

Their functions used to fall under the one administration of the State Council. The new film and press administrations will now be governed by the Publicity Department of the CPC Central Committee headed by Huang. The television administration remains with the State Council.

The film administration, for example, is tasked with supervising film-making, releasing, screening, enforcing film content checks, hosting big film events, and overseeing international exchanges.

Huang, a member of the Political Bureau of the CPC Central Committee, said the restructuring showed the need to strengthen the Party's overall leadership in these areas and was good for advancing the ideological governing system and the sector's prosperity. Huang called on efforts to "enhance cultural confidence, be innovative, stick to the correct orientation, place the people at the center of the work and strive for new progress."¹⁴¹⁰

8.7.8 Environment-friendly technologies

8.7.8.1 History

July 2008

- The State Environmental Protection Administration was upgraded to Ministry of Environmental Protection, as an integral department of the State Council.

June 1998

- National Environmental Protection Agency was upgraded to State Environmental Protection Administration (Ministerial level), as an affiliated institution of the State Council in charge of environmental protection effort. The Environmental Protection Commission of the State Council was revoked.

July 1988

- The environmental protection responsibilities were severed from the Ministry of Urban and Rural Development and Environmental Protection to the newly founded National Environmental Protection Agency (a sub-ministerial level agency), which was defined as the competent department under the State Council for the integrated environmental management, an affiliated institution of the State Council, and the office of the Environmental Protection Commission of the State Council.

December 1984

- The Environmental Protection Bureau under the Ministry of Urban and Rural Development and Environmental Protection was reshuffled into National Environmental Protection Agency, which was still under the leadership of the Ministry and also the office of Environmental Protection Commission of the

¹⁴¹⁰ Excerpts from Xinhua News item dated April 16, 2018 titled "China unveils three state administrations on film, press, television", available online at URL: http://www.xinhuanet.com/english/2018-04/16/c_137115379.htm

State Council. Its main responsibilities were to plan, coordinate, supervise, and guide the national environmental protection effort.

May 1984

- The Environmental Protection Commission was established under the State Council and tasked to deliberate and finalize relevant guidelines and policies for environmental protection, propose requirements for planning, and lead, organize, and coordinate the national environmental protection effort. One of the Vice Premiers under the State Council held a concurrent position as the Chairman of the Commission, which operated through its office under the Ministry of Urban and Rural Development and Environmental Protection (Environmental Protection Bureau, acting on behalf of the Ministry).

May 1982

- The 23rd meeting of the Standing Committee of the fifth National People’s Congress decided to incorporate State Construction Commission, State Administration of Urban Construction, State Administration of Construction Projects, National Administration of Surveying and Mapping, and the Leading Team for Environmental Protection under the State Council to establish the Ministry of Urban and Rural Development and Environmental Protection, one of the internal departments of which was Environmental Protection Bureau.

October 1974

- The Leading Team for Environmental Protection was officially established under the State Council, and the main responsibilities were: be responsible for the development of guidelines, policies, and regulations; finalize national plans for environmental protection; organize and coordinate the environmental protection effort of local areas and State departments and urge for the inspection on such effort.¹⁴¹¹

8.7.8.2 MEE Departments

MEE Departments¹⁴¹²

General Office	Central Supervision Office of Ecological and Environmental Protection	Department of General Affairs
Department of Laws, Regulations, and Standards	Department of Institutional Administration and Human Resources Management	Department of Science, Technology, and Finance
Department of Nature and Ecology Conservation (Biodiversity Protection Office; National Bio-	Department of Water Ecology and Environment	Department of Marine Ecology and Environment

¹⁴¹¹ Ministry Of Ecology And Environment, the People's Republic Of China: History, available online at URL: http://english.mee.gov.cn/About_MEE/History/

¹⁴¹² Ministry Of Ecology And Environment, the People's Republic Of China: Departments, available online URL: http://english.mee.gov.cn/About_MEE/Internal_Departments/

safety Management Office)		
Department of Atmospheric Environment (Atmospheric Environment Administration of the Beijing-Tianjin-Hebei Region and Surrounding Areas)	Department of Climate Change	Department of Soil Ecology and Environment
Department of Solid Wastes and Chemicals	Department of Nuclear Facility Safety Regulation	Department of Nuclear Power Safety Regulation
Department of Radiation Source Safety Regulation	Department of Environmental Impact Assessment and Emission Management	Department of Ecological and Environmental Monitoring
Bureau of Ecological and Environmental Enforcement	Department of International Cooperation	Department of Communications and Education
The MEE Committee of the Communist Party of China	Office of the Retired Officials	

8.7.8.3 UN Climate Action Summit

In a report “UN Climate Action Summit: China’s Position and Action” dated September 17, 2019, China position on the subject has been mentioned:

China appreciates and supports UN Secretary-General Guterres's initiative to hold the UN Climate Action Summit.

China has always attached great importance to addressing climate change. Upholding a national strategy of attaching equal importance to mitigation and adaptation, China has regarded addressing climate change as a great opportunity to achieve high-quality economic development and promote ecological progress. China will continue, as always, to firmly implement the **Paris Agreement**, fully honour its commitments, promote the establishment of an equitable, rational, and win-win global climate governance mechanism, and work with others to build a community with a shared future for mankind.

China firmly upholds multilateralism and has always been an active participant in and defender of the multilateral efforts to address climate change. China takes the position that all parties should earnestly implement the principles and spirit of the **UNFCCC**, the **Kyoto Protocol** and the **Paris Agreement**, including the principles of equitable, common but differentiated responsibilities and respective capabilities, in the light of different national circumstances, and execute the institutional arrangement of nationally determined contributions. In particular, the developed countries should implement and strengthen their commitments to providing financial and **technological assistance to**

developing countries, opening markets and carrying out practical **technological cooperation**, thus creating the basis for mutual trust and important conditions for comprehensive and effective implementation of the Paris Agreement.

As a co-lead of the Nature-Based Solution, China is ready to work together with all parties to help bring about positive outcomes at this Summit, thus injecting robust political impetus into international cooperation on addressing climate change and the implementation of the Paris Agreement.

8.7.8.3.1 Nature-Based Solutions

Man and nature form a community of life. Human beings must respect nature, follow its ways, and protect it. As a co-lead of NBS, China actively pushes for all parties to systematically understand the relationship between human beings and nature, fully recognize the ecological value of earth on which human beings live, rely on natural forces to deal with the risks posed by climate change, and foster a low-emission and climate-resilient society.

China has actively promoted efforts to address climate change in the areas of biodiversity, forestry and grassland, agriculture, oceans and water resources. With regard to biodiversity, ecological red lines are identified to effectively protect biodiversity and mitigate the impact of climate change. In the context of forestry and grassland, we have made solid progress in the nation-wide land greening campaign, and have increased forest, grassland and wetland resources, and enhanced the ecosystem's functions; we have also comprehensively strengthened the conservation of resources, enhanced the prevention and control of disasters, and made concerted efforts to increase carbon sinks. In agriculture, the use of chemical fertilizers has achieved negative growth ahead of schedule, the comprehensive utilization rate of livestock and poultry waste and straws has increased significantly, and biomass energy has developed rapidly. With regard to oceans, we have organized monitoring and assessment on sea level rise, supported blue carbon researches and pilot projects, and carried out marine ecosystems restoration. In the field of water resources, measures for climate change adaptation include improving the flood control, drought relief and disaster mitigation system, optimizing water resources allocation, strengthening the building of a water-saving society, and comprehensively implementing the River & Lake Chief System.

China expects all parties to actively support the work in the field of the NBS, participate in the establishment of a **Group of Friends for NBS**, promote the incorporation of the NBS into the "**Global Biodiversity Framework 2020**", give full consideration to the potential of natural system in facilitating mitigation and adaptation while making policy decisions on climate change, and take practical actions in the related areas to deepen international and regional cooperation.

8.7.8.3.2 Social & Political Drivers

Advancing ecological progress is vital for the sustained development of the Chinese nation. China has made important contributions in the area of climate change by upholding the concept that lucid waters and lush mountains are invaluable assets, implementing the basic national policy of protecting the environment, adopting the

holistic approach of conserving the mountains, rivers, forests, farmlands, lakes and grasslands as well as the strictest systems for ecological and environmental protection.

China has proposed the **Climate Action Targets for 2020 and 2030**, implemented China's **National Plan on Climate Change (2014-2020)**, stepped up efforts to establish a legal and policy framework that promotes green production and consumption, fostered a sound economic structure that facilitates green, low-carbon, and circular development, established regulatory agencies to manage state-owned natural resource assets and monitor natural ecosystems, and established an environmental and climate governance system in which government takes the lead, enterprises assume main responsibility, and social organizations and the public also participate. China actively fulfills the commitments on emissions reduction and strengthens climate adaptation.

When formulating, implementing and assessing climate change policies, programs and projects, China takes the needs, aspirations and roles of women into full consideration, attaches great importance to increasing their voice and encourages their full and equal participation. China continues the campaign to prevent and control air pollution and make our skies blue again. China also carries out the mechanisms of impacts and adaptation of climate change on human health, strengthens the prevention and control of diseases that are closely related to climate change and enhances health emergency protection on climate change. Efforts have been made to relocate employees in the steel and coal industry. Since 2016, more than 1.2 million employees in this industry laid off due to overcapacity have been properly relocated. China is willing to work with all parties to strengthen policy support and social policy incentives, strengthen global action to address climate change, and play a positive role in promoting the comprehensive and effective implementation of the **United Nations Framework Convention on Climate Change** and the **Paris Agreement**.

8.7.8.3.3. Youth & Mobilization

Young people are the future of a country and should be active champions, participants and promoters of climate efforts.

China values, encourages and supports the important role of young people in ecological protection and climate action. We have been actively raising their awareness of ecological civilization and advocating a frugal, moderate, green and low-carbon lifestyle. We have carried out online and offline activities, such as **Buy No More Than You Need, Say No To Plastic Bags and Empty Dishes Action**. We have launched various promotion activities such as the "**Beautiful China, I am an Actor**" thematic activity, environmental protection education in school, youth environmental protection cultural festivals, environmental protection competitions, debates and photography contests, with more than 50 million young people participating in these activities in 2018. From 1999 to the end of 2018, by carrying out **Mother River Protection Operation**, we raised RMB 600 million to build over 5,700 green projects, covering more than 3,467 square kilometers and attracting more than 600 million young people. Through international cooperation, for example, over 98.32 million trees were planted across China and around 20,000 young people overseas participated in the events. China also attaches importance to helping youth environmental protection organizations with their capacity building. In 2018, we cultivated over 20,000 young leaders for youth environmental groups of all

levels and established youth environmental protection voluntary teams, tree planting youth teams and environmental protection promotion teams.

On the occasion of the Climate Action Summit and the Youth Summit, China expects young people and youth organizations around the world to share at the summit their best practices and latest achievements on youth engagement in climate action. We also call on governments to educate young people about environmental protection, listen to the suggestions of the youth, support young people in participating in climate action, and facilitate their employment and entrepreneurship in related areas.

8.7.8.3.4. Energy Transition

As the world's largest renewable energy producer and consumer, China pays high attention to the important effects of energy transition on tackling climate change and vigorously promotes energy transition. China promotes energy consumption revolution, energy supply revolution, **energy technology revolution**, energy system revolution, and all round energy security strategy in enhancing international cooperation, so as to make positive contributions to global climate change mitigation and adaptation.

China adheres to building a cleaner and lower carbon energy system, promoting renewable energy development, prioritizing energy conservation, implementing the dual cap policies (total energy consumption cap and energy intensity cap) during the **13th Five-Year Plan period (2016-2020)**, and **upgrading clean energy equipment manufacturing technologies**. In 2018, China's total installed power capacity of renewables exceeded 728 GW, including 352 GW of hydropower, 184 GW of wind power and 174 GW of solar PV. Clean energy accounted for 22.1% in the total energy consumption mix, or 7.6 percentage point higher than that of 2012. Coal accounted for about 59% in the total energy consumption mix, or 9.5 percentage point lower than that of 2012. The installed capacity of non-fossil power accounted for nearly 40% of the total installed capacity, and the power generation of non-fossil energy accounted for 30% of the total power generation. Energy intensity (energy consumption per unit of GDP) was cumulatively 23% lower than that of 2012. The power supply coal consumption of China's coal-fired power units with a capacity of or over 6,000 kW was 308 gce per kWh, or 17 gce lower than that of 2012. By 2018, China had phased out more than 800 million tons of coal production capacity. In recent years, China has closed down over 110 GW of small coal-fired power units with high pollution and low efficiency.

In the coming future, China will continue to enhance cooperation with other countries in the energy field to build a clean, low carbon, safe and efficient energy system together, to promote sustainable energy development worldwide and to safeguard global energy security.

8.7.8.3.5. Industrial Transformation

China attaches great importance to the positive role of the industrial sector in combating climate change. It has clearly identified the approaches, objectives and tasks for the industrial sector to tackle climate change and vigorously promotes green and low carbon transformation of the sector.

China has been active in strengthening industrial energy efficiency and reducing greenhouse gas emissions. **Official recommendation has been released on 728 industrial energy-saving technologies** and pieces of equipment together with efforts to promote their application for higher energy efficiency. A total of 715 industrial energy efficiency and green standards have been developed. Supervision on industrial energy efficiency is strengthened, and businesses are urged to implement mandatory energy-saving standards. Vigorous actions have been taken to develop low-carbon industries, including energy-saving and new-energy vehicle industry. By June 2019, the new energy fleet in China reached 3.44 million vehicles while photovoltaic, wind power and other new energy equipment became internationally comparable. Active efforts have also been made to enable a production pattern featuring intensive layout of factories, hazard-free raw materials, clean production, recyclable waste, low-carbon energy and green industries and to build a green manufacturing system with 800 green factories, 79 green industrial campuses, 40 model enterprises for green supply chain management, and 726 kinds of green designed products. From 2016 to 2018, energy consumption per unit of industrial added value by enterprises above designated scale nationwide dropped by over 13%, saving an equivalent of 400 million tons of standard coal while reducing 1 billion tons of CO₂ emission. China stands ready to work with all parties to accelerate green and low-carbon transformation, promote green manufacturing comprehensively, further innovate **green technologies** and enhance industrial energy efficiency and carbon reduction so that the industrial sector can be more empowered to address climate change.

8.7.8.3.6. Infrastructure, Cities and Local Action

Taking climate action, energy conservation and emission reduction as important components of building a beautiful China and beautiful cities, China makes great efforts to accelerate the building of climate adaptive cities, promote sponge city development, ecological restoration and urban renovation, increase urban greenways and public parks, enhance climate change mitigation in buildings and energy conservation and emission reduction in the urban development sector, and improve residential building energy-saving standards and energy-saving levels for buildings. By the end of 2018, a total of 538 cities made special plans for building a "**sponge city**", and more than 4,900 projects were completed in 30 pilot sponge cities, which played an important role in flood control and mitigation of damages caused extreme weather, and a total of 56,000 kilometers of greenways and 7,240,000 hectares of park green land were built in China. The living environment in urban areas has been greatly improved.

China actively strengthens local action to address climate change, and develops low carbon pilot projects in provinces and cities. According to the development stages, resource endowments and progress in ecological protection, China categorizes the target of carbon emission in each province, establishing related mechanism to ensure the realization of the goal. China incorporates low-carbon development into the system of poverty alleviation and formulates differential support policies and evaluation index systems to support low-carbon development in poor areas.

China formulates the environmental protection standards and norms of infrastructure construction. Taking green development as a key component of the **Belt and Road Initiative**, China strengthens the guarantee for ecological environment quality, improves

service and support for ecological and environmental protection of major "Belt and Road" infrastructure projects. China also promotes energy-saving and environmental protection standards and practices in industries like green transportation, green building and clean energy. Guided by the vision of green development, China looks forward to strengthening cooperation and sharing of experience with other countries in fields of local climate action, green infrastructure development, and climate adaptive cities development, and meet the challenge of climate change through concerted efforts.

8.7.8.3.7. Mitigation Strategy

China attaches great importance to addressing climate change and takes green and low-carbon development as an important part of the efforts to advance ecological progress. China makes significant contributions to global climate action.

China takes the targets of emission intensity reduction, forest coverage and stock volume as binding indicators, and has incorporated them into the five-year plan for national economic and social development and delegated the tasks for local implementation. In recent years, China's carbon emission intensity has continued to decline. By the end of 2018, its carbon emission intensity had decreased by 45.8% compared with the level in 2005, basically reversing the rapid growth of greenhouse gas emissions. The forest coverage rate reached 22.96% and the forest stock volume increased by 4.56 billion cubic meters over the level in 2005. From 2016 to 2018, China's energy consumption per unit of GDP decreased by 11.35%, saving about 540 million tons of standard coal equivalent. This laid a solid foundation for the **realization of the targets of the 13th Five-Year Plan on controlling greenhouse gas emissions** and the 2030 targets of our nationally determined contributions.

China has carried out national low carbon pilot projects in 6 provinces and 81 cities. We actively carry out pilot projects in low-carbon industrial parks, low-carbon cities (towns) and low-carbon communities. We also promote the implementation of demonstration projects in near-zero carbon emission areas and explore low-carbon development paths. At present, 73 pilot provinces and cities have proposed their peaking targets. The pilot provinces have accelerated the use of **low-carbon technologies** to upgrade traditional industries, popularized green low-carbon products, promoted local economic quality and efficiency, and enhanced the level of green development. China is willing to strengthen its communication with all other parties in the implementation of nationally determined contributions and the formulation of mid-to- long term climate strategy. We will also deepen practical cooperation in the aspects of standard system for greenhouse gas emissions control and capacity building, and jointly promote the green and low-carbon transition of the economic and social development .

8.7.8.3.8. Resilience & Adaptation

China attaches importance to both mitigation and adaptation. **The National Climate Change Adaptation Strategy** has been formulated as part of the efforts to actively adapt to climate change. Based on the people-oriented principle, China has strengthened **technological support**, integrated adaptation into economic and social development and comprehensively strengthened adaptation actions in climate-sensitive and

vulnerable areas and for relevant regions and groups, thus thoroughly improving public awareness of adaptation, and enhancing resilience and adaptability.

China has actively strengthened disaster and risk management, improved the monitoring, early warning and emergency system for major infrastructure-related disasters, made sound plans for construction and protection of urban lifeline systems, strengthened agricultural monitoring, early warning and disaster prevention and reduction measures, improved the adaptability of the planting industry, and provided farmers with more on adaptation **technologies**. China has also strengthened its water resources protection and soil erosion control, built a water-saving society and improved flood control and disaster relief systems. China has rationally planned offshore development activities and strengthened coastal ecological restoration, vegetation protection and marine disaster monitoring and early warning. China has formulated the **Action Plan for Forestry to Adapt to Climate Change (2016-2020)**, which aims to strengthen the sustainable management of forests, effectively control forest disasters, promote a virtuous cycle of grassland ecology, improve the network of nature reserves, and strengthen ecological protection and governance. China has formulated the **Action Plan for Urban Adaptation to Climate Change**, and carried out pilot projects in 28 cities. In 2018, as one of the sponsors, China set up the **Global Adaptation Committee** and supported the launch of **Global Adaptation Center's China Office** to actively promote international cooperation on climate change adaptation. China will keep on its actions in strengthening climate adaptation and expand the relative international cooperation. It will continue policy communications with all stakeholders in climate change adaptation in order to build a climate adaptive society together.

8.7.8.3.9. Climate Finance & Carbon Pricing

Climate finance is one of the mayor aspects of effective tackling of climate change. As the largest developing country, China is also entitled to funds support. China urges the developed countries to honour the commitment of US\$ 100 billion allocation each year from 2020 on to support the developing world in addressing climate change.

China focuses on its goal of **Intended Nationally Determined Contributions** to actively guide and promote the flow of more capital toward climate action. China is enthusiastically deepening its pragmatic cooperation with multilateral institutions including the **World Bank** and the **Asian Development Bank** and promoting the climate financing activities of institutions such as the **Asian Infrastructure Investment Bank**, **the Silk Road Fund** and **Chinese banks**, and helping the participating countries of the Belt and Road Initiative to gain a win-win outcome in terms of both addressing climate change and embracing economic growth.

China will implement the carbon emission trading system as one of the major policies for greenhouse gas emission control, promote low-carbon development, and carry out the exploration for pilot of trading quota carbon emission right. By June 2019, 7 pilot regions had seen a total trading quota of about 330 million tons of carbon dioxide equivalent or around RMB 7.1 billion Yuan. Major emitters in pilot regions show a high compliance rate as a whole and the pilot regions see a tendency of reduction both in total carbon emission and in carbon intensity.

China will continue to make contribution to global climate financing to the best of its ability and promote the fostering of a national carbon market. China will strengthen its exchanges and cooperation with various parties in terms of policies and rules of carbon market development, quota management, and capacity building. China is willing to work with various parties to complete the negotiations on market mechanisms and non-market mechanisms as mentioned in **Article VI of the Paris Agreement, at the Santiago UN Climate Change Conference.**¹⁴¹³

In another news item captioned **“China Focus: China’s pollution control meets 2018 targets”** published by Xinhua on January 20, 2019 china has claimed that China has met its annual target for pollution control in 2018, with more blue skies, cleaner waters and greener mountains. **“We have successfully delivered all the obligatory targets set for 2018 and stayed in line with the timetable outlined by the 13th Five-Year Plan,” Chinese Ecology and Environment Minister Li Ganjie** said during a work meeting that concluded on January 19, 2019.

Air quality has continued to improve with 338 major cities reporting good air quality on 79.3 percent of days, up 1.3 percentage points from the previous year, official data showed. The density of PM2.5, a key indicator of air pollution, dropped by over 10 percent in 2018 from the previous year in three heavily-polluted areas, including the Beijing-Tianjin-Hebei region. In terms of soil pollution control, Li said the country had reduced solid waste imports by 46.5 percent year on year, finished overhauls of all subpar garbage power plants and launch sweeping crackdown on the illegal transportation and dumping of hazardous waste in 2018.

Thorough action has been taken to clean up 1,009 "black and malodorous" water bodies in 36 major cities and 1,586 water sources, Li said, adding that "defense of lucid waters" would be a primary task for 2019. China has pledged to coordinate its efforts on environmental protection and economic development in 2019.

At the annual Central Economic Work Conference held in December, authorities called for building on the achievements of 2018, making more effort in 2019. One of the key challenges, analysts said, is finding ways to engage in pollution treatment without harming productivity.

Zhang Liqun, a researcher with the Development Research Center of the State Council, said the conference offered targeted prescriptions. The conference made it clear that local governments must avoid the simple and unscrupulous practices of the past when dealing with environmental problems.

"This will give better support to balancing environmental protection with economic development and realizing mutually-enhancing interaction," Zhang said.

In 2019, China will put the Yangtze River restoration project in full swing, clean up more "black and malodorous" water bodies, achieve environment improvement in the Bohai

¹⁴¹³ Excerpts from a MEE News Release titled “UN Climate Action Summit: China’s Position and Action” dated September 17, 2019, available online at URL:

http://english.mee.gov.cn/News_service/news_release/201909/t20190917_734051.shtml

Sea through comprehensive measures, and launch a water quality campaign in rural areas, Li said. The country will also further reduce imports of solid waste and push for better air quality with better regional coordination and heavy-polluter revamps, according to the minister.¹⁴¹⁴

At the National Working Conference on Ecological and Environmental Protection held in Beijing between Jan. 18 and 19, 2019, MEE Minister Li Ganjie mentions “We will advance the enactment and amendment of laws and regulations on the control of pollution by solid wastes and ambient noise. **We will develop major sciences and technologies in key areas including the cause and control of air pollution.** We will strengthen the ecological and environmental monitoring network and monitoring capacity building and crack down on data fraud. We will complete the second China Pollution Source Census, and speed up the development of big data system in the ecological and environmental sector. We will be the host country of the events on the celebration of the 2019 World Environment Day, and open more environmental facilities to the public. We will initiate the international alliance for green development of the Belt and Road initiative.¹⁴¹⁵

In another news item captioned “Airborne Nitrogen Dioxide Plummets Over China” published by **NASA Earth Observatory** on February 25, 2019 it has been mentioned that NASA and European Space Agency (ESA) pollution monitoring satellites have detected significant decreases in nitrogen dioxide (NO₂) over China. There is evidence that the change is at least partly related to the economic slowdown following the outbreak of corona virus.

At the end of 2019, medical professionals in Wuhan, China, were treating dozens of pneumonia cases that had an unknown source. Days later, researchers confirmed the illnesses were caused by a new corona virus (COVID-19). By January 23, 2020, Chinese authorities had shut down transportation going into and out of Wuhan, as well as local businesses, in order to reduce the spread of the disease. It was the first of several quarantines set up in the country and around the world.

The maps on this page show concentrations of nitrogen dioxide, a noxious gas emitted by motor vehicles, power plants, and industrial facilities. The maps above show NO₂ values across China from January 1-20, 2020 (before the quarantine) and February 10-25 (during the quarantine). The data were collected by the Tropospheric Monitoring Instrument (TROPOMI) on ESA’s Sentinel-5 satellite. A related sensor, the Ozone Monitoring Instrument (OMI) on NASA’s Aura satellite, has been making similar measurements.

According to NASA scientists, the reduction in NO₂ pollution was first apparent near Wuhan, but eventually spread across the country. Millions of people have been quarantined in one of the largest such actions in human history. As of February 28, 2020, the virus had been detected in at least 56 countries.

¹⁴¹⁴ News item captioned “China Focus: China’s pollution control meets 2018 targets” published by Xinhua on January 20, 2019, available online at URL:

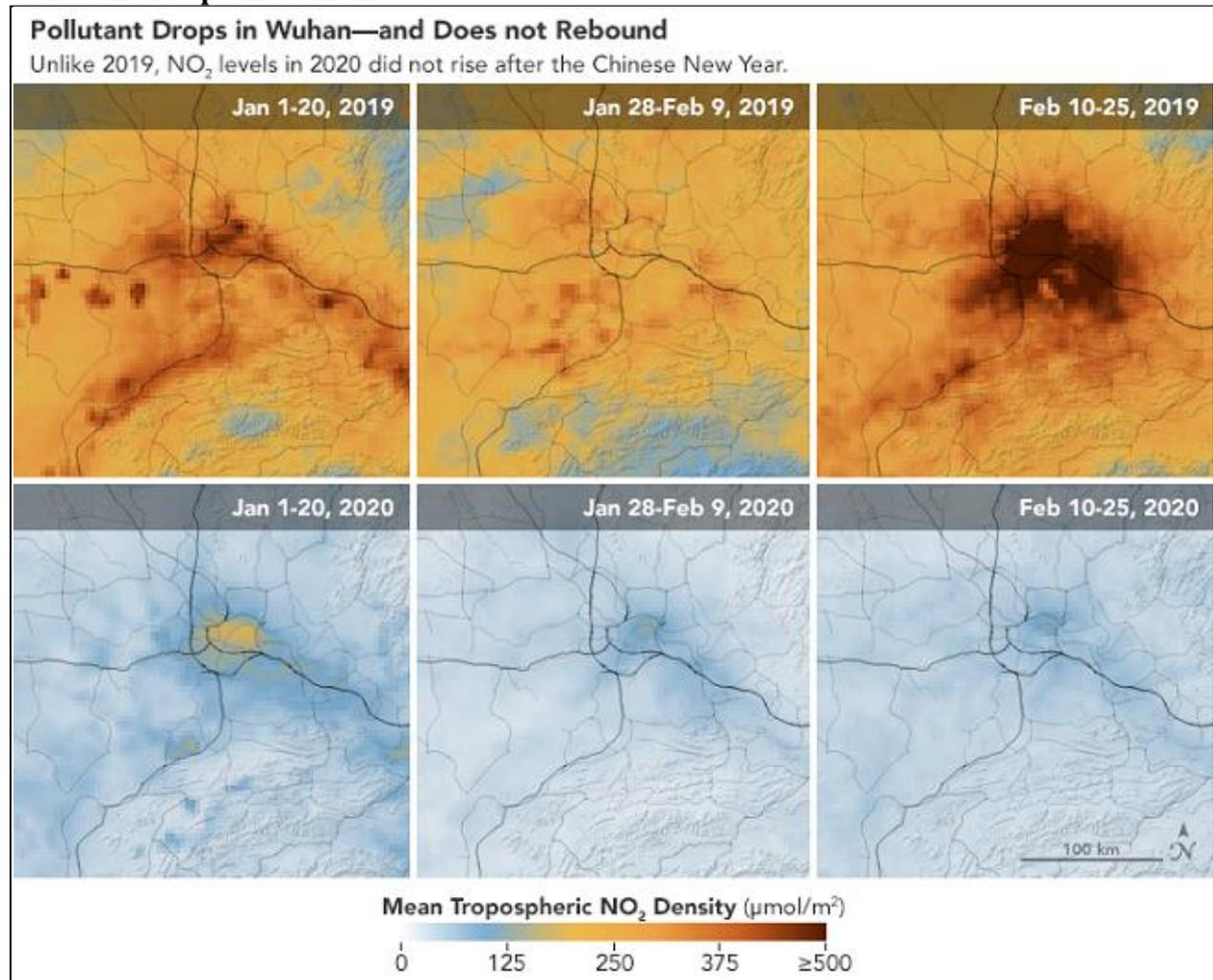
http://www.xinhuanet.com/english/2019-01/20/c_137759519.htm

¹⁴¹⁵ Excerpts of MEE Photo News item dated February 13, 2019 at the National Working Conference on Ecological and Environmental Protection, Beijing, available online at URL:

http://english.mee.gov.cn/News_service/Photo/201902/t20190214_692403.shtml

“This is the first time I have seen such a dramatic drop-off over such a wide area for a specific event,” said Fei Liu, an air quality researcher at NASA’s Goddard Space Flight Center. Liu recalls seeing a drop in NO₂ over several countries during the economic recession that began in 2008, but the decrease was gradual. Scientists also observed a significant **reduction around Beijing during the 2008 Olympics**, but the effect was mostly localized around that city, and pollution levels rose again once the Olympics ended.¹⁴¹⁶

Pollutant Drops in Wuhan



Source: NASA Earth Observatory

URL: <https://earthobservatory.nasa.gov/images/146362/airborne-nitrogen-dioxide-plummets-over-china>

China’s Policies and Actions for Addressing Climate Change (2018)

VI, Strengthening Basic Capacity Since 2017, the Chinese government has continuously improved the basic capabilities to address climate change by further the construction of the statistical and accounting system, accelerating the research, **development and**

¹⁴¹⁶ Excerpts from information by NASA: Earth Observatory titled “Airborne Nitrogen Dioxide Plummets Over China”, available online at URL: <https://earthobservatory.nasa.gov/images/146362/airborne-nitrogen-dioxide-plummets-over-china>

application of low-carbon technologies and proactively promoting talent and discipline construction

VII, Active Involvement in International Negotiation

(III) Basic Standpoints and Propositions of the Katowice Climate Change Conference: Given different national circumstances, The UN Climate Change Conference (COP 24) to be held in Katowice, Poland in December, 2018 should assure that follow-up arrangements embody the balance of all achievements and cover all elements including mitigation, adaptation, financing, **technology** and capacity building.¹⁴¹⁷

8.7.8.4 13th Five Year Plan

13th Five Year Plan (2016-2010): Comprehensive Environmental Governance; Ecosystems And The Environment

Chapter 44 “Step Up Comprehensive Environmental Governance” under Part X “Ecosystems And The Environment” of the 13th Five-Year Plan For Economic And Social Development of The People’s Republic Of China (2016–2020):

We will think and work more creatively when it comes to environmental governance, implement the strictest possible environmental protection system, strengthen the responsibility of polluters, and create a system of environmental co-governance involving the government, enterprises, and the general public, so as to bring about an overall improvement in the quality of the environment.

Section 1, Pollution Prevention and Control Action Plan

We will formulate a plan for ensuring air quality standards in cities are met, strictly enforce obligatory targets, see that cities at and above the prefectural level achieve a 25% reduction in the number of days of heavy air pollution, and channel greater effort into reducing fine particulate matter emissions in key regions. We will establish a monitoring system to ensure that environmental protection standards for vehicles, watercraft, and fuel oil are achieved. We will work to increase the proportion of natural gas users in cities. We will strengthen monitoring of windblown dust from unpaved roads and construction sites and prohibit open straw burning. We will comprehensively strengthen environmental governance efforts in key river basins and sea areas, ensure strict protection of healthy water bodies and sources of drinking water, and strengthen comprehensive governance of and efforts to improve bodies of water that are of a relatively poor quality. We will regulate water functional areas by zone type, working to ensure that over 80% of the major rivers and lakes designated as water functional areas meet water quality standards. We will carry out groundwater pollution surveys and put in place comprehensive prevention and treatment measures. We will prevent and treat soil contamination according to pollution type and grade, give high priority to protecting the quality of soil environments on agricultural lands, and strengthen monitoring and regulation over the soil environments on land designated for construction purposes.

¹⁴¹⁷ Excerpts from News Release captioned “China’s Policies and Actions for Addressing Climate Change (2018)”, published in November 2018, available online at URL: http://english.mee.gov.cn/News_service/news_release/201812/P020181203536441502157.pdf

Section 2, Emissions Standards Compliance and Aggregate Emissions Reduction

We will ensure that all industrial polluters meet emissions standards. We will improve emissions standards, strengthen supervisory monitoring of industrial pollution sources, publish a blacklist of enterprises that fail to meet emissions standards, and require such enterprises to make corrections within a stipulated time frame. All heavily polluting enterprises located within urban districts will be either relocated, upgraded, or, in accordance with the law, shut down. We will conduct the second national survey of pollution sources. We will reform the total emissions control system for major pollutants so that more pollutants are covered. We will control total emissions of volatile organic compounds in chief regions and industries to bring about a nationwide drop in total emissions of over 10%. We will promote the use of alternative clean energy in urban “villages” and urban- rural fringes, and replace small and medium coal-fired facilities. Aggregate emissions of total nitrogen will be controlled in all cities at and above prefectural level that are situated along the coastline or along rivers that flow into eutrophicated lakes. Chief industries will be transformed to achieve clean production.

Section 3, Environmental Risk Prevention and Control

We will ensure integrated environmental risk management. We will strengthen the prevention and treatment of pollution caused by hazardous waste and conducts an initiative to deal with hazardous waste. We will step up the prevention and treatment of heavy metal pollution in chief regions and chief industries such as the nonferrous metal industry. We will increase assessment capabilities regarding the environmental and health risks posed by toxic and hazardous chemical substances. We will improve nuclear safety, strengthen the prevention and control of radioactive pollution, and improve monitoring systems and capabilities with respect to nuclear and radiation safety.

Section 4, Environmental Infrastructure Development

We will accelerate the development of urban refuse treatment facilities, improve refuse collection and transportation systems, increase the waste incineration rate, and ensure proper treatment of landfill leach ate. We will accelerate the construction and upgrading of urban sewage treatment facilities and sewer networks, promote the recycling and safe disposal of sludge, and ensure that household wastewater and refuse treatment facilities cover all urban areas, operate reliably, and are in line with standards; and we will raise the percentage of sewage receiving centralized treatment to 95% in cities and 85% in county towns. We will establish a national unified real-time online environmental monitoring system and promote the development of big data for environmental protection.

Section 5, Reform of Fundamental Environmental Governance Systems

We will ensure that local governments fulfill their environmental responsibilities, make environmental protection inspection visits, and establish a responsibility system and performance assessment mechanisms for meeting environmental protection targets. We will put into effect a system that places the monitoring, supervision, and law enforcement activities of environmental bodies below the provincial level under the supervision of environmental protection bodies at the next level up, explore the establishment of trans-regional environmental protection bodies, and encourage coordinated pollution prevention and control efforts in entire river basins and between regions as well as coordinated urban- rural environmental governance. We will institute integrated control and unified monitoring of multiple pollutants, establish a business emissions permit

system that covers all fixed pollution sources, and put the regulation of the discharge of all pollutants under an emissions permit. We will establish sound systems for the compensated use and trading of emissions rights. We will ensure the strict and trans-regional joint enforcement of environmental protection legislation, and strengthen oversight over law enforcement and investigations into accountability. We will compile a record of the environmental credibility of enterprises and a blacklist of those that illegally emit pollutants, require greater self-monitoring by enterprises over their emissions of pollutants and strengthen the public disclosure of environmental information, improve the channels for public participation in pollution control efforts, and improve the environmental public-interest litigation system. We will conduct auditing over the performance of outgoing officials in fulfilling their environmental protection responsibilities.¹⁴¹⁸

Box : Environmental Governance and Protection Initiatives

1. Emissions standards compliance for all sources of industrial pollution

- Transform enterprises in the steel, cement, plate glass, papermaking, printing and dyeing, nitrogenous fertilizer, and sugar refining industries that cannot consistently meet emissions standards;
- Put a stop to all projects that cause heavy pollution in violation of state industrial policies;
- Ensure the upgrading of the sewage treatment facilities of industrial parks within a specified time frame;
- Work to basically eliminate coal-fired steam boilers with a capacity of ten tons or lower in all cities at or above the prefectural level across the country;
- Ensure that boilers with a capacity of 35 tons or greater are equipped with desulfurization, denitration, and dust purification **technologies**, that steel industry sintering machines are equipped with desulfurization **technology**, and that the cement industry adopts denitration **technology**;
- Put an end to production methods of PVC that use a high mercury catalyst for acetylene.

2. Atmospheric environmental governance

- Control the aggregate coal consumption of all regions, with the focus on the Beijing-Tianjin-Hebei region and adjacent areas, the Yangtze River delta, the Pearl River delta, and northeast China;
- Promote the use of natural gas in place of coal in major cities, increasing natural gas consumption by 45 billion cubic meters and eliminating 189,000 tons of coal fired boiler capacity;
- Work to reduce volatile organic compound emissions by petrochemical and chemical enterprises and refueling stations;
- Step up the removal of old or high-emissions vehicles from the roads;
- Implement national-VI emission standards and corresponding national fuel product standards;
- Ensure vapor recovery and treatment is carried out for oil tank trucks and oil depots.

¹⁴¹⁸ Excerpts from Chapter 44 “Step Up Comprehensive Environmental Governance” under Part X “Ecosystems And The Environment” of the 13th Five-Year Plan For Economic And Social Development of The People’s Republic Of China (2016–2020), available online at URL: https://en.ndrc.gov.cn/policyrelease_8233/201612/P020191101482242850325.pdf

3. Water environmental governance

- Ensure the strict protection of river sources and 378 rivers, lakes, and reservoirs with a water quality rating of Grade III or better;
- Implement improvement projects for sewage outfalls into major rivers, lakes, and reservoirs;
- Ensure water quality standards are met at major sources of drinking water;
- Comprehensively treat water pollution in lakes, such as Tai, Dongting, Dianchi, Chao, Poyang, Baiyangdian, Ulansuhai, Hulun, and Ebi, as well as endogenous pollution on the middle and lower reaches of the Yangtze and in the Pearl River delta;
- Promote comprehensive environmental governance efforts within the river basins of the Yangtze, Yellow, Peal, Songhua, Huai, Hai, and Liao rivers;
- Ensure that basically every body of water meets at least the Grade V water standards;
- Intensify efforts to improve black, malodorous bodies of water, and ensure that such bodies of water make up no more than 10% of the total in the urban districts of cities at or above the prefectural level;
- Carry out groundwater restoration trials in areas such as Beijing, Tianjin, Hebei, and Shanxi;
- Ensure the treatment of pollution in major estuaries and bays.

4. Soil environmental governance

- Conduct soil contamination surveys using a greater sampling density;
- Conduct soil pollution treatment trials on 100 plots of agricultural land and 100 plots of land for construction purposes;
- Establish six demonstration zones for the prevention and treatment of soil contamination;
- Ensure that soil pollution treatment efforts on lands formerly occupied by chemical enterprises which had been relocated for safety or environmental reasons are conducted smoothly;
- Conduct treatment and restoration efforts on 666,667 hectares of contaminated cultivated land as well as risk control on 2.67 million hectares of contaminated cultivated land;
- Comprehensively deal with heavy metal contaminated areas, with the focus on the Xiang River basin.

5. Prevention and control of hazardous waste pollution

- Conduct a nationwide survey of hazardous waste;
- Strengthen comprehensive control and treatment of waste containing chromium, lead, mercury, cadmium, arsenic, or other heavy metals, as well as the control and treatment of fly ash produced from the incineration of household waste, antibiotic residues, and persistent toxic waste;
- Build hazardous waste disposal facilities.

6. Strengthening nuclear and radiation safety capabilities

- Build research and development centers for nuclear and radiation safety monitoring ;
- Speed up efforts to decommission old nuclear facilities and dispose of old radioactive waste;

- Establish five locations for the disposal of low and medium-level radioactive waste and one underground laboratory for the disposal of high-level radioactive waste;
- Establish a real-time monitoring system for high-risk sources of radiation;
- Ensure the safe collection and storage of all old radioactive sources;
- Strengthen the training of nuclear accident emergency response and assistance teams.¹⁴¹⁹

8.7.9 Health

China's State Council Information Office on June 7 published a white paper titled "Fighting COVID-19: China in Action, exonerating itself by maintaining that it has witnessed first case of coronavirus on 27th December,2019. The reference to the white paper can be accessed in Chapter XI of the compendium.¹⁴²⁰

Healthcare is mentioned in Chapter I "China Has Found a Development Path Suited to Its Actual Conditions" in China's White paper, titled "China and the World in the New Era" published on September 27, 2019. It says that by 2018, in more than 30 Asian, African and American countries, China had launched over 200 development cooperation programs under the SSCAF on disaster relief, **healthcare**, protection of women and children, refugee relief, and environmental protection.¹⁴²¹

Health is also mentioned in Chapter II "China's Development Is an Opportunity for the World" in China's White paper, titled "China and the World in the New Era" published on September 27, 2019. It says that the urbanization rate of permanent residents reached 59.6 percent in 2018 and will increase steadily. The number of permanent urban residents will continue to increase. This will bring a wide range of needs in various areas, such as infrastructure, real estate, new retail, medical treatment and public health, education, culture and entertainment, and provide an important engine for economic development.¹⁴²²

The **Public health** saw a noticeable improvement during the period covered by the 12th Five-Year Plan (2011–2015).¹⁴²³

¹⁴¹⁹ Box 17: Environmental Governance and Protection Initiatives from "13th Five-Year Plan For Economic And Social Development of The People's Republic Of China (2016–2020)", Pg 130, available online at URL: https://en.ndrc.gov.cn/policyrelease_8233/201612/P020191101482242850325.pdf

¹⁴²⁰ http://english.www.gov.cn/news/topnews/202006/07/content_WS5edc559ac6d066592a449030.html

¹⁴²¹ China's State Council Information Office White paper, titled "China and the World in the New Era" published on September 27, 2019, Pg 11 available online at [URL:http://english.www.gov.cn/archive/whitepaper/201909/27/content_WS5d8d80f9c6d0bcf8c4c142ef.html](http://english.www.gov.cn/archive/whitepaper/201909/27/content_WS5d8d80f9c6d0bcf8c4c142ef.html)

¹⁴²² China's State Council Information Office White paper, titled "China and the World in the New Era" published on September 27, 2019, Pg 17, available online at

[URL:http://english.www.gov.cn/archive/whitepaper/201909/27/content_WS5d8d80f9c6d0bcf8c4c142ef.html](http://english.www.gov.cn/archive/whitepaper/201909/27/content_WS5d8d80f9c6d0bcf8c4c142ef.html)

¹⁴²³ THE 13TH FIVE-YEAR PLAN FOR ECONOMIC AND SOCIAL DEVELOPMENT OF THE PEOPLE'S REPUBLIC OF CHINA (2016–2020) Translated by Compilation and Translation Bureau, Central Committee of the Communist Party of China Beijing, China, Central Compilation & Translation Press, Pg 07, available online at URL: https://en.ndrc.gov.cn/policyrelease_8233/201612/P020191101482242850325.pdf