4% of GDP, a significant decrease from the period between 2011 and 2015 (Figure 13-1, Figure 13-2). Although China suffered the worst flood since 1998 in 2020, the number of deaths or missing caused by floods dropped by 53% from the previous five-year average.

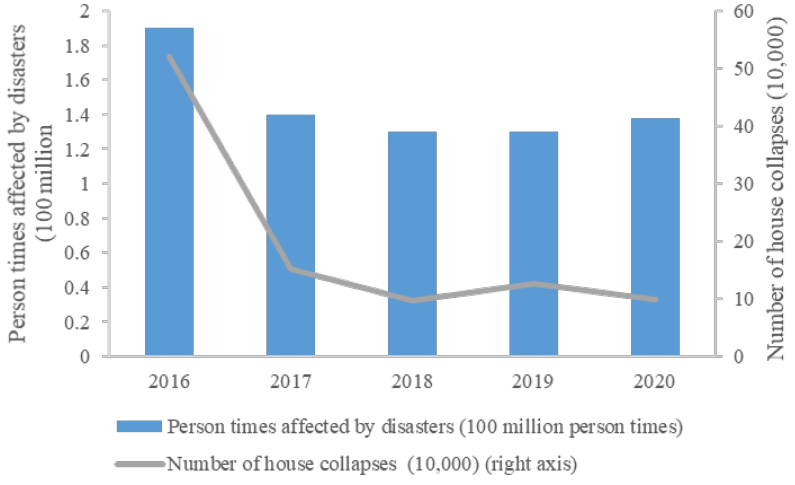


Figure 13-1 Person times affected by disasters and number of house collapses between 2016 and 2020

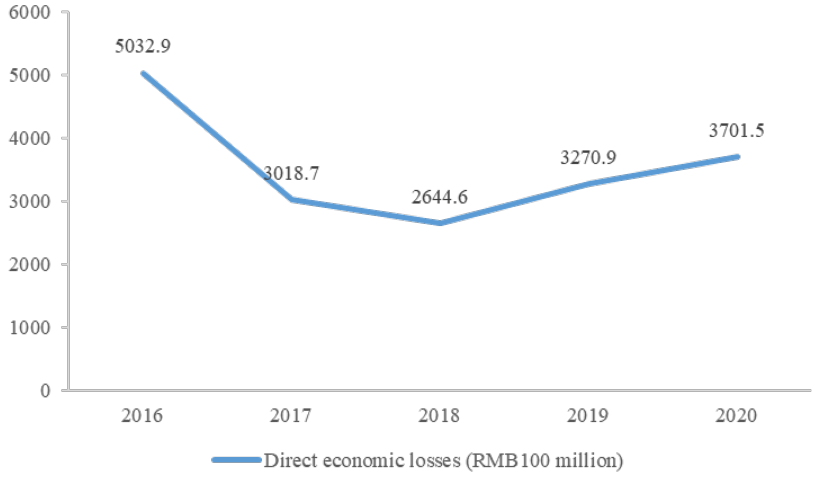


Figure 13-2 Direct economic losses caused by natural disasters between 2016 and 2020

China has implemented policies on green and low-carbon development with marked outcomes of energy conservation in key sectors. China strengthens financial support for green and low-carbon development in three aspects, including resource allocation, risk management and market pricing. The five pillars of green finance are exploring and forming gradually-green financial standard system, information disclosure requirements, incentive and constraint mechanisms, green financial products and market system, and international cooperation in green finance. Nine pilot zones for green financial reform and innovation have been set up in six localities, producing scalable and replicable development experience which has been rolled out in a progressive manner. At the end of 2020, China's green loan balance reached RMB11.95 trillion, the world's largest in terms of stock size. 21 major banks had a green credit balance of over RMB11.59 trillion, an increase of RMB4.33 trillion or 59.6% compared to June 2016; green bonds were issued with a cumulative total of RMB1.2 trillion and a stock of RMB813.2 billion, ranking second in the world. By the end of August 2021, six localities had submitted applications to carry out climate investment and financing pilots. Since 2011, China has promoted the development of a carbon emission trading market on a pilot basis and has issued a number of documents to gradually improve market

regulations. By 2020, China's pilot carbon market had become the world's second largest in terms of allowance transactions, with a cumulative total of 331 million tonnes worth RMB7.34 billion. Efforts to reduce emissions have paid off. China has actively promoted the reform of the Chinese Certified Emission Reduction (CCER) trading mechanism. As of December 31, 2019, the voluntary emission reduction trading has shown a steady upward momentum, with cumulative transactions of over 200 million tonnes of CCER worth over RMB1.64 billion. Pilot projects to build climate-resilient city have been rolled out in 28 cities. Pilot projects to build low-carbon province and city have been carried out in 81 cities in six provinces and regions. Between 2016 and 2019, energy consumption per unit of value added from industrial units above designated size in China dropped by more than 15% cumulatively, equivalent to saving 480 million tonnes of standard coal. Since the 13th Five-year Plan period, renewable energy installations have grown by an average of about 12% per year, with new installations accounting for more than 50% of the annual total, becoming an important component of the energy transition and the main driver of growth in electricity.

China has worked to improve data and technology as basis to better respond to climate change and the philosophy of green and low-carbon development has taken root in the society. *The 13th Five-year Special Program Plan for Scientific and Technological Innovation* to Address Climate Change has been implemented in earnest, with emphasis on fundamental research on how to cope with climate change. The greenhouse gas list and emission calculation have been improved, factoring in the rate of decrease in carbon dioxide emissions per RMB10,000 of GDP into statistical communique. Efforts have been made to report the greenhouse gas emissions data by enterprises in major industries such as power, steel and cement, providing a database for carbon emission allowance allocation and enterprises compliance. More support has been provided for research and development of low-carbon technologies and carbon capture, utilization and storage technologies.

Dozens of pilot projects have been launched to build an international cooperation platform engaging industry, academia and research institutes. China has continued to provide capacity building training for officials to enhance their ability to address climate change. Key industries and enterprises have moved faster with formulating action plans for peaking carbon dioxide emissions and achieving carbon neutrality. The idea of low-carbon lifestyle has been promoted through campaigns such as the national low-carbon day. Publicity and education on security, self-rescue and mutual assistance skills have been enhanced on important days such as National Disaster Prevention and Reduction Day and International Day for Disaster Risk Reduction.

China has actively engaged in international cooperation and promoted South-South cooperation on climate change. Firmly adhering to multilateralism, China has actively promoted the conclusion of the *Paris Agreement*, carried out international cooperation and fulfilled its own responsibilities and obligations in accordance with the principle of common but differentiated responsibilities. China has actively engaged in global climate and environment governance. As the largest donor from developing countries, China has contributed USD95.54 million in total to the Global Environment Facility, giving strong support to other developing countries in addressing climate change and carrying out cooperation on environmental protection. In 2017 and 2019, China submitted the *People's Republic of China First Biennial Update Report on Climate Change, the People's Republic of China Third National Communication on Climate Change* and the *People's Republic of China Second Biennial Update Report on Climate Change*, open to international consultations and analysis. Since 2011, China has vigorously promoted South-South cooperation on climate change and trained nearly 2,300 officials and professionals in relevant areas via 93 training programs of South-South cooperation on climate change, which were financed by the foreign aid funds. Since 2015, China has signed 39 cooperative documents on responding to climate change with 35 fellow developing

countries, providing low-carbon and energy-saving supplies and technological equipment.

II. Basic experience

First, strengthening institutional guarantee with emphasis on top-down design. China has adopted a national strategy on responding to climate change. The top-down approach promotes coordination among different agencies under multiple mechanisms. Institutional design has been strengthened through setting up and coordinating different mechanisms so as to provide institutional guarantee for response to climate change.

Second, rolling out experience accumulated in pilot programs step by step. With all-round and multi-tiered pilot projects in different industries, regions and sectors, China has actively explored new approaches for transformation to low-carbon development. Systematic experience has been accumulated to drive coordinated development of economic and social development and responding to climate change. Advanced models have been replicated and rolled out nationwide in a progressive fashion.

Third, paving the way for low-carbon transformation with scientific and technological innovation. Fundamental research on low-carbon transformation holds the key to coping with climate change. Scientific and technological innovation has played a supporting role in implementing green and low-carbon development strategy by creating new models of scientific research, strengthening innovation, combining innovation and application and enhancing data, among others.

III. Future work

China is still a developing country with salient problems of unbalanced and insufficient development and is facing a series of arduous tasks including maintaining economic growth, improving people's livelihood and combating pollution. At this stage, given that the total carbon emissions in China are huge and intense, peaking carbon dioxide emissions and achieving carbon neutrality is enormously challenging. In pursuit of peaking carbon emissions and carbon neutrality, China will work towards high-quality development, ecological conservation, and overall green transformation of economic and social development.

First, China will bring forward national design for peaking carbon dioxide emissions and carbon neutrality and enhance the capability of climate change risk management and resilience. China will follow through the new development vision and pursue high-quality development featuring ecological conservation and low-carbon growth. Tasks will be specified in line with objectives to guide local governments, industries and enterprises in key sectors to set targets and develop action plans in a science-based way, so as to build a green, low-carbon and circular economy.

Second, China will accelerate the implementation of policies on low-carbon transformation to support the response to climate change. Transformation and upgrade of economic structure, energy mix and industrial structure will be advanced. Measures will be taken to reduce pollution and carbon dioxide emission in industry, urban and rural construction, transportation, energy and other key sectors. Efforts will be made to promote green and low-carbon development through major breakthroughs in technologies and well-functioning policies. Planning and management of land use will be strengthened to enhance carbon sink capacity.

Third, China will work to promote international cooperation on coping with climate change in keeping with principles of equity and common but differentiated responsibilities and respective capabilities. Addressing climate change remains a daunting task and requires broad global participation and collective action. China will continue to strengthen South-South cooperation on climate change, doing what it can to help developing countries improve their capacity, and make positive contributions to global response to climate change. China will also strengthen mutual learning and promote experience exchange and knowledge sharing in addressing climate change.

SDG 14 Conserve and sustainably use the oceans, seas and marine resources for sustainable development

I. Implementation progress

Ocean is an important area for ecological conservation. China has continued to improve its management systems, laws and regulations, made solid efforts for integrated ocean conservation, strengthened restoration and protection of marine ecosystems, improved the quality and effectiveness of marine economic development, adopted stronger measures to prevent and respond to marine disasters, taken an active part in global ocean governance, and contributed to the protection of the marine environment and sustainable use of maritime resources.

China has improved the system of administration and laws and regulations, providing strong support for marine ecological conservation. In the 2018 institutional reform

of the State Council, Ministry of Natural Resources and Ministry of Ecological Environment were established to strengthen the institutional and regulatory capacity of marine ecological conservation featuring coordinated land and marine development. China revised the Marine Environment Protection Law, the *Regulations on Control over Dumping of Wastes in the Ocean,* and the R*egulations on Environment Protection and Management of Offshore Oil Exploration and Development.* The policies and institutions for governing marine ecology have been improved continuously.

China has scaled up overall planning and coordinated efforts for treating pollution on land and in sea to prevent and reduce all kinds of marine pollution. First, China has strengthened prevention and control of pollution from land-based sources. China has implemented the *Prevention and Control Plan for Offshore Water Pollution* and cleaned up illegal or unreasonable sewage outlets into the sea. China has pursued integrated management of seagoing rivers and conducted monthly water quality monitoring of near 200 seagoing rivers. During the 13th Five-year Plan period, the water quality of rivers entering the sea improved significantly (Figure 14-1). Compared with 2015, in 2020, the proportion of water meeting Class I to III quality standards in rivers entering the sea increased by 26.4 percentage points, and the proportion of inferior quality water (Class V) decreased by 21.0 percentage points (Figure 14-2). **Second,** China has promoted targeted treatment of marine pollution sources. China has cleaned up mariculture that is illegal or not conforming to zoning control requirements, strictly enforced the *Discharge Standard for Water Pollutants from Ships*, and promoted the construction of facilities for receiving, transshipping and disposing of pollutants from ships at ports. **Third,** China has strengthened monitoring and control of marine debris and micro plastics. China has promoted the establishment of "marine sanitation" system in coastal cities, building a long-term mechanism for marine debris pollution control and regulation. In 2016, marine micro plastics were included in the routine marine

environmental monitoring. Fourth, China has improved the response mechanism for marine environmental emergencies. China has established command leading groups for environmental emergencies, and the joint response mechanism for marine environmental emergencies led by the government and participated by businesses.

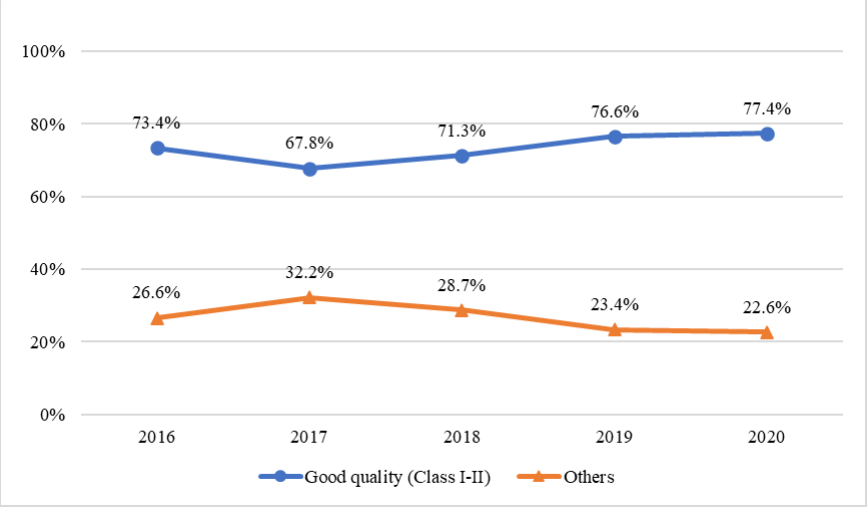


Figure 14-1 Proportion of national offshore seawater quality in China

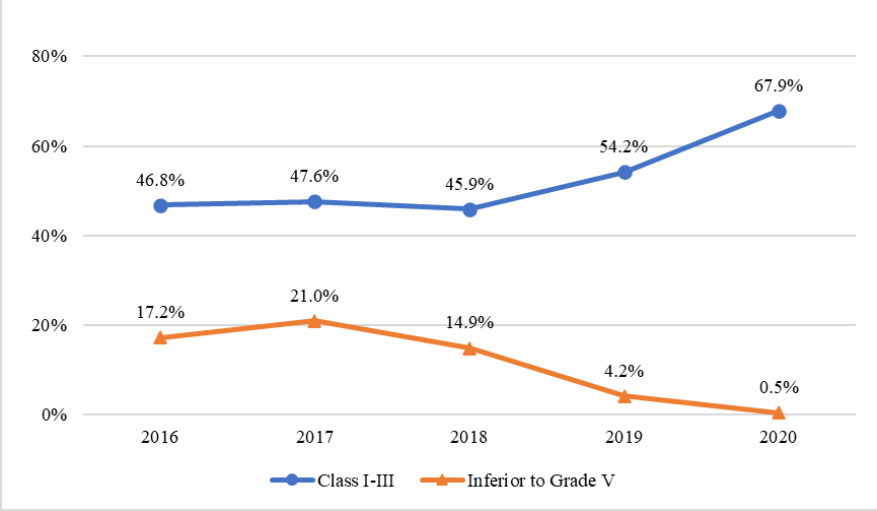


Figure 14-2 Proportion of water quality classes from cross sections of seagoing rivers in China

China has coordinated the implementation of marine ecological restoration projects, striving to improve marine ecosystem preservation. First, China has launched a Blue Bay environmental

improvement initiative and supported the efforts to protect and improve coastal zones. During the 13th Five-year Plan period, 1,200 kilometers of coastline and 23,000 hectares of coastal wetlands were restored nationwide. **Second,** China has fully established a red line system for marine ecological protection in coastal areas. Coastal reclamation activities are comprehensively prohibited, except for major national projects, so as to protect important and fragile marine ecosystems more effectively. By the end of 2020, the marine ecological red line zones in the Bohai Sea accounted for 37.52% of the total area, and the natural shoreline retention rate was 36.28%. **Third,** China has taken initial steps to establish the network of marine nature reserves. 273 marine nature reserves and special marine reserves (including marine parks) have been established, with a total area of over 120,000 square kilometers. **Fourth,** China has strengthened the ongoing regulation of marine nature reserves and ecological protection red lines through satellite remote sensing, unmanned aerial vehicles and other methods. During the 13th Five-year Plan period, the decreasing trend of wildlife habitat areas in monitored estuaries and bays was effectively curbed, and the diversity index of phytoplankton and zooplankton in most estuaries and bays increased.

China has improved the quality and efficiency of marine economic development and promoted the sustainable use of marine resources. First, China has implemented the *13th Five-year Plan for the Development of China's National Marine Economy* and promoted the high-quality development of marine economy. From 2016 to 2019, China's Gross Marine Product and marine emerging industries registered an average annual growth of 6.1% and 10.6% respectively. **Second,** China has accelerated the transformation and upgrading of marine fisheries, controlled marine fishing and developed mariculture. China has promulgated the *Regulations on the Administration of Fishing License (2018)* and the *Regulations on the Administration of Offshore Fisheries (2020)* to conserve and sustainably use marine fishery resources. **Third,** China has promoted the development of marine energy and seawater

resources. In 2020, the output of marine oil and gas were 51.64 million tonnes and 18.6 billion cubic meters respectively, increasing by 5.1% and 14.5% over the previous year. Offshore wind power has developed rapidly. In 2020, the new grid-connected capacity of offshore wind power was 3.06 million kilowatts, a growth of 54.5% over the previous year. The industrialization level of new marine energy, such as tidal and wave energy, has continued to rise. New progress has been made in research and development of seawater desalination technology, and many seawater desalination projects were completed and put into operation, with an added value of RMB1.9 billion in 2020, an increase of 3.3% over the previous year.

China has improved the ability to prevent and respond to marine disasters and help the marine sector cope with climate change. First, China has optimized the arrangements of ocean observation systems. From 2016 to 2019, 47 shore-based observation stations were built, and 84 sets of mooring lines and drifting buoys were deployed. There were 155 national basic ocean observation stations and 143 buoys of various types, achieving the density distribution target of shore-based ocean stations during the 13th Five-year Plan period. **Second,** China has comprehensively deployed the emergency warning system for marine disasters and enhanced the early warning ability for marine disasters. The range of marine disaster prediction has increased from 3 days in 2016 to 5 to 7 days now, with an accuracy rate increasing by 5%. The tsunami warning time has been shortened from 15 to 20 minutes in 2016 to 8 minutes, and the tsunami warning technology has kept abreast of the latest international advances. From 2016 to 2019, the average annual direct economic losses and deaths (including missing persons) from marine disasters decreased by 41% and 33% respectively over the prior five years.

China has actively participated in global ocean governance and promoted marine protection and sustainable use of marine resources.

First, China actively participated in the making and implementation of international ocean governance mechanisms and rules, and play a constructive role in the formulation and revision of international agreements on the conservation and sustainable use of marine biodiversity in areas beyond the scope of national jurisdiction, and international seabed minerals development regulations. China participated deeply in the preparation for the "The United Nations Decade of Ocean Science for Sustainable Development (2021-2030)" and made important contributions to the formulation of its implementation plan. It has implemented the *London Convention* and the *1996 Protocol* and strictly managed marine debris dumping. China has implemented the *Regulations on Control over Dumping of Wastes in the Ocean,* improved the system on the regulation and control of marine waste dumping, and drew up the national plan for dumping areas. **Second,** China has actively participated in global and regional processes related to marine governance. China has worked to advance marine international cooperation in the region, such as China-ASEAN cooperation on the marine environment, Tripartite Environment Ministers Meeting among China, Japan and the ROK (TEMM), the East Asia Summit (EAS), the Northwest Pacific Action Plan (NOWPAP), the Coordinating Body on the Seas of East Asia (COBSEA), Partnerships in Environmental Management for the Seas of East Asia (PEMSEA), and the North Pacific Marine Science Organization (PICES). China also implemented the United Nations regional governance projects such as the Yellow Sea Large Marine Ecosystem (YSLME) Project. **Third,** China has helped other developing countries develop marine technology and governance capacity. Giving full play to the role of relevant bilateral and multilateral cooperation platforms, China organized a series of capacity-building activities in the fields of ocean observation and monitoring, disaster early warning, marine space planning, integrated coastal zone management, and blue economy, effectively promoting marine technology and management capabilities in developing countries. The Marine Scholarship of China helped developing countries train marine talents. Since 2016, under the South-South cooperation framework, China

has organized many workshops on seawater utilization technology for developing countries, and conducted cooperative research on international standards of seawater desalination and joint research on marine energy technologies with Saudi Arabia, Malaysia and other Maritime Silk Road countries.

II. Basic experience

First, coordinating development both on land and at sea and building a strong maritime country. Coordinated land and marine development is an important policy for China to build a strong maritime country. Land and sea planned as a whole is vital to national economic and social development. China has promoted the coordinated development of land and sea in all aspects such as space layout, industrial development, infrastructure construction, resource development and environment protection.

Second, coordinating development and protection to promote marine eco-civilization. Since the beginning of the 13th Five-year Plan period, red lines for marine ecosystems, appointment of "gulf chiefs", strict control over reclamation and other systems have been gradually established and become more systematically organized and science-based. China has constantly explored and remained committed to paying equal attention to development and protection, as well as pollution prevention and ecological restoration, empirically and rationally developed and used marine resources, and maintained the natural reproduction capacity of the ocean.

Third, deeply involving in the development of global ocean governance system and building maritime community with a shared future. On the occasion of the 70th anniversary of the founding of the

Chinese People's Liberation Army Navy in 2019, China put forward the vision of building maritime community with a shared future, deepened maritime connectivity and pragmatic cooperation in various fields with other countries, and advanced high-quality Belt and Road cooperation. China firmly upholds and supports the authority of international laws such as the *United Nations Convention on the Law of the Sea* and its role in global ocean governance, and promotes joint preservation of the marine environment, joint protection of maritime security and peaceful settlement of maritime disputes.

III. Future work

China's marine environmental quality has been improved as a whole, and local and regional ecosystems have been restored. China is committed to the protection and sustainable use of oceans and marine resources by focusing on the following tasks.

First, China will strengthen targeted pollution control and continue to improve water quality in sea areas. China will offer targeted and case-by-case treatment for bays, take stronger measures to treat marine pollution from land-based sources, strengthen classified treatment of marine pollution, promote treatment of marine plastic waste, and fight to prevent and control pollution in major sea areas such as Bohai Sea, Changjiang Estuary-Hangzhou Bay, Pearl River Estuary and adjacent sea areas.

Second, China will pay equal attention to conservation and restoration to enhance the stability and biodiversity of marine ecosystems. China will make protection a top priority and let nature restore itself, focus on marine biodiversity protection, restore typical marine ecosystems, establish and improve the marine ecological early

warning and monitoring system, strengthen protection, restoration and regulation of marine ecosystems, and cement a marine ecological security barrier.

Third, China will guard against environmental risks and effectively handle marine environmental emergencies. China will strengthen risk control over all related processes, investigate sources of marine environmental risk, strengthen capacity building for emergency response and coordinated measures, and improve the compensation system for marine ecological environmental damage. China will conduct special law enforcement and inspection on marine environment. China will strengthen scientific and technological support, and further enhance the basic capacity of marine environment regulation.

Fourth, China will improve coastal environment and meet the public demand for a beautiful marine ecological environment. China will strengthen the marine ecological environment governance, actively expand seafront space, strengthen treatment of shore and sea-floating waste, establish the "marine sanitation" system in coastal cities, implement the "coastal and ocean cleanup" project and strengthen the comprehensive environmental treatment of bathing beaches.

SDG 15 Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss

I. Implementation progress

China attaches great importance to environmental issues, firmly adheres to the concept that lucid waters and lush mountains are as good as mountains of gold and silver, observes the principles of prioritizing resource conservation and environmental protection, and letting nature restore itself, coordinates the management of mountains, rivers, forests as well as farmlands, lakes, grasslands and deserts, and further advances large-scale national greening campaigns. As a result, the quality and stability of ecosystems continue to grow; biodiversity has been effectively protected; and China's development of an ecological civilization has reached a new stage. At the same time, China

embraces the vision of a community with a shared future for mankind and deeply involves in global environmental governance. Joint efforts must be made with other countries in building a global ecological civilization and creating solutions for environmental protection and sustainable development around the world.

China remains committed to systemic governance, and continues to improve the sustainability of ecosystems. First, key eco-projects have been developed, and the ecological conditions of important regions and river basins have been significantly improved. During the 13th Five-year Plan period, the central government provided a total of RMB50 billion of rewards and subsidies to support the implementation of 25 pilot projects to protect and restore mountain, water, forest, farmland, lake, and grassland ecosystems in key eco-function zones. **Second,** China has promoted wetland protection and restoration in a coordinated manner, and effectively restored wetland ecosystem functions. During the 13th Five-year Plan period, 270,000 *mu* of cultivated land was returned to wetland, with 15 new wetlands of international importance and 29 new wetlands of national importance, bringing the number of wetlands of international importance to 64; 201 national wetland parks were established, with a total of 899 national wetland parks. **Third,** China has strengthened the protection of grassland ecosystems, and the deterioration of grassland ecology has been clearly contained. China has introduced the system of grassland grazing ban and forage-livestock balance and strengthened the administration of review and approval for grassland requisition and occupation, and struck hard at various types of grassland destruction in accordance with law. During the 13th Five-year Plan period, China designated 1.2 billion *mu* of grazing ban areas and 2.6 billion *mu* of areas featuring forage-livestock balance in grassland nationwide, thus the overload rate of livestock in natural grassland continued to decline. By 2020, the total area of planted grassland and improved grassland reached 42.45 million *mu*; the comprehensive vegetation coverage for grasslands reached 56.1%, an increase of 1.5 percentage points over 2016; the total

output of fresh grass on natural grassland reached 1.113 billion tonnes, an increase of 7.2% compared with 2016.

China has improved the management system of forest resources, and both the forest coverage and reserve have grown. First, China has implemented the newly amended *Forest Law*, emphasized classification-based management, and strengthened law enforcement and punishment. The forest coverage and stock volume have become important obligatory targets in assessing government performance. During the 13th Five-year Plan period, 59.55 million *mu* of farmland was returned to forest, raising the forest coverage rate to 23.04% (Figure 15-1) and making the forest reserve exceed 17.5 billion cubic meters, both growing for 30 consecutive years. China has topped the world in forest resource increase, and realized the goal of increasing forest resources by 2020 under its international commitment, laying a good foundation for realizing its 2030 goal of forest reserve growth. **Second,** China has improved forest quality in a targeted manner. China has established a three-tiered forest management and planning system at national, provincial and county levels, built a healthy, stable, high-quality and efficient forest ecosystem and implemented national forest tending projects and targeted projects for forest quality improvement. During the 13th Five-year Plan period, a total of 545 million *mu* of land were afforested and 637 million *mu* of forest tended. **Third,** China has strengthened forest land conservation and management and forest harvesting management. China has strictly reviewed and approved the forest lands for construction, established an ongoing mechanism of supervision and enforcement, continued to conduct forest resource survey, and kept track of changes in forest land and forests. The natural forest protection has been expanded to the whole country; commercial logging in natural forests has been completely stopped; and 1.944 billion *mu* of natural high forests have been rehabilitated. **Fourth,** China has strengthened forest fire and pest disaster prevention and control. During the 13th Five-year Plan period, the average annual number of forest fires was 2,247, the affected area was 14,000 hectares

and the number of casualties was 48, decreasing by 44%, 19%, and 22% respectively compared to the 12th Five-year Plan. China achieved the goal of controlling the forest fire damage rate within 0.9‰. The hazard rate of major forestry pests was controlled below 4.5‰.

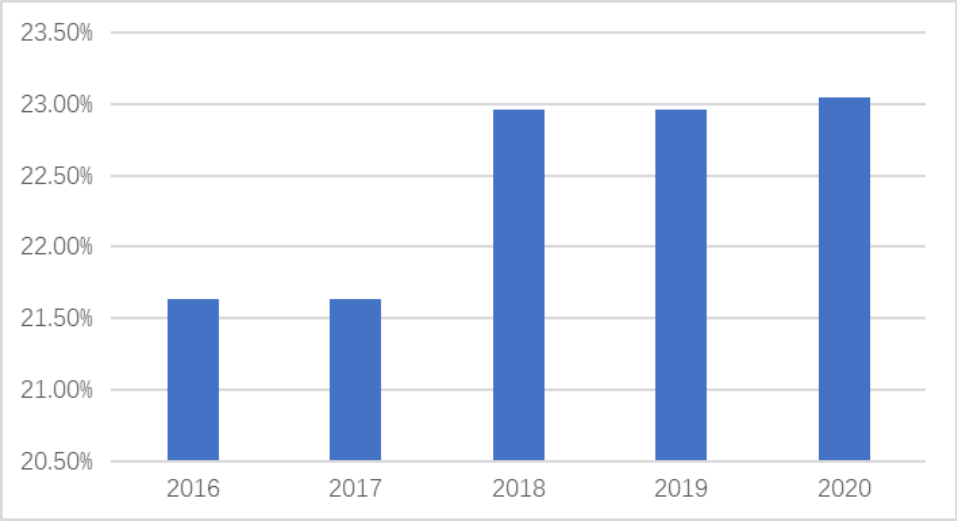


Figure 15-1 Forest coverage from 2016 to 2020

China has taken effective measures to prevent and control desertification, effectively controlling soil erosion. First, China has comprehensively controlled sandification and rocky desertification, leading to a drop in both area and intensity of desertification in three consecutive monitoring periods. During the 13th Five-year Plan period, desertification has been checked across over 10 million hectares. Compared with 2011, the area of rocky desertification shrunk by 1.93 million hectares; 61.4% of the rocky desertification areas were covered by vegetation. A total of 108 national protected areas were closed off to prevent deterioration, covering an area of 17.72 million hectares. 53 national demonstration area for desertification control and 98 national desert (stone desert) parks were established. **Second,** China has accelerated the implementation of national key projects such as Beijing-Tianjin Sandstorm Source Control Project, and the establishment of the Three-North Shelterbelt. During the 13th Five-year Plan period, a total of 1.019 million hectares of afforestation and 34,700 hectares of sand fixation were completed under the Beijing-Tianjin Sandstorm

Source Control Project. The Three-North Shelterbelt Project has been implemented for 40 years, with an accumulated afforestation and preservation area of 30.14 million hectares, and the forest coverage rate in the project area has increased to 13.57%. **Third,** China has effectively controlled soil erosion. From 2016 to 2020, an additional 310,000 square kilometers of land had been put under comprehensive protection from soil erosion. The areas of soil erosion kept shrinking nationwide and the rate of soil and water conservation steadily increased, leading to the decrease of both area and intensity of soil erosion.

China has strengthened the protection of wild fauna and flora and curbed the loss of biodiversity. First, China has improved the laws, regulations and policy system for biodiversity conservation. China has revised the *Biosafety Law, Wildlife Protection Law, Environmental Protection Law,* etc. China regards biodiversity protection as an important part of the development of an ecological civilization. The China National Committee for Biodiversity Conservation (CNCBC) was established, headed by a Vice Premier and composed of 23 departments under the State Council. The *China National Biodiversity Conservation Strategy and Action Plan (2011-2030)* was reviewed and issued for implementation, with notable progress in biodiversity mainstreaming. **Second,** China has conducted special protection actions for key species. China has implemented a series of special protection or action plans for endangered wild animals such as giant pandas and plant species with extremely small populations, and promoted population recovery and growth for more than 300 rare and endangered wild animals and plants. The crested ibis are no longer classified as critically endangered and listed as endangered, while wild giant pandas are no longer classified as endangered and listed as vulnerable. **Third,** China has prevented the invasion of alien species and improved relevant laws and regulations on genetic resources. China has improved data on invasive alien species and enhanced sustainable prevention and control technologies. Since 2015, 179 invasive alien species have been added, and 667 invasive alien

species have been recorded. A list of invasive alien species with potential threats has been created. China has improved laws and regulations on the protection of genetic resources and benefit-sharing, and promulgated and implemented a series of laws and regulations related to biological resources.

China has established a system of protected natural areas with national parks as the main form. During the 13th Five-year Plan period, China has initially established a new system for natural ecosystem protection, and the area and quantity of natural protected areas have been on the rise. In the five years, more than RMB10 billion of central budgetary subsidies was invested in the development of protected natural areas. China has built 10 pilot areas for the national park system, added 44 national nature reserves, officially named 33 national geoparks, and successfully applied for four World Natural Heritage sites and eight world geoparks. The number of protected natural areas increased by over 700, covering over 25 million hectares and bringing the total to nearly 10,000. The total area of these protected natural areas accounts for 18% of China's land territory and 4.1% of China's territorial waters. Among them, there are 474 national nature reserves, 906 national forest parks, 899 national wetland parks, 244 national scenic and historic sites, 281 national geological parks, 67 national marine parks and 125 national desert parks. At the same time, there are 41 world geoparks, 14 world natural heritage sites and 4 world natural and cultural heritage sites, all ranking first in the world.

China has actively conducted international cooperation and promoted the development of a global ecological civilization. First, China has actively fulfilled its international obligations. China has fulfilled the obligations stipulated in the *Convention on Biological Diversity and its Nagoya Protocol,* the *Cartagena Protocol* on *Biosafety*, the *United Nations Convention to Combat Desertification*, the *Convention on International Trade in Endangered Species of Wild Fauna and Flora*

and the Convention on Wetlands. China has been preparing for the 15th meeting of the Conference of the Parties (COP15) to the *Convention on Biological Diversity* and the 14th Meeting of the Conference of the Contracting Parties to the *Ramsar Convention on Wetlands* (COP14). By 2019, the area of nature reserves accounted for about 18% of the national total, achieving the target of 17% by 2020 as required by the Aichi Biodiversity Targets ahead of schedule. **Second,** China has actively participated in global governance. China is the largest contributor to the Trust Fund of the *Convention on Biological Diversity*, and has contributed over USD2.4 million to the Trust Fund for the United Nations Forum on Forests and the JPO Program, making it a major contributor to the United Nations Forum on Forests. Together with jointly building the Belt and Road Initiative (BRI), China will strengthen cooperation and exchanges with developing countries and implement the project of "Strengthening the Protected Area Network for Migratory Bird Conservation along the East Asian-Australasian Flyway (EAAF) in China" of the Global Environment Facility.

II. Basic experience

First, great importance attached by the government. China has vigorously reformed the system of ecological civilization, stepped up the improvement of top-level design and the system of institutions for an ecological civilization, reformed the system for managing natural resources and the environment, improved laws, regulations and policies of green production and consumption, built an evaluation index system for building a beautiful China, and established a large number of regulations and systems, such as the enforcement system of accountability for environmental damage. The legal system of ecological civilization has been gradually improved.

Second, innovative approaches. China has produced a number of

institutional innovations with Chinese characteristics, such as the system of forest chiefs, river chiefs and lake chiefs. China has established a system of nature reserves mainly based on national parks, and creatively proposed and established a red line system for ecological protection. The initiative of "Drawing a Red Line for Ecological Protection to Mitigate and Adapt to Climate Change" proposed by China was included in a collection of 15 global cases by the United Nations "Nature-based Solutions".

Third, social participation. With long-term experience, China has formed a mechanism featuring "government guidance, enterprise responsibility and public participation". In preventing and controlling desertification, China has extensively mobilized the whole society and cultivated related green industries. During the 13th Five-year Plan period, China planted 11.6 billion trees voluntarily, making it the most influential mass greening activity in the world.

III. Future work

China has made substantial progress on eco-environment and biodiversity protection. However, with the overall vulnerability of eco-environment and the relatively large highly ecologically fragile areas, the ecological function and biodiversity situation are not encouraging. China will continue to protect, restore and promote the sustainable use of terrestrial ecosystems by focusing on the following tasks.

First, China will provide the policy backbone and conduct relevant legislative work. China will rationally draw and enforce strict eco-environmental red lines, and strictly implement the protection and utilization system. China will improve the public finance investment policy for national greening campaigns and ecological protection and restoration, accelerate forestry finance innovation, and mobilize private investment for extensive participation. China will endeavor to promote

wetland protection and nature reserves legislation, improve laws and regulations related to invasive alien species and biodiversity protection, and take firm action on illegal activities.

Second, China will strengthen the implementation of key eco-environmental conservation projects. China will continue to implement major ecological restoration projects such as natural forest conservation, take strong rural greening and beautification measures, and steadily advance urban greening. China will implement a number of national key projects for wetland protection and restoration. China will carry out investigation, monitoring and assessment by focusing on key biodiversity conservation zones involved in national development strategic areas.

Third, China will increase the ability to provide scientific and technological support for ecological protection. China will strengthen the application and replication of basic theories, research on key technologies and scientific research achievements, such as rules on ecosystem responses to climate change and adaptation. China will improve the regulatory mechanism for access to biological and genetic resources and benefit-sharing. China will intensify the collection, preservation and development of biological and genetic resources.

Fourth, China will strengthen international cooperation on ecological environment protection. China will actively promote compliance in and international cooperation on biodiversity, and implement the *United Nations Convention to Combat Desertification,* the *Convention on International Trade in Endangered Species of Wild Fauna and Flora,* and the *Convention on Wetlands*. China will strengthen international research exchanges and cooperation on prevention and control technologies for malignant invasive alien species. China will actively promote practical cooperation among the international community on climate change response, sustainable forest management, wetland and grassland restoration, desertification prevention and control, ecosystem and wildlife protection, etc.

SDG 16 Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

I. Implementation progress

China is firmly committed to the path of law-based governance under Chinese socialism. In accordance with the target of "embodying fairness and justice in each and every legal case", China has severely punished all kinds of crimes in accordance with law, prevented and stopped domestic violence and trafficking, improved legal aid services, continued to further improve Party conduct, uphold integrity and combat corruption, comprehensively advanced administration in accordance with law, and stayed active in international cooperation on law enforcement and security, contributing positively to the realization of relevant SDGs.

China has punished all kinds of crimes in accordance with law and resolutely safeguarded social stability and the lives and property of people. China has pursued a holistic approach to national security, conducted a number of special actions such as *"Xunlei", "Kunlun", "Yunjian"* and *"Jingwang"*, and severely cracked down on all kinds of crimes in accordance with law, such as crimes endangering national security, violent terrorist crimes, spying and secret stealing, gangland crimes, cyber fraud, drug manufacturing and trafficking, cross-border gambling, infringement and piracy, crimes endangering food and medicine safety, and crimes that hinder epidemic prevention and control. China always strikes hard at serious violent crimes such as murder and robbery. The number of serious violent crimes has been declining for ten consecutive years. Public security has been significantly improved, and the public's sense of security has been greatly reinforced.

China has prevented and stopped domestic violence and trafficking, and effectively safeguarded the legitimate rights and interests of women and children. After the *Anti-Domestic Violence Law* was enforced in 2016, local public security organs participated in the mediation and resolution of more than 8.25 million family conflicts and disputes, and effectively prevented and stopped more than 6.17 million cases of domestic violence. In 2020, the Law on the Protection of Minors was revised and strictly implemented to protect the rights and interests of minors to the maximum extent. China has actively conducted Internet-based anti-trafficking. As of August 2021, the "*Tuanyuan*" (Reunion) online platform for missing children alert had published 4,861 pieces of information on missing children, 4,788 children had been recovered accounting for 98.5% of the published missing children. Child trafficking crimes have decreased significantly.

China has improved public legal services to ensure that everyone can enjoy legal protection. China has promoted the integrated development of three public legal service platforms, namely the physical platform,

the hotline and the online service. By the end of 2020, a total of 566,000 public legal service physical platforms at provincial, city, county, township and village levels had been established nationwide. In 2020, the public legal service physical platforms at all levels provided various services over 18 million times; the hotline served 8.77 million callers for consultation; and the national and provincial websites of the Legal Service of China attracted over 120 million visits in total. More than 600,000 villages and communities nationwide have legal counselors. China has constantly improved the legal aid system, put forward the Legal Aid Law, norms for legal aid services in criminal, civil and administrative cases and the *Measures for the Work of Legal Aid Duty Lawyers*. From 2016 to 2020, nearly 6.4 million legal aid cases were handled nationwide, helping more than 8 million people. In 2019 and 2020, duty lawyers provided legal advice to more than 420,000 and 540,000 people respectively, and provided legal aid in more than 330,000 and 710,000 cases respectively. China has organized various learning activities of the *Constitution and* the *Civil Code,* such as seminars and public lectures. There are more than 3,500 theme parks, more than 12,000 squares and more than 34,000 corridors publicizing rule of law in China. China has established a smart platform popularizing the law, which would push tens of thousands of messages every day.

China has continued to improve Party conduct and uphold integrity and won a massive and consolidated victory in the fight against corruption. China has improved the strategic pattern of discipline inspection, thus supervision through discipline inspection has become more accurate, standard-based and effective. The anti-corruption fight showed zero tolerance for corruption and covered all those holding public office without exception. It imposed tight constraints, maintained a tough stance and a long-term deterrence, and punished both those who take bribes and those who offer them. A multi-pronged approach was taken to crack down on "tigers", "flies", and "foxes", and a rule of law approach was adopted to fight corruption in a targeted and effective manner. Steps

were taken to deter corruption, in both mindset and institution, providing a strong guarantee for completing the building a moderately prosperous society in all respects.

China has comprehensively advanced administration in accordance with law and made new progress in building a rule-of-law government. Important documents were issued, such as the *Plan to Build the Rule of Law in China (2020-2025)*, the *Implementation Outline for Building a Law-based Government (2021-2025)* and the *Regulations on Inspection of Building a Law-based Government and Delivery of Duties*, which specified the road map for building China and the society under the rule of law. The Civil Code was promulgated to comprehensively protect people's rights and interests concerning legal affairs. Since 2019, the State Council has delegated the power or canceled the requirement for government review for 86 items; the number of items subject to administrative examination and approval by State Council departments has been reduced by more than 40%; the types of industrial production permits have been cut by over a third. In 2020, the number of documents of State Council departments was reduced by 12%, meetings by 60%, and the number of matters subject to inspection, checks and evaluations submitted by State Council departments was reduced by 48%. The "three systems" of administrative law enforcement has been implemented across the board and the standard style of law enforcement certificates, law enforcement uniforms and logo styles are unified, thus significant progress has been achieved towards strict, procedure-based, impartial and non-abusive law enforcement. China has strictly handled administrative review cases and supervised law-based administration by administrative bodies. From 2016 to 2020, the administrative review organs at all levels in China handled about 1.09 million administrative review cases and concluded 1.05 million cases. About 140,000 cases registered were concluded by revocation, alteration, confirmation of illegality or order for performance, with an error correction rate of 15.4%.

China has conducted strong international cooperation on law enforcement and security to strike hard at transnational crimes. China has vigorously worked to bring back corruption fugitives and recover their assets. By the end of 2020, China had concluded 169 extradition treaties, mutual judicial assistance treaties, treaties on the sharing and return of forfeited assets with 81 countries, signed financial intelligence exchange cooperation agreements with 56 countries and regions. An anti-corruption judicial and law enforcement cooperation network covering all continents and major countries has taken shape. China has carried out international law enforcement cooperation against COVID-19, successfully handled a number of transnational criminal cases related to COVID-19 in cooperation with many countries, shared experience and approaches on COVID-19 response in a timely manner, and carried out law enforcement assistance against COVID-19. China has actively participated in global narcotics control and ecological and environmental governance, and severely cracked down on the smuggling of drugs and endangered wild animals and plants and their products.

II. Basic experience

First, following the Party's leadership over efforts to advance the law-based governance of the country. The socialist rule of law with Chinese characteristics preserves the unity of Party leadership, running of the country by the people, and law-based governance. The unified leadership of the CPC provides the political foundation and fundamental guarantee for building a socialist country based on the rule of law.

Second, ensuring the principal status of the people. Building a socialist country based on the rule of law is for the people and by the people, benefiting and protecting the people. In the process of developing socialist rule of law, people's interests and wishes are

reflected, rights and interests safeguarded, well-being improved and people are the masters of the country.

Third, continuing to explore an approach advancing rule of law suited to national conditions and based on reality. Building a socialist country based on the rule of law always gives central consideration to China's conditions and realities, and places equal emphasis on promoting the rule of law on national, local and social dimensions. China has pursued coordinated progress in law-based governance, law-based exercise of state power, and law-based government administration, promoted the integrated development of rule of law for the country, the government and society, and coordinated the reform of legislative, law enforcement and judicial systems.

III. Future work

China will continue to uphold its unique approach to socialist rule of law, strive to create a social environment of peace, inclusiveness and justice, and remain committed to safeguarding national security, social stability and the lives and property of people.

First, China will continue to strike hard at all kinds of criminal acts. Measures will be taken to make further headway in pursuing the Peaceful China initiative, and severely crack down on crimes endangering national security such as infiltration, sabotage, subversion and secession. Crimes related to public safety and people's basic wellbeing will be severely punished. China will regularly promote the campaign to combat organized crime and root out local criminal gangs, and severely crack down on and punish gangland crimes in accordance with law.

Second, China will focus on strengthening judicial protection of

people's livelihood. China will fully enforce the Civil Code after its deliberation and adoption, comprehensively clean up civil judicial interpretations, formulate new supporting judicial interpretations, strengthen study and training, improve judicial capacity and level concerning civil matters, protect the legitimate rights and interests of civil entities in accordance with law, adjust civil relations, and maintain social and economic order.

Third, China will continue to improve Party conduct, uphold integrity, and combat corruption. Adhering to a strict approach, China will severely punish corruption, bribery, abuse of power and other work-related violations and crimes. China will take special actions to fight against corruption and misconduct in all fields and focus on problems undermining people's interests in education, medical care, pension, ecological environment, workplace safety, food and drug safety, and law enforcement and jurisdiction. China will continue to address both the symptoms and root causes of corruption in a systematic manner, improve the Party and government oversight systems, and coordinate efforts in anti-corruption, deepening reform, improving institutions and governance. Efforts to punish, deter, rescue, educate will be used to make people in power not dare, not able, and not want to commit corruption.

Fourth, China will strengthen international cooperation on law enforcement and security. China will broaden cooperation space through bilateral and multilateral cooperation mechanism, strengthen international criminal judicial assistance, and jointly respond to and combat terrorism and various forms of transnational organized crimes.

SDG 17 Strengthen the means of implementation and revitalize the global partnership for sustainable development

I. Implementation progress

China is an active champion and practitioner of global development partnership. While taking effective measures for domestic implementation, China upholds the principle of extensive consultation, joint contribution and shared benefits, promotes the BRI international cooperation, pursues the greater good and shared interests, and upholds the principle of amity, sincerity, mutual benefit and inclusiveness. China has taken advantage of many major international occasions to announce a broad range of practical cooperation measures, which present China's approach, offer its vision, and contribute its strength to resolving global development issues and implementing the United Nations 2030 Agenda for Sustainable Development.

China has advanced high-quality Belt and Road cooperation and promoted the sustainable development of BRI countries. Belt and Road cooperation has become an important way to revitalize global development partnership and implement the 2030 Agenda. By the end of August 2021, China had signed more than 200 cooperation documents with 141 countries and 32 international organizations. In May 2017 and April 2019, two Belt and Road Forums for International Cooperation were successfully hosted, which achieved fruitful and pragmatic results and brought fresh impetus to the global implementation of the sustainable development agenda. The Guiding Principles on Financing the Development of the Belt and Road and the Debt Sustainability Analysis Framework for Participating Countries of Belt and Road Initiative were published to improve the relevant policies and system of standards for BRI financing and debt sustainability. The Green Investment Principles for the Belt and Road Development was signed and the BRI International Green Development Coalition has been established for green silk road development. China initiated the Multilateral Cooperation Center for Development Finance to coordinate multilateral cooperation between international financial institutions and qualified financial institutions. China has worked with the International Monetary Fund to establish a capacity-building center, providing more than 1,200 training opportunities to government officials from many BRI countries. China has worked with OECD to set up a multilateral tax center, training more than 2,000 students. Within the framework of Belt and Road Initiative Tax Administration Cooperation Mechanism, China has promoted the establishment of the Belt and Road Initiative Tax Administration Promotion Alliance, which has trained 789 public finance and tax officials. China has worked with the Russian Academy of Sciences and the Pakistan Academy of Sciences to jointly establish the Alliance of International Science Organizations in the Belt and Road Region to increase openness and cooperation in building innovation capacity and open sharing of resources and data, support the development of innovative talents, and strengthen the ability to make scientific and technological innovations.

China has actively shared the scientific and technological achievements with other developing countries, and conducted training programs on aerospace and satellite applications, 3D printing technology, metrology technology and marine biotechnology. More than 1,000 intergovernmental science and technology exchange projects have been implemented. 755 young scientists have been invited to China for scientific research through the Talented Young Scientist Program, and more than 7,700 students from more than 100 developing countries and regions have been trained. China has established transnational technology transfer centers for ASEAN, South Asian and Arab countries to introduce and transform advanced and applicable technologies through technical dovetailing, demonstration and training programs.

China has promoted the development of an open world economy and provided more development opportunities for all countries. China has firmly upheld an open, transparent, inclusive, non-discriminatory and rules-based multilateral trading system, participated in the reform of WTO and all aspects of WTO work, promoted trade and investment liberalization and facilitation, respected and fully implemented dispute settlement rulings, and fully supported developing members in integrating into the multilateral trading system. The China International Import Expo, one that enables China to further open up to the world, has been held for three consecutive years. The cooperation platform with BRI countries has been further expanded, and cooperation mechanism improved. By the end of 2020, China had signed 19 FTAs with 26 countries and regions, had been engaging in 12 negotiations on FTAs or FTA upgrades and 8 joint feasibility studies or upgrading studies of FTAs. China has actively responded to the "Aid for Trade" initiative, and helped other developing members, especially LDC members, improve their trade development capabilities through a series of measures, such as building logistics infrastructure and capacity building for trade facilitation and liberalization. The least developed countries (LDCs) that have diplomatic relations with China have been granted zero-tariff treatment for 97%

of tariff lines exported to China, and 41 countries have benefited. In 2020, China accorded zero tariff treatment on 97% of tariff lines to 40 countries and on 95% of tariff lines to 3 countries. From 2015 to 2020, the preferential imports from LDCs were RMB125.35 billion, and the tariff concessions amounted to RMB11.99 billion. The preferential import of goods involved 33 LDCs. Among them, in 2020, the preferential import was RMB31.32 billion, and the tariff concessions amounted to RMB2.9 billion, increasing by 115% and 101% respectively compared with 2015. From 2015 to 2020, China's direct investment in BRI countries reached USD113.56 billion (Figure 17-1), and trade in goods was USD5,672.46 billion (Figure 17-2). By the end of 2019, China's total FDI in BRI countries was USD179.47 billion, accounting for 8.2% of the total FDI.

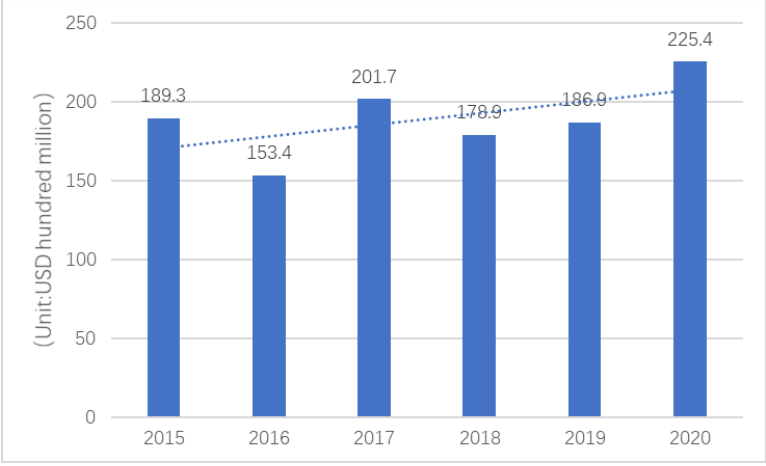


Figure 17-1 China's direct investment to BRI countries from 2015 to 2020

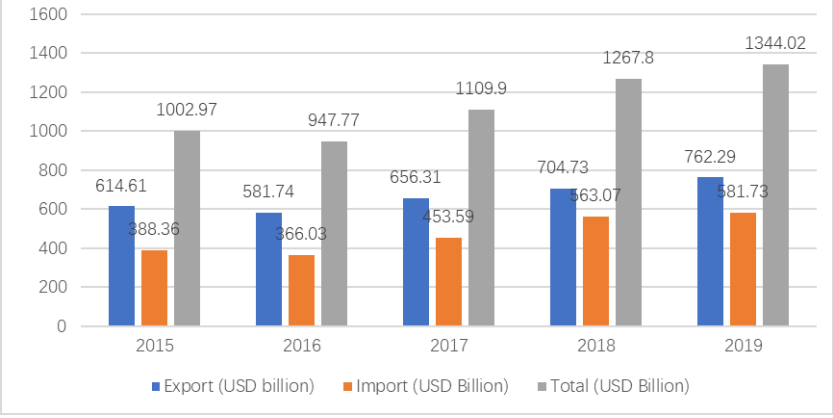


Figure 17-2 Trade in goods between China and BRI countries from 2015 to 2019

Source: China Customs

China has established broad-based development partnership to bring fresh impetus to sustainable development. China has hosted important international conferences such as the G20 Hangzhou Summit, the BRICS Xiamen Summit, and the 2018 Beijing Summit of the Forum on China-Africa Cooperation, with the implementation of the 2030 Agenda as an important topic. China has launched and established the Asian Infrastructure Investment Bank. By the end of 2020, 108 projects were approved, with a loan amount of USD22.03 billion and a total of 103 members. China has conducted tripartite cooperation with international institutions such as the United Nations and some developed countries for joint action. China has jointly launched the *Initiative on Partnership for Africa's Development* with African countries. China has promoted the development of innovation demonstration zones for the *National Agenda for Sustainable Development* in Shenzhen, Taiyuan, Guilin, Chenzhou, Lincang and Chengde, and provided useful reference for all parts of China and other countries to implement the 2030 Agenda. China has strengthened social mobilization to implement the Agenda, and actively promoted and employed the Public-Private Partnership (PPP) model. China has established a national PPP project information monitoring and service platform and a national PPP comprehensive information platform, and the scale of the PPP market grew amid stability. By June 2021, there were 10,126 projects in the management pool with an investment of RMB15.7 trillion; A total of 7,422 projects with an investment of RMB12.1 trillion had been signed, accounting for 73.3% of the total investment. China has strengthened cooperation with the World Bank and other organizations to fully leverage the role of PPP in promoting infrastructure connectivity. China has strengthened knowledge and experience sharing with other countries, and push for the *BRICS Good Practices on Public-Private Partnership Frameworks.*

China has deepened South-South cooperation to help other developing countries pursue sustainable development. China has established the National International Development Cooperation Agency,

actively innovated the implementation and management of foreign assistance, and enhanced the overall effects. The scale of international development cooperation has grown steadily, giving more support to the LDCs in Asia and Africa and the developing BRI countries. By the end of 2019, 82 projects had been implemented with 14 international organizations using the South-South Cooperation Fund, benefiting about 20 million people in nearly 50 developing countries. Through the Center for International Knowledge on Development, Institute of South-South Cooperation and Development and other platforms, China has shared experience on South-South cooperation and the governance of China, and provided knowledge assistance, team and governance support for the modernization of governance capacity in developing countries. China has proactively and properly dealt with debts through G20, IMF and other platforms. By August 2021, China has supported low-income countries in applying to the IMF for a total of USD 117 billion under financial support programs, and strengthened coordination with Chinese financial institutions to facilitate IMF loans to countries in debt distress, such as Angola and Ecuador. China disburses SDR5.58 million to the IMF's Catastrophe Containment and Relief Trust (CCRT) and other COVID-19 response funds, and assists the IMF in supporting low-income countries in COVID-19 response and debt sustainability. China promoted the G20 parties to reach consensus on the Debt Service Suspension Initiative (DSSI) and the Common Framework for Debt Treatments beyond the DSSI, which facilitates debt restructuring on a case-by-case basis. China has also played a constructive role in formulating international debt restructuring rules. By the end of 2020, China had utilized the China-UN Trust Fund on Statistical Capacity Building, held 34 international training events, and trained 2,824 trainees. In addition, the China National Statistics Bureau held 47 international training events and trained 2,849 trainees. These efforts helped enhance the ability of developing countries to produce, collect, process and publish high-quality, timely and reliable data.

II. Basic experience

First, meeting new demands of international economic cooperation. After the 2008 global financial crisis, exploring new growth drivers for world economy has become the top priority of international cooperation. China put forward the Belt and Road Initiative (BRI), which is committed to promoting the efficient flow of production factors, promoting market integration by improving infrastructure connectivity, helping to break the infrastructure bottleneck in long-term economic growth faced by some countries, promoting trade and investment facilitation, and bringing fresh impetus to world economic recovery.

Second, upholding the principles of extensive consultation, joint contribution and shared benefits. On the basis of equality and free will, equal participation and full consultation are emphasized in the process, so as to reach consensus in understanding, achieve convergence for cooperation, and develop a focus for common development through full dialogue and exchange. All the parties are equal participants, builders and contributors, and share responsibilities and risks. China takes into consideration interests and concerns of cooperation partners, seeks a convergence of interests with other countries, and expands common ground, so as to ensure that the cooperation is not only mutually beneficial but is beneficial to all.

Third, ensuring the combination of top-level design and practice orientation. The outline of the vision for BRI international cooperation is systematic, highlighting the core value of policy coordination, facilities connectivity, unimpeded trade, financial integration and people-to-people bonds, as well as the three-dimensional spatial layout through the network of land, sea and air passages and multidimensional BRI development. At the same time, China has stayed problem- and practice-oriented, made choices and stayed focused, and solved practical problems by strengthening mechanisms, thus providing solid support for high-quality

international cooperation.

III. Future work

The COVID-19 epidemic poses a great threat to the lives, health and well-being of people all over the world, and brings a major challenge to revitalizing global development partnership and implementing the 2030 Agenda. China will continue to promote international development cooperation guided by the vision of mankind living in a community with a shared future and the principle of pursuing the greater good and shared interests, and make contribution to the global implementation of the Sustainable Development Agenda.

First, China will build a closer partnership for Belt and Road cooperation, and stick to the path of solidarity, cooperation, connectivity and common development. China will seek greater synergy between the Belt and Road Initiative and the 2030 Agenda, enhance international macro-economic policy coordination, address the concerns of developing countries, support more practical projects to reopen the economy, and keep global industrial and supply chains stable and unimpeded, striving for high-standard, people-centered and sustainable development.

Second, China will continue to advance South-South cooperation and increase aid to developing countries, especially the LDCs. China will make full use of China-United Nations Peace and Development Fund, South-South Cooperation Assistance Fund, and other channels to carry out project cooperation in poverty reduction, infrastructure, agriculture, education, health and climate change. China will also make full use of research and exchange platforms, such as the Center for International Knowledge on Development and the Institute of South-South Cooperation

and Development, to share governance experience and increase the supply of global public goods. China will strengthen training for capacity-building, carry out policy consultation and cooperation, and improve the governance of developing countries.

Third, China will work for a new model of international development partnership that is more equitable and balanced to respond to global challenges. China firmly supports multilateralism and continues to work with multilateral institutions such as the United Nations, G20 and BRICS to prioritize development in the global macro policy framework. China will uphold the WTO-centered and rules-based multilateral trading regime, actively participate in the process of WTO reform, make steadfast efforts to build an open world economy, and keep global industrial and supply chains secure and stable. It is necessary to prevent fragmentation of the international market and politicization of cooperation mechanism, and dismiss ideology-based rules and standards. China will continue to build innovation demonstration zones for the *National Agenda for Sustainable Development,* share experiences in how sustainable development could serve scientific and technological innovation, and offer Chinese proposals for targeted poverty reduction, health, energy, infrastructure, ecological conservation, environmental protection and other fields.

Cases of Implementing the 2030 Agenda

Eradicating absolute poverty, building a moderately-prosperous society in all respects

China, the world's largest developing country with 1.4 billion people, has long been struggling with poverty and poverty governance. Since 2012, poverty reduction has been high on the agenda of the CPC in its governance. The CPC committed to reducing poverty through development, advanced poverty reduction process based on realities, creatively put forward and implemented the strategy of targeted poverty alleviation, and mobilized the whole Party, the whole nation and the whole society to fight against poverty. As a result, absolute poverty was eradicated historically.

Leadership and organizing capability of the ruling Party: Political guarantee for poverty reduction

After setting the goal of eliminating absolute poverty by 2020, China has put poverty reduction at the center of its political agenda. Party secretaries, from General Secretary Xi Jinping at the top, down to the provincial, city, county, township, and village levels, are mobilized to focus on poverty reduction. As to the working mechanism, the central government coordinates national efforts; provinces assume overall responsibility, cities and counties work to meet the targets. In this process, the CPC has demonstrated extraordinary political leadership and organizational capability.

Since the 18th CPC National Congress, General Secretary Xi Jinping,

personally taking charge of the nationwide effort, attended the central poverty reduction and development conferences, convened 7 central meetings on poverty eradication, paid over 50 study visits to localities to learn poverty reduction progress on the ground, reviewed the poverty reduction evaluation results for five consecutive years, attended important events or gave important instructions on National Poverty Reduction Day for seven consecutive years, emphasized poverty reduction in his New Year Address for seven consecutive years. During the annual NPC and CPPCC sessions, he joined delegations to discuss poverty reduction with deputies. He also replied to the letters from grass root officials and citizens, encouraging them to dedicate themselves to the cause of poverty reduction. President Xi Jinping has left his footprints in all 14 contiguous poor areas in the country, visited poor families in more than 20 poor villages to listen to their voices and learn their needs, which greatly inspired the poor population to get out of poverty with full confidence and strong resolve.

China's experience shows that poverty reduction is a challenging and complex systematic project, which cannot be achieved by relying solely on the market and private forces. The ruling party must demonstrate strong leadership and mobilize the government and all stakeholders, ensure steady inputs, efficient cross-departmental coordination, and high-quality policy implementation.

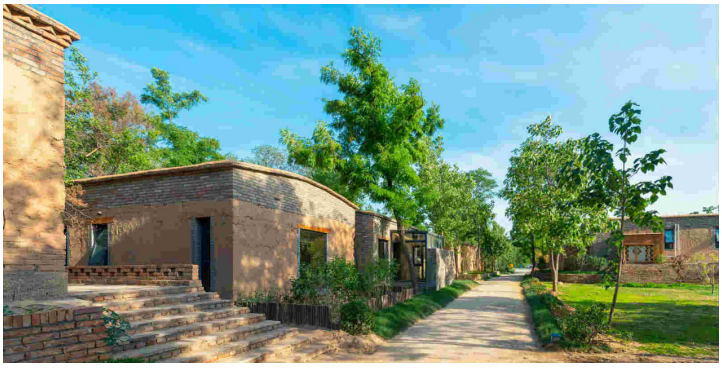
Picture 1 President Xi Jinping talking with officials and villagers of Shibandong village on November 3, 2013.

Source: The People's Daily.

State-owned enterprises: An important force in poverty reduction

State-owned enterprises (SOEs) perform important economic and social development functions, and represent an important force in the fight against poverty in China. Over the past five years, central and local SOEs have actively responded to and implemented the national policies on poverty alleviation and development, leveraged their strengths on the main battlefields of poverty alleviation--border areas, ethnic minority areas and old revolutionary bases, and contributed to targeted poverty reduction.

As a backbone SOE in the energy sector, China National Petroleum Corporation (CNPC) is actively involved in poverty reduction and the implementation of the 2030 Agenda in China and beyond. During the 13th Five-year Plan period, CNPC invested more than RMB1.8 billion to run over 2,800 poverty alleviation projects. Its affiliated agencies helped sub-national governments to fulfill poverty reduction tasks, covering 1,175 villages. CNPC took the lead in operating a number of projects, such as rural tourism demonstration projects, ecological restoration programs, and "Internet+cooperative" projects, effectively promoting the sustainable development of the economy, society and environment in these areas.



Picture 2 CNPC funded demonstration project on poverty alleviation through rural tourism

Source: people.cn.

China's experience shows that SOEs can play an important and exemplary role in promoting sustainable development of the economy, society and environment. After the full victory is declared in the battle against poverty, SOEs will continue to exploit their strengths. While advancing SOE reform and development, they will build on the poverty eradication achievements and promote rural revitalization, and make greater contribution to the construction of a modern socialist country.

Industrial bases: Improving the "blood-making" function of poor areas

Due to weak foundations and self-development abilities, it is hard for poor areas to automatically integrate into the economic development process and share the fruits of economic growth. Developing industries suitable to local conditions is therefore the most direct and effective way to reduce poverty. In the long term, industrial growth can enhance the blood-making function of poor areas and create local jobs. China has broadly mobilized private players to reduce poverty through industrial development, and guided competent market players to enter areas with high potential for resource development for mutual benefits and common development.

As an industry leader, Yili has explored a model of "targeted poverty alleviation through industrial bases". It has built industrial bases in Inner Mongolia, Sichuan and Gansu provinces, helping to increase the income of the poor population. The Party Committee of Yili had 10 of its party branches sign joint Party building agreements with 10 village Party branches of Tumed Left Banner in Hohhot, Inner Mongolia. They offered support in industrial, technological, and cultural development in light of local geographical conditions, economic structure, and livelihood needs. To leverage its industrial strengths, Yili focused on plantation, breeding and manufacturing industries, which are closely linked to its own

industry, lifting upstream dairy farmers out of poverty and driving the development of dairy-related industries such as animal feed, logistics and services. As a result, the entire industry chain is galvanized to promote local employment, taxation and consumption, lifting people around the industrial bases out of poverty through "blood making" instead of "blood transfusion".

Picture 3 Yili's industrial base in Tumed Left Banner in Hohhot, Inner Mongolia

Source: Yili Group

China's experience shows that industrial development is an effective way to reduce poverty, and it can be a long-term mechanism to eradicate poverty for the poor region.

E-commerce: A new model of poverty reduction through the Internet

Poverty is largely caused by factors such as remoteness, inconvenient transportation, and lack of professionals in poor areas. With the in-depth development of digital economy and "Internet+" initiative, e-commerce has become a powerful tool in the fight against poverty, and has delivered notable results.

E-commerce cannot develop without infrastructure such as Internet, transportation, electricity, logistics and warehousing. By the end of June

2020, 100% of qualified townships and administrative villages had been connected to paved roads. 98% poor villages had been connected to optical fiber, up from less than 70% in 2017. 96.6% of townships had set up delivery service outlets. 832 national poor counties had all established e-commerce service centers. This means the counties, townships, and villages in poor areas had all been covered by rural e-commerce management and logistics network. By the end of 2020, online retailers in poor counties grew from 1.315 million in 2016 to 3.1123 million in 2020.

Picture 4 A farmer in Gansu selling products through live streaming

Source: Xinhua News Agency.

As e-commerce brings together resources and production factors, ranging from production, supply, to marketing and purchase, it can engage private forces in the battle against poverty. The government signed strategic agreements or provided policy incentives to a large number of e-commerce platforms such as Alibaba, JD.com, Suning and Pinduoduo, matching them with producers from poor areas. The government also organized training to disseminate e-commerce knowledge and skills among rural youth. The target is to have at least one e-commerce professional for each poor village. College graduates are encouraged to return to their poor hometowns to start their own businesses. Youth, women and persons with disabilities in poor villages also received strong support to find jobs and start their own businesses through e-commerce platforms.

China's experience shows e-commerce is an effective model for poverty reduction, as the Internet can overcome difficulties posed by remote location, inconvenient transportation and other factors that constrain the sales of agricultural produce. It is a bridge for agricultural products to access the urban market, and an effective way to promote industrial development in poor areas and increase income for poor households.

East-west collaboration: An institutional strength of socialism with Chinese characteristics

East-west collaboration is a major initiative to let the richer regions help the poorer ones and achieve common prosperity. 343 economically-developed counties (cities, districts) in 9 eastern provinces were paired up with 573 poor counties in 14 central and western provinces, aiming to achieve moderate prosperity hand in hand. From 2015 to 2020, the nine eastern provinces invested over RMB100.5 billion to poor areas through fiscal and private funding. 131,000 officials and technicians were sent to each other. More than 22,000 eastern enterprises invested RMB1.1 trillion to paired-off poor areas. The central government also sent officials to work in western regions, old industrial bases and old revolutionary areas to support them in poverty reduction and development.

Focused on the objectives of the battle against poverty and building a moderately prosperous society in all respects, Guangzhou of Guangdong Province vigorously helped Bijie of Guizhou Province, its paired-up city, to alleviate poverty by generating more jobs through the "Nanyue (aka. Guangdong) Housekeeping" livelihood project. First, it focused on stemming poverty from the source. A "Nanyue Housekeeping" training base was established to provide targeted and diversified housekeeping skills training, creating about 20,000 jobs for Bijie city. Second, it consolidated advantaged resources. Based on the comprehensive housekeeping platform, Guangzhou consolidated the resources in housekeeping employment information and labor resources in the poor

areas and created over 30,000 jobs for people who had been relocated from hometowns under poverty alleviation schemes. Third, it enhanced talent training. With the support of the "Nanyue Housekeeping" training base and Bijie Vocational and Technical College, 10 targeted training classes were organized to train professional and management talents, whose enrolment were based on orders from future employers. Fourth, it created settlement bases to alleviate poverty through job creation. It stepped up efforts to send people with difficulty finding jobs, college graduates and people from paired-up regions under poverty alleviation schemes to engage in the housekeeping in Guangzhou. In 2020, a total of nearly 4,000 jobs were offered at online and on-site recruitment events.

Picture 5 Liwan District of Guangzhou - Jinsha County of Bijie housekeeping service training

Source: National Development and Reform Commission.

Eradicating absolute poverty: Support from the international community

To reduce poverty, China has carried out extensive cooperation with inter-governmental organizations, bilateral aid agencies, multinationals, and NGOs. From funding, knowledge, technologies, to advanced concepts, approaches, and methodologies in poverty reduction, their help has accelerated the poverty reduction process in China.

UN agencies run a broad range of poverty reduction projects in China, covering industry, ecological protection, education, health care, science and technology, finance, employment, culture, policy-making and capacity building, etc. Measured by both number and value, industrial projects take the biggest share. For example, UNDP carried out 198 poverty reduction projects in China between 1979 and 2019, of which 123, or 62.12%, were industrial projects; these industrial projects were worth USD175 million, accounting for 34.02% of the total projects (Figure 1).

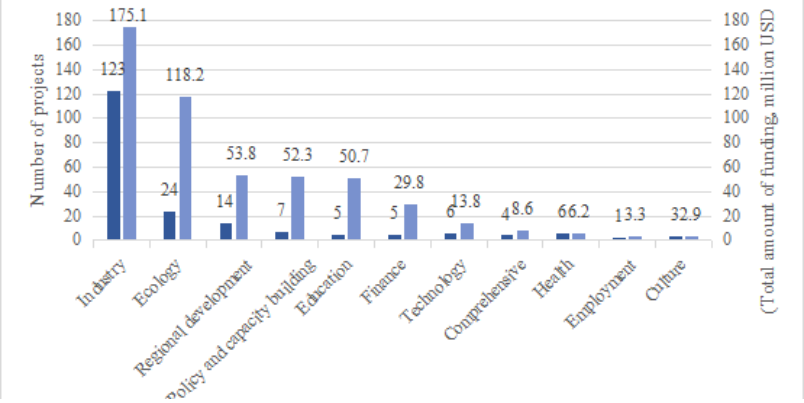


Figure 1 Poverty reduction projects of UNDP in China between 1979 and 2019

Source: Excellence in Poverty Reduction: Case Studies of Four Decades of China-UN Collaboration

The World Bank has actively supported China by providing funding and sharing knowledge and innovative practices. **First,** World Bank loans and grants have broadened the financing channels for poverty alleviation and development in China in the early years. By July 2021, World Bank's loan commitment to China exceeded USD66 billion, which supported 450 projects in China, including general economic and social development projects and dedicated poverty reduction projects. Since 1995, World Bank, in collaboration with the Chinese government, has carried out six phases of large-scale and influential poverty reduction and development projects, and numerous poverty reduction projects for specific provinces, regions or in specific areas. **Second,** with the help of World Bank, China established an objective and independent poverty monitoring and assessment system that can identify poor population more accurately. **Third,** innovative approaches trialed in the World Bank projects, such as village-level development planning, labor force transfer, and cross-

sectoral poverty reduction, have been incorporated into the policy documents of the Chinese government, such as the *Outline of Poverty Alleviation and Development in Rural China (2001-2010)*, exerting a profound impact on China's poverty alleviation efforts.

International poverty reduction exchanges and cooperation have alleviated poverty in the applicable areas, strengthened the foundation for their sustainable development, and contributed to the institutional innovation and management improvement in China's poverty reduction endeavor. The valuable support and assistance from the international community will always be cherished by the Chinese people.

Ecological conservation and low-carbon development

The Chinese government has always attached great importance to ecological and environmental protection, and has made ecological conservation a priority in socialist modernization, people's well-being and sustainable development in the long run. President Xi Jinping has made statements that "lucid waters and lush mountains are as good as mountains of gold and silver". "Mountains, waters, forests, grassland, farmland, lakes and deserts are inherent parts of an integrated ecosystem". Under the guidance of Xi Jinping Thought on Ecological Conservation, China has pursued modernization with harmony between man and nature.

Kubuqi desert: From a yellow desert to an oasis bank

From yellow desert to lush grass, from the "sea of death" to an "economic oasis", with more than 30 years of efforts, the people of Kubuqi have carried forward the Kubuqi spirit in desertification management, and transformed the place from a yellow desert into an oasis bank. Their story is a vivid example of implementing Xi Jinping Thought on Ecological Conservation.

The 5th national desertification and sandification monitoring survey showed that extremely desertified land in Kubuqi shrank by 3.095 million *mu* (2,063 km^2) from 2009 to 2014, severely and extremely sandified land shrank by 1.15 million *mu* (767 km^2), sandified land with over 60%

vegetation coverage expanded by 1.46 million *mu* (973 km^2), achieving a historical turnaround from "sand forcing people back" to "vegetation forcing sand back". The main practices of the Kubuqi model are as follows:

First, government policy support. Governments at all levels have played a leading role in the desertification control in Kubuqi. The central and local governments rolled out a range of favorable policies for desertification control, including tax benefits, financial support, and protection of rights and interests. Incentive and restraint mechanisms, such as rewards, subsidies, and assessment, were established. Grazing prohibition and moratorium were imposed. Key national projects were implemented to step up protection and restoration of desertified land, including the sandstorm source control in Beijing and Tianjin, closure and protection of desertified land, the Three-North Shelterbelt Project, and the Return Farmland to Forests initiative. Government investment into the Kubuqi desert governance increased steadily. It is calculated that the central and sub-national governments invested over RMB600 million every year into the desertification control and afforestation efforts in Ordos, which enabled sustained and rapid progress in the Kubuqi desertification control.

Second, businesses-led industrial development. Various types of businesses have played an important role in the Kubuqi desertification control. According to available statistics, over 20 enterprises are taking part in the Kubuqi desertification control efforts, with Elion Resources Group being a typical example. Elion is committed to balancing ecological preservation and economic growth, integrating ecological conservation with economic development, and reducing poverty through industrial development. It has established a desert ecological and industrial system by integrating the primary, secondary and tertiary industries, such as ecological restoration, ecological farming, ecological tourism, ecological solar energy industry, and so forth. Its strategy for

desertification control is to "lock down the neighboring areas, permeate into the hinterland, divide into different segments, rely on technology and industrial development". Industrial development in turn can help with desertification control and benefit local residents with a better ecological environment. Elion has created a new model of industrialized ecological governance and industry-driven ecological conservation.

Third, market-oriented public participation. Local residents of various ethnic groups are the main actors and beneficiaries of the Kubuqi desertification control efforts. Through the models of "company+farming households", desertified land stock and land release to enterprises, farmers and pastoralists were turned into industrial workers; local residents used the desert resources to run family hotels, restaurants, and desert off-road drive programs to attract tourists, turning from farmers and pastoralists into small business owners; enterprises created jobs by recruiting farmers and pastoralists into their desertification control teams, turning them into ecological conservation workers. Through engagement in the desertification control efforts, local farmers and pastoralists have not only contributed to ecological improvement, but also benefited from increased income.

Fourth, reliance on technological innovation. Science and technology have played a leading role in the Kubuqi desertification control. The principle is to respect, adapt to, and protect nature. The approach is to combine closed hillside afforestation, aerial seeding, artificial afforestation, mix arbor, shrub, and grass, and carry out comprehensive governance suitable to local conditions. In order to resist drought and save water, Kubuqi has developed and disseminated a batch of desertification control technological advances and drought relief and afforestation technologies, introduced and fostered a batch of cold-resistant, drought-resistant, and saline-alkali-tolerant tree and grass seeds, invented numerous new desertification control techniques, such as new tree-planting methods and horizontal licorice planting, built a

desert plant germplasm repository, enabling science-based desertification control in Kubuqi. A series of demonstration centers were built, such as the modern agricultural demonstration center for dryland water conservation, ecological big data demonstration center, and the Belt and Road desert green economy and innovation center, to share experience in desertification control, promote China's models, and enhance international cooperation.

During its 30 years of development, Elion Resources Group has explored the Kubuqi model of sustainable development. According to the assessment of the United Nations Environment Program, Elion, honored by the UN as "Champions of the Earth", has greened more than 6,000 square kilometers of desert in Kubuqi. The Chinese government has named the Kubuqi Desert Elion Ecological Demonstration Area as an innovative practice base for ecological conservation (Picture 1).

Picture 1 Innovative practices base for ecological conservation

The river/lake chief system: Opening new ground for river and lake basin management

As China's industrialization moves forward, the contradiction between

economic development and resources and environment constraints has come to the fore. The government and people have realized that sacrificing the environment in exchange for GDP won't work. The problems with hydra-headed river basin management were also laid bare. In the new era, an important question in ecological conservation is to resolve the difficulties in river basin management and build a beautiful China with green mountains and clear water, so as to meet people's aspiration for a sound ecological environment.

In November 2016, the General Offices of the CPC Central Committee and the State Council issued the *Opinions on the Implementation of the River Chief System.* In his New Year's address in 2017, President Xi Jinping requested that "every river should have a chief". In December 2017, the General Offices of the CPC Central Committee and the State Council issued the *Guidelines on Implementing the Lake Chief Mechanism.* In the past four years since the river/lake chief mechanism was established, China's water quality has improved notably. In 2020, 83.4% of the surface water in state-controlled cross-sections showed sound quality.

Local authorities represented by Jiangsu province explored successful practice in river and lake management and won wide recognition.

First, establish a comprehensive river chief system for proactive water management. Jiangsu has made water management part of its strategy and established a River Chief work leading group. The River Chief office was set up in the provincial water resources department to act as a coordinator. River/lake chiefs make inspections to directly identify problems and issue task assignment sheets to solve the problems. An effective operating mechanism is formed, where the provincial river chief is responsible for making progress, city and county level river chiefs are responsible for governance, town and village river chiefs are responsible for management and maintenance. **Second,** establish a cross-departmental

coordination mechanism to promote water management systematically. Cross-departmental collaboration and shared responsibility are key to advancing the river chief mechanism systematically. The province drew a road map to govern river and lake management in its jurisdiction and made systemic planning for water management. Grid management is applied for major rivers and lakes. Jiangsu also accelerated information system building to collect river and lake resources and stepped up monitoring of water area and shoreline development and utilization. **Third,** carry out multi-dimensional evaluation and provide incentives for long-term water management. In response to the central government's call for greater incentives and support to the river/lake chief system, Jiangsu province has put specific scores on river management in the provincial official evaluation, and earmarked special funding. The municipal level also introduced the accountability system for river/lake chiefs, linking it to the appointment of officials, and organized regular third-party inspection and evaluation and quarterly notification. **Fourth,** conduct cross-regional collaboration and patrolling to promote joint water management. Following the principle of "shared responsibility, consultation, shared rules, synchronized actions, and shared resources", the joint river chief system was established to manage rivers and lakes that run on the borders of different administrative regions. Joint river chiefs were appointed. Through joint river patrol, cleaning, monitoring, law enforcement, and governance, regional integration and collaborative water management was promoted. **Fifth,** encourage public participation via various channels to accelerate targeted water management. River chief bulletin boards were erected and hotlines were opened for the public to report problems. Third-party satisfaction assessment was carried out. Many local residents became unofficial river chiefs, a useful complement to the river chief system. Jiangsu also built a digital platform for the lake/river chief system, using an app to help grass-root river chiefs to patrol the river and discharge duties. The inspection records, problem reporting, tracking and processing, feedback and other basic data are all connected by this platform.

Picture 2 Information disclosure board of river chief

The river/lake chief system achieved effective basin management thanks to the systemic advantage that can pool resources to focus on important projects. It encourages institutional innovation in grass-roots basin management based on local conditions, involves the public in water governance and protection, and brings out the historical and cultural value of rivers and lakes through protection.

Yangtze River Protection: An important pillar to biodiversity protection

The 15th Conference of the Parties (COP15) of the *Convention on Biological Diversity* (CBD) is scheduled to be held in two phases in Kunming, Yunnan Province, one in October 2021 and the other in the first half of 2022. This is the first COP held in China since the Convention came into force. It is proof of international community's recognition of China's biodiversity conservation achievements and contribution. Businesses are an important player in ecological conservation in China. They have actively made exploration in biodiversity conservation and played an important role in the biodiversity conservation efforts.

As the world's largest hydropower development and operation

enterprise and China's largest clean energy group, China Three Gorges Corporation (CTGC) acts as a backbone in the protection of Yangtze River. Guided by Xi Jinping's Thought on Ecological Conservation, it has implemented the Yangtze River Protection Law, actively served the high-quality development of Yangtze River economic belt and promoted the development and protection of the Yangtze River basin hand in hand.

Free Chinese sturgeon and strengthen the protection of rare aquatic life. As a flagship species of rare and endemic fish in the Yangtze River, the Chinese sturgeon is largely an indicator of the Yangtze River's water ecological environment. Since the first release of Chinese sturgeon in 1984, CTGC has carried out the 64 rounds of release activities, freeing more than 5.04 million Chinese sturgeons into the Yangtze River. These activities played an important role in replenishing the population resources and sustainable reproduction of the Chinese sturgeon. In 2021, following the Yangtze River Protection Law and the ten-year fishing moratorium in the Yangtze River, CTGC conducted the first large-scale release activity. The strategy is to take a science-based approach in releasing a combination of middle-aged, young and baby sturgeons. 10,000 second-generation Chinese sturgeons were freed.

Picture 3 The release of Chinese sturgeons into the Yangtze River by CTGC in 2021

Source: CTGC.

Rely on scientific research to promote biodiversity. In November 2020, the Ministry of Agriculture and Rural Development and CTGC signed the *Framework Agreement for Strategic Cooperation in the Conservation and Restoration of Aquatic Life and Habitats in the Yangtze River Basin,* and jointly inaugurated the Yangtze River Rare Fish Conservation Center (MARA Base for Chinese Sturgeon Protection in Yichang). Through the basin-based fish resource protection, comprehensive aquatic ecological protection and restoration strategies, the aquatic biodiversity of the Yangtze River is effectively protected, and the ecological environment is restored.

Undertake high-standard infrastructure construction to protect the terrestrial ecological diversity of the Yangtze River. During the construction of the Three Gorges Project, CTGC took various measures, such as building nature reserves, protection sites, germplasm resources conservation, ex situ conservation, implemented the Yichang Dalaoling Plant Diversity Protection Project, the Xingshan Longmen River evergreen broad-leaf forest protection project, and terrestrial plant protection project and scientific research focusing on adiantum reniforme and myricaria laxiflora.

Leverage professional strengths and fulfill social responsibilities in urban water management. Since 2018, CTGC has been involved in the rectification of problems identified by ecological and environmental protection inspections of the Yangtze River, accelerated the projecting planning with regard to the treatment of black and odorous water bodies and helped local governments to tackle prominent environmental problems. After conducting a systematic study of the status quo of the Yangtze River banks, CTGC proposed an integrated model that puts equal emphasis on sewage treatment plants and pipelines, which helped to avoid fragmentation in water treatment. The Yangtze River Protection initiative received over RMB160 billion paid-in investment, accounting for 35% of the water-related PPP projects in 11 provinces and cities in the Yangtze

River Economic Belt.

Central SOEs rooted in the Yangtze River basin have great stakes in the green development of the Yangtze River. During the 14th Five-year Plan period, they will continue to develop new models for high-quality urban water and energy management, provide more wisdom and solutions to achieve the goal of carbon peak and carbon neutrality, and help to bring about transformation in the ecological preservation of the Yangtze River Economic Belt.

Low-carbon steel development: Contributing to carbon peak and net zero

In the fight against climate change around the world, the steel industry has become a source of concern for carbon emissions. China, as a global steel production and consumption center, produced about 56% of world's crude steel in 2020, and accounted for about 15% of China's carbon emission. Accelerating the green and low-carbon development of the steel industry carries great significance for China to move to carbon peak and carbon neutrality.

As a leading steel producer in China, China Baowu Group was among the first to set a timetable for achieving carbon peak and carbon neutrality goals, aiming to achieve carbon peak by 2023 and carbon neutrality by 2050, and developed a series of action plans.

Lead steel low-carbon development with technological innovation. Green is the color of sustainable development. Baowu Group has led the low-carbon development of the global steel industry with rapid technological innovation and invested in forward-looking and ground-breaking low-carbon technologies in advance. It was the first to develop metallurgy-coal chemical coupling technology. It cut CO2 emissions by about 40 million tonnes per year through capacity reduction, and by about

11 million tonnes per year through energy efficiency improvement. In the future, hydrogen-rich blast furnace and shaft furnace will be used to develop new low-carbon metallurgical technologies. Baowu Group will rely on smart manufacturing to maximize efficiency and achieve green development in the steel production process and use of steel products.

Strive to lead the way in achieving carbon peak and carbon neutrality. While accelerating innovation in green and low-carbon metallurgy by itself, China Baowu also built a knowledge sharing platform for the transformation and upgrading of the industry, as many steel producers are struggling in the primary stage of low-carbon development, with weak technology and human resources foundation.

Promote low-carbon and sustainable development. China Baowu worked with upstream and downstream industries to jointly reduce carbon and build a circular industrial chain. It relied on market forces to integrate resources and worked with government and private players to explore a low-carbon development path that can deliver sustained and stable economic growth and reduce carbon emission at the same time.

Technology innovation is critical to carbon peak and carbon neutrality, and an essential element in the high-quality development of the steel industry. China Baowu will step up international cooperation, bring together innovation resources and technologies from home and abroad, explore different technology paths to accelerate carbon avoidance and carbon utilization demonstration projects, make breakthroughs in the core technologies, and drive green and low-carbon transformation with science and technology innovation.

Build carbon sinks with afforestation: Enterprises involved in China's afforestation cause

From "control desertification with afforestation" to "build carbon sink

with afforestation", afforestation has played an important role in China's green development. Thanks to the hard work of generations of people, China has transformed vast tracts of barren land into forests, and a number of typical examples have emerged, such as Saihanba Machinery Forest Farm in Hebei, Maanshan Forest Farm in Inner Mongolia and Babusha Forest Farm in Gansu. In addition, Ant Group, China Green Carbon Sink Foundation and other Chinese enterprises and social organizations have also been actively involved in China's afforestation cause, making positive contributions to promoting the harmonious coexistence between mankind and nature. Through large-scale afforestation, carbon storage and absorption of China's forest ecosystems have gradually increased, and the scale of forestry carbon sinks has been continuously improved.

At the same time, while participating in and supporting China's economic development, a number of foreign-invested enterprises in China are actively practicing corporate social responsibility and participating in environmental protection and ecological restoration, thus contributing to China's sustainable development. Novartis is one of them. Novartis group has integrated ESG (Environment, Social and Governance) into its business, implementing projects in China such as the forestry carbon sink project in the Daliang Mountains of southwestern Sichuan, which has achieved positive environmental, economic and social benefits.

Promote carbon sequestration and ecosystem stability through afforestation. From 2011 to 2019, despite high altitude, harsh natural conditions, and forestry-pastoral conflicts, Novartis planted about 21 million seedlings of various types, including fir, spruce and Huashan pine, on 4,095.4 hectares of land, covering three giant panda nature reserves. The project has enhanced biodiversity conservation, helped restore habitats for a variety of plants and animals, prevented soil erosion, landslides and floods, and enhanced the adaptability of local ecosystems and communities to climate change.

Create jobs and increase the income of local communities. The project covers more than 17 townships and 26 villages, benefiting many ethnic minorities, which account for 97% of the beneficiaries. The successful implementation of the project has provided local communities with job opportunities in forestation and management, increased the income of local poor communities, enhanced skills for seedling cultivation, forestation and forest management, and also raised awareness for nature conservation among the local residents.

Carry out multi-party cooperation to build a sustainable development model. The project has delivered multiple benefits and met different priorities. It involves collaboration among multiple parties: coordination and joint progress among the government, business and professional environmental organizations, and science-based management, which holds the key to the success of the project; it received investment from multiple channels, including both the government and private players; it took multiple years of persistence: the project's planned investment period is 30 years, which requires long-term persistence and dedication of participants at all levels.

Since 2010, the stage-by-stage reforestation plan has been largely completed and delivered sound results. Habitat vegetation has been gradually restored and biodiversity has increased. The project has widely engaged local villagers, helping to alleviate poverty and increase income, and raising local people's awareness of nature conservation.

Waste-free cities: Green transition of development zones

As an important host of industrial clusters, development zones feature rapid economic growth, sophisticated economic development, and a strong driving force to regional economic development, but also struggle with high energy consumption and large emissions, weak awareness in

solid waste reduction and classification of general industrial solid waste among the resident enterprises. There are also difficulties in solid waste transactions and disposal of hazardous waste. At present, national-level economic and technological development zones are going through green transition, with green industrial parks being explored across the country.

As the only national-level economic and technological development zone in the pilot project of waste-free city, Beijing Economic-Technological Development Zone has effectively made institutional, policy and technological innovation, and actively explored the feasible path and specific models for building a waste-free city. The main practices include:

In terms of industrial solid waste reduction, a pilot program is run in E-town Wealth Center. An intelligent data cloud platform is set up in collaboration with a third party to guide resident enterprises in the construction of solid waste sorting stations, other waste squeezing stations, kitchen waste biodegradation stations and recyclable waste transfer stations. These stations constitute a "1+4" solid waste disposal system that integrates data, statistics, and management. During the COVID-19 epidemic, despite an 11% growth of occupancy rate in the zone, solid waste was reduced by 50%.

In terms of hazardous waste disposal, a pilot project is run in the bio-pharmaceutical park. The park has built a hazardous waste temporary storage depot, operates an integrated model of regular collection, classification and storage, timely transfer, and commissions qualified agencies for safe disposal. Such practice has lowered the cost for the enterprises while reducing environmental risks. At present, the annual cost of hazardous waste storage and transfer for each enterprise in the park is reduced by 40%, effectively solving the difficulties in the storage, transfer, and cost of hazardous waste disposal for SMEs.

In terms of delicacy solid waste management, the development zone

regularly updates the *Catalogue of General Industrial Solid Waste in Beijing Economic and Technological Development Zone* in light of its conditions and types of industrial waste. On this basis, it keeps on improving the smart platform for solid waste information collection. It has formed a delicacy management mode for solid waste, where public administration and market operation complement each other. General industrial solid waste is held to the same standards as hazardous waste in practical management. Digital means is utilized to collect information on the type, weight, transportation destination and comprehensive utilization of solid waste and monitor the whole process of industrial solid waste disposal in the development zone. At present, the platform has collected the basic information of solid waste disposal by nearly 300 resident enterprises above the designated size, and uses electronic bills to track the entire solid waste disposal process.

In terms of green lifestyle, "Internet+source sorting" and reward points are used as incentives to motivate residents to practice garbage sorting. The "waste-free city cell" campaign has helped to foster a sound atmosphere for broad participation and encourage the public to shift to a lifestyle of low consumption and low solid waste generation.

Since its inception, Beijing Economic-Technological Development Zone has been committed to green development while maintaining rapid economic development. Through years of efforts in building green industrial parks, it is well-equipped to be the pilot for the waste-free city, and was approved as the national pilot project in April 2019. The waste-free e-town is becoming a green brand for the Beijing Economic-Technological Development Zone. The waste-free city pilot will facilitate the construction of green industrial parks, green manufacturing systems, and a green and livable city. According to the 14th Five-year Plan and the e-town new city plan, e-town will build more international exchange platform for green and sustainable development.

Fighting COVID-19 and building a global community of health for all

In the face of the sudden outbreak of COVID-19, China put the people and life first and sprang into action by promptly setting up a unified central command system, under which all local authorities and central government departments take clearly-defined responsibilities and coordinate with one another. A central steering group was sent to Wuhan to respond to COVID-19 in the front line. The State Council inter-agency task force for COVID-19 response and working mechanism for reopening the economy, which involves multiple government departments, were set up. China listed COVID-19 as a Class B infectious disease as stipulated in the *Law of the People's Republic of China on Prevention and Treatment of Infectious Diseases*, and took prevention and control measures applicable to a Class A infectious disease. It also applied quarantine measures for infectious diseases according to the *Frontier Health and Quarantine Law of the People's Republic of China.* China immediately put Wuhan and Hubei Province under the strictest lockdown and traffic control and adopted targeted response measures in different regions with different risk levels. It effectively controlled the domestic spread of the virus in the shortest possible time by mobilizing the people and adopting a full array of measures in keeping with laws of science. Then regular prevention and control have stayed in place to stamp out any outbreak while allowing society and the economy to stay open as much as possible, which has protected 1.4 billion citizens, effectively ensuring their rights to life, health and development. Anchored in the vision of a community with a shared future for mankind, China has launched the largest global

emergency humanitarian operation in the history of the People's Republic and engaged actively in global cooperation, which has contributed to the global fight against COVID-19 and given hope and impetus to the global economic recovery and the achievement of multiple SDGs.

Building new hospitals: Treatment capacity was improved rapidly to cover all those who are required to be treated

At the beginning of the outbreak, the fast-growing number of patients put Wuhan's medical resources under great pressure. In order to meet the national prevention and control requirements that all those who are required to must be hospitalized, treated, and quarantined, the Wuhan Municipal Government decided to build Leishenshan Hospital and Huoshenshan Hospital, and to transform stadiums into cabin hospitals with a view to rapidly improving the capacity of receiving and treating patients with COVID-19 and reducing the transmission of the virus within clusters.

Leishenshan Hospital and Huoshenshan Hospital were modelled on Beijing's Xiaotangshan Hospital for SARS treatment. Huoshenshan Hospital covers an area of 70,000 square meters, with a building area of 34,000 square meters and 1,000 beds; Leishenshan Hospital covers an area of 220,000 square meters, with a building area of 79,900 square meters and 1,600 beds. Construction teams of the two hospitals faced great difficulties and massive tasks that needed to be completed within a short time. The contractor, China State Construction, promptly allocated RMB500 million of special aid fund, engaged 12 subsidiary entities in the construction with a total input of more than 4,000 managers, 35,000 workers and 2,500 sets of large equipment and transportation vehicles to ensure the project is carried out as scheduled. At the same time, in terms of project construction, equipment, materials, logistics support, etc., it coordinated with a large number of private enterprises to ensure

the timely supply of the resources needed. State Grid, China Telecom, PetroChina and other central SOEs made every effort to guarantee the supply of electricity, oil and gas as well as Internet connection on the construction site. China IPPR International Engineering Co., Ltd. prepared within 78 minutes the construction drawings created 17 years ago of Beijing's Xiaotangshan Hospital, and CITIC General Institute of Architectural Design and Research Co., Ltd. came up with a design within one day. Hubei Province and Wuhan especially mobilized forces and opened green channels to ensure smooth transportation and help solve all kinds of difficulties arising in project construction.

Picture 1 Huoshenshan Hospital in Wuhan, Hubei Province on February 2, 2020

Source: Xinhua News Agency.

With the impetus from the central steering group sent to Hubei, Wuhan also transformed convention and exhibition centers and sports stadiums into cabin hospitals to admit confirmed mild cases. It took just one day or so to put into use the Jianghan Cabin Hospital in the Wuhan International Convention and Exhibition Center, which was the first of its kind and provided more than 1,500 beds. Within two weeks, 14 cabin hospitals in Wuhan provided more than 13,000 beds and treated over 12,000 mild cases. After heads of the cabin hospitals received notifications, it took

each of them less than 12 hours to set up management teams and open the hospital. More than 7,000 patients recovered and were discharged during the 35 days when cabin hospitals in Wuhan were in operation.

Picture 2 The cabin hospital in the Wuhan Sports Center, Hubei Province on February 17, 2020

Source: Xinhua News Agency.

These new hospitals provided crucial safeguards to curb the spread of the virus and protected people's rights to life and health. They reflect not only China's strong social mobilization capacity and the advantages of the socialist system, but also China's determination to protect people's lives and physical health at all costs and its people-centered approach to development.

Pairing up for assistance: A national assistance campaign was waged to control the outbreaks in Wuhan and Hubei

It is one of China's notable institutional and governance strengths to keep in mind the big picture, pool resources to get great things done, and see offers of help rolling in from all sides when disaster strikes one place. Pairing up for assistance, a vivid embodiment of this strength, played a major role in both post-disaster reconstruction and poverty eradication.

Hubei Province, especially Wuhan, held the key to COVID-19 prevention and control. It was the decisive place to win the battle against the coronavirus. In February 2020, taking into full account the developments of the outbreak, human resource reserves and medical resource gaps in the recipient localities, the National Health Commission paired 19 provinces and cities with 16 cities, prefectures and county-level cities in Hubei Province for one-on-one assistance, fully supporting Hubei Province in stepping up the treatment of patients. From January 24, the eve of Chinese New Year, to March 8, a total of 346 national medical teams, 42,600 medics and more than 900 public health workers were mobilized and sent to assist Hubei Province. All communities in Wuhan were brought under around-the-clock lockdown, residents were not allowed to enter and exit except for medical and COVID-19 response-related activities, and the communities were responsible for providing for residents. Two rounds of concentrated, across-the-board screening were conducted among 4.21 million households to identify all those infected without leaving out any household or individual. Patients received free treatment. Medical treatment always aimed to raise the admission and cure rates and lower the infection and fatality rates by channeling resources, experts and medical facilities into treating patients, combining traditional Chinese medicine (TCM) and Western medicine and adopting categorized treatment and tiered management. The best doctors, the most advanced equipment, the most urgently-needed resources were mobilized to treat severe cases at all costs, significantly lowering the fatality rate; mild cases were treated as early as possible in order to cure them at the early stage, greatly lowering the percentage of patients developing severe symptoms. As of May 2020, Hubei Province had successfully cured more than 3,000 COVID patients over 80 years of age and seven COVID patients over 100 years of age. Many seriously ill elderly patients had been rescued from the verge of death. The sound arrangement of pairing up for assistance contributed to the balanced and reasonable allocation of manpower, materials and money in COVID-response, and mitigated multiple local outbreaks simultaneously in a timely manner. It played a crucial role in winning the battle against the virus and manifested once

again China's strong mobilization capacity.

Evidence-based prevention: Targeted guidance contributed to the reopening of the economy and regular COVID-response

As the COVID-19 outbreaks evolved, a series of technical guidelines and programs on environmental sanitation and disinfection were formulated in a science-based manner for different places and different groups of people. Multiple editions of technical guidelines on COVID-19 prevention and control for key places, entities, and groups of people and science-based guidelines on mask-wearing for the public and key professions were issued to guide the public and key groups of people in personal protection and guide various sectors in COVID-19 prevention and control for the sake of the orderly resumption of normal production and life. In response to the needs for disinfection, China issued guidelines on using disinfectants and a circular on comprehensive and targeted environmental sanitation and disinfection to provide technical support for cutting off transmission channels and a policy basis for science-based disinfection, and to avoid human health damage and environmental pollution caused by excessive disinfection.

China arranged for experts to express authoritative opinions, and widely popularized and guided science-based precise prevention and control and sound personal protection through the press conference of the State Council inter-agency task force, online interviews, CCTV, People's Daily and Xinhua News Agency, among others. China organized the popularization of the prevention guidelines and technical programs on COVID-19 prevention and control for key places, entities, and groups of people, and compiled the citizens' code of conduct for epidemic prevention (popular science version), which transformed professional guidelines and technical programs into popular science books for the public. In this way, the public could grasp the basic knowledge about health and disease prevention and learn how to maintain their health and protect themselves.

Mask production: Various kinds of enterprises rapidly transformed themselves to ensure the provision of COVID-response supplies

In early 2020, the rapidly spreading coronavirus caused a serious shortage of masks and other COVID-response supplies in China. In response, as required by the State Council inter-departmental task force for COVID-19 response, the National Development and Reform Commission actively coordinated with all sectors to increase production capacity and supply.

COVID-19 dealt a heavy blow to Esquel Group, a leading global textile and apparel manufacturer. Faced with the shortage of masks, Esquel Group decided to shift to producing washable, reusable and environmentally friendly masks to reduce environmental pollution while alleviating the shortage of masks. Through adapting its waterproof and antibacterial chemical treatment technology, Esquel successfully produced the first batch of 200,000 cotton masks within just 10 days. Each mask has an antibacterial and waterproof outer layer, a middle layer made of nonwoven fabric to block droplets and enhance protection, and a comfortable, well-fitting, breathable inner layer made of cotton gauze. Each mask can be washed and reused up to 30 times. By the end of April 2021, Esquel had produced more than 46 million reusable masks, which had been donated or sold to nearly 30 countries or regions and could have replaced more than 1.38 billion disposable masks.

Picture 3 Workers stepping up mask production in the workshop of Guangdong Esquel

Source: IFENG.COM

Electric vehicle manufacturer BYD also shifted to producing masks and soon became the world's largest mass-manufacturer of masks. More than 3,000 engineers from BYD's R&D, design and processing departments managed to develop and manufacture mask-producing devices within seven days. BYD's mask production increased by one to three million pieces per day and reached the height of 100 million pieces per day during the pandemic.

Faced with the shortage of COVID-response supplies, many enterprises responded to the call of the state and grasped the opportunity to shift to producing masks and other supplies. In doing so, they effectively alleviated the shortage of supplies and protected people's life and health while achieving economic returns.

Health Code: Digital technology helped with targeted COVID-19-response

During the pandemic, economic and social activities are significantly restricted. Digital technology has been playing an unprecedented role in tracking and releasing information, sustaining residents' daily lives, carrying out medical activities, and resuming work and production.

Faced with the dilemma between preventing and controlling COVID-19 and resuming work and production, Chinese provinces and municipalities introduced health codes to accurately track the movement and carry out health management of people with the support of digital technology. They keep improving their health code application in practice. Generated by the back-end systems operated by local governments based on automatic reviews of users' declarations and COVID-related big data, health codes serve as digital health certificates during the pandemic. People are required to show health codes before taking buses and subways and entering the workplace, shopping malls, supermarkets, airports and stations. Hangzhou, Zhejiang Province took the lead in introducing

Health Code on Alipay. Two weeks later, Health Code fully covered seven provinces and municipalities, including Zhejiang, Sichuan, Chongqing and Shanghai. Later, different epidemic developments and policies around China hindered inter-provincial mutual recognition of the code and the movement of people across provinces. In response, the national government service platform introduced the "Pandemic Prevention Health Information Code", which requires provinces to submit their COVID-related health information to a national platform following unified formats and content requirements. This helped to share and mutually recognize basic statistics and technological standards.

To protect personal information, the Chinese government, on the basis of existing laws, regulations and national standards, promptly issued regulations on the use of big data in COVID-19 prevention and control, providing a stronger legal basis and more detailed operational specifications. On top of that, relevant departments strictly implemented the regulations and strengthened law enforcement while businesses offering technological support further enhanced management.

The extensive use of digital technology significantly improves the efficiency and accuracy of prevention and control measures. In addition, anonymous use of big data in a minimal scope under legal constraints effectively protects citizens' privacy.

Supermarket chains: Major efforts were made to ensure the supply of essential goods for residents

When the coronavirus first emerged, a large number of enterprises and retailers suspended operation, and the prevention and control measures led to a surge in demand for basic daily necessities such as meat, vegetables, eggs, rice, flour and water. Impeded transportation and tight supply made it a daunting task to meet people's daily needs.

Wumart is a large Chinese supermarket chain. In response to the call of the Beijing Municipal Government, it played an important role in ensuring the supply of daily necessities for residents in the capital by taking multiple measures at the height of the COVID-19 outbreak. Wumart set up a special fund of RMB300 million to ensure affordable prices and supply, especially to prevent rises in the prices of vegetables and other daily necessities. It made every effort to purchase at home and abroad all kinds of goods in short supply, explored channels and developed smooth supply chains to prevent price rises and shortages of rice, flour, oil, meat, eggs, milk, vegetables and fruits. It transported goods to all Wumart stores using its own logistics system as soon as they arrived without interruption. To reduce cross-contamination, Wumart increased the production and supply of vegetable packs by introducing equipment and adding six production lines, raising its daily production capacity from 300,000 to 600,000 packs. It also signed strategic cooperation agreements with many leading food companies to jointly prevent price increases, supply disruption and decline in quality of daily necessities.

Ensuring that people's daily needs are met is a prerequisite for implementing various measures to prevent and control COVID-19 and the basis for maintaining social stability during the outbreaks. Large supermarkets played an active role in the fight against the virus by making every effort to ensure the supply of daily necessities.

Ad hoc government-chartered flights: Diversified measures were adopted to help reopen the economy

The Chinese government coordinated the COVID-19 prevention and control and economic and social development by reopening the economy and schools gradually in an orderly manner in light of local conditions.

At the beginning of 2020, the government of Wuxing District, Huzhou received reports from many enterprises, especially key ones, that since a

large number of employees who had returned home before the Chinese New Year were still stranded in their hometowns, operation could not be fully resumed, and daily economic losses amounted to millions of RMB. After conducting thorough investigations, the Human Resources and Social Security Bureau of Wuxing District sent a letter to Spring Airlines, requesting the carrier to bring 180 passengers back to work from Kunming. By arranging ad hoc chartered flights, the government made every effort to help businesses reopen as soon as possible, meeting their actual needs while facilitating COVID-19 prevention and control. In order to ensure the health and safety of all the passengers, enterprises contacted workers one by one and required them to apply for the Huzhou Health Code. On top of that, following requirements on joint prevention and control, Spring Airlines took passengers' temperatures before and during the flight and upon arrival, inspected passenger's health during the flight, and fully disinfected all aircraft upon landing.

In China, there were many similar cases of government-business cooperation in chartering flights to help employees return to work. In addition, the Chinese government also introduced a number of tax breaks, subsidies, and financing-related policies to help companies resume work and production.

Vaccine R&D and sharing: China has contributed to the global fight against the coronavirus by improving vaccine accessibility

Vaccines provide a powerful tool to fight against viruses and a hope of saving lives. They should serve the whole world and benefit all human beings.

Soon after COVID-19 emerged, CNBG, Sinopharm set up a leading group for breakthroughs in scientific research and arranged RMB1 billion for vaccine R&D. Considering the development of technologies and its

own technological advantages, CNBG decided to focus on inactivated vaccines and genetically engineered vaccines. Then its three subsidiaries and three project teams got started at the same time. They managed to develop a series of processes and key technologies for quality control, such as selection of virus strains for vaccines, establishment of virus strain banks, antibody preparation and identification, testing methods, research on quality standards and production processes, animal testing and vaccine safety evaluation, etc., establishing the technological routes, process parameters and quality standards.

According to relevant regulations, the research on and production of COVID-19 vaccines must be carried out in facilities of a high biosafety level. At the early stage of the COVID-19 pandemic, Sinopharm planned to build high-level biosafety laboratories and production workshops. By actively coordinating and communicating with relevant departments, it fast-tracked workshop construction through a green channel; it arranged for the design institute and production department to communicate with Chinese and foreign experts to gradually improve the design of the workshop; and it fully coordinated with key equipment suppliers to ensure that all equipment arrive on time. Within just 60 days, the construction of the world's first workshop of inactivated COVID-19 vaccines, with an annual production capacity of 100 million doses, was completed.

Picture 4 First batch of CNBG vaccines for COVAX ready for shipment

Source: CNBG.

China took the lead in committing to making vaccines a global public good and improving vaccine accessibility and affordability in developing countries. It has joined the WHO's COVAX facility and donated USD100 million. China will have over 100 million doses delivered to COVAX by the end of October so as to bring more benefits to other developing countries. By last August, despite its own large population and tight vaccine supply, China has provided over 100 countries and international organizations with 900 million doses of vaccines, making it the largest vaccine provider for developing countries. Chinese vaccine makers have launched cooperative production in more than 10 developing countries, including the United Arab Emirates, Indonesia, Malaysia, Egypt, Brazil, Turkey, Pakistan and Mexico, with a production capacity of more than 200 million doses. They have also responded to the call of the United Nations for vaccine donations to peacekeepers from various countries. In addition, among the 140 countries that have signed Belt and Road cooperation documents with China, over 80 have made requests for importing Chinese vaccines. China has responded positively and offered vaccines to all of them. As an active participant in international cooperation on COVID-19 vaccines, China has contributed to making vaccines a global public good and promoting their fair distribution worldwide.

Developing social programs to comprehensively improve people's living standards

Committed to a people-centered development approach, the Chinese government aims to achieve shared prosperity for all. It promotes the development of social programs in all fields and improves people's whole life-cycle well-being by consistently increasing spending on improving people's living standards, deepening reforms of social programs, engaging diversified entities and adopting emerging technologies. Progress in China's social programs mainly include the efforts to provide fair and quality education, sufficient secure jobs, full-fledged and high-standard healthcare services, reliable social security, comfortable living conditions, a beautiful environment, as well as rich intellectual and cultural activities.

China REACH: Promoting early childhood education in rural areas

The importance of the first 1000 days of life is well supported by scientific theories and recognized by the international community. Improper rearing and malnutrition in early childhood will have a significant impact on one's lifelong development. In poor rural areas in China, the developmental level of children is generally low due to the lack of early child-rearing resources and scientific knowledge. According to surveys, the development levels of infants and toddlers aged 6-24 months in poor rural areas are significantly lower than those in urban areas in terms of language, cognition, movement, and sociality.

In order to improve early child-rearing in poor rural areas, the China Development Research Foundation (CDRF), with the support of the Department of Maternal and Child Health Services of the former National Health and Family Planning Commission, launched the China Rural Education and Child Health (China REACH) program. China REACH is an early childhood development program that combines parenting guidance and nutritional interventions for children aged 6-36 months in poor areas. The program is based on weekly home visits providing parenting guidance and a daily nutrition pack containing supplemental food for infants and toddlers, and complemented by group or center-based parent-child activities. It uses professional curriculum programs in providing parenting guidance related to games, reading, music and exercise, among others, to improve the quality of infants' and toddlers' interaction with caregivers and popularize science-based parenting behavioral models. It aims to improve infants' and toddlers' health and promote their cognitive, language, fine motor, gross motor and sociality development. With the support of China's health authorities and women's federation organizations, China REACH has set up a three-level management and service network with county-level project offices, township supervisors and nursery counselors in villages. County-level project offices are responsible for overall county-wide coordination, recruitment and training of local staff, as well as supervision and guidance. Township supervisors guide and supervise village-level nursery counselors, who are responsible for weekly home visits, toy preparation, information report, and maintenance of relations with households covered by China-REACH.

Picture 1 A China-REACH nursery counselor visiting a family in Jeminay County, Xinji ang Uygur Autonomous Region

First piloted in July 2015 in Huachi County, Gansu Province, China REACH had covered 11 counties in 10 Chinese provinces as of January 2021, with development interventions for a total of 17,773 children. Results of a third-party evaluation conducted from July 2015 to July 2017 showed that China REACH had improved by more than 50% the proportion of normal infants and toddlers in developmental screening, and had played a significant role in improving home rearing environment and parenting behavior, promoting height growth, and lowering the prevalence of wasting and anemia.

Picture 2 China REACH carrying out parent-child activities in the early child-rearing center of a community relocated from inhospitable areas in Ledu District, Qinghai Province

China REACH is a useful exploration of cooperation between government departments and social organizations on promoting social programs development. It has contributed to the development of early education for children in poor rural areas. In the future, it will continue to seek effective ways to fundamentally alleviate the intergenerational transmission of poverty and narrow the gap between urban and rural early child-rearing through social experiments, research and policy advocacy.

Gender equality education in class: Embedding gender equality awareness in the younger generation

Gender equality is not only a fundamental human right, but also a necessary foundation for a peaceful, prosperous and sustainable world. China adheres to the basic state policy of gender equality and safeguards the legitimate rights and interests of women and children. In 2015, the Office of the National Working Committee on Children and Women under the State Council launched the "Gender Equality Education in Class" program, which explores the integration of gender equality concepts into the whole process of education in primary and secondary schools through organizing training and expanding and upgrading pilot projects that provide welcome boosts.

Organizing training to increase the competence of teachers. The "Gender Equality Education in Class" program built its teaching workforce by organizing training and preparing teaching materials. In 2015, it organized a training course for educators on gender awareness; in 2016, it organized the compilation of the *Gender Education Workbook for Primary and Secondary Schools (for Trial Implementation)*; and in 2017, it held the launch event and training course of the "Gender Equality Education in Primary and Secondary Schools" project. Various training activities have been carried out in pilot regions.

Piloting projects to cultivate innovative models. In 2016, pilot projects on gender equality education in primary and secondary schools were launched in Shaanxi, Inner Mongolia, Jiangxi, Shandong, Guizhou and other provinces (regions); and two more batches of pilot projects were launched in 2017 and 2018. In this process, typical practices that suit different economic and social conditions emerged, including the Zhongshan model, the Maoming model, the Tianjin model and the Jiangsu

model.

Boosting gender education by publicizing and promoting effective practices. Pilot regions summarized and promoted their practices while making explorations. Through continuously expanding the coverage of pilot projects, the "Gender Equality Education in Class" program now covers every education stage and engages various social forces with progress made in multiple regions.

Expanding the coverage and improving the quality of pilot projects to make further progress. On the basis of two years of piloting, a meeting on promoting gender equality education in primary and secondary schools was organized at the end of 2018 to expand and improve the quality of related education nationwide. To date, 17 provinces (autonomous regions and municipalities) have launched the program. Tianjin, Shanxi, Inner Mongolia, Heilongjiang, Shanghai, and Jiangsu have achieved full coverage of gender equality education in primary and secondary schools.

Picture 3 The 2019 national training course on gender equality education in primary and secondary schools held in Nanjing

Source: Official website of the National Working Committee on Children and Women under the State Council

Universal social security coverage: Working to provide a reliable safety net for the people

The social security system is fundamental to ensuring people's living standards and adjusting income distribution. Social insurance, as the mainstay of the system, bears an important responsibility for helping people avoid risks and feel happier and more secure. In recent years, the Chinese government has been deepening the reform to build a multi-tiered social security system that is universal, balanced between urban and rural areas, fair, unified, and sustainable.

During the 13th Five-year Plan period, the Chinese government implemented a program to ensure that everyone have access to social security, which focused on basic pension schemes and basic medical insurance. Firstly, it conducted relatively thorough data matching and household surveys. Leveraging its strengths in information technology and big data, the Chinese government set up a universal security database covering the basic data of 1.39 billion people and put in place an inter-departmental information sharing mechanism, enabling the dynamic management of basic data. Secondly, it worked to expand coverage of social insurance among the poor in a targeted manner. Based on the aforementioned database, the Chinese government accurately identified uninsured people and paid premiums for disadvantaged groups to prevent their exclusion from the social insurance system because of poverty. In this way, preferential policies could benefit those in need even before they turned to preferential policies. The equity and inclusiveness of the social security system has been substantially promoted. In 2020, a total of RMB4.3 billion of basic pension premiums was paid nationwide on behalf of 38.56 million poor rural and non-working urban residents; RMB14.02 billion was spent on covering 78.382 million poor people (including those lifted out of poverty later) in the basic medical insurance scheme. Thirdly, the Chinese government continued to optimize social insurance

services. It made steady progress in building a unified national platform for social insurance public services, moved faster to let poor areas access the platform, facilitated the provision of related services at lower-level authorities, and gradually improved facilities on the basic public services platform. People were increasingly satisfied since they could access social insurance services close to home.

By the end of 2020, China's basic pension schemes and basic medical insurance plans covered 999 million and 1.36 billion people respectively, namely 90% and 95% respectively of its total population, which means its social safety net covered essentially all people entitled by law. At present, new economy and new business forms present challenges to the traditional insurance participation mode. Going forward, the Chinese government will continue to work to see that everyone has access to social security by putting in place a regular working mechanism, enabling workers in flexible employment to apply to register insurance participation online, promoting occupational injury protection and providing more effective and convenient social security enrollment services for them .

Taikang Community: Providing innovative business solutions to meet the needs for elderly care

Population aging has become a global trend. According to China's seventh national population census, there are about 260 million people aged 60 and above in the country, accounting for 18.7% of its total population, including about 190 million people aged 65 and above, which accounts for 13.5% of its total population. Demographic changes have brought huge, diversified demands for elderly care services, which are difficult to be met by the government or families alone and require the market and enterprises to provide innovative solutions and play a greater role.

Taikang Insurance Group creatively combines virtual insurance payment

with physical senior care services to meet the core needs of the elderly for longevity, health and prosperity. For one thing, in 2012, Taikang launched "Happiness Guide", the insurance sector's first product linked with elderly care communities. Through extraordinary utilization of insurance funds, Taikang helps clients make long-term wealth management plans to meet their financial needs in old age, providing an effective market-based solution for the whole society to plan retirement finances. For another, taking advantage of the large size and long investment period of insurance funds, Taikang invested the funds in developing Taikang Community, rehabilitation hospitals and other entities providing integrated medical and elderly care services. Through the confirmation letter of the "Happiness Guide", clients can enjoy integrated medical and elderly care services including services for independent living and assisted living, professional nursing, memory care, senior rehabilitation, and chronic disease management. Committed to providing technology-enabled elderly care featuring vigor, culture and health, Taikang Community offers a five-in-one lifestyle by providing a cozy home, a high-quality healthcare center, an open university, an elegant vitality center, and a home for the mind. It is leading a sectoral revolution from elderly care to elderly enjoyment.

Picture 4 Senior citizens marbling paper with artists at Taikang Community Shen Garden

As of the first half of 2021, Taikang Community had launched its development in 22 cities, with a total planned floor area of 3.33 million square meters, over 43,000 senior living units and about 2,100 medical beds. Seven communities in Beijing, Shanghai, Guangzhou, Chengdu, Suzhou, Wuhan and Hangzhou have opened and served a total of over 7,000 senior citizens, 5,000 of whom are now living in the communities.

In the era of longevity when demand for elderly care grows day by day, the market and enterprises will become an important force to fill the gap in elderly care resources. Bearing in mind the needs of the elderly, Taikang has developed new business models and achieved win-win outcomes for clients and businesses. Its useful explorations in the integration of medical and elderly care, rehabilitation, nursing, smart senior care and senior-friendly renovation have contributed to the development of the sector.

Centralized procurement of pharmaceuticals and medical consumables: Improving people's access to medicines

The supply of pharmaceuticals and medical services is directly related to the accessibility of medicines and people's health. Since 2016, China has been advancing an open, fair and transparent reform of the centralized procurement of drugs and medical consumables. This is a key initiative to deepen the supply-side reform of pharmaceuticals and medical services. It has played a significant role in reducing patients' spending on medicines, improving the quality of medicines, and promoting the high-quality development of the pharmaceutical sector.

In 2016, the Outline of Healthy China 2030 Plan proposed to ensure the principal position of medical institutions in medicines and consumables procurement. Later, the *Circular on Promulgating the Plan for Deepening Reform of the Medicine and Healthcare System in the 13th Five-year Plan*

Period required to improve the province-based (region- and municipality-based) centralized medicine procurement mechanism online and stick to bulk purchases. At the beginning of 2019, the *Pilot Program on State-organized Centralized Medicine Procurement and Use* was officially promulgated. In March, 11 cities including Beijing, Tianjin, Shanghai, Chongqing and Shenyang began to pilot centralized procurement and use of drugs; in September, the pilot program was expanded to the whole country, ushering in the first centralized state purchase. Since then, centralized bulk medicine purchases have become a regular and institutionalized practice.

As of the first half of 2021, China had made five state-organized centralized bulk medicine purchases, lowering the price of selected drugs by 54% on average and making drug prices fairer and more affordable. Take tenofovir disoproxil and entecavir for hepatitis B as an example, the price reduction of the two drugs has significantly lowered the cost of viral hepatitis prevention and treatment, improved notably the accessibility of treatment, and contributed to achieving the WHO's goal of "eliminating viral hepatitis as a major public health threat by 2030", which has been highly commended by the WHO.

Toilet Revolution: Improving living environment through interdepartmental coordination

Toilets represents people's living standards. They are an important symbol of modern civilization, and improvement of the sanitary condition of toilets is directly related to people's health and living environment. The *Toilet Revolution Progress Report* released by the Ministry of Culture and Tourism (former China National Tourism Administration) points out that 80% of infectious diseases in rural areas are caused by toilet fecal pollution and unhygienic drinking water. Among these infectious diseases, more than 30 are fecal-related, the most common ones being dysentery,

cholera, hepatitis, infectious diarrhea, etc.

In order to improve the condition of toilets in tourist areas, the Ministry of Culture and Tourism launched a nationwide campaign in 2015 for the development and management of tourist toilets. Two Three-year (2018-2020) Action Plans (2015-2017 and 2018-2020) were implemented, aiming to address the problems of the lack of tourist toilets, poor sanitation and management gaps. This ushered in China's Toilet Revolution. By the end of 2020, 146,000 tourist toilets had been built or renovated nationwide. 144,500 tourist toilets have been marked on the map APPs, providing relevant query and navigation service. The marking rate reached 95.22%. At the same time, the applicability of tourist toilets has been constantly enhanced, the service quality has been significantly improved, from meeting basic functions to better-designed, more ecological and intelligent development. The general public and tourists' satisfaction with toilets has been significantly improved.

The Toilet Revolution has extended from urban to rural areas. In 2018, the General Office of the Central Committee of the CPC and the General Office of the State Council issued a three-year action plan for improving rural living environment; at the end of 2018, eight ministries and commissions, including the Office of the Central Leading Group for Rural Work and the Ministry of Agriculture and Rural Affairs, jointly issued the *Guidance on Advancing the Special Campaign on Toilet Revolution in Rural Areas*, laying out specific requirements. By the end of 2020, targets and tasks set out in the three-year action plan had basically been accomplished, more than 68% of China's rural households had sanitary toilets, and over 40 million households had their toilets built or renovated.

The Toilet Revolution has extended from tourist areas to everywhere. In 2019, the General Office of the National Health Commission and the Office of the National Administration of Traditional Chinese Medicine

issued the Circular on Launching a Special Campaign on Toilet Sanitation in Medical and Healthcare Institutions. On May 28, 2021, the General Office of the Ministry of Transport issued the *Special Action Plan on Deepening the Toilet Revolution in Roadside Service Areas*, setting a goal of basically ensuring by the end of 2021 that public toilets in highway service areas ranking top 50% in a province in terms of traffic are clean and environmentally friendly with complete facilities and adequate toilet space.

In addition, domestic and international organizations, including the Bill & Melinda Gates Foundation, and enterprises have also engaged in advancing the Toilet Revolution, which has become a broad-based campaign involving multiple government departments and entities and covering many areas. It is of great significance for improving people's living environment, health and quality of life.

Scientific and institutional innovation: New twin drivers for sustainable development

In building the powerhouse for sustainable development, China upholds both scientific and institutional innovation as two coordinated and sustained drivers. Over the past five years, China moved faster with its innovation-driven development strategy, assigned a decisive role to the market in resource allocation, and give better play to the government, to change mindsets and remove institutional barriers hindering innovation, tap into the whole society's vigor to innovate and potential to create, and elevate the efficiency and output of labor, information, knowledge, technology, management and capital.

The Lunar Exploration Program: An impulse for the Progress of Human Society and Sustainable Development

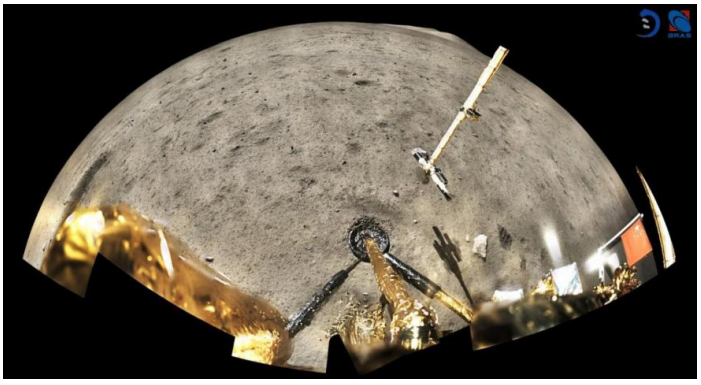
Being the closest celestial body to the Earth, the moon serves as an optimal platform to study the Earth, as well as a stepping stone for deep space exploration. Exploring the moon helps expanding our knowledge of the origin of life, the evolution of the Earth, the solar system and even the universe, and also helps understanding the relationship between the space phenomena and the natural system of the Earth, as well as opening up new fields of cognition. The moon is rich in natural resources, including iron, titanium, potassium, rare earth, phosphorus and other minerals, thereby exploring the moon can prepare for human's exploitation and utilization of lunar resources.

The human exploration of the moon is generally divided into three stages: exploration, landing and residence. In 2004, China started the Lunar Exploration Program, with manned lunar landing and the construction of lunar research station as future plans. China's Lunar Exploration Program (CLEP) is implemented according to the three-step plan of orbiting, landing, and sample return. On October 24th 2007, the Chang'e-1 was launched and successfully realized the exploration by orbiting the moon. In 2009, it was guided to crash on the moon. In October 2010, Chang'e-2 was launched and realized detailed reconnaissance around the moon, the exploration around the Earth-Sun Lagrangian L2 point and the exploration of the asteroid Toutatis, then it became an artificial asteroid orbiting the sun. In December 2013, Chang'e-3 was launched and realized China's first soft landing on the moon and performed rovering exploration on the lunar surface. In December 2018, Chang'e-4 was launched and realized the first soft landing and exploration on the far side of the moon in human history. In November 2020, Chang'e-5 was launched and successfully returned to Earth with 1,731 grams of lunar samples on December 17th 2020, which marked the accomplishment of the "three-step" goal of China's lunar exploration program.

Through implementing the CLEP, China has mastered the basic ability of orbiting around the moon, landing on the lunar surface, and transferring between Earth and Moon. Technologies such as system engineering, orbit design, flight control, environment tolerance and scientific payload in the deep space exploration field have been developed rapidly. Long March 5 has the launch capability up to 8 tonnes for the Earth-moon transfer orbit. The global deep space TT&C network and a number of lunar and deep space exploration facilities have been established. China's relevant basic industrial capability have been boosted by CLEP. A large number of outstanding science, technology and management talents have been cultivated. The scope and depth of international exchanges and cooperation in space field have been greatly enhanced. Fundamental disciplines such as planetary science, space physics, space astronomy in

China have developed. More than 30 research institutions in China have carried out planetary science research, and more than 20 universities have set up colleges related to planetary science. Original scientific achievements based on scientific data of lunar exploration engineering are constantly emerging, broadening the human understanding of the universe. A group of leading talents in planetary science have flourished.

On April 23rd 2021, CNSA and ROSCOSMOS announced a joint declaration for the cooperation in constructing the International Lunar Research Station (ILRS). The ILRS is a set of complex experimental research facilities to be constructed on the surface and/or in the orbit of the Moon designed for multi-discipline and multi-purpose scientific research activities, including exploration and use of the Moon, moon-based observation, fundamental research experiments and technological verification, with the capability of long-term unmanned operation. In the joint declaration, it is specified that all interested countries, international organizations and international partners can participate in all phases and levels of the ILRS program in physical and non-physical forms, conducting cooperation in the planning, demonstration, design, development, implementation, operation and so forth of the ILRS.



Picture 1 Post-sampling lunar surface taken by panoramic cameras

Exploring the vast universe is the common dream of humankind. China's Lunar Exploration Program will contribute Chinese solutions to the human science and technology advancement and the socio-economic sustainable development.

Qianhai, Shenzhen: Harmonization for greater vitality

Sitting on the east bank of the Pearl River in the west part of Nanshan Peninsula, Shenzhen, Guangdong Province, and on the east side of Lingdingyang, Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone (Qianhai Cooperation Zone) is a platform announced by the CPC Central Committee and the State Council for the development cooperation among Guangdong, Hong Kong and Macao. Established in 2010, Qianhai Cooperation Zone has undertaken to support Hong Kong in integrating in China's overall development. By enhancing alignment of rules and mechanisms, Qianhai Cooperation Zone has been deepening practical cooperation with Hong Kong, while improving market integration and innovative development in the Guangdong-Hong Kong-Macao Greater Bay Area:

By optimizing the business environment in all respects to facilitate investment. Under the framework of the Mainland and Hong Kong Closer Economic Partnership Arrangement (CEPA), Qianhai Cooperation Zone has strengthened cooperation with Hong Kong in e-commerce and intellectual property protection. In accordance with the World Bank's Doing Business indicator system, Qianhai Cooperation Zone published action plans on reforming the business environment in 2018 and 2019. It has also introduced more than ten supporting policies to encourage Hong Kong businesses, including detailed rules regarding enterprise headquarters verification and earmark fund for innovation and entrepreneurship entities. By June 2021, 11,400 Hong Kong businesses have registered in Qianhai, including famous companies such as HSBC, BEA, Hang Seng Bank, HKEX, Li & Fung Limited, and Chou Tai Fook. In 2020, paid-in investment in Qianhai reached USD46.26 billion, accounting for 53.3% that of Shenzhen, 19.7% that of Guangdong, and 3.2% that of China.

By harmonizing with high-standard trade and economic rules to

realize trade integration. Qianhai Cooperation Zone has built an efficient and integrated trade supervision system Qianhai Comprehensive Bonded Zone which includes customs clearance facilitative measures such as "entry before declaration", "cross-border fast-track customs clearance", "goods state-based supervision", "non-intrusive inspection". It has also worked to create new logistics models such as "international maritime transshipment, distribution and consolidation center", which enables free consolidation and orderly distribution and transit of goods in the zone, and "outbound air transportation service center", which collects, distributes and builds up cargos in Qianhan and sends them to Hong Kong airports for boarding, shortening the two-day process to three hours. In the first half of 2021, the import and export value of the ports in Qianhai Cooperation Zone reached RMB723.5 billion, an increase of 57.4% year-on-year.

By advancing cross-border financial cooperation to accelerate the regular flow of capital. Leveraging the comparative advantages of domestic and foreign financial markets, Qianhai Cooperation Zone has implemented cross-border management of loan, bond, investment, capital pool, asset transfer and free trade (FT) accounts, and harmonized account management, exchange, financing and other aspects of convergence with Hong Kong. By the end of 2020, cross-border transaction volume of Qianhai FT accounts reached RMB11.8 billion, of which 91% were transactions with Hong Kong. It was also the first place to open digital currency wallets for Hong Kong residents, and home to the country's first Hong Kong-owned consumer finance company, first Hong Kong-owned public fund company, first Hong Kong-owned joint venture securities company, and HKEX Qianhai Mercantile Exchange.

By harmonizing laws and rules to allow Hong Kong people to arbitrate Hong Kong affairs using Hong Kong legislation. Qianhai Cooperation Zone has seen the establishment of China's first base for discerning Hong Kong, Macao, Taiwan and foreign law, first anti-corruption bureau that borrows Hong Kong's anti-corruption supervision model, and six of the fifteen Guangdong-Hong Kong-Macao joint law firms. The Qianhai

Cooperation Zone court has handled 10,173 Hong Kong-, Macao- or Taiwan-related commercial cases, 7,092 of which are related to Hong Kong. Thirty-two Hong Kong residents serve as jurors at the court, and in 85 cases, the parties chose to adopt Hong Kong laws. Qianhai's Shenzhen Court of International Arbitration and Hong Kong International Arbitration Center signed an agreement on closer cooperation to promote mutual recognition and integration of systems, rules and cooperation mechanisms of arbitration.

By enhancing mutual recognition of standards and qualifications to boost professional service integration. According to the interim measures on the administration of the practice of Hong Kong and Macao tax-related workers in Qianhai, the agreement between the mainland and Hong Kong on mutually exempting certain subjects in certified practicing accountant examination and the measures of Qianhai for the administration and filing of professional Hong Kong engineering and construction practitioners, Hong Kong experts in the fields of taxation, construction and planning may be able to practice in Qianhai after registration or filing, and Hong Kong legal experts may practice in Qianhai by becoming a member of joint law firms, without the need of taking any exam. As of June 2021, 163 Hong Kong and Macao experts have been working in Qianhai: 27 in the field of taxation, 88 in engineering and construction, and 48 in legal services. As the alignment of rules leads to high-quality development, Qianhai is now one of Hong Kong's closest cooperation partner in the mainland.

Picture 2 Qianhai: 2010 and 2021

Green and low-carbon roads: Arteries of sustainable transportation

While easing cross-regional movement of people and goods, transportation also puts heavy weight on the environment. In 2019, carbon emission of transportation accounted for around 10% of China's national total, and around 24% worldwide; about three quarters of that was attributable to road transportation. Therefore, sustainable transportation, particularly the green and low-carbon transformation of road transportation, is of paramount significance to global sustainable development.

At the end of 2020, 4.92 million new energy vehicles (NEVs) were running on Chinese roads; 4 million of them are electric vehicles (EVs), more than everywhere else in the world. China's NEV industry, represented by BYD, has contributed to sustainable transportation in China.

Technological innovation leads to progress of the entire industry. BYD is the only EV company in the world that have obtained all core technologies across the industrial chain, including batteries, electric motors, electronic control units and chips. Through integrated innovation, BYD introduced its Blade Battery in March 2020, which features extra safety and 50% higher energy density. The Bade Battery has passed a nail penetration test, the most rigorous way of battery testing, thus bringing EV safety to a new level and removing the bottleneck of EV development. BYD has filed a total of 33,000 patent applications globally and has been granted 21,000 patents. As an industry leader and advocate for openness and cooperation, BYD pushes forward the global electric and smart transformation in the automobile industry. In sharing technologies with other industry players, BYD has opened access to 341 sensors, 66 controls for more than 3 million smart phone apps. By moving from independent innovation to all-round openness, BYD has contributed to the upgrading

of the NEV industry.

Technological innovation satisfies people's demand. In 2010, BYD proposed and began to implement its "Public Transportation Electrification" strategy. Supported by this initiative, Shenzhen's public bus fleet of 16,000 vehicles fully turned to electricity in 2017, and its taxi fleet of 22,000 cars in 2018. Shenzhen also became the first city in the world to own an electric heavy-loaded truck fleet with commercial, large-scale management. Broad-based adoption of municipal service EVs has improved charging facilities, boosted the expansion of the whole industry, and laid a solid foundation for electrification in more fields. Since the delivery of its first electric bus in 2011, BYD has sold over 70,000 commercial vehicles in more than 300 cities across nearly 50 countries and regions, which have reduced carbon emission by about 19.94 million tonnes.

While generating momentum for the development of transportation, innovation also underpins the green and low-carbon transformation of the sector. BYD will remain true to its "green dream". With its focus on innovation of manufacturing technologies, BYD will continue to develop technologies that meet people's need and create a better life for all.

Picture 3 Vertical transportation in a BYD park

Picture 4 BYD electric bus in operation in Italy

Digital transformation for sustainable maritime transportation

Maritime transportation is deeply embedded in international trade and the world economy, which is unfortunately impacted heavily by the COVID-19 pandemic. How to promote integrated, whole-process and flexible development of ports, vessels, cargos and trade processes has now become the top challenge of the industry in its pursuit of sustainable development.

COSCO Shipping, owner of the world's largest fleet carrying capacity, focuses on technological innovation and smart transformation to build a smart ecosystem, foster a climate of innovation and drive sustainable development of maritime transportation.

Technological innovation delivers digital application. By supporting the research and development of blockchain technology, COSCO Shipping seeks to integrate blockchain with shipping, ports and other areas. The electronic delivery order (EDO) system using blockchain technology has enabled paperless, one-stop handling of import procedures. To contribute to the innovation of the whole shipping industry, COSCO Shipping independently developed a new-generation electronic chart service software Haining Chart, the first local software awarded technical approval by UKHO, which provides localized solutions for purchase and update of vessels and transmission of electronic chart data.

Technological innovation creates smart application. In building smart ships, COSCO Shipping has adopted world-leading smart technologies, utilized big data and strengthened electronic management across the whole life cycle. In building smart ports, the company has worked with China Mobile and Dongfeng Motor to set up a 5G smart port lab at Xiamen Ocean Gate Container Terminal to empower remote control

of port facilities, smart tally, smart security and other scenarios. In promoting smart services, the company has sought to thoroughly connect the whole supply chain by adopting refreshing smart businesses with connectivity, data analysis and artificial intelligence to satisfy clients' need for shipping services.

Seizing the opportunities of digital and smart transformation of the industry, COSCO Shipping will continue to explore digital shipping and online services to unify online and offline scenarios and upgrade client services. COSCO Shipping will also grow digital business and make new breakthroughs in smart shipping and smart ports.

Picture 5 First 5G all-scenario smart port by COSCO Shipping, China Mobile and Dongfeng Motor

RuralStar: Connecting remote areas and the whole world

According to International Telecommunication Union (ITU), the digital divide still blocks nearly half of the world's population from the internet. Even in this digital era, many remote areas enjoy zero digital dividend and lack access to better opportunities.

As a globally leading ICT infrastructure and smart device provider, Huawei has introduced RuralStar, a base station that can be set up on wood poles. This small gadget which features built-in power supply and low power consumption is highly flexible and cost-effective, making it a perfect choice for rapid, low-cost base station deployment, especially

in rural areas with decentralized population, deficient transportation and poor power supply. It can also be powered by solar panels, which further brings down power consumption and saves the trouble of buying and maintaining diesel generators.

For many who live in remote regions, RuralStar means hope towards the outer world. In Ghana, a RuralStar base station was set up in just a matter of three days, while being 70% more efficient and 70% less expensive. In Nigeria, RuralStar gives the village of Tobolo access to telecommunications and business opportunities. In the mountainous areas of Thailand, RuralStar allows kids to watch videos on their phones, opening a door to a bigger world. In China, RuralStar enables villagers in the Liangshan region to easily use messaging software, and workers on Zhoushan islands to stay in contact with their families. As far as RuralStar reaches, all plains, hills, deserts and isles can have access to the internet, and all people in villages, on highways and in tunnels can be benefitted by the digital realm.

At Mobile World Congress (MWC) 2018, RuralStar won the "Best Mobile Innovation for Emerging Markets" award. In 2020, Huawei announced RuralStar Pro, an innovative solution providing high-quality mobile broadband service for even more remote villages. Thanks to integrated access and backhaul, power consumption of RuralStar Pro can be as low as 100 watts, which significantly reduces end-to-end cost and accelerates rural digitization.

RuralStar has provided mobile internet access to more than 50 million people living in remote areas in 60 countries and regions, bridging the gap between them and the wider world. It testifies the idea of technology-supported inclusive development, as it balances rural and urban network resources and brings smart farming, e-governance, remote and mobile medicine, smart energy and mobile payment to distant locations, enriching people's lives and giving them greater opportunities.

Picture 6 Huawei's RuralStar in the Liangshan region

Picture 7 Huawei's RuralStar in remote villages in Guinea

Establishing innovation demonstration zones and creating sustainable development models

In December 2016, the State Council issued the Development Scheme of China's National Innovation Demonstration Zones for the 2030 Agenda for Sustainable Development, proposing that China will establish around 10 Innovation Demonstration Zones for the 2030 Agenda for Sustainable Development (hereinafter referred to as "Innovation Demonstration Zones"). By adopting an innovation-driven approach, these Innovation Demonstration Zones can serve as the role models for sustainable development in other regions and provide Chinese experience for other countries. So far, the State Council has approved Taiyuan, Guilin, Shenzhen, Chenzhou, Lincang and Chengde to be the National Innovation Demonstration Zones. Since the approval, with the support of the joint inter-ministerial coordination meeting committee, governments of these six cities have made great efforts to build a multi-stakeholder participation mechanism and promote institutional innovation and the application of advanced technologies closely around the construction themes respectively. Positive progress has been achieved in addressing local sustainable development issues, fostering new economic drivers, and improving people's happiness. The Innovation Demonstration Zones are becoming platforms of international S&T cooperation and exchange for SDGs. They have promoted the communication and cooperation between Chinese local governments and the United Nations Development Program, the Asian Development Bank and other international organizations. They have also demonstrated China's practices and experience in implementing

the 2030 Agenda at the local level.

Geographic locations and themes of the Innovation Demonstration Zones

China has a huge territory with an imbalance in regional development. It has big regional differences in terms of natural resources and the basis for development. The Chinese government has fully considered the imbalance of regional development and the diversity of challenges the cities may face towards sustainable development. As such, the approved Innovation Demonstration Zones can better play a leading role in demonstrating the innovation-driven approaches for sustainable development. Geographically, the six Innovation Demonstration Zones are located in China's eastern, central and western regions respectively, representing different stages of economic growth in various regions.

Taiyuan is in the middle of Shanxi Province. It is an important base of energy resources and heavy industries in northern China. The pace of its economic development was once in the first tier of China. However, the long-term accumulated structural and institutional contradictions have slowed down Taiyuan's economic growth. Meanwhile, environmental deterioration is getting observed. With the theme of "transformation and upgrading of resource-based cities", the construction of Taiyuan Innovation Demonstration Zone focuses on addressing the bottleneck problems of sustainable development such as water pollution and air pollution. Taking scientific and technological innovation as the core driver, it explores new governance models, encourages new forms of economic activity and achieves the win-win situation of both development and protection. As such, Taiyuan provides an empirical model for the transformation and sustainable development of resource-based regions in China.

Guilin, located in the center of Guangdong, Guangxi, Hunan and

Guizhou provinces, is an important regional city facing Eurasia and connecting ASEAN. The karst landscape along the Lijiang River is the most important natural resource of Guilin. As an underdeveloped area in the west, the economic development model of Guilin is relatively extensive, the capacity of landscape resources conservation is insufficient, and the control of karst rocky desertification is not effective enough. With the theme of "sustainable utilization of landscape resources", Guilin focuses on tackling karst desertification and environmental protection issues. The Innovation Demonstration Zones are required to take actions to improve ecological management and green agricultural production, carry out landscape resources protection, and develop ecological tourism, ecological agriculture, and the culture plus healthcare industry. By implementing the required measures, Guilin should make innovations and accumulate replicable experiences for sustainable development in ecologically vulnerable areas within China and beyond.

Shenzhen, located in south China's Guangdong province, is one of the central cities of the Guangdong-Hong Kong-Macao Greater Bay Area. As a rapidly growing immigrant megacity, Shenzhen has encountered problems such as rapid population expansion, an insufficient supply of public resources such as education and medical care, and increasing pressure on urban security and social governance in the process of industrialization and urbanization. With the theme of "innovation-driven sustainable development of mega cities", Shenzhen is expected to tackle issues of limited resource environmental bearing and social management in megacities. By carrying out projects towards a coordinated development mechanism of the economy-society-environment, the city is expected to pioneer the way to construct modern, international and innovative large cities, and accumulate replicable experiences for other megacities in sustainable development.

Chenzhou locates in the southeast of Hunan Province, where the Yangtze River and the Pearl River diverge. It has a rich non-ferrous metal reserve,

known as the "town of non-ferrous metals in China." Affected by the long-term disordered mining, extensive model of production and lifestyle, some regions and river basins face severe water pollution. The city bears a burden for the ecological restoration in river basins. Chenzhou takes "sustainable utilization of water resources and green development" as the theme, striving to achieve higher quality, more efficient, fairer and more applicable model, contributing to the green development of the Yangtze River Economic Belt and providing experiences for similar cities.

Lincang is situated in the southwest of Yunnan Province, bordering Myanmar. It is an important hydropower energy base in China, a crucial sugar production base in Yunnan, one of the original centers of tea trees and tea culture in the world, and also one of the birthplaces of Wa culture. Lincang is a multi-ethnic city in the borderlands with low levels of socioeconomic development. The theme of the Lincang demonstration zone is "innovation-driven development in less developed areas with multiple ethnic minority groups". The city is expected to tackle bottleneck issues regarding the inefficiency in the transformation of featured resources by taking innovative measures. Taking the rich cultural and natural resources, high-quality agricultural products, and geographic location as advantages for speeding up the development, Lincang should turn into a high-quality development model that can be adopted for regions in less-developed areas with multiple ethnic minority groups domestically and internationally.

Chengde is in the transition zone from the North China Plain to the Inner Mongolia Plateau. It is a water conservation functional zone in the Beijing-Tianjin-Hebei metropolitan area and one of the 14 concentrated poverty-stricken areas in China. Chengde demonstration zone takes the "sustainable development in water conservation functional zone for city clusters" as the theme, aiming to strengthen water conservation and achieve poverty alleviation. Chengde will implement the new development philosophy, take the innovation-driven approach to explore

systematic solutions, and promote the "Saihanba Spirit" to inspire people to contribute to sustainable development. Chengde is expected to be an empirical model for other ecological function zones, accumulate replicable and promotable experiences for delivering the 2030 agenda for sustainable development.

Mechanisms to facilitate the development of the Innovation Demonstration Zones

A joint mechanism has been adopted in the development of the Innovation Demonstration Zones with the participation of governmental and non-governmental stakeholders. An inter-ministerial mechanism led by the Chinese Ministry of Science and Technology has been set up, with the engagement of 20 governmental bodies, such as the Ministry of Foreign Affairs, the National Development and Reform Commission, and the Ministry of Ecology and Environment. The inter-ministerial meeting supervises the development of the Innovation Demonstration Zones. Members of the inter-ministerial meeting committee support the development of the Innovation Demonstration Zones based on their mandates and the theme of the Innovation Demonstration Zones by providing science and technology support and implementing pilot policies.

Picture 1 Joint inter-ministerial meeting to support the development of the Innovation Demonstration Zones

Relevant provincial (Region) governments have released supportive policies following the approval requirements of the State Council and the local needs, to provide a strong guarantee for the construction of each Innovation Demonstration Zones. As the main body responsible for the construction of the Zone, the municipal government has established close relations with relevant international organizations, scientific research institutes, universities, enterprises, and non-governmental organizations, aiming for a multi-stakeholder participation mechanism. Each Innovation Demonstration Zones has also established a special Sustainable Development Center (Research Institute) to promote the construction of the Zone. The leading group for promoting the construction of the Zones has also been established in the counties under the municipal jurisdiction to promote the implementation of SDGs at the grassroots level.

Key achievements

In terms of economic development, the Innovation Demonstration Zones have made full use of scientific and technological innovations to solve the bottlenecks that restrict industrial development. New forms of business are emerging continuously and the eco-friendly upgrading of industries is pacing up. For example, Chenzhou has innovated its water industry, using the natural "cool water" of Dongjiang Lake to develop the big data industry, utilizing "warm water" from hot spring to develop the health care industry, and exploiting its abundant "purified water" to develop industries related to food, medicine and ecological agriculture. The energy consumption and operating cost of the Dongjiang Lake Big Data Industrial Park is 40% lower compared with the conventional model. New forms of business such as "hot springs + tourism + real estate + health care" have witnessed rapid growth, and the industries concerning culture, tourism and sports have become markets worth 100+ billion yuan. Chengde focused on building a green industry system covering cultural health care, new vanadium-titanium materials and clean energy. Chengde has built the world's first clean vanadium extraction production

line that used sub-molten salt method, and delivered the national "No.1 Scenic Avenue" and other new tourism projects. The construction of wind power base projects has been accelerated, and the proportion of the green industry added value in GDP has increased from 39% (2018) to 50% in 2020.

Picture 2 Dongjiang Lake Big Data Industrial Park

Picture 3 National No.1 Scenic Avenue

In terms of ecological protection, the Innovation Demonstration Zones have carried out a series of special actions towards water-soil-air pollution and ecological restoration and achieved remarkable results. For example, in response to the serious environmental problems caused by coal mining subsidence and soil erosion in the Xishan area, Taiyuan adopted a mechanism in which "guided by the local government, the companies serve as the main players in building eco-friendly industrial parks by following market operational principles" and introduced the "20%-80%" policy (i.e., for all areas suitable for afforestation, companies can

install facilities in no more than 20% of the space for moderate property development while ensuring that at least 80% of the land is afforested). In this process, social resources were mobilized and the accumulated investment topped 15 billion yuan. The ecological environment of Xishan area is seeing gradual restoration. Guilin implemented a water ecosystem restoration project focusing on the protection of the ecological landscape of its karst world natural heritage site. The waste water directly discharged to the Lijiang River has been effectively controlled, and the surface water quality has all reached or better than that of Class III.

Picture 4 Comparison of Taiyuan Xishan areas before and after restoration

In terms of social welfare, the Innovation Demonstration Zones adhere to the people-oriented development philosophy, focusing on basic livelihood issues such as promoting people's health, eliminating poverty, and improving people's well-being. For example, Shenzhen has established an integrated system with "basic-level medical groups + regional medical centers" as the main body to safeguard residents' health. Such a scheme promotes the labor division and the coordination of various institutions within the system, facilitating the integration of the "prevention-treatment-management" of major diseases. Lincang has become one of the first cities in Yunnan province to achieve overall poverty alleviation through the comprehensive application of advanced and applicable

technology promotion, cultivation of leading agricultural industrialization enterprises, and construction of agricultural product bases.

International cooperation

Since the launch of the Innovation Demonstration Zones, the Ministry of Science and Technology (MOST) has established close ties with international organizations such as the United Nations Development Programme (UNDP), the United Nations Department of Economic and Social Affairs (UNDESA), the United Nations Industrial Development Organization (UNIDO), the World Bank (WB), and the Asian Development Bank (ADB). In the Innovation Demonstration Zones, several international cooperation projects have been implemented and the scope of bilateral (and multiple) cooperation has also been expanded as they hold high-level international conferences and take the initiative to go global for experience exchanges. For example, the "International Training Course on Scientific and Technological Innovation for Sustainable Development" co-organized by the MOST and UNDESA in Guilin demonstrated the concept, methods and effectiveness of demonstration zone construction to representatives from nearly 30 countries around the world and promoted cooperation among the implementation of SDGs. The 3rd "Global Innovation Laboratory (UNLEASH)" event held by Shenzhen dedicated to the selection of innovative talents and solutions for SDGs has attracted representatives from more than 160 countries and regions around the world. Guilin has held the China-ASEAN International Forum on Sustainable Development and Innovation Cooperation for three consecutive years to deepen exchanges and cooperation with ASEAN countries in areas such as ecological environment construction, economic development and poverty alleviation. The Innovation Demonstration Zones also actively share their experience and models and promote mutual cooperation through the first Green Growth and the Global Goals 2030 (P4G), the United Nations Climate Change Conference in Katowice, the 2nd South Korea International Forum on Low-Carbon City and other

international conferences.

Picture 5 International Training Course on Science and Technology Innovation Promoting Sustainable Development

Picture 6 MOST and UNDP signed a cooperation agreement on the Innovation demonstration zone construction

Picture 7 ACCA21 and the Bureau of Sustainable Development and Climate Change of ADB signed a cooperation agreement on the Innovation demonstration zones construction

Infrastructure: Connected for a better future

For China, infrastructure is of paramount significance in achieving the Sustainable Development Goals. Based on the status of existing infrastructure, China advances the development of both conventional and new-type infrastructure facilities to build a modern infrastructure system that is high-quality, reliable, smart, green and sustainable, so as to accommodate economic and social development and people's growing needs for a better life.

Inclusive infrastructure: Enriching poor areas

In keeping with the concept of sustainable development, China has launched a large number of fundamental and hub projects nationwide, to address infrastructure underdevelopment in poverty-stricken areas by removing transportation, electricity, water and communications bottlenecks that have long hindered local development.

High-quality rural road networks have connected villages. Sound construction, management, maintenance and operation of roads in rural areas are a hallmark of changes in China's rural society. At the end of 2019, rural roads accounted for 83.8% of all China's roads in terms of mileage; 93.2% of them were graded roads, and 98.8% were subject to government maintenance plans. At the end of 2020, impoverished areas gained 1.1 million kilometers of reconstructed roads; all the villages, townships and towns in poverty-stricken areas with proper conditions

were accessible by paved roads were provided with bus and mail routes; an additional 59,000 kilometers of roads were built to enable resource distribution, tourism and other industries. The transportation networks that connect villages with safe and easy access to bus services has narrowed the distance between cities and villages, improved rural living and working conditions, transformed rural society and granted access to modernity to remote and isolated villages.

Picture 1 A high-quality rural road in Taihe, Jiangxi

Source:people.cn.

Rural power grid upgrading has made electricity universal. After the new round of rural power grid upgrading, the reliability of power supply from rural grids reached 99.8%, and voltage eligibility rate reached 99.7%. At the end of 2020, all county-level administrative units in China were connected to major power grids. The Project of Dynamic Electricity Access for All Impoverished Villages involved about 3 million rural residents in 839 counties of 23 provinces. With these initiatives, power supply is basically universal in China, and electricity access in rural areas has been notably improved. Meanwhile, development of energy and resources in poor areas has been intensified. Large- and medium-size hydropower plants, modern coal mines, clean and efficient thermal power plants, and wind power plants have created jobs and generated fiscal revenue locally.

Continuous improvement has been made for water conservancy infrastructure, and communications capacity has been significantly boosted. Since 2016, water supply capacity has increased by 18.1 billion cubic meters, and the effective irrigated area has increased by more than 80.29 million mu. A comprehensive water conservancy project system for water supply, power generation, irrigation and soil and water conservation has seen initial progress, safe drinking water is no longer a problem for the impoverished, and disaster relief mechanisms for flood and drought is strengthening. IT application in poverty-stricken areas has also made an unprecedented leap. Smart transformation of water, road, power, cold-chain and agricultural infrastructure has been underway; over 98% of poverty-stricken villages have access to optic fiber communications and 4G network; telemedicine and e-commerce cover all designated poor counties; and distance education is available at more schools in impoverished areas.

By facilitating the flows of personnel, logistics, knowledge and information between poor areas and the outside world, these infrastructure improvements have lent solid support to poverty-stricken areas, leading to the solution of many long-standing problems trapping these areas in poverty. In the future, China will enhance coordination, bolster weak infrastructure in relatively underdeveloped areas and pursue balanced urban and rural development.

Qinghai's photovoltaic revolution: win-win outcome for green energy and poverty reduction

In September 2020, China announced its commitment to peaking carbon dioxide emission by 2030 and achieve carbon neutrality by 2060. The key to achieving these targets is to revolutionize energy production and consumption. With its focus on building a major new-energy industry base, and with its abundant hydropower and sunlight, Qinghai has aimed at developing the photovoltaic (PV) sector to promote green energy. PV power has now overtaken hydropower and become Qinghai's largest power

source, and the province tops the country in terms of centralized PV power generation.

Advancing technology-driven innovation. Integration of hydro and solar power has helped to address volatility, unpredictability and intermittency, turning the unstable PV power into a steady, high-quality and safe source of power. Qinghai is also home to a PV industry center for technological innovation, a PV new energy big data platform and China's first 100MW solar power plant. By combining new technologies, new materials and new energy, Qinghai has facilitated the rapid development of the PV sector.

Pursuing both economic and ecological progress. Developing PV power also helps to curb land desertification. Water conservation can be significantly improved, as large PV panels shield the scorching sun, reducing evaporation and wind speed by more than 50%. Chinese Academy of Sciences' Cold and Arid Regions Environmental and Engineering Research Institute has worked with hydropower developers to grow high-altitude plant species which are best adapted to the soil and water conditions under the solar panels, such Kunlun snow chrysanthemum, oat and alfalfa. Water used for routine cleaning of the panels seeps into the ground, feeding high-altitude crops and plants on desertified grasslands that now cover the once barren land surface.

Picture 2 Photovoltaic power station in Talatan Green Industry Development Park, Judi County, Hainan Tibetan Autonomous Prefecture, Qinghai Province

Source:Xinhua News Agency.

Alleviating poverty to improve people's lives. The income of Qinghai's PV projects is distributed to village collectives. Each village can receive as much as RMB300,000 every year. 60% of the revenue is used for education and training, infrastructure maintenance and characteristic industries, the rest 40% is for public welfare workers to assist people in difficulty. Nearly half of Qinghai's population has shaken off poverty through the PV industry.

At present, 81% of Qinghai's power consumption is from clean electricity, much higher than the national average. Between 2016 and 2020, Qinghai on average connected over 1 million kW of power generation capacity to the grid each year, generating a total electricity output of 43.5 billion kWh to the rest of China at an annual growth rate of 112%. By the end of 2020, Qinghai had installed 24.45 million kW of clean electricity capacity. Moving ahead, Qinghai will continue to push forward clean energy transformation, integrate ecological protection and emerging industries and convert solar power into an endless flow of green energy.

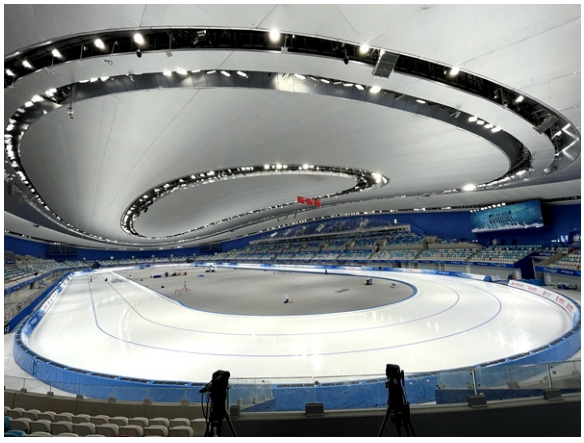
Green construction for low-carbon Winter Olympics

On June 1, 2021, all 11 venues for the 2022 Beijing Winter Olympics received the certification for green construction. As the sites for a "low-carbon Winter Olympics" with new visions for a new era, these venues also put China's concept for low-carbon infrastructure on full display.

Green electricity powers the venues. The world's first flexible DC grid connecting Zhangbei and Beijing will supply electricity to all Winter Olympics venues, making the 2022 Winter Games the first Olympics to 100% use green electricity. Zhangjiakou transmits 14 billion kWh of clean wind and photovoltaic power to Beijing each year, one tenth of the city's annual power consumption. The year 2020 marked the beginning of Beijing's adoption of "green electricity", and all Beijing residents will

join in and benefit from this initiative. By using clean electricity, Beijing saves 4.27 million tonnes of coal, reducing carbon dioxide emission by 11.65 million tonnes.

Smart construction cuts carbon emission. In the construction of the National Speed Skating Oval, smart construction technologies were utilized to drastically shorten project duration and reduce the amount of water, electricity and materials used. Its saddle-style, single-layer cable mesh structure is thin, light and soft, and weighs only a quarter of traditional roofs, further bringing down material costs and structural complexity. The solution dehumidifier system installed in the Wukesong Ice Sports Center is 50% more power efficient than conventional dehumidifying procedures. These smart construction designs and technologies have all reduced carbon emission at source.



Picture 3 National Speed Skating Oval

Source:people.cn.

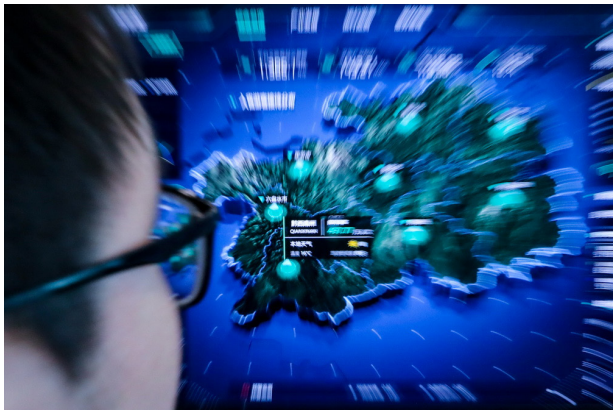
Ecological restoration leads to "carbon neutrality". With the idea of "ecology first" in mind, Yanqing competition zone transplanted trees and removed surface soil to restore 1.85 million square meters of construction site. During construction, the zone reused nearly 300,000 cubic meters of waste ballast for skiing tracks and landscape design. Stones cut from construction materials were repurposed, after simple processing, as gabion walls of buildings on site, minimizing the amount of construction waste while bringing a symbolic style of northern China's mountain villages to

the venues. The Yanqing Olympic Village is decorated with prefabricated components, meaning that less carbon was emitted than traditional on-site wet construction, less energy was consumed, and as many as 40% of the materials can be reused after the Games. All these measures aim to deliver on its commitment of carbon neutrality throughout the Games.

Green construction is a hallmark of the 2022 Winter Olympics and an example of how China fulfills environment obligations and develops green, new infrastructure with advanced technologies. In the future, China will continue to strive for green development, raise environmental standards for government-invested public-interest buildings and large public buildings, and encourage the application of green construction standards in the design, development and operation of new, renovated and extended buildings.

Guizhou, China: Digital infrastructure for a "digital valley"

In 2016, China's first state-level comprehensive pilot zone for big data application was established in Guizhou. Seizing the opportunities of a new round of large-scale development in the western region, the province has pressed ahead with digital infrastructure development. Since 2020, Guizhou has launched a series of new infrastructure projects, featuring artificial intelligence, 5G and data centers.



Picture 4 A staff member checks back-end information of the "Touring Guizhou with One Code" smart tourism platform.

Source: people.cn.

Tiered optic fiber networking provides a solid foundation of communications. Hosting a root server mirror node, top-level domain node and Guian National Internet Backbone Straight Point, Guizhou has pushed for IPv6 transformation, optimization and upgrading, promoted joint efforts in building and sharing communications, radio, television and other IT infrastructure, worked to ensure access to 10-gigabit, gigabit and 100-megabit optical fiber network in industrial parks, cities and rural areas respectively, and strove to become China Broadcasting Network's 5G core control node in the southwest region. In 2020, provincial IT infrastructure investment exceeded RMB14 billion, and outward bandwidth surpassed 14,000 Gbps.

Unified network management of urban operations lays a firm footing for integration. Given the wide application of Internet of Things (IoT) devices and advancements in communications technologies, smart cities can achieve universal connection at the urban level and offer municipal services at greater efficiency. Guizhou has launched the demonstration program of Guiyang Shubo Avenue Digital Twin City to build a comprehensive information network for universal connectivity across the whole area. In building smart cities, Guizhou has begun unified network management of urban operations; Guizhou has also implemented smart, IoT-based remote reading of water, electricity and natural gas meters, in a bid to advance smart county transformation and rural digitization.

Cloud-, web- and platform-based government service integration serves as the cornerstone of strategic innovation. On the basis of cloud-, network- and platform-based government services, Guizhou has been developing the national system of "digital networks", "digital nodes" and "digital brains". By establishing internet-based municipal service platforms and utilizing big data, Guizhou has made urban management smarter and more refined. To provide streamlined services and improve user experience, Guizhou has used its Guizhou-Cloud Big Data platform to unify information and data of all levels of governments

within the province and provide uniform services. To improve government service delivery and address chokepoints and difficulties, the province has ensured one-stop provision, handling and feedback of government services on the same web system. Guizhou has also set up a middle platform for approval procedures of its provincial-, municipal- and county-level governments to integrate data of self-hosted government approval systems across Guizhou. These measures underpin the reform to streamline administration and delegate power, improve regulation and upgrade services. A province-wide data scheduling scheme is also thus established; whenever a data-using authority puts forward a request, the data-providing authority can effectively respond, and the data-managing authority ensures the circulation of data throughout this process.

Embracing the rapid development of digital technologies and applications, Guizhou has leveraged its late-development advantage to accelerate the development of digital infrastructure and realize transformation towards the digital economy. It has tapped into digital factors of production and used digital transformation to drive evolution of production models, lifestyles and governance models. In the future, Guizhou will continue to build smart cities and build, at a faster pace, forward-thinking and pioneering infrastructure such as 5G, IoT, artificial intelligence and the industrial internet, so as to accommodate future social developments.

High-speed railway: China speed for the Chinese people

Railways are the arteries of the national economy and a key part of national infrastructure. From the world-leading "Harmony" EMU train to the debut of the bullet train "Fuxing", China's high-speed railway has been leading international standards, while making one phenomenal accomplishment after another.

Picture 5 A "Harmony" train runs in Jinniu Township, Lujiang county, Hefei, Anhui Province.

Source: Xinhua News Agency.

The omni-connecting railway network boosts passenger experience. At the end of 2020, China already had the world's longest high-speed railway network with a total mileage of 37,900 kilometers. As the "four verticals and four horizontals" framework is in place, China is moving towards building "eight verticals and eight horizontals" high-speed railway corridors. It is also expeditiously building intercity trains in key areas, with a series of new lines including the Beijing-Zhangjiakou smart high-speed railway. This high-speed railway network, which is the most advanced of its kind, makes China the only country in the world to operate high-speed trains on a network level. With rapid development of railroads comes improved passenger experience. The smart bullet trains use BeiDou satellites for navigation, which leads to the world's first driverless bullet train cruising at 350 kilometers per hour. Innovative applications such as online ticket purchase, meal ordering with smartphones, online seat selection, facial recognition, and ticket refund and change at any station have all made trips more enjoyable.

High-speed railways spur economic vigor and generate benefits for all. In 2020, many places, including southern Sichuan, northern Yunnan

and western Guizhou, were all connected by high-speed trains for the first time, and more county dwellers finally had high-speed railway as part of their lives. At the end of 2020, high-speed railways entered nearly 95% of the cities with a population of 1,000,000 and above, bringing these cities even closer and making travels between them easier than ever. High-speed trains boost regional economic growth by promoting structural optimization and upgrading, local characteristics, structural adjustments of local industries. They are also catalyst of local economy, distributing products and raw materials with unprecedented efficiency. Empowered by high-speed railway, cities can leverage their resources and facilitate the development of surrounding areas. "Two-hour economy circles" and "one-hour commute circles" have all come true, benefitting people with the convenience of transportation progress.

High-speed railways help impoverished areas shake off poverty. Thanks to high-speed railways, many remote areas are connected to the "fast track", and poverty-stricken mountainous areas and old revolutionary bases have thus gained access to better developed areas. High-speed trains accelerate communication between mountainous areas and cities, bring resources to impoverished regions, and prepare capable transportation infrastructure for poverty reduction. Farmers have also found it easier to sell their local produce: black-boned chicken from Taihe, grapefruits from Jinggangshan, and Shuinan tofu skin are able to travel long distances and generate considerable income. High-speed railway also means new opportunities for tourism. After the Nanchang-Ganzhou high-speed railway began operation, Wanan county, Jiangxi province received a daily average of 12,000 tourists during the 2020 Mid-autumn Festival and National Day holiday, leading to rapid development of local rural tourism. Other forms of local characteristic economy have also ridden the wave of high-speed railways, giving people in mountainous and remote regions a more prosperous life.

A splendid new era is being ushered in by the high-speed bullet trains,

where belts of industrial clusters and top-notch tour sites emerge along their railroads. In the future, China's high-speed railway will continue to advance independent and controllable technologies and enhance safe, intelligent operations, so that more passengers can ride on the dashing trains towards a vibrant China "on the move".

Deepening international cooperation for human progress

With a global vision, China proposes new thoughts and new initiatives such as building a community with a shared future for mankind and the Belt and Road cooperation. China upholds the principle of sincerity, real results, amity and good faith, and the principle of amity, sincerity, mutual benefit and inclusiveness, while pursuing greater good and shared interests. China puts forward practical cooperation initiatives on an array of important international occasions, contributing to the world the China solution, China wisdom and China strength to tackle global development challenges and implement the 2030 Agenda for Sustainable Development. The high-quality Belt and Road cooperation has become a major initiative for China's all-round opening-up, the largest international cooperation platform and a public good China offers to the international community.

The South-South Cooperation Assistance Fund: Supporting the implementation of the 2030 Agenda

In September 2015, speaking at the UN Sustainable Development Summit at the UN headquarter in New York, Chinese President Xi Jinping announced that China will set up the South-South Cooperation Assistance Fund (SSCAF), with an initial commitment of USD2 billion to support developing countries in implementing the 2030 Agenda. In May 2017, at the opening ceremony of the first Belt and Road Forum for International Cooperation, President Xi Jinping announced to increase USD1 billion of contributions to the SSCAF. The first SSCAF-aided project was officially

launched in 2016.

Support sustainable development of developing countries as an innovative tool. Aiming to bring together resources from China and the world for stronger South-South cooperation and support developing countries' equal participation in the global economic governance, the SSCAF serves as an innovative channel for the Chinese government to provide foreign aid and support the 2030 Agenda, a concrete step to show the Chinese government's strong commitment and support to the South-South cooperation, and also a testament to China's willingness to take responsibility and welcome others aboard the express train of China's development so as to achieve common development.

Forge broad partnerships for international development cooperation. Cooperation partners of the SSCAF include, among others, international organizations, social organizations and think tanks. So far, the SSCAF has been partnering with international organizations such as the United Nations Development Program, the World Food Program, the World Health Organization, the International Committee of the Red Cross, the United Nations Children's Fund, the United Nations Population Fund, the United Nations Industrial Development Organization, the United Nations Conference on Trade and Development, the United Nations High Commissioner for Refugees, the International Civil Aviation Organization, the International Organization for Migration, and the International Telecommunication Union.

Improve developing countries' capability of self-driven development. Its priorities include humanitarian aid, agricultural development and food security, sanitation and health, poverty alleviation, education and training, sustainable industrial development, ecological conservation, trade promotion and trade and investment facilitation. Projects aided by the SSCAF are mainly small and micro-sized programs serving people's well-being. As of the end of 2019, a total of 82 projects had been

implemented, benefiting more than 20 million people and receiving wide acclaim from developing countries' governments and peoples as well as the international community.

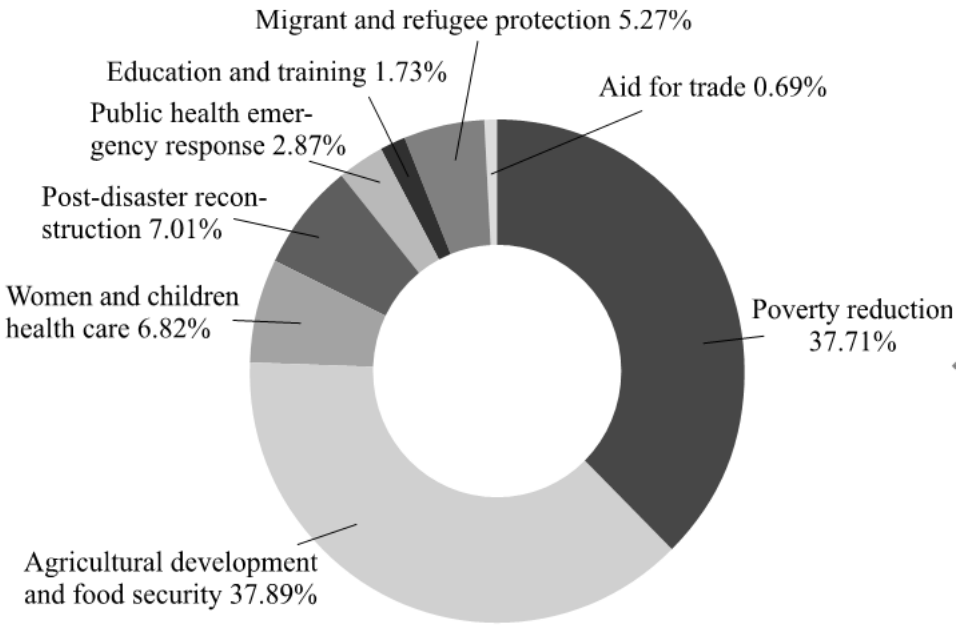


Figure 1 Distribution of the funds of SSCAF

Source: The State Council Information Office, China's International Development Cooperation in the New Era

The China-Europe freight trains: Connecting Belt and Road countries for mutually beneficial cooperation

The China-Europe freight trains are operated by China Railway, with fixed train numbers, lines and schedules, running between China, Europe and countries along the Belt and Road. The China-Europe freight train service plays a vital role in deepening trade and economic cooperation between China and Belt and Road countries and advancing the Belt and Road development. By the end of 2020, over 30,000 train trips had been made (Figure 1), linking 71 Chinese cities with 92 European cities of 21 countries through more than 70 railway lines. Starting from scratch, the China-Europe freight train service has gone from strength to strength and supported countries along the routes in boosting connectivity and

achieving win-win cooperation. Particularly, during the pandemic, the freight trains have served as a critical channel for all countries to jointly fight against COVID-19, which represents a vivid example of global efforts in building a community with a shared future for mankind.

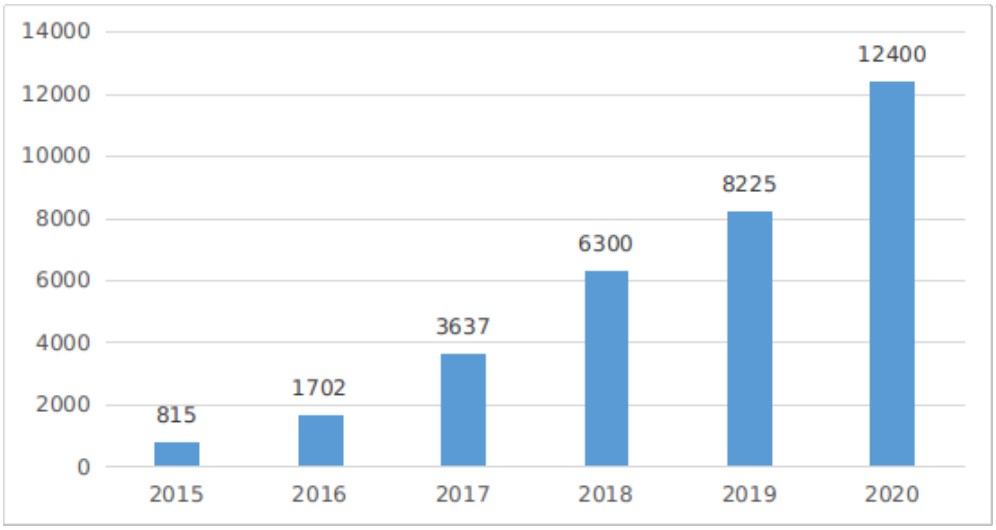


Figure 2 Trips of the China-Europe freight trains from 2015 to 2020

Source: China Railway

Growing economic value. The China-Europe freight train service provides important underpinnings to advance economic transformation, international exchanges and cooperation and export-oriented economy of the central and western regions of China. Cities such as Chongqing, Chengdu, Zhengzhou and Wuhan have greatly enhanced their attractiveness for industries. The freight train service also presents countries along the routes with new opportunities. Thanks to the China-Europe freight train service, since 2014, the number of Chinese companies has increased from 40 to more than 100 in Duisburg, Germany, creating thousands of jobs, according to Johannes Pflug, Duisburg's representative for China affairs. Many jobs related to China-Europe trains, such as truckers, have become popular and places in Duisburg associated with the trains have even become tourist attractions, says Pflug.

Enhanced social function. In 2020, despite the heavy blow of COVID-19, the China-Europe freight trains offered safe and reliable

services, transporting 1.135 million TEU of goods on 12,400 trips. Both volume and number of train trips were up by 56% and 50% year-on-year respectively. Cumulatively, the freight trains transported 9.39 million items of international anti-epidemic supplies weighing 76,000 tonnes to countries like Italy, Germany, Spain, Czech Republic, Hungary, the Netherlands and Lithuania, from which these supplies were sent to more countries across Europe. The China-Europe freight train service continued to improve despite the negative impact of COVID-19. In the first half of 2021, 7,323 China-Europe freight trains ran, up 43% year on year, carrying 701,000 TEUs of goods, up 52% year on year. A total of 12.32 million pieces of epidemic prevention materials and 96,000 tonnes were transported. By July 2021, 73 special China-Europe freight train lines had been laid out, connecting 168 cities in 23 countries. Owing to its strengths in segment-based transportation, large freight volume and limited people-to-people contact, the freight train service became the most stable and economical way of transportation during the pandemic and played a pivotal role in the China-Europe joint combat against the virus.

Preferred eco-friendly service. The safe, efficient, green and low-carbon services provided by the China-Europe freight trains are in line with the trend of international transportation and logistics. Rail transportation carries larger volume at a lower cost and with fewer carbon emissions than air transportation, operates more efficiently than sea transportation, and consumes less energy than road transportation. The green and low-carbon services of China-EU freight trains echo the call for global green transition and follows the trend of international cross-border logistics and transportation, which is highly acclaimed by the European clients.

The Serbia-based Smederevo steel mill of Hebei Iron and Steel Group: Turning losses into profits and boosting Serbia's employment and economic growth

In July 2016, Hebei Iron and Steel Group (HBIS) acquired the Smederevo steel mill in Serbia and set up HBIS Group Serbia (HBIS Serbia). Five years on, HBIS Serbia has produced a total of 6.639 million tonnes of steel, with USD4.659 billion of sales revenue. From an annual production of merely 500,000 to 600,000 tonnes when the steel plant was just taken over by HBIS, to an all-time high of 1.78 million tonnes, HBIS Serbia has remained Serbia's largest exporter for three years in a row. HBIS Serbia is now a fine example of China-Serbia cooperation and a showpiece for the Belt and Road cooperation between China and CEE countries.

Increase capital and technological input to enhance competitiveness. HBIS sent for nearly 200 people with extensive experience in technical management in 11 batches to go through all the production processes for a comprehensive and professional assessment; arranged syndicated loans to finance projects at low costs to mitigate financial pressure; invested USD250 million for equipment upgrading and production line improvement; introduced more than 20 leading proprietary technologies with independent intellectual property rights to build a steel plant that can apply the converter gas recovery technology. The plant, with the highest utilization rate of secondary energy, highest proportion of self-generating power and lowest consumption of natural gas in Europe, could help lower the costs by 12 million euros by recycling blast furnace gas alone; carried out a desulfurization project which is expected to reduce the dust emissions by over 70% and sulfur dioxide emissions by over 90%; applied smart manufacturing and designed projects for such leading technologies as industrial robots and intelligent process control.

Promote efficient resource allocation and global distribution of industrial chains. HBIS Serbia has optimized resource allocation to build an efficient and low-energy-consuming pattern of production. Based on HBIS' global marketing resources, HBIS Serbia has stable access to raw materials and a broad international market covering Europe and the economically advanced regions of North America. With declining prices of commodities, premium steel products are exported to over 30 countries and regions. HBIS Serbia supplies steel directly to more than 95% of its clients, with its share in the high-end market rising to 75%. Efficiency and profitability have both been strengthened.

Follow the principle of "three localizations"[14] to maximize the benefits of local communities. All employees of HBIS Serbia are Serbians, except for the nine management and technical experts from China. This has not only retained jobs for over 5,000 employees that had been working in the company before HBIS acquisition, but also created new jobs for local people. Eight training sessions in China and three sessions overseas were held for the original management and technical teams from Serbia, benefiting nearly 2,500 employees. HBIS Serbia has kept sound operation without any salary cuts or layoffs during the pandemic, scoring double victory in epidemic control and business growth. The company is also actively assuming social responsibilities by investing more than USD1 million in road construction, village water supply and education-related donations, etc. While ensuring sufficient water supply for production, HBIS Serbia takes a pioneering step to funnel domestic waste water from nearby villages to its water treatment facilities for purification.

HBIS Serbia shows the world Chinese companies' vision of "pursuing win-win cooperation through openness and shared benefits". The rebirth of the Smederevo steel mill tells a story about success. The success of the company is a vivid example of how the Belt and Road Initiative

14 "Three localizations" refer to localization of employment, benefits and culture.

boosts employment and economic growth in Serbia, according to Serbian President Aleksandar Vucic.

The China-Laos railway: the economic artery for connectivity and people's well-being

The China-Laos railway will run over 1,000 kilometers including 508.53 kilometers of the Chinese segment and 414 kilometers of the Lao segment. After laying the foundation stone in November 2015, the railway is expected to start operation in late 2021. It is the first international railway with China-led investment and construction, and adopting Chinese technology standards, using Chinese equipment, and directly linked to the Chinese railway networks. The China-Laos railway, as a symbolic project for China-Laos cooperation, aligns China's Belt and Road Initiative with Laos' strategy to "transform Laos from a landlocked into a land-linked country". It plays a vital role in facilitating the travel of people along the routes, driving local economic development, and supporting regional industrial upgrading. It is a path toward win-win cooperation and prosperity.

Strengthen institutional building to deliver a demonstration project for "integrity". Efforts in this regard include: formulating institutional measures such as the *Guiding Opinions on the Construction of the China-Laos Railway Project and the Working Plan for Ensuring Integrity of the China-Laos Railway Project*; setting up a working body to organize parties involved in construction to establish a special anti-corruption coordination agency for corruption crackdown; assigning additional personnel to coordinate and examine the integrity-related work and compliance management; developing the *Manual on Integrity Risk Prevention and Control of the China-Laos Railway Project*, which incorporates 648 items of integrity risks, 430 preventative measures and 154 improved administrative measures, so that risk prevention is embedded throughout the process of project management; formulating the

Ten Rules of Conduct for Integrity Building of the China-Laos Railway Project to step up integrity education and supervision, and to encourage all staff to abide by rules and regulations; carrying out campaigns to promote integrity in law-based construction and rule-based personnel management; adopting a problem-oriented approach and convening semi-annual meetings on integrity building of the China-Laos railway project; conducting exchanges on China-Laos anti-corruption cooperation and integrity building. Thanks to the joint efforts, the work of integrity-building has become a management culture that supports its regulation-based operation.

Pursuing sustainable cooperation with public benefits through high-standard construction. According to the statistics available, over 30,000 Lao workers have been hired for the construction of the China-Laos railway, creating more than 5,000 local jobs. With a localized strategy, except for the part requiring complex techniques beyond local labor's capability, all the construction work is undertaken by local workers. Part of the construction work is also outsourced to Lao companies. China has helped Laos cultivate highly skilled railway constructors and management personnel by setting up training centers and providing technical assistance. As the construction needs to occupy 3,000 hectares of land permanently and 800 hectares temporarily, it would affect over 4,400 households nearby. The Lao-China Railway Company has provided timely and reasonable compensations for the affected, including residents and their land, houses, storage sheds, crops and fruit trees. The concept of "lucid waters and lush mountains are invaluable assets" has been incorporated in railway design, construction and operation. This means planting shrubs for foundation strengthening, slope greening, reducing land occupation, building bridges and culverts, minimizing disruptions to human activities and animal movement, and protecting local ecological environment.

Building a road of opportunities and prosperity with commitment

to coordinated development. Lao's transportation system has long been dominated by road and supported by water, air and rail. The road transportation, as the backbone of the system, has seriously hindered Lao's economic, social and urban development due to the roads' low levels, limited carrying capacity and poor access. The China-Laos railway is a north-south transportation corridor running through the northern part of Laos. Its construction involves railway stations and logistics points in major cities and economic hubs, as well as roads connecting to train stations. The whole project, once completed, would become a comprehensive modern transportation network mainly based on railway and supported by road, water and air transportation. Its operation will shorten the travel time from Kunming to Vientiane to eight hours, hence greatly increasing the logistics efficiency between Southwest China and the Indo-China Peninsula. The railway would pass through the provinces of Luang Namtha, Oudomxay, Luang Prabang and Vientiane and Vientiane City and bring positive impacts to the rest of the northern region. With cheap, fast and diversified transportation services, the China-Laos railway will help grow tourism, mining and other industries along the routes, boost industrial cooperation, thus galvanizing the economic and social development of relevant regions.

The Karot Hydropower Project in Pakistan sponsored by China Three Gorges Corporation: Improving people's sense of fulfillment through green energy cooperation

The Karot Hydropower project (Karot HPP), located on the Jhelum River of Pakistan, is the first hydropower investment project under the China-Pakistan Economic Corridor (CPEC). The project, whose shareholder is China Three Gorges South Asia Investment Ltd, adopts a BOOT model (build-own-operate-transfer) with a construction period of five years. Once completed, the project is scheduled to run for 30 years by Karot Power Company (KPCL), after which ownership will be transferred to

the Pakistani government. With a total investment of USD1.74 billion, the Karot HPP received financing support from syndicated loans provided by the Export-Import Bank of China, China Development Bank, International Finance Corporation (IFC) and Silk Road Fund. The groundbreaking ceremony was held in April 2015. By the end of 2020, over 84% of the project had been completed. The first power unit is expected for power generation in January 2022. After completion, Karot HPP will in average produce 3,206 GWh of electricity annually and provide electricity for around five million people at a reasonable price, thus effectively mitigating under supply of electricity of Pakistan.

Picture 1 The switching station of the Karot Hydropower project in Pakistan was successfully capped in June 2020

Source: China Three Gorges International Corporation.

Building a green project to maintain ecological balance. The Karot HPP adopts the IFC Sustainability Framework and relevant standards. Before the construction work began, a social and environmental assessment consultancy firm was appointed to provide the *Social and Environmental Impact Assessment Report* based on Pakistan's policies and regulations concerning occupational health, environmental protection, and labor management. The Report was then approved by the project company

internally, IFC and local governments of Pakistan. A project company-led social and environmental management system has been established, which also includes the owner's engineer and EPC contractor. Parties involved in the construction work have formulated plans for social and environmental management on, among others, biodiversity, water quality, air quality, noise and vibration, and waste. In addition, professional environmental engineers provide process instruction and management, as well as environmental protection training. A professional waste recycling company is on construction sites to recycle and dispose of domestic waste. All the exposed surfaces are covered with greenery to reduce soil erosion and dust. Efforts are also made to resume the ecological environment and landscape of the affected areas, develop regulations on fish resources protection, and maintain a suitable aquatic habitat downstream. The Karot HPP is estimated to cut carbon dioxide emissions by 3.5 million tonnes, thus making positive contribution to increasing the use of clean energy, optimizing energy mix, and maintaining the local ecological balance.

Strengthening community management to fulfill social responsibilities. Guided by the vision of China Three Gorges Corporation of "building a hydropower station to drive local economy, improve local environment and benefit local people", the project company has been actively engaged with local governments and communities and won their understanding and support. It has hired experienced lawyers and social experts from local communities to identify the laws and regulations applicable to community management; appointed community liaison staff and experts with extensive experience in social management to visit neighborhoods and government departments to understand their requirements and concerns; set out clear management targets and detailed management plans based on laws, regulations and on-site visits and made regular updates; drawn up a community investment plan and carried out social responsibility projects worth of over USD4.77 million; improved local infrastructure and living standards of the affected areas by upgrading education and medical facilities, repairing public water supply system and roads, building public

libraries and lounges, etc. The Karot HPP has contributed to poverty reduction through extending education support. In collaboration with the University of Punjab, Confucius Institute and Jiangxi University of Science and Technology, a scholarship program based on cooperation between colleges and enterprises is initiated for the college-age young people from families that are relocated or affected by the construction of Karot HPP. This full scholarship aims to subsidize them to finish the four-year undergraduate education in electrical engineering and obtain a corresponding academic diploma and degree, as well as a stable job after graduation.

Maximizing local benefits with administrative localization. After completion, local governments of Pakistan will obtain PKR674 million (approximately USD6.48 million) of revenues from water consumption annually. The Karot HPP strives to build a united, professional, dedicated and competitive team with talents from both China and Pakistan. To enhance staff's overall competency, a series of well-received thematic lectures are held on such topics as electricity price composition, Pakistan's tax code, financial exchange rates, land requisition and resident relocation. With Palestinian employees taking up over half of the workforce, the Karot HPP provides nearly 4,000 local jobs during the peak period of construction, cultivating a new force in hydropower with expertise and hands-on experience.