

**China's Policies and Actions
Addressing Climate Change
2024 Annual Report**

**Ministry of Ecology and Environment
of the People's Republic of China
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Introduction

At the General Debate of the 75th Session of the United Nations General Assembly in 2020, President Xi Jinping announced China's ambitious targets of striving to peak carbon dioxide emissions before 2030 and achieving carbon neutrality before 2060. This means China aims to reduce its carbon emissions intensity by the largest margin globally and to transition from peaking carbon emissions to achieving carbon neutrality in the shortest time frame in history.

Achieving these goals will not be an easy task, requiring extraordinary efforts. As the world's largest developing country with a population of over 1.4 billion, China faces complex challenges, including economic growth, improving livelihoods, pollution control, and ecological protection. The country continues to confront issues of unbalanced and inadequate development and faces multiple bottlenecks on the path to high-quality development.

Despite these challenges, under the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, and in particular Xi Jinping Thought on

Eco-Civilization, China has implemented the proactive national strategies on climate change. It has faithfully met its Nationally Determined Contributions (NDCs), seen the world as one community, and helped build a fair and rational global climate governance system directed towards cooperation and win-win results. These have contributed notable progress to tackling climate change.

In 2023, China continued to resolutely promote the reduction of carbon intensity, and the proportion of non-fossil energy consumption in total energy consumption increased by 0.3 percentage points year-on-year. The scale of installed capacity of renewable energy nationwide exceeded 1.5 billion kW in 2023, growing to account for more than 50% of China's total installed power generation capacity. The national forest coverage rate reached 24.02%. By the end of June 2024, the cumulative turnover of carbon emission allowances (CEA) in China's national carbon market was 464 million tonnes, with a cumulative turnover of 26.841 billion yuan.

This report is published in order to introduce and enhance the international community's understanding of China's progress in addressing climate change since 2023 in detail.

I. China's new arrangements and requirements for responding to climate change

Since setting the goals of peaking carbon emissions and achieving carbon neutrality (hereafter as 'dual carbon'), China has fully and faithfully applied the new development philosophy on all fronts, prioritizing a people-centered approach and recognizing harmonious coexistence between humanity and nature as a core element of Chinese modernization. Building a 'Beautiful China' has been placed at the forefront of building a great modern socialist country in all respects and pursuing national rejuvenation. China has made concerted efforts to synergize carbon emissions mitigation, pollution reduction, pursuing green development, and boosting economic growth, steadily working toward peaking carbon emissions and achieving carbon neutrality goals while putting forward new measures and requirements to tackle climate change.

The Third Plenary Session of the 20th Central Committee of the Communist Party of China (CPC) identified improving the mechanisms for green and low-carbon development as a

key part of deepening reform in ecological conservation. The session emphasized improving the institutions and mechanisms for fostering new quality productive forces in line with local conditions, and actively participating in the formulation of international rules. It also highlighted the need to actively respond to climate change, prudently move toward peaking carbon emissions and achieving carbon neutrality, and to put in place a new mechanism to facilitate the transition from dual control over the volume and intensity of energy use to dual control over the volume and intensity of carbon emissions. And for the first time in a CPC document, it proposed improving the working systems for adapting to climate change, underscoring China's balanced approach to climate mitigation and adaptation.

China's National Conference on Ecological and Environmental Protection held in July 2023 was a landmark meeting in China's journey toward modernization featuring harmonious coexistence between humanity and nature. It provided foundational guidance and an action roadmap for comprehensively advancing the 'Beautiful China' initiative. It called for a good relationship between high-quality

development and high-level protection, between tackling major challenges and coordinating governance, between natural recovery and human-assisted restoration, between external constraints and internal driving forces, as well as between 'dual carbon' commitments and self-determined actions. We pursue the goals of peaking carbon emissions and achieving carbon neutrality not under compulsion but of our own accord. China's commitments and actions on the goals of 'dual carbon' are unswerving, but its path as well as the manner, pace and intensity of efforts to achieve them should and must be determined by the country itself, rather than swayed by others.

The Guidelines on Comprehensively Promoting the Development of a Beautiful China, issued by the CPC Central Committee and the State Council in December 2023, is a key policy document driving the vision of a Beautiful China and the realization of the Chinese Dream of national rejuvenation. The document outlines a phased and systematic approach to peaking carbon emissions, with accelerated plans for a new energy system to ensure energy security. It emphasizes curbing fossil fuel consumption, particularly coal, and shifting from

dual control over the volume and intensity of energy use to dual control over the volume and intensity of carbon emissions, enhancing the institutional and infrastructural foundation for this transition. Additionally, the policy promotes a more effective, dynamic and internationally influential carbon market and highlights the importance of improving climate adaptation capacity, advancing climate-resilient city development, and strengthening regional climate adaptation initiatives.

The Guidelines on Accelerating the Comprehensive Green Transformation in All Economic and Social Sectors, issued by the CPC Central Committee and the State Council in July 2024, represents the first systematic plan at the central level for a full-scale green transition in China's economic and social development. By 2030, the plan targets an energy-saving and environmental protection industry worth approximately 15 trillion yuan, with non-fossil fuels accounting for around 25% of total energy consumption. It also aims to reduce the carbon intensity of operational transport per unit turnover by about 9.5% from 2020 levels and increase the productivity of major resources by approximately 45% compared to 2020. The

document centers on three main areas: creating a spatial layout for green, low-carbon, high-quality development; accelerating green transformation across sectors such as industry, energy, transportation, and urban-rural development; and advancing resource conservation and green consumption strategies, supported by technological innovation. It aims to foster sustainable spatial planning, industrial structure, production methods, and lifestyles that conserve resources and protect the environment.

II. Active mitigation of climate change

i. Significant progress in green and low-carbon energy development

Further low-carbonization of energy consumption structure.

By 2023, non-fossil fuels accounted for 17.9% of China's total energy consumption, while coal's share dropped from 67.4% in 2013 to 55.3%.

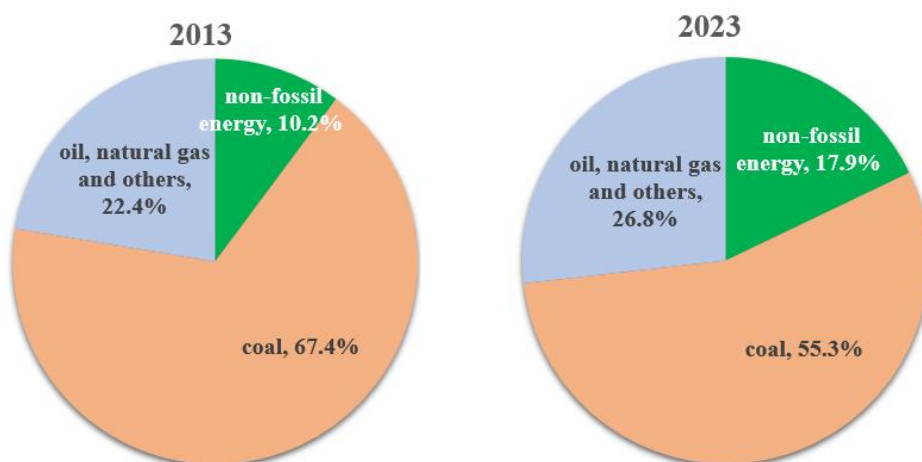


Figure 1 Changes in the structure of energy consumption in China from 2013 to 2023

Renewable energy now makes up over half of China's power generation capacity.

China has led the world in renewable energy capacity for several years, representing around 40% of the global total, surpassing the combined capacities of the U.S., EU, and India. Since 2020, China's wind and solar installations have increased by over 100 million kW each year, with 290 million kW added in 2023 alone—63% of the global increase in these renewables. Total renewable energy capacity in China reached 1.516 billion kW in 2023, or 51.9% of national capacity, with coal-fired power dropping below 40% for the first time. Wind and solar power utilization rates averaged 97.3% and 98%, respectively, with renewable energy providing approximately one-third of China's electricity consumption.

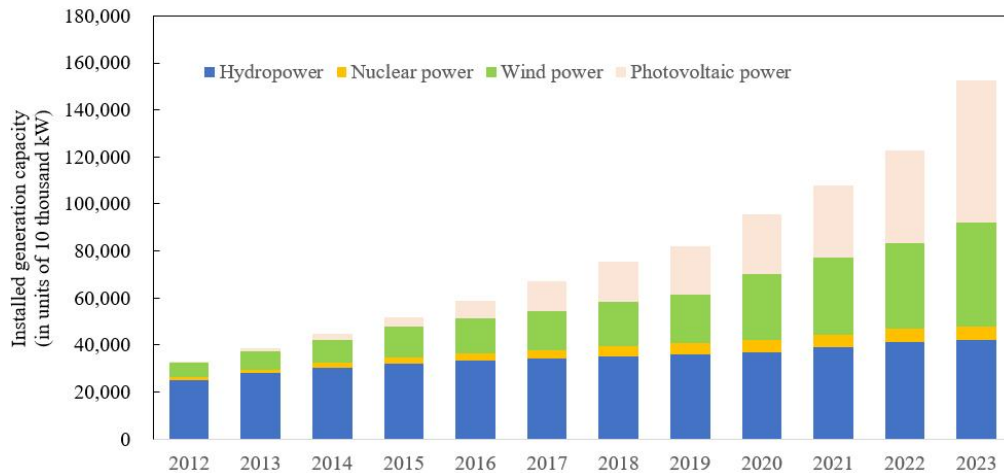


Figure 2 Cumulative installed capacity of wind power, hydropower, photovoltaic and nuclear power in China from 2012-2023

The development of new energy storage has accelerated significantly.

By the end of 2023, the cumulative installed capacity of new energy storage projects had reached 31.39 million kW/66.87 million kWh. In 2023, the new installed capacity was about 22.6 million kW/48.7 million kWh, an increase of more than 260% compared with the end of 2022 and nearly 10 times as much as at the end of the 13th Five-Year Plan.

China continues to lead globally in renewable energy technology.

Offshore wind turbines have reached a world-record capacity of over 20 MW, with the longest wind turbine blades exceeding 123 meters in length. Operating PV module conversion efficiency

has led the world surpassing 23%, while breakthroughs in perovskite and other new battery technologies have achieved a lab-certified efficiency of 33.9%, setting a new world record. Over the past decade, China's technological advancements and large-scale implementation of renewables have driven down global wind and solar power costs by over 60% and 80%, respectively.

Energy intensity continues to decrease, and the average coal consumption of thermal power units is at a new low.

In the period of 2021-2023,

- China's national energy intensity decreased by a cumulative total of about 7.3%, after deducting raw material energy use and non-fossil energy consumption;

- China upgraded more than 700 million kW coal-fired power units to conserve energy and reduce carbon emissions, and make them more flexible in operation and more efficient for heat supply, leading to a cumulative reduction of average coal consumption for thermal power supply by 3.5g standard coal/kWh.

The provision of clean winter heating has been steadily increased in North China.

By the end of 2023, China had completed the transformation of about 39 million households for clean heating, reducing the use of bulk coal by about 80 million tonnes.

ii. The ‘three new’ economies bursting with potential and showing new vitality

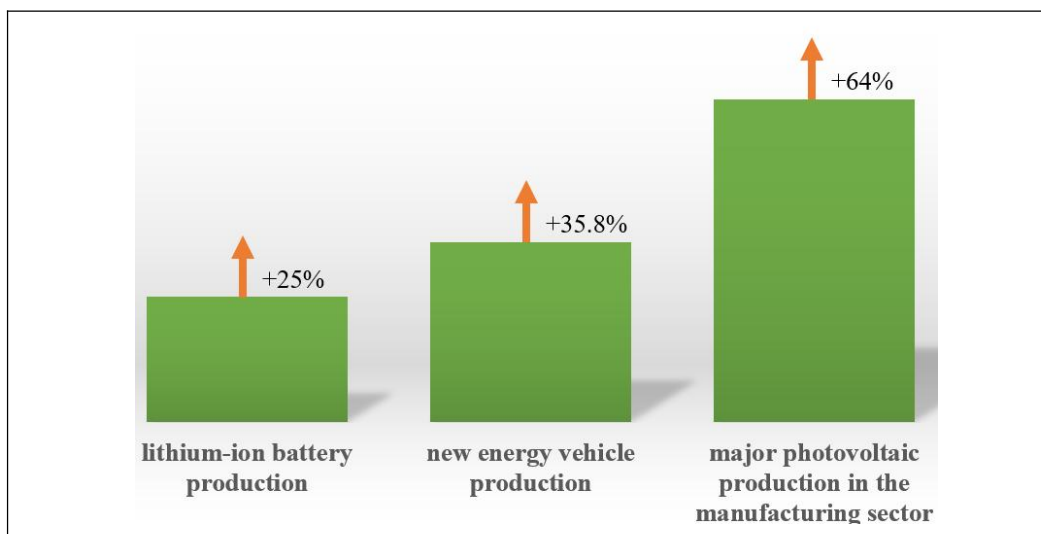
In 2023, the added value of the “three new” economies, centered on new industries, new types of business and new business models, reached 22.3528 trillion yuan, an increase of 6.4% year-on-year (at current prices), accounting for 17.73% of GDP. Among them, exports of the ‘New Trio’ (electric vehicles, lithium-ion batteries and photovoltaic products) totaled 1.06 trillion yuan, an increase of 29.9% year-on-year, exceeding the trillion-yuan mark for the first time.

Rapid development of the ‘New Trio’

In 2023, the national total output of lithium-ion batteries exceeded 940GWh, a year-on-year growth of 25%, and the total exports of lithium-ion batteries reached 457.4 billion yuan, a year-on-year growth of more than 33%. The 940GWh was comprised of 80GWh, 675GWh, and 185GWh for consumer, power, and energy storage lithium battery production respectively.

The scale of the photovoltaic industry continues to expand, with each major manufacturing production, such as polysilicon, silicon wafers, batteries, and components, growing by more than 64% year-on-year. The total output value of the industry exceeded 1.75 trillion yuan. The export of silicon wafers was 70.3GW, an increase of over 93.6% than that of last year, the export of batteries was 39.3GW, up by 65.5%, and the export of components was 211.7GW, an increase of 37.9% year-on-year.

China's national production and sales of new energy vehicles were completed at 9.587 million and 9.495 million respectively, up by 35.8% and 37.9% respectively, with a market share of 31.6%. Newly registered new energy vehicles were 7.43 million, accounting for 30.25% of China's total newly registered vehicles, with an increase of 38.76% compared with that of 2022.



iii. Remarkable achievements in green and low-carbon transformation of the manufacturing industry

In 2023, the added value of China's equipment manufacturing above a designated size (enterprises with revenue of 20 million yuan and above) and high-tech manufacturing industries grew by 6.8% and 2.7% respectively year-on-year, accounting for 33.6% and 15.7% of the total added value of industry above a designated size. The structure of the three industries was adjusted to 7.1:38.3:54.6. Since 2012, the cumulative decrease in energy consumption per unit of added energy in industry above a designated size has exceeded 36%. In particular, China has achieved the following:

-Established the framework of green, low-carbon and other standard systems in the communications industry, issued 171 industry standards such as the evaluation requirements for green factories in the printed circuit board manufacturing industry, and selected and issued 31 typical cases of green transformation of communications equipment rooms;

- Selected a total of 421 national smart manufacturing demonstration plants, and selected and cultivated 28 typical benchmark cases in the “Industrial Internet Platform + Green and Low Carbon” sectors;

- Established a total of 5,095 state-level green factories, 371 green industrial parks, 605 green supply chain management enterprises, and a total of 73 eco-industrial parks;

- Cultivated a total of 196 green data centers, expanded the scope of green product certification to 92 products, and issued 26,000 green product certificates.

iv. Continuous enhancement of green and low-carbon levels in the transport sector

The proportion of freight transported by railways and waterways continues to increase. In 2023:

- The freight volume on China's railways and waterways increased by 1.009 and 2.340 billion tonnes respectively compared with that of 2018 with their proportions in China's total freight volume increasing to 9.0% and 16.8% respectively from 7.8% and 13.6% in 2018;

- China designated 19 projects as "National Multimodal Transport Demonstration Projects" and identified 10 cities as "National Comprehensive Freight Hub Chain Completion and Strengthening Cities";

- The volume of containerized rail-water intermodal transport in China's ports reached 10.18 million TEUs, a year-on-year increase of 15.9%.

The proportion of green distribution of bulk cargo has been steadily increasing.

In 2023, China's major coastal ports used green transportation modes, such as port-connected railways, waterways, closed belt corridors and new energy vehicles, to distribute 91.8% of coal and 78.8% of iron ore nationwide.

New energy vehicle ownership is growing rapidly, and the convenience of charging and swapping battery has

been greatly improved. In 2023,

- China had 20.41 million new energy vehicles , accounting for 6.1% of the total number of vehicles;

- New energy buses, taxis and urban distribution vehicles increased to 550,000, 420,000 and 1 million respectively;

- Charging infrastructure grew by 3.386 million units, an increase of 30.6% year-on-year, reaching a cumulative total of 8.596 million units. The number of newly added power exchange stations grew by 1,594, reaching a cumulative total of 3,567.

The comprehensive energy consumption of rail transport in China continues to decline.

In 2023, the comprehensive energy consumption per unit of transport activity of China's railways was 3.78 tonnes of standard coal per million converted ton-km, a year-on-year decrease of 4.1%. In addition, the rate of electrification of China's railways rose from 52.3% in 2012 to 75.2% in 2023.

In July 2023, China's Stage 6b of the national VI emission standard for automobiles was fully implemented nationwide to promote coordinated control of air pollutants

and greenhouse gas emissions from vehicles.

Positive results have been achieved in the green development of civil aviation. In 2023,

- Civil aviation fuel consumption per ton-km was 0.292kg and carbon emissions per ton-km were 0.919kg, both constituting a year-on-year reduction of 3.6%;

- Airport energy consumption and CO₂ emissions per passenger decreased by 51.2% and 49.6% than that of last year, respectively;

- The proportion of electric vehicles used inside airports nationwide reached 26.4%, and APU replacement equipment for aircraft in airports with an annual passenger throughput of more than 5 million has been “installed and utilized to the maximum possible level”.

v. Remarkable achievements in energy conservation and carbon reduction in the urban and rural construction sector

The transformation and upgrading of green and low-carbon buildings has been advanced rapidly.

By 2023, the proportion of the area of new green buildings in the newly-increased areas of buildings in cities and towns reached 95%, and the renovation of 53,700 old residential communities in cities and towns across China had been undertaken. In addition, 76,000 km of various kinds of aging pipelines and cables for water, electricity, gas and heating had been newly renovated, and energy-saving renovations had been achieved in 116 million m² of building space.

Public bodies are playing a leading role in modeling green and low-carbon practices.

The Guidelines for the Evaluation of Resource-Efficient Government Bodies were published, with 89.7% of Party and government organs at the county level and above rated as resource-efficient bodies. By 2023, the energy consumption per unit of building area in public institutions nationwide, the comprehensive energy consumption per capita and the water consumption per capita had decreased by 3.15%, 3.76% and 3.72% respectively compared with those in 2020.

vi. Significant progress in the control of non-CO₂ greenhouse gas emissions

Methane emission control has entered a new phase.

In November 2023, the first national top-level design document on methane emission control, the Action Plan on Methane Emission Control, was published and implemented. This plan assigns specific responsibilities to relevant departments, aiming to build methane monitoring, reporting, and verification (MRV) systems. As part of this effort, a data reporting platform is being developed, along with guidelines for reporting methane emissions in coal, oil and gas, and waste management sectors. Pilot projects for methane data reporting are underway, alongside updates to methane emission factors. The plan also promotes high-efficiency extraction and utilization of coal mine gas and includes demonstration projects for coalbed methane exploration and development. The Coalbed Methane (Coal Mine Gas) Emission Standards has been revised, with stricter limits on allowable emissions. It is estimated that by 2030, these new standards could reduce methane emissions by approximately 57 million tonnes of CO₂

equivalent per year. Additionally, capacity-building training on methane control and emissions has been carried out. Research has also been conducted into methodologies for the voluntary reduction of methane emissions. The Standards for Pollution Control on the *Domestic Waste* Landfill has been revised to strengthen coordinated control of GHGs and odor emissions.

Control of hydrofluorocarbons (HFCs) emissions has been intensified.

In alignment with new requirements under the Kigali Amendment to the Montreal Protocol, China has implemented the newly revised Regulations on Administration of Ozone Depleting Substances starting March 1, 2024, incorporating HFCs into its compliance framework for ozone-depleting substances. Production and domestic use quotas for HFCs in 2024 are set at 1.449 billion tonnes and 643 million tonnes of CO₂ equivalent, respectively, marking reductions of 404 million and 262 million tonnes of CO₂ equivalent compared to the previous year. Strict import-export licensing for HFCs will

continue to be enforced, and China has already blocked 59 cases of potential illegal HFCs trade—amounting to about 1.45 million tonnes of CO₂ equivalent—through the Informal Prior Informed Consent mechanism of relevant international conventions.

vii. Ecosystem carbon sink capacity has been consolidated and enhanced

Enhancing ecosystem carbon sink capacity is a vital step in reaching China's "dual carbon" goals. China has issued the *Implementation Plan for Ecosystem Carbon Sink Capacity Consolidation and Enhancement*, focusing on stabilizing and expanding carbon sink capacity with scientific and policy support as its foundation. By 2025, the plan aims to have a basically clear picture of ecosystem carbon stock and sink potential, as well as a preliminary, internationally-aligned measurement system. By 2030, it seeks to refine this system for ecosystem carbon sink assessment, monitoring, and accounting. The plan also outlines key initiatives: safeguarding natural ecological security, consolidating ecosystem carbon

sink capacity, promoting the systematic approach to conserve mountain, river, forest, farmland, lake, grassland, and desert ecosystems, and increasing carbon sequestration. Additionally, it emphasizes building a monitoring and accounting system for ecosystem carbon sinks, enhancing scientific and technological support and international cooperation, establishing policies and regulations, and promoting the realization of the value of ecological products.

The carbon sinks of forests and grasslands have been significantly increased.

Large-scale campaigns to green China's national land have been sustained, contributing about one quarter of all the newly added green areas in the world over the past 20 years. The area of preserved planted forests has reached 1.314 billion mu (87.6 million ha), the forest coverage rate has stood at 24.02%, and the comprehensive vegetation coverage of grasslands has reached 50.32%.

- In 2023, the afforestation of 3.998 million ha, improved land through grass planting of 4.379 million ha, and

management of 1.905 million ha of sandy and rocky desertified land was achieved;

- The area of both desertified and sandy land has continued to shrink, and the target of zero increase in land degradation by 2030 has been achieved ahead of schedule;

- Eighteen cities (counties) and 21 state-owned forest farms were prompted to carry out construction work for forestry carbon sink pilots;

- There has been a severe crackdown on the illegal destruction of forest and grassland resources and increasing efforts to prevent and control forest and grassland fires, pest control and disease prevention, in order to effectively protect forest and grassland resources. In 2023, forest and grassland fires across the country decreased by 53.74% and 29%, respectively, compared with those in last year.

The capacity of other carbon sinks, such as wetland, soil, oceans and karst, has been further enhanced.

Since 2012, more than 3,400 wetland conservation projects have been carried out, and more than 800,000 ha of

wetlands have been added and restored. Black soil protection projects and pilot projects for the management of degraded arable land have been implemented, and in 2023 the conservation and utilization of more than 100 million mu of black soil arable land in typical black soil areas in Northeast China was completed. A pilot survey and assessment of carbon stocks in blue-carbon ecosystems was basically completed, and surveys of carbon stocks in more than 40 typical distribution areas of mangrove forests, salt marshes and seagrass beds across China were completed. The technical system for marine carbon sink standards has been improved, six technical protocols for investigation and monitoring and two technical guidelines for the development of carbon sink projects have been issued, and technical protocols for evaluating the effectiveness of sink enhancement in blue-carbon ecosystem protection and restoration projects have been circulated. In addition, a background survey of karst carbon sinks in typical river basins in Southwest China has also been carried out.

viii. A landscape of synergistic advancement of reducing pollution and carbon emissions has been formed

Achieving synergy between reducing pollution and carbon emissions is a general tool to promote a comprehensive transformation towards environment-friendly economic and social development in China. Through integrated planning, implementation, and performance assessment systems and mechanisms, notable results have been delivered. From 2013 to 2023, sulfur dioxide and nitrogen oxide emissions dropped by over 85% and 60%, respectively, while carbon intensity fell by more than 34%.

Policies have been continuously improved.

A new technical guide for compiling integrated emission inventories of air pollutants and greenhouse gases has been issued, to improve air emission source management, enhance the integrated accounting system for emissions, and improve basic capacity in this area. Additionally, the *Opinions on Implementing Measures for Promoting Synergy in Reducing Pollution and Carbon Emissions from Sewage Treatment* promote pollutant reduction and greenhouse gas emissions

control throughout the wastewater treatment process. This includes water-saving at the source, energy-saving and carbon reduction in treatment processes, and resource recovery from wastewater and sludge, with a goal of establishing 100 green, low-carbon benchmark wastewater treatment plants by 2025. China also promotes the evaluation of the impact of greenhouse gas emissions in the environmental impact assessment of planning and construction projects, and issued technical guidelines on the evaluation of the environmental impact of greenhouse gas emissions from construction projects in the thermal power industry, setting clear standards for evaluating greenhouse gas emission levels in construction projects. It also refines the principles for selecting coordinated pollution and carbon reduction measures within these projects. Additionally, the country also carried out carbon monitoring and evaluation, and promoted the coordinated management of stationary emissions sources.

Multi-level and multi-sectoral pollution and carbon reduction synergistic innovation pilots have been steadily rolled out.

The first batch of collaborative innovation pilots in pollution and carbon reduction covering 21 cities and 43 industrial parks was launched and training was provided. Then typical cases of pollution and carbon reduction synergies were published.

Coordination between climate change response and biodiversity protection has been strengthened.

China released its latest edition of National Biodiversity Conservation Strategy and Action Plan (2023-2030), prioritizing integrated management of biodiversity protection and climate change response.

III. Proactive adaptation to climate change

i. China's National Climate Change Adaptation Strategy 2035 is being effectively implemented

The climate change adaptation strategy has been implemented at the local level and in key sectors. By the end of June 2024, 29 provincial action programs on adaptation to climate change had been issued, and more

than 80 policy documents on adaptation to climate change had been issued in 12 key sectors. The Climate Change Adaptation Progress Report (2023) was published, which comprehensively summarized the progress and achievement of climate change adaptation in key sectors.

The building of pilot climate-adaptive cities has been carried out to the highest quality. In 2023, the pilot work of enhancing the building of climate-adaptive cities was initiated, setting out specific requirements for ten aspects , such as improving governance systems and strengthening risk assessment procedures. In 2024, 39 municipalities (districts), such as the Mentougou District of Beijing, were identified as pilot cities for the building of climate-adaptive cities.

ii. Strengthening climate change monitoring, early warning and risk management

The integrated weather and climate observation network has continued to expand. Eight national atmospheric background stations have been built, atmospheric background observation experiments have been carried out at

10 sites, and observations of routine meteorological elements, greenhouse gases, aerosols and other meteorological substances have been conducted. In addition, 27 national climatic observatories and nearly 70,000 ground-based meteorological observation stations have been built to carry out observations of the the Earth system's multi-layer and ground routine meteorological elements. Nine Fengyun meteorological satellites are now in operational orbit, carrying out observations of the Earth's atmosphere, oceans and ecosystems. The development of the national greenhouse gas observation network has also been advanced, and 120 high-precision greenhouse gas observation stations have been built.

Climate change monitoring, forecasting and early warning capabilities have been steadily improved. Precision in forecasting and prediction has been improved, enabling accurate predictions of major weather events one week in advance and the issuance of meteorological disaster warnings 1 to 3 days ahead. The construction of short-term monitoring and early-warning platforms at the national and provincial

levels has been enhanced. Research and assessment of the impacts and risks of meteorological disasters have been carried out, and the emergency response mechanism using meteorological warnings as a precursor has been improved.

China's capacity for comprehensive disaster prevention, mitigation and adaptation to climate change has continued to improve. A joint mechanism for disaster prevention, mitigation and relief has been established, and work is in progress to create national models for comprehensive disaster reduction. Nine key projects for natural disaster prevention and control and the 'Internet + Meteorology' initiative have been implemented, and an integrated national and provincial operational system for meteorological disaster risk prediction has been established and refined. China's first comprehensive national natural disaster risk survey has been completed, a national natural disaster risk database has been built, and an integrated natural disaster monitoring and early warning platform has been developed. The second phase of a scientific and technological research project on the prevention and control of forest fires

caused by lightning strikes has been launched, and the building of emergency response mechanisms and handling capacity has been enhanced.

iii. Sustained strengthening of the capacity of natural ecosystems to adapt to climate change

The capacity of water resource development and utilization to adapt to climate change has been continuously improved. In 2023, China accelerated the construction of its water conservancy infrastructure in all front, starting 27,900 new water conservancy projects nationwide. Efforts to conserve and protect water resources have been increased, and the total amount of water consumption nationwide has been controlled to within 600 billion m³. In 2024, the China Soil and Water Conservation Bulletin (2023) was published. China has made efforts to comprehensively control over-exploitation of groundwater in 10 key areas, including the Sanjiang Plain in Heilongjiang, and harnessed an area of 63,000 km² of land affected by water and soil erosion in key areas.

China's terrestrial ecosystems is more adaptive to climate change. China has updated its biodiversity conservation strategy and action plan and enhanced the building of a support system for the adaptation of biodiversity to climate change. China has also carried out supervision and assessment of ecological protection and restoration projects. In addition, it also published the National Ecological Quality Supervision and Monitoring Work Program (2023-2025), selected the first batch of 55 comprehensive ecological quality monitoring stations, and built a national ecological quality monitoring network. Since the implementation of the project for the integrated protection and restoration of mountains, water, forests, fields, lakes, grasses and sands, the ecological protection and restoration of a total area of about 7.7 million ha has been completed. The construction of key ecological projects in Northeast, the northern part of North, and Northwest China, has been thoroughly advanced. The National Implementation Program for Sustainable Forest Management Pilot Units (2023-2025) was published, and

368 pilot units were selected to carry out pilot work on sustainable forest management. The 2023 National Ecological Meteorological Bulletin and the 2023 Atmospheric Environmental Meteorological Bulletin were also both published. Conservation of biodiversity, red lines of ecological protection and supervision of protected natural areas have played a positive role in the adaptation of ecosystems to climate change.

The capacity of coastal areas and ecosystems to adapt to climate change has been further enhanced. China has improved its marine disaster observation, early warning and assessment system, completed R&D for the ‘Mazu’ series of independent numerical hydrodynamic early warning models for storm surges and tsunamis and put the model into operation, and released marine climate predictions on a regular basis. China also improved its observation and risk assessment system for sea level change, and published the 2023 China Sea Level Bulletin. In 2023, the national mangrove area has been increased to 30,300 ha, making China one of the few countries

in the world with a net increase in mangrove area. The water quality of China's nearshore waters showed an overall trend of improvement.

iv. Keep strengthening the adaptive capacity of China's economic and social systems to climate change

The agricultural sector has witnessed improving adaptability to climate change. In 2023, China completed the development of about 86.11 million *mu* (5.74 million ha) of new and upgraded high-standard farmland, and of high-efficiency water-saving irrigation for about 24.62 million *mu* (1.64 million ha). The implementation of a new round of the national agricultural climate resource census and zoning was also advanced, and agricultural disaster prevention and mitigation plans were issued. Pesticide reduction and efficiency enhancement were rolled out, with the coverage rate of 54.1% for eco-friendly pest prevention and control of major crop diseases and pests.

The health sector has been more adaptive to climate change. The assessment of environmental health risks has

been promoted, health risk-graded forecasts and warnings for high-temperature heat waves and cold waves have been organized and carried out. Guidelines on public health protection against high-temperature heat waves and cold waves have been issued. The guide on public health protection in the face of climate change has been published, and so has an explanation of public health literacy and explanations of climate change. Community-based public education and education interventions on climate change health literacy for the general public have been carried out in some cities. Medical and health weather service products such as forecasts of ultraviolet intensity, heat stroke meteorological ratings, meteorological factors in influenza risk and apparent temperature have been published. Research has been carried out on China's climate health risks and relevant countermeasures. A platform has been established for early warning of high-temperature health risks and for urban climate change diagnosis and analysis, and so has a national off-seasonal early warning grid for high-temperature health

risks.

Infrastructure and major projects in China has been more adaptive to climate change. Pilot projects on transport infrastructure resilience enhancement and other key technologies have been carried out. Research has been conducted to improve climate-change-adaptive standards for water transport projects. In addition, optimization and upgrading have been applied on 110 road sections experiencing high-impact in inclement weather. Traffic accidents caused by such weather on the relevant sections dropped by 54% year-on-year.

The sensitive secondary and tertiary industry sectors have been more adaptive to climate change. A progressive meteorological service model has been established, aiming to formulate standards and processes for a high-level warning mechanism . Meteorological forecasting and prediction and analysis of the impact on energy supply and predictions of the power generation of national renewable energy have been conducted. A seamless wind and solar energy

forecasting service on a short-term, monthly and seasonal basis has been set up. Dedicated meteorological services supporting energy supply in summer (and winter) to face the peak season has been set up. Early warnings of catastrophic weather in key scenic spots have been provided.

v. Formation of regional models of adaptation to climate change

China's territory adaptation plan to climate change has been initiated. The implementation and management of various types of national territorial planning at all levels has been enhanced. Urban flood risk control lines have been delineated in a science-based manner. Comprehensive natural disaster risk prevention and control areas have been clarified, and the composition of flood risk prevention and control facilities has been optimized.

Action on climate change adaptation in key vulnerable regions has been continuously upgraded. In September 2023, the Qinghai-Xizang Plateau Ecological Protection Law came into force, strengthening institutional

measures such as climate change monitoring, early warning and assessment. The second comprehensive scientific research mission on the Xizang Plateau and the comprehensive climate change impact assessment were carried out. In addition, projects for water-conserving forests, soil and water resource-conserving forests and comprehensive land improvement have been launched in the Yellow River Basin, and the technical assistance project Yellow River Basin Adaptation Program to Enhance Climate Resilience has been implemented .

IV. Accelerating the development of a national carbon emissions trading market

i. Constantly improving institutional framework

The Interim Regulations on the Management of Carbon Emissions Trading (trial) has been released and taken effect. The Interim Regulations on the Management of Carbon Emissions Trading (trial) took effect on May 1, 2024,

clarifying for the first time the carbon emission rights market trading scheme with administrative regulations. It is also China's first specialized regulation responding to climate change. This regulation defines the main components of carbon market trading and assigns legal responsibilities to participants. It also strengthens supervision and enforcement, with strict penalties for non-compliance, reflecting China's commitment to the strictest laws and regulations for environmental protection.

The foundation framework for policy and regulatory has been established. The Measures for the Administration of Carbon Emissions Trading (trial) were issued, along with rules for registration, trading, and settlement. Guidelines for carbon emission accounting, verification, and allowance allocation have also been developed and revised. Together with the Interim Regulations on the Management of Carbon Emissions Trading, these documents establish a framework that includes administrative regulations, departmental rules, normative documents, and technical standards at multiple levels.

ii. Active trading in the national carbon market

The second compliance cycle of the national carbon emissions trading scheme was significantly more active than the first.

By the end of 2023, the national carbon emissions trading scheme covered annual CO₂ emissions of about 5.1 billion tonnes and included 2,257 key emission units. The trading volume and turnover of enterprises participating in transactions to the total number of transactions in the second compliance cycle increased by approximately 19% and 89%, respectively, compared with the first compliance cycle.

iii. Stricter management of carbon market data quality

The institutional system for the management of carbon emissions data has been further strengthened. The Interpretation of Several Issues Concerning the Application of Law in Handling Criminal Cases Pertaining to Environmental Pollution was revised and issued, bringing carbon emission data falsification into the scope of criminal sanctions.

Guidelines on accounting and verification were also revised and issued to optimize accounting methods.

Working mechanism for daily supervision has been initially established. A three-tier joint mechanism for reviewing the quality of carbon emission data at the national, provincial and municipal levels has been established. In 2023, more than 3 million pieces of data were reviewed.

Supervision and enforcement has been further strengthened. Supervision and assistance in carbon market emissions reporting was organized, and key cases were put under supervision, rigorously cracking down data falsification. Emission-control enterprises that were found to have falsified data were punished severely and had their carbon emission quotas reduced in accordance with the law.

iv. Strengthening management and capacity-building

China's national carbon market management platform was operated in 2023, achieving smart and digitalized list management, emission management, data quality supervision, verification management and quota management, and

enriching the technical methods of data quality management using big data. The national unified greenhouse gas voluntary emission reduction registration system and trading system organization have been built and put into operation. In 2023, 134 carbon market training courses were organized, and a total of 11,600 trainees were trained, which achieved full coverage of key emission organizations. More than 80% of key emission organizations hired dedicated staff responsible for carbon asset management.

v. Steadily expanding the coverage of carbon market industry

China is conducting specialized research to expand the scope of its national carbon emissions trading market. A work plan has been developed to include the cement, steel, and aluminum smelting industries. Four technical specifications including emission accounting and reporting guidelines for the cement and aluminum smelting industries have been released. Efforts have been made to manage historical data for key industries and upgrade the function of the carbon market

management platform, registration system, and trading infrastructure to integrate cement, steel, and aluminum smelting into the national carbon market.

vi. New progress in the national voluntary greenhouse gas emissions reduction market

The national voluntary greenhouse gas emissions reduction market and the national carbon emissions trading market, forms together a complete national carbon market trading system. Supporting documents have been issued, including guidelines for project design and implementation, rules for project review and emissions reduction validation, rules for registration, and rules for transaction settlement. The first four methodologies—covering afforestation carbon sinks, grid-connected solar thermal power, offshore wind power, and mangrove restoration—have also been published. China’s voluntary greenhouse gas emissions reduction market was launched on January 22, 2024. By June, the State Administration for Market Regulation had approved a group of validation and verification agencies, laying the foundation for

project applications and emissions reduction registration.

V. Continuous improvement of the policies and support

i. Significant breakthroughs in establishing frameworks for carbon emissions management

Major breakthrough has been made in establishing the rule of law.

The Interim Regulations on the Management of Carbon Emissions Trading came into force. The Regulations on Water Conservation, the Regulations Governing Ecological Protection Compensation and the Measures for the Administration of Pollutant Discharge Permits have also been implemented. The inclusion of climate change-related content in the ecological and environmental code currently being compiled has also been driven forward.

Standards and technical specifications are constantly being improved.

The Program of Action on Further Strengthening the

Construction of a Standard Measurement System for Carbon Peaking and Carbon Neutrality (2024-2025) has been implemented. By the end of 2023, a total of 18 national standards for carbon emission accounting, three national standards for project emission reduction accounting and three national standards for product carbon footprint quantification had been issued. Seventy-eight national standards for mandatory energy consumption limits and 67 national standards for mandatory energy efficiency had also been issued. In addition, general principles for accounting of product carbon footprint, the National Standard Requirements and Guidelines for Quantifying the Carbon Footprint of Greenhouse Gas Products, were issued, which fundamentally achieved full coverage of key industries and products. A succession of standards for disclosure of sustainability information has also been issued, promoting the disclosure of corporate sustainability information.

China is advancing a dual-control system for carbon emissions. The Work Plan for Accelerating the Development of a Dual-Control System for Carbon Emissions has been

issued, integrating carbon targets and requirements into national planning. This plan establishes policies and management mechanisms for regional carbon assessments, industry carbon management, corporate carbon controls, project carbon evaluations, and product carbon footprints, all aligned with the national carbon emissions trading market. During the 15th Five-Year Plan period, China will prioritize intensity-based controls, complemented by total emission controls. After reaching carbon peak, the system will shift to primarily focus on total emissions, supported by intensity controls, with a carbon neutrality evaluation and assessment system to follow.

ii. Multiple economic policies at work

Financial and tax support policies are constantly being strengthened.

China's central financial administration has continued to strengthen the coordination of resources, optimize the expenditure structure, and strengthen the protection of key areas such as reducing carbon emissions and increasing carbon

sink. It has optimized and extended the vehicle purchase tax exemption and reduction policy for new energy vehicles until the end of 2027, and set a limit for the reduction and exemption of vehicle purchase tax for new energy passenger vehicles.

A diversified investment and financing mechanism has been established.

A reserve bank of ecological and environmental protection financial support projects has been established, and as of the end of March 2024, about 210 billion yuan of credit had been granted by financial institutions, and about 64 billion yuan of loans had been issued. Finance to support carbon emission reduction continues to be provided, and specialized refinancing to support the clean and efficient use of coal has expired and been withdrawn, while the balance of the refinancing reserves can still continue to serve a purpose. By the end of June 2024, the balance of the two monetary policy tools was 547.8 billion yuan and 219.4 billion yuan respectively. In 2023 Green bond issuance exceeded 830 billion yuan. At the end of 2023, the balance of green loans in

local and foreign currencies was 30.08 trillion yuan, an increase of 36.5% year-on-year, of which loans invested in projects with direct and indirect carbon emission reduction benefits together accounted for 67.3% of the green loans. By the end of 2023, the 23 local climate investment and financing pilots had granted credit totaling 455.384 billion yuan.

The scope of Government's government green procurement policy has been gradually expanded.

The number of cities implementing the government green procurement policy has been expanded to 100 on the basis of the pilot program which supports green building materials and building quality improvement. The number of products covered by the government procurement requirements and standards for green building materials has increased from 75 to 100.

Electricity pricing policy has been further developed and electricity market reform has been intensified.

Basic rules for the operation of China's electricity market have been issued. Starting from 2024, a coal power capacity tariff mechanism has been established, and a tariff

policy with two components is being implemented for coal power. The scope of green certificate issuance and trading has also been expanded.

iii. Ongoing enhancement of scientific, technological and innovation support and human resource development

Pilot strategic scientific and technological special projects to address climate change have been implemented, and R&D of key projects on ‘carbon satellites’ has been carried out. Implementation Plan for the Collection and Promotion of National Key Low-Carbon Technologies was issued. The fifth round of call for technologies under the Catalogue of National Key Low-Carbon Technologies for Promotion has been issued. Demonstration projects of green, low-carbon advanced technology have been actively implemented. The Guiding Catalogue for Green and Low-Carbon Transition of Industries has been issued, and a call for green technologies has been launched. The Qilu Petrochemical - Shengli Oilfield CCUS Project, China’s first ever million-metric tonne-level carbon capture, utilization, and storage (CCUS) project, has successfully completed the

injection of one million metric tonnes of CO₂.

Trainings on topics such as capacity-building for addressing climate change, product carbon footprint, climate investment and financing, carbon finance, and preparation of provincial greenhouse gas inventories have been organized. A 'dual-carbon' online course has been developed and revised, and the Government Officials' Reader on Achieving Carbon Peaking and Carbon Neutrality has been compiled. Personnel training in climate change-related fields has been enhanced. Also, in 2023, 14 additional relevant undergraduate programs were established, seven national industry-education integrated innovation platforms for developing energy storage technologies were created, and more than 300 related industry-university cooperation and collaborative educational projects were set up and implemented.

iv. Steady progress in carbon footprint management system

Implementation Program for the Establishment of a Carbon Footprint Management System has been issued, identifying objectives and methods of carbon footprint

management, and enhancing coordination among relevant tasks and policies. On the basis of the database of national greenhouse gas emission factors, a national product carbon footprint factor database has been established. Carbon footprint accounting rules and standards for key products are under way, supporting calculation of carbon footprint factors.

v. Accelerated progress in building a statistical accounting and monitoring system for greenhouse gas emissions

Methods of national and local statistical accounting for carbon emissions have been constantly improved.

The system of statistical accounting for carbon emissions from energy activities and industrial processes has been continuously improved. The regular compilation of a national greenhouse gas inventory has been promoted. Research has been conducted on the methane emissions accounting and reporting systems of key enterprises and accounting methodologies, and clear requirements have been introduced for the accounting and reporting of fluorinated gases.

Authoritative localised emission factors have been published.

Development of a national greenhouse gas emission factor database has been in progress, and inclusion of localised emission factors and related parameters into the database has been advanced. The national, regional and provincial average CO₂ emission factors for electricity in 2021, the national average CO₂ emission factors for electricity (excluding market-traded non-fossil fuel-powered electricity), and the national CO₂ emission factors for fossil fuel-powered electricity have been published.

Pilot work of carbon monitoring and assessment continues to advance.

Pilot carbon monitoring and assessment work has been carried out at three dimensions: key industries, cities and provinces, and regions. A technical system for greenhouse gas monitoring has been built for coal production and other industries, a remote sensing accounting method for carbon emissions in key provinces put in place, and the cross-validation of monitoring and accounting data has been

enhanced. Sixteen pilot provinces and municipalities have built 84 high-precision and 172 medium-precision monitoring stations, and 10 national background stations have carried out operational monitoring of greenhouse gas concentrations in line with international monitoring levels. More than 10 technical guidelines or protocols have been issued to establish a framework for a technical system for carbon monitoring and assessment.

vi. Gradual mobilization of nationwide efforts towards a green and low-carbon lifestyle

The Chinese government strengthens publicity and guidance.

Publicity activities around the National Energy Conservation Publicity Week, National Low Carbon Day, World Environment Day and National Ecology Day have been carried out. News media have been used to spread knowledge about climate change among the public and publicize the effectiveness of efforts to address climate change. Activities for the Green Travel Publicity Month and the Public Transport

Week continue to be carried out.

Enterprises take positive action.

Green and low-carbon development has been made an important element of central state-owned enterprises' fulfillment of their social responsibilities to a high standard, common chain action for the integrated development of the industrial chain of central state-owned enterprises, including new energy sources, has been initiated, and the high-quality development of enterprises has been advanced through large-scale equipment renewal.

The public is broadly engaged

The level of public participation in carbon inclusion has been enhanced. And 'the Beautiful China, I am the Actor' series of activities has been continuously organized. An ecological environment volunteer service system has been developed. The first carbon-neutral All-China National Games was created. Fifty-four model cases of green and low carbon practices in five categories, namely parks, enterprises, communities, individuals and green and low carbon public participation practice bases have been disseminated.

VI. Active participation and leadership in global governance to address climate change

i. Closer and more effective high-level engagement on climate change

Leaders' climate diplomacy boosts confidence in global climate governance.

Since 2023, Chinese President Xi Jinping has repeatedly emphasized that countries should work together to tackle global challenges such as climate change.

- President Xi met with U.S. President Joe Biden, stating that China and the U.S. have broad common interests in areas such as climate change;

- At the tripartite meeting of Chinese, French and European leaders, emphasis was placed on deepening the China-EU green partnership, in which China and Europe have broad common interests and significant room for co-operation;

- President Xi held two meetings with French President Emmanuel Macron. The Joint Declaration of the People's Republic of China and the French Republic was jointly issued,

and the Sino-French Joint Statement on Strengthening Biodiversity and Ocean Cooperation: From Kunming-Montreal to Nice was concluded;

- President Xi met with Brazilian President Luiz Inacio Lula da Silva, and signed a joint statement on combating climate change;

- President Xi attended the Third Belt and Road Forum for International Cooperation, announcing eight actions supported by China for the high-quality development of the Belt and Road, including the promotion of green development;

- President Xi attended the Informal Dialogue of the 30th APEC Economic Leaders' Meeting, stressing the importance of upholding green development and harmonious coexistence between human beings and nature;

- President Xi attended the 23rd Meeting of the Council of Heads of Government of Member States of the Shanghai Cooperation Organization (SCO), the XV BRICS Summit, the China-Africa Leaders' Dialogue, among others, and discussed green development on a global scale;

- In addition, President Xi also held meetings with the

UN Secretary-General, the President of the European Council, the President of the European Commission, and the Heads of State of Russia, Germany, Belgium, Hungary, the Netherlands, Brazil, Colombia, and Mongolia, emphasising the practice of multilateralism and accelerating the implementation of the 2030 Agenda for Sustainable Development.

Intensive high-level engagement forges consensus.

Since 2023, the topic of climate change has continued to be an important element of China's high-level engagement, gaining increased political momentum.

- Fourth and fifth China-EU High-Level Environment and Climate Dialogues were held to deepen the China-EU green partnership;

- China attended the World Climate Action Summit at the COP28 UN Climate Change Conference in Dubai and the Group of 77 and China Leaders' Summit;

- The China-U.S. Climate Envoys jointly issued the Sunnylands Statement on Enhancing Cooperation to Address the Climate Crisis and launched the Working Group on Enhancing Climate Action in the 2020s, which identified

energy transition, methane, circular economy, and low-carbon provinces/states and cities as key areas of co-operation;

- With the support of the COP Presidencies Troika, UAE, Azerbaijan and Brazil, China hosted the 8th Ministerial on Climate Action, which was attended by ministerial representatives from more than 30 countries, sending out positive signals for cooperation in addressing global climate crisis, going beyond other challenges;

- China hosted the BASIC Ministerial Meeting on Climate Change and issued the BASIC Ministerial Joint Statement on Climate Change;

- China convened the Like-Minded Developing Countries (LMDC) Seminar. Representatives of 15 member States, including India, Pakistan, Vietnam, Saudi Arabia, and Iran, attended the meeting to raise the positive and constructive voices of the global South in favor of equity, implementation and cooperation on climate change issues;

- Communication with the UN and its relevant agencies, the Secretariat of the UN Framework Convention on Climate Change (UNFCCC) and the International Energy Agency (IEA)

has been strengthened and bilateral talks have been conducted at the ministerial level with a number of countries.

- As Presidency of the 15th Conference of the Parties to the Convention on Biological Diversity (COP15), China led the adoption of the Kunming-Montreal Global Biodiversity Framework, which established 23 action targets, including the integrated management of biodiversity and climate change.

ii. Pragmatic promotion of bilateral and multilateral climate change negotiations

China plays an active and constructive role in facilitating the international negotiation process of the UNFCCC and its Paris Agreement as the main channel.

- China fully participated in the negotiations and consultations on various issues at COP28, contributing Chinese input to the conclusion of the UAE Consensus and the completion of the first global stocktake of the Paris Agreement. China also promoted the launch of the Loss and Damage Fund, the conclusion of the Global Goal on Adaptation framework, and the Just Transition Work Programme;

- The People's Republic of China's Fourth National Communication on Climate Change and The People's Republic of China's Third Biennial Update Report on Climate Change have been submitted;

- China participated in meetings of the UNFCCC's Subsidiary Body for Implementation and the Subsidiary Body for Scientific and Technological Advice to coordinate consensus on priority issues, playing an active and constructive role;

- More than 100 events were organized during COP28 to tell China's story to the international community.

Effective cohesion of consensus in negotiations besides the UNFCCC.

- China has been deeply involved in the assessment process and mechanism development of the UN Intergovernmental Panel on Climate Change (IPCC) and attended the 60th plenary session of the IPCC, and Chinese scientists were elected as co-chairs of Working Group I of the IPCC's Seventh Assessment Cycle;

- China has actively promoted the implementation of the

International Maritime Organization's Strategy on Reduction of Greenhouse Gas Emissions from Ships and participated in the International Civil Aviation Organization's climate change-related dialogue and consultation;

- China has actively contributed to the thematic discussions under the framework of the WTO, and strengthened the deliberative oversight of trade-related environmental measures, including the EU Carbon Border Adjustment Mechanism (CBAM);

- China has actively participated in climate change-related working group consultations under the G20.

iii. International cooperation for addressing climate change strengthened

Practical climate cooperation deepened through multiple channels and in multiple fields.

The following have happened since 2023:

- China is actively supporting Colombia, the host country of 16th Conference of the Parties (COP16) to the Convention on Biological Diversity, by serving as co-chair in negotiations

on biodiversity and climate change. In this role, China is helping to guide discussions toward positive consensus on key issues.

- Institutional dialogues, such as the China-EU Energy Dialogue, the China-EU Blue Partnership Forum, and the China-Europe Cooperation Partnership Dialogue on Shaping New Growth Driver for Green Development have been held, and 10 typical cases of China-EU cooperation on green and low-carbon development have been announced;

- High-level symposia on Chinese and EU carbon markets, climate adaptation, and other topics have been organized;

- Collaborative projects such as the 'Support the Platform for Policy Dialogue and Cooperation between EU and China on Emission Trading' Project, 'Support the EU-China Cooperation on Environment and Green Economy' project, and the China-Norway Cooperation Carbon Emissions Trading System, have been implemented;

- The Sino-France Carbon Neutrality Center has been established;

- The Global Sustainable Transport Forum Summit (2023) was held;

- China has continued to lead the G20 work on sustainable finance and promote the improvement of the China-EU Common Ground Taxonomy for Sustainable Finance under the International Platform on Sustainable Finance;

- China has encouraged Green Climate Fund, Global Environment Facility, and international financial institutions such as World Bank, Asian Development Bank, Asian Infrastructure Investment Bank, New Development Bank, to increase their support for green and low-carbon development in developing countries;

- China supports UN-Habitat in the establishment of the Global Award for Sustainable Development in Cities (Shanghai Award), and organized the first awards event.

Green development is becoming the defining feature of Silk Road Cooperation.

In 2023, the Belt and Road Initiative International Green Development Coalition became the first international social

organization under the framework of the Green Silk Road, and improvement of the Belt and Road Big Data Service Platform on Ecological and Environmental Protection continued. In addition, the Green Silk Road Envoys Program was also implemented.

- The High-Level Forum on Green Development of the Third Belt and Road Forum for International Cooperation and the Third Belt and Road Energy Partnership Forum were held, and the Beijing Initiative for Belt and Road Green Development was announced;

- MoUs on investment co-operation for green development have been signed with 14 countries, including Russia and Brazil;

- The Africa, Central Asia and ASEAN regional offices of the Green Investment Principles of the Belt and Road have been established. By the end of 2023, 47 signatory organizations and 18 supporting organizations/observers from 17 countries and regions, including the UK, France, Germany and Japan, had signed up to these principles.

iv. Supporting developing countries in their climate change response capacity

By the end of June 2024, China had signed 52 documents on South-South cooperation on climate change with 42 developing countries, launching numerous aid and exchange initiatives to support these nations in building climate resilience. China's climate funding not only supports developing countries in utilizing clean and efficient energy, enhancing climate resilience, and promoting synergy between climate action and environmental protection but also contributes to improving local livelihoods and enhancing people's well-being.

- Launching the Kunming Biodiversity Fund to assist with implementation efforts;

- A total of over 300 capacity-building projects have been conducted, providing training for more than 10,000 participants from over 120 developing countries;

- Twelve workshops have been held on technology transfer and climate information services for developing

countries to address climate change under China's Global Development Initiative (GDI), and the project Enhancing Capacity on Sustainable Soil Management has been carried out in Uganda;

- The "Africa Solar Belt" Program has been launched to help solve the problem of electricity and lighting for at least 50,000 impoverished households without electricity in Africa in the next three years;

- The China-Pacific Island Countries Center for Disaster Risk Reduction Cooperation was launched, and the 2023 China-Pacific Island Countries Climate Action Dialogue and the China-Pacific Island Countries Cooperation Seminar on Marine Disaster Prevention and Mitigation were held;

- China has hosted two sessions of the China-Indian Ocean Region Forum on Development Cooperation;

- China-ASEAN mangrove research has been jointly conducted, and low carbon (community) schools have been built;

- The 4th China Xizang Trans-Himalaya Forum for International Cooperation has been held, focusing on

Implementing the Nyingchi Initiative and Ecology for Development, and forging consensus on adhering to the concept of green development and responding to climate change.

v. Active participation in international climate change observations

China's background atmospheric observation capabilities have been continuously upgraded. Since 2023,

- China has undertaken work related to the Global Climate Observing System (GCOS) Surface Reference Network Lead Center (GSRN-LC), coordinated and led the construction of a traceable global network of reference climate observatories, and improved humanity's capability for monitoring climate change.

- The World Meteorological Organization (WMO) Third Pole Regional Climate Center has been built to meet the particular need for climate and cryosphere services in the high mountainous regions of Asia, with an emphasis on the Tibetan Plateau.

- Three meteorological observatories in China have been

certified by WMO as Centennial Observing Stations, and eight as world 75-year meteorological stations, with the purpose to protect the environment for meteorological detection. These stations are faithful recorders for climate change and ecological changes.

VII. China's fundamental position and assertions on the UNFCCC COP29

Today's world is full of turbulence and uncertainty, and global climate governance faces multiple challenges. Against this backdrop, if COP28 demonstrated the global ambition for the transition to a green and low-carbon world, COP29 is even more highly anticipated by the international community, especially by developing countries. COP29 should give the international community the confidence and hope to address the issue of how the world will 'deliver' on its ambitions, and demonstrate that the international community has the means to do so and the blueprints to support it, and that it can unite and cooperate to drive the transition. Only in this way will climate

‘ambition’ not be reduced to mere rhetoric and a tool for other purposes.

We believe that this conference should be an Enabling COP that improves the environment for implementation of climate action and enhances the global capacity for it, focuses on removing the factors that have ‘disabled’ current climate action, responds to the long-unheeded demands of developing countries to achieve their climate ambitions, and become a Means of Implementation COP and a Cooperation COP, upholding a pragmatic orientation that respects the efforts of countries to promote transformation based on different national circumstances.

Firstly, we firmly uphold the UNFCCC and the Paris Agreement. In the face of increasingly severe climate crisis at present, as well as the uncertainties brought about by the intensification of geopolitical conflicts and the general elections in many countries, multilateralism is the basic path for global action and the fundamental way forward. As 2024 marks the 30th anniversary of the entry into force of the UNFCCC, COP29 should firmly implement the objectives,

principles and institutional arrangements established by the UNFCCC and the Paris Agreement, which have always provided the greatest certainty and foundation for all parties to work together to address the challenge of climate change. If this foundation is misinterpreted or undermined, and if there is no distinction between developed and developing countries and no respect for the 'bottom-up' institutional arrangement of national determination, the multilateral climate process will lose its basis for dialogue.

Secondly, we should materially promote support for means of implementation. At present, the core concern of developing countries is support for the means of implementation, such as climate finance, which is also the basis for achieving climate ambitions and maintaining multilateral mutual trust. It is unfair for developing countries to talk only about ambitious goals and not about the conditions for their fulfillment. COP29 is a key point in the climate finance negotiations and should focus on reaching a strong new collective quantitative goal (NCQG) on climate finance as a key outcome, while promoting the implementation of support

in the areas of technology and capacity-building. In terms of finance, the first priority is to leverage private sector finance based on the fulfillment of developed countries' obligation to provide finance to developing countries, mobilize finance and ensure transparency of funding in accordance with the provisions of the UNFCCC and the Paris Agreement. In particular, developed countries must effectively fulfill their commitment to extend climate finance to \$100 billion per year by 2025 and fill the gap, come up with a road map for the doubling of adaptation finance, and provide adequate, predictable and sustainable financial support to developing countries on the basis of the NCQG. China stresses the importance of the principles of 'common but differentiated responsibilities', equity and respective capabilities, and that COP29 should not introduce or implement financing mechanisms or instruments that run counter to the relevant principles of the UNFCCC and the Paris Agreement. In particular, it should not introduce debt-related discussions, which are already being discussed and advanced under other platforms and bilateral channels. Introducing debt under the

channels of the UNFCCC would only further complicate matters and would not be conducive to focusing the efforts of COP29 on achieving the expected outcomes.

Thirdly, international solidarity and cooperation should be earnestly strengthened. In recent years, some countries have been creating 'small circles', implementing unilateral protectionist measures in the name of climate change, building green barriers, interfering with free trade and investment in green products and industries, and interrupting the transfer and proliferation of low-carbon technologies. Such actions have seriously undermined the mutual trust and capability for global cooperation in combating climate change and will increase unnecessary negative spillover effects and raise the cost of compliance for all countries. COP29 should encourage all parties to abandon unilateral measures, including those implemented by the United States and Europe, and strengthen solidarity and cooperation, so as to provide energy and favorable conditions for the multilateral climate process.

Fourthly, we must pragmatically promote a just and green transition. The effectiveness of climate action is rooted in the

reality of each country, and only by respecting the different starting points, stages of development and capacities of each country, and by promoting a just transition under the framework of sustainable development and poverty alleviation, will the world be able to truly fulfill its climate ambitions. COP29 should deliver implementation of the obligation of developed countries to take the lead in reducing emissions and contributing to the funding, and at the same time set up a platform for all parties to share progress and best practice on compliance actions in a promotional and nationally determined manner. This should be done in order to encourage all parties to actively and pragmatically honor their commitments and cooperate in the implementation of the Paris Agreement, instead of being fixated on pursuing the setting of emission reduction targets.

China is willing to strengthen exchanges and cooperation with all parties, join hands to address the challenges of climate change, contribute to the full and effective implementation of the Paris Agreement, and promote the building of a fair and reasonable system of global climate governance which is

beneficial for all.