

**China's Policies and Actions for
Addressing Climate Change
(2013)**

**The National Development and Reform Commission
The People's Republic of China**

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Foreword

China is the world's largest developing country with a large population. It has an imbalanced regional development and is still in the process of industrialization and urbanization. In 2012, China's per capita gross domestic product (GDP) exceeded US\$6,000, ranking 87th in the world. The current challenges facing China include the task of developing its economy, eradicating poverty and improving the people's livelihoods, as well as actively tackling climate change.

China's climate is complex and its ecological environment is fragile, which makes it very vulnerable to the adverse impacts of climate change. Since 2012, China has suffered from frequent extreme weather conditions. Many areas in the south have experienced extremely high temperatures, and there have been increased urban, regional and mountain floods, landslides and mudslides. Many typhoons have hit land at the same time, affecting a broad area. Frequent storm surges have caused great damage. For the past four consecutive years there have been moderate to severe droughts in central and northwestern Yunnan Province, taking a heavy toll on agriculture and people's lives.

The 18th Communist Party of China (CPC) National Congress, held in November 2012, set forth that in the face of increasing constraints on resources, severe environmental pollution and a deteriorating ecosystem, it is essential to raise our ecological awareness of the need to respect, follow and protect nature. We must prioritize ecological development and incorporate it into the “five in one” arrangement for socialism with Chinese characteristics, which includes economic, political, cultural, and social development, with a focus on promoting green, cyclical and low-carbon development. These actions will increase the strategic position of combating climate change in China’s overall economic and social development.

Since 2012, in order to fulfill the country’s objectives and tasks in addressing climate change during the 12th Five-Year Plan period, the Chinese government has been accelerating the development of major strategic research and planning and strengthening top-level design, and has taken a series of actions to address climate change, with positive results. China continues to play a positive and constructive role in international climate change negotiations and has pushed for positive outcomes and international dialogues and cooperation at the Doha Climate Change Conference, thereby making a significant contribution to addressing global climate change.

This annual report has been issued to enable all parties to fully understand China's actions and policies on climate change, and to set out positive results achieved since 2012.

I. Status in Addressing Climate Change

As international consensus on addressing climate change continues to deepen and China's strength increases, China is faced with a new situation regarding the climate change issue.

From an international perspective, the international community's scientific understanding of climate change has deepened. The Fifth Assessment Report of the United Nations Intergovernmental Panel on Climate Change (IPCC) has further strengthened the scientific conclusion that human activity accounts for climate change. The global impact of climate change has become increasingly prominent and posed the most severe challenge to the world. As the global awareness of climate change is gradually increasing, it has become the common aspiration of all nations to tackle climate change. International climate change negotiations have entered a new stage. At the end of 2012, a package deal was reached at the Doha Climate Change Conference on important issues including the second commitment period of the Kyoto Protocol and a long-term cooperative action under the United Nations Framework

Convention on Climate Change. This accomplished the Bali Road Map negotiations and pushed forward the Durban Platform negotiations. Countries are making positive efforts to reach a new global agreement in 2015.

From a domestic perspective, governments at all levels have emphasized climate change, made positive progress, and increased their abilities to mitigate the effects of and adapt to climate change. The development of mechanisms, laws and standard systems addressing climate change has been gradually improved. The people's awareness of low-carbon development has increased. In 2012, CO₂ emissions per unit of GDP fell 5.02 percent compared to 2011. By the end of 2012, the output of China's energy saving and environmental protection industry exceeded 2.7 trillion yuan. China's current capacity in hydropower, nuclear, solar, and wind power, and plantation areas all rank first in the world, which has made a positive contribution to addressing global climate change. China is still in the process of industrialization and urbanization. Its economy is growing rapidly. China's energy consumption and CO₂ emissions are large and will continue to grow. Great efforts are needed to control greenhouse gas emissions.

During the coming period, which is critical for China in building a moderately prosperous society in all respects, China will put more

emphasis on quality, and performance of the economic growth, promote ecological progress, and make greater efforts to control greenhouse gas emissions, and make positive contributions to the global climate change issue.

II. Improving Top-level Planning, Systems and Mechanisms

Since 2012, China has strengthened major strategic studies and top-level planning on addressing climate change, and further improved its management systems and working mechanisms in the field. The strategic position of addressing climate change has been remarkably raised in both national economic and social development.

(I) Improving Management Systems and Working Mechanisms

Improving governing bodies. In July 2013, the State Council made an adjustment to the composition and personnel of the National Leading Group for Addressing Climate Change, with Premier Li Keqiang acting as group leader and several functional departments being added. China has established a basic management system and working mechanism for addressing climate change, in which the National Leading Group for

Addressing Climate Change takes a leadership role; the National Development and Reform Commission is responsible for centralized administration, and tasks are assigned between relevant departments and local governments with a wide public participation as well. All the provinces (including the autonomous regions and municipalities directly under the central government) have established their respective leading groups for addressing climate change with the province governor serving as group leader, have set up a mechanism for inter-departmental coordination and have designated the functional bodies for addressing climate change. A number of cities have established offices for addressing climate change or low-carbon offices.

Building a target responsibility system for carbon intensity reduction. China has carried out a decomposition of CO₂ emissions per capita GDP reduction target during the 12th Five-Year Plan Period (2011-2015), assigned the decomposed targets to all provinces (including the autonomous regions and municipalities directly under the central government) and set up a target responsibility assessment system. In 2013, the National Development and Reform Commission, together with the relevant departments, formulated the assessment measures and made a tentative assessment of the completion of the greenhouse gas emission control target, the implementation of tasks and measures

and the basic work and capacity building undertaken at the provincial level in 2012.

(II) Strengthening Strategic Studies and Plan Formulation

Carrying out major strategic studies for addressing climate change. The National Development and Reform Commission together with the Ministry of Finance has carried out a macro strategic study of low-carbon development in China, which systematically analyzed and studied the overall target, phased tasks, implementation methods and safeguarding measures of low-carbon development by 2020, 2030 and 2050. The study has laid the foundation for China's low-carbon development road map and has already obtained initial achievements. Meanwhile, the National Development and Reform Commission has developed a national strategy for climate change adaptation. The strategy, based on the assessment of the impact of climate change on China's economic and social development, has laid out clear guidelines and principles for climate change adaptation, as well as proposed adaptive goals, major tasks, regional patterns and safeguarding measures. Provinces, including Zhejiang, Henan and Liaoning, have carried out their own regional strategic studies for addressing climate change.

Strengthening plan formulation for addressing climate change.

The National Development and Reform Commission has organized

the compilation of the National Plan for Addressing Climate Change (2013-2020). After an overall analysis of the trends and impacts of climate change in China, as well as the current situations and challenges in addressing climate change, the National Development and Reform Commission proposed the main target, major tasks and safeguarding measures for addressing climate change by 2020. Additionally, it has outlined the general framework for addressing climate change in China. All provinces (including the autonomous regions and municipalities directly under the central government) have taken active steps in carrying out the formulation of mid- and long-term plans for addressing climate change at the provincial level. So far, provinces, such as Jiangxi and Tianjin Municipality, have issued regional plans for addressing climate change. Sichuan, Yunnan, Guangxi Autonomous Region, Anhui, Chongqing Municipality, Gansu, Ningxia Autonomous Region, Xinjiang Autonomous Region, Qinghai and Liaoning have already completed the formulation of their plans, which are expected to be officially issued this year.

(III) Promoting Legislation on Climate Change

The National Development and Reform Commission, the Environment Protection and Resources Conservation Committee of the National People's Congress (NPC), the Law Committee of the

NPC, the Legislative Affairs Office of the State Council, together with relevant departments, have set up a leading group for drafting laws on addressing climate change in a bid to quicken the law drafting process and have established a basic legislative framework. Shanxi and Qinghai provinces have issued their respective laws, namely the Measures on Addressing Climate Change in Shanxi Province and the Measures on Addressing Climate Change in Qinghai Province. Legislation in Sichuan and Jiangsu provinces are currently on a steady track. In October 2012, the Shenzhen Municipal People's Congress passed the Provisions of Carbon Emissions Management of the Shenzhen Special Economic Zone to strengthen the management of carbon emissions trading in Shenzhen.

(IV) Improving Relevant Policy Systems

In 2012, the General Office of the State Council published the Work Division Scheme for the Work Plan for Controlling Greenhouse Gas Emissions during the 12th Five-Year Plan Period, defining an overall outline for the plan's implementation. The central government has issued a series of policy papers on addressing climate change, as part of efforts to improve China's policy system in this regard, including the Action Plan for Addressing Climate Change in Industry (2012-2020), the National

Plan for the Development of Science and Technology on Climate Change during the 12th Five-Year Plan Period, the Interim Measures on Low-carbon Products Certification Management, the Plans for Energy Development during the 12th Five-Year Plan Period, the Plans for the Development of Energy-Efficient and Environmental-Protection Industries during the 12th Five-Year Plan Period, the Suggestions on Speeding up the Development of Energy-Efficient and Environmental-Protection Industries, the Industrial Energy Efficiency during the 12th Five-Year Plan Period, the 2013 Implementation Plans for Industrial Energy Efficiency and Green Development, the Action Plan for Green Architecture, as well as the National Eco-system Protection during the 12th Five-Year Plan Period.

III. Mitigating Climate Change

The Chinese government has reached its goal of reducing the energy consumption and CO₂ emissions per unit of GDP and has achieved positive results since 2012 by controlling greenhouse gas emissions by adjusting the industrial structure, improving the energy structure, making energy use more efficient and increasing carbon sinks.

(I) Adjusting the Industrial Structure

Transforming and upgrading traditional industries. The National Development and Reform Commission (NDRC), the Ministry of Environment Protection and the Ministry of Land and Resources have raised the entry threshold for industries by enhancing the evaluation and examination for energy saving, and improving the assessment of environmental impact and the pre-examination of land resources for construction, to strictly control the launch of the industries with high energy consumption, high emissions or excess capacity and exports of the products from high energy consumption or high emission industries. In February 2013, NDRC cooperated with relevant administrations to amend the 2011 edition of the Guideline Catalogue for Industrial Restructuring, highlighting the strategic principle of energy saving and emission reduction by improving and upgrading the industrial structure. In March 2013, the National Development and Reform Commission issued the Restructuring Plan on the Old National Industrial Bases (2013-2022), in which it pointed out that China needs to restructure and upgrade its traditionally-advantageous industries, enhance its competitiveness and improve its industrial structures by adopting new technologies. In the 12th Five-Year Plan period, NDRC initiated the National Low Carbon Tech Innovation and Model Industries Projects, among which 34 model projects have been

launched in the coal, electric power, construction and building materials industries in 2012.

Supporting the development of strategic and newly emerging industries. In July 2012, the State Council issued the Development Plan for National Strategic Emerging Industries during the 12th Five-Year Plan. It charts the road map for seven strategic emerging industries – energy conservation and environmental protection, new-generation information technology, biology, high-end equipment manufacturing, new energy, new materials and new-energy vehicles. It has mapped out a sequence of specific plans for the seven strategic and newly emerging industries and over 20 areas of science and technology, such as modern biological manufacturing. It has also issued several policies and measures, such as the Catalogue of Key Products and Services in Strategic Emerging Industries, the 2012 Strategic Emerging Industries Categories, Several Opinions on the Work of Enhancing the Intellectual Property Rights of the Strategic Emerging Industries. 26 provinces and cities, such as Beijing and Shanghai, have issued plans or guidelines on the development of the strategic emerging industries. So far, 138 venture capital funds have been set up, managing 38 billion yuan. Among these funds, 38, with a total of 11 billion yuan, are designed to stimulate the development of the energy-saving, environmental protection and new energy sectors.

Vigorously developing the service industry. China has continuously implemented the State Council Opinions on Accelerating the Development of the Service Industry, the Opinions of the State Council General Office on Implementing the Policy Measures for Accelerating the Development of the Service Industry and other relevant documents. In December 2012, the State Council issued the 12th Five-Year Plan on the Development of the Service Industry, stipulating that the 12th Five-Year Plan marks an important period in stimulating the development of the service industry. China needs to strive to achieve the goals, which include increasing the ratio of the tertiary industry, raising the quality of the industry, pushing forward the reform and opening up of the industry and increasing the industry's capability to create jobs. The pattern of the development of the tertiary sector will eventually take shape as the industry has improved structure, heightened standards, adopted open and win-win cooperation and complementary models.

In May 2012, NDRC drew up the Guidelines for Speeding up and Cultivating International Cooperation and Improved Competitiveness in cooperation with relevant administrations, putting forward the mission of developing service industry trade, establishing a service trade system and raising the quality of international services trade. The ratio of the tertiary industry in 2012 increased by 1.5 percentage points compared with 2010.

Speeding up the elimination of backward production capacity.

The State Council issued the Instructive Opinions on Solving the Problem of Overcapacity in October 2013, which proposed the general principle of respecting the law, tailoring policies to industries, multiple-measure approach and addressing both symptom and root cause, and also put forward the opinions on how to implement policies according to the characteristics of industries of steel, cement, electrolytic aluminum, glass and shipbuilding and set eight main tasks to solve the current overcapacity issue. The State Council further implemented the Notice on Issuing the Evaluation Measures on the Work of Eliminating Backward Production Capacity, improved the phasing-out system of the backward production capacity, encouraged local governments to set strict standards on energy consumption and emission standards, and sped up the process of eliminating the backward production capacity. In June 2012, the Ministry of Industry and Information Technology set a goal of eliminating 19 industries with backward production capacity and subsequently announced a name list of the enterprises concerned. It required local governments to break down the tasks and assign them to cities, towns and enterprises. After the evaluation in 2012, China eliminated obsolete production capacity in the following industries: iron smelting, 10.78 million tons; steel production, 9.37 million tons; coke, 24.93 million tons; cement (clinker and mill), 258.29 million tons; plate glass, 59.56 million

cases; paper, 10.57 million tons; printing and dyeing, 3.26 billion meters; lead battery, 29.71 million kvah.

(II) Optimizing Energy Structure

Promoting the clean utilization of fossil fuel. In October 2012, NDRC issued the Natural Gas Development Plan During the 12th Five-Year Plan Period, setting out the supply capacity of natural gas will reach 176 billion cubic meters in 2015, among which conventional natural gas will reach 138.5 billion cubic meters, synthetic natural gas 15-18 billion cubic meters, and mining and production of coal bed gas about 16 billion cubic meters. About 18 percent of residents from cities and towns will use natural gas. In 2012, NDRC and the National Energy Administration announced the Development Plan for Shale Gas (2011-2015); The Ministry of Finance and the National Energy Administration issued the Notice on Issuing the Subsidy Policies of Exploring and Utilizing Shale Gas, and arranged special funds to support shale gas projects. In September 2013, the State Council issued the Airborne Pollution Prevention and Control Action Plan, which stipulates the goals and requirements for controlling the consumption cap of coke and increasing the utilization of clean energy. The plan also requires increasing control over fossil fuel consumption and advancing the development of clean energy. By the end of 2012, the rate of

thermal power units above 300,000 KWH was 75.6 percent, a year-on-year growth of 1.2 percent; a total of 54 supercritical coal-fired units were in operation, the highest figure in the world; the demonstration power station Tianjin Huaneng IGCC, designed, constructed and operated by China, was put into operation in December 2012. The power station marked a major breakthrough in China's clean coal generator technology.

Developing non-fossil fuel. In July 2012, the State Council issued *Several Opinions on the Sound Development of the Photovoltaic Industry*, articulating the policies and measures on developing the market for the adoption of photovoltaics, speeding up the adjustment of the industrial structure, regulating industrial development and improving the management and service of grid connections. The National Energy Administration issued the *Development Plan for Solar Energy Generation during the 12th Five-Year Plan Period*, the *Development Plan for Biomass Energy during the 12th Five-Year Period*, the *Guidelines on Promoting the Exploration and Use of Geothermal Energy*, stipulating the guidelines, principles, goals, planning and key parts of the development of solar, biomass and geothermal energies and mapping out measures and institutions to guarantee and implement the development. China will continue to increase investments on renewable energy. It invested 127.7 billion yuan in hydropower

stations, 77.8 billion yuan in nuclear power plants and 61.5 billion yuan in wind power in 2012. To encourage the purchase and grid integration of renewable energy power, the Ministry of Finance, NDRC and the National Energy Administration issued the Interim Measures on the Management of the Additional Subsidy Funds for Prices of Electricity from Renewable Energies, in order to subsidize renewable energies. In August 2013, NDRC issued the Interim Measures on the Management for Distributed Electricity Generation, setting out different supporting policies for distributed generation of wind, solar, biomass, ocean and geothermal energies. By the end of 2012, power generation capacity had reached 1.147 billion kw, up by 7.9 percent. Within this, the capacity of hydropower, which ranked first globally, reached 249 million kw, registering a year-on-year growth of 7.1 percent; nuclear power plants, 12.57 million kw, were equal to last year and the largest in the world; on-grid wind power capacity, which was the largest in the world, amounted to 61.42 million kw, increasing 32.9 percent year on year; on-grid solar power reached 3.41 million kw, growing 60.6 percent from a year earlier. The generation sets of non-fossil fuel, including, hydro, nuclear, wind and solar energies, took up 28.5 percent of the whole, 4.2 percentage points higher than the 2005 figure. The electricity generated from non-fossil fuel accounted for 21.4 percent of the total of on-grid electricity.

After efforts from all over the country, by the end of 2012, the one-time energy consumption of standard coal equivalent was 3.62 billion tons, among which, the coal accounted for 67.1 percent, dropping 1.3 percentage points compared with 2011; oil and natural gas was 18.9 percent and 5.5 percent, up 0.3 percentage points and 0.5 percentage points from the previous year; and non-fossil fuel made 9.1 percent, up 1.1 percentage points compared with 2011.

(III) Conserving Energy and Improving Energy Efficiency

Enhancing the evaluation of energy saving accountabilities. The State Council has issued the plans on energy saving, emissions reduction, and the development of energy-saving and environmental-protection industries, further stipulating the missions and goals for local governments, and specifying the policies and measures. In line with the plans, China releases quarterly reports on the completion of energy conservation targets in each region. China has improved evaluation system, adjust evaluation content and created a comprehensive process for evaluation. In 2013, NDRC cooperated with relevant ministries and administrations to evaluate the energy saving accountabilities of the provincial-level governments, and the results will be an important reference to the evaluation system of local governments and

officials. China also awarded 530 model units and 467 people in energy saving during the 11th Five-Year Plan Period.

Implementing key energy conservative projects. Since 2012, China has invested 4.896 billion yuan within the central government's budget and 2.61 billion yuan worth of the central fiscal bonus in supporting 2,411 projects regarding high-efficiency, energy-saving technologies, model products and industries, contracted energy management, developing energy-saving monitoring institutions, energy-saving buildings and green lighting. Among the projects, around 1,215 monitoring institutions received 1.066 billion yuan from the budget of the central government, and 17 restructuring projects were financed with 130 million yuan from the central government's fiscal funds. Support for the 495 contracted energy management projects was enhanced with 302 million yuan coming from the central fiscal bonus. Energy saving projects have saved energy equivalent to more than 19.79 million tons of standard coal.

Improving energy efficiency standard and labeling scheme. NDRC and the Standardization Administration collaborated to implement the One Hundred Energy Efficiency Standard Promotion Projects, issuing over 60 energy saving standards since 2012, including limiting unit product energy consumption for high

consumption industries, and energy capacity and efficiency of terminal use products, and fundamental standards for energy saving. The Ministry of Housing and Urban Rural Development approved and issued 10 industrial standards, including the Standards of the labels on the Energy Capacity and Efficiency of Buildings and Regulation on Energy Saving Technology in Heating Systems in Towns. The Ministry of Industry and Information Technology and other ministries issued over 60 standards concerning new energy vehicles and the Ministry of Transport announced 21 batches of qualifying vehicles in line with limits set on fuel consumption in operational vehicles by the end of 2012, in a bid to improve energy saving projects and the standardized systems of new energy vehicles. By the end of May 2013, the energy efficiency labeling scheme has covered 28 kinds of terminal use products, after the implementation of the project.

Expanding energy conservative technologies and products.

NDRC issued the 5th batch of the Catalogue on the Promotion of National Key Energy Saving Technologies, listing 49 technologies from 12 industries. The five batches of the catalogue have recommended 186 key energy saving low carbon technologies to the public. The Ministry of Industry and Information Technology, the Ministry of Science and Technology and the Ministry of Finance collaborated to issue the Notice of the Selection,

Evaluation and Promotion on Advanced and Appropriate Technologies to Enhance Industrial Energy Saving and Emission Reduction and selected the first batch of 600 technologies from 11 key industries, including steel, chemicals and building materials. They jointly issued the Recommended Catalogue (3rd Batch) of Energy-Saving Mechanical and Electrical Equipment (Products), and the Catalogue (2nd Batch) of Obsolete Mechanical and Electrical Equipment (Products) Eliminated due to High Energy Consumption, and completed the construction of the platform of the industrial information concerning energy conservation and emission reduction. The ministries jointly issued the Implementation Plan on the Special Action of Industrial Energy Conservation and Green Development, the Notice on the Plan to Raise the Energy Efficiency of Electrical Machines (2013-2015), the Opinions on the Energy Conservation and Emission Reduction of Internal Combustion Engines, which pushed for restructuring and energy conservation of electrical machines in key industries, improved the emission-reducing technologies of internal combustion engines and the promotion of new products. The Ministry of Finance and NDRC have promoted the government procurement of the energy-saving products by issuing two batches of procurement lists. China will continue to expand the benefits of energy saving projects to its citizens. The government has set aside more than 30 billion yuan of fiscal grant for the projects, saving energy equal to 12 million tons of standard

coal. The projects distributed over 90 million energy-saving electric home appliances, over 3.5 million energy-saving vehicles, over 14 million kw of energy-efficient electrical machines and 160 million energy-saving green lighting products.

Promoting energy conservation in construction industry. The General Office of the State Council circulated the Action Plan for Green Buildings, which was jointly drafted by NDRC and the Ministry of Housing and Urban-Rural Development. The Ministry also issued the Special Blueprint of Conserving Energy in the Construction Sector during the 12th Five-Year Plan Period. By the end of 2012, the country had completed heat metering and energy efficiency renovations on 590 million square meters of existing residential buildings in northern China, saving energy equivalent to 4 million tons of standard coal and reducing about 10 million tons of CO₂ emissions. All new buildings in cities and towns, or a total of 6.9 billion square meters of floor space, have reached the new energy saving standard, saving energy equivalent to 65 million tons of standard coal, or 150 million tons of CO₂ emissions.

Driving energy conservation in transportation industry. The Ministry of Transport has continued to improve energy saving, emission reduction as well as climate change in key areas of the transportation industry. It gave a boost to supporting policies, and

continued to undertake the special action on low-carbon transport for 1,000 companies dedicated to vehicles, ships, roads and ports. The ministry issued the Guidelines for Pedestrian and Bicycle Transport, in order to encourage local governments to promote the construction of city pedestrian and bicycle transport system by showcasing model pedestrian and bicycle transport systems. The Ministry of Science and Technology has rolled out a pilot green car project, billed as “10 cities, 1000 green cars,” in 25 cities across the nation. It is estimated that the energy saving capacity in transport industry is equivalent to 4.2 million tons of standard coal or 9.17 million tons of CO₂ emissions.

(IV) Increasing Forest Carbon Sinks

The State Council approved the second stage of the plan to curb the source of sandstorms in Beijing and Tianjin. The plan has been expanded to six provinces (autonomous regions, municipalities) and 138 towns. The State Forestry Administration issued the Plan on the Division of Work on Enhancing the Forest’s Role in Tackling Climate Change to Implement the Durban Climate Change Conference Agreement, began to draft the fifth stage of the plan on the shelterbelt construction in northeast, northwest and northern China, announced the third stage plan on the shelterbelt construction along the Yangtze River, the Pearl River, as well as the

greenery work on plains and Taihang Mountain. China will continue to improve forest management. Forestry subsidies from central fiscal revenue have been expanded from pilot regions to the whole country. China initiated a mid- and long-term plan to manage national forests, decided to build 15 model forests management bases, and issued measures on how to examine and evaluate the cultivation of forests as well as the regulations for their management. It launched a pilot program for sustainable management in 200 towns (forestry farms), taking lumbering as the center of the management. It also issued the Notice on Further Protection and Management of Forest Resources to proactively protect forest resources. The construction of the national monitoring system on forest sinks has made steady progress, as the program expanded from 17 pilot provinces (autonomous regions and municipalities) to the whole country from 2012 to 2013, and a national data base and parameter model base for forestry sink calculation has been built at the initial stage. From 2012 to the first half of 2013, a total area of 10.25 million hectares was greened in afforestation drive, and 4.96 billion trees were planted in volunteer tree-planting drive and 10.68 million hectares of forests were cultivated, further strengthening forest sink capabilities.

(V) Controlling Emissions in Other Areas

Controlling greenhouse emission from agriculture. In 2012, the central government allocated 700 million yuan in special fund to support 2,463 fertilizer projects. The Ministry of Agriculture initiated and carried out a project categorizing formulas for fertilizers for different types of soil in thousands of villages. The central government earmarked 30 million yuan for special agrarian project funds and 300 million yuan for protective agrarian projects, promoting protective agrarian technologies in 204 towns (cities). The area of protective agrarian land increased to 1.64 million hectares. The central government invested 3 billion yuan to continue standardizing farming areas for pigs and cows. It also put emphasis on the renovation of livestock and poultry farms. The projects will set up several waste treatment facilities, including manure pits and sewage treatment sites. Biological resources and new energies, such as manure, solar and wind will be used for biomass generation, biomass energy projects, methane projects and the replacement of fossil fuels with solid bio-fuels and biomass in heating.

Tightening control over CO₂ greenhouse gas. The State Council issued the 12th Five-Year Construction Plan on the Facilities for the Treatment and Reuse of Sewage and the 12th Five-Year

Construction Plan on the Treatment of Domestic Garbage in Cities and Towns, actively controlling the methane emissions during garbage treatment. By the end of 2012, the garbage treatment rate had reached 76 percent, signaling that the majority of dumping grounds had collected, tunneled and treated emissions when burying garbage underground. China planned under the guideline of the Montreal Protocol to speed up the elimination of HCFCs. By June 2012, it had approved six plans for consumer industries and one plan for contracted capacity amid the first phase of the elimination of HCFCs. Emissions of HCFCs are expected to reach zero in 2013, saving energy equivalent to 200 million tons of CO₂. China has launched research projects on current controlling technologies over non-CO₂ greenhouse gas emissions from coal and charcoal manufacturing, garbage treatment, chemical manufacturing, refrigeration, electric power, electronics, metallurgy and foundries, both across the country and abroad, and has proposed technologies and policies to control non-CO₂ greenhouse gas emissions.

IV. Adapting to Climate Change

Since 2012, the Chinese government has taken positive action in enhancing its capability across major sectors to adapt to climate

change and respond to extreme weather and climate-related events. This has reduced the negative impact of climate change on both economic and social development, production and people's welfare.

(I) Disaster Prevention and Mitigation

The Ministry of Civil Affairs formulated or revised policies like the Regulations on Disaster Relief and Emergency Work of the Ministry of Civil Affairs, Guidance on Strengthening Natural Disaster Relief Assessment of the Ministry of Civil Affairs and Interim Regulations on the Management of Central Relief Supplies Storages. This has further improved the institutional mechanism of disaster relief work. The ministry also promoted the implementation of the National Disaster Prevention and Mitigation Plan (2011-2015); and started construction projects of comprehensive disaster reduction demonstration communities and shelters. Since 2012, 1,273 national comprehensive disaster reduction demonstration communities have been completed. In 2012, the Ministry of Civil Affairs, together with the Ministry of Finance, allocated 11.6 billion yuan in natural disaster relief funds, which timely and effectively helped the victims carry out their rehabilitation and reconstruction work, as well as safeguarded the security of their basic livelihood. The Ministry of Agriculture established a work system for early consultation, forecasting and

prognosis. It also introduced the key technologies to prevent and mitigate agricultural disaster and achieve stable and higher yields; launched the subsidy policy for good methods in agriculture; helped local governments improve disaster relief measures; and strengthened the publicity of disaster prevention, mitigation experience and typical cases. The Ministry of Water Resources advanced the county-level non-engineering measures of torrential flood prevention and control, as well as the Phase II project construction of the state flood control and drought relief command system across 2,058 counties. It carried out a flood impact assessment and worked out flood risk maps. It revised and improved the scheduling plans for floods and water in major river basins. The State Forestry Administration issued the National Forest Fire Emergency Plan, strengthened the inspection of forest fire prevention and developed the responsibility system of pest prevention and control in local governments. In 2012, the forestry pollution-free control rate rose to 87 percent and aerial forest fire prevention was implemented in 16 provinces (autonomous regions and municipalities), covering a total area of 2.65 million square kilometers. The State Oceanic Administration reinforced the construction of the maritime disaster relief system, as well as launched the marine disaster risk assessment of major engineering work.

(II) Monitoring and Early Warning

Member units of the Office of Flood Control and Drought Relief Headquarters and the National Disaster Reduction Committee further improved the monitoring and early warning system for various natural disasters, as well as strengthened the capacity to tackle extreme weather and climate-related disasters. The State Oceanic Administration strengthened the capacity to observe the coastal and offshore waters; improved and adjusted the dissemination channels for marine disaster warning; intensified the monitoring and evaluation of sea-level changes, seawater intrusion, soil salinization and coastal erosion in important areas; created the environmental protection services system of marine fisheries production safety; and carried out the pilot work for further refined weather forecasts of key coastal areas. The China Meteorological Administration issued China's Climate Change Monitoring Bulletin 2011. The administration also pushed for a general survey on climate disasters and risks, and assisted local governments in formulating their meteorological disaster prevention plans. It also improved the assessment of climate change in major areas and river basins and increased technical support to help characteristic industries adapt to climate change. It also launched a refined forecast service for urban rainstorm and waterlogging in major cities.

(III) Agriculture

In November 2012, the State Council issued the Outline of National Agricultural Water Conservation (2012-2020) for the promotion of the sustainable use of water resources and the protection of national food security. The Ministry of Agriculture issued its Opinions on Promoting the Development of Water-saving Agriculture and a Notice on the Issuance of National Soil Moisture Monitoring Program. The ministry continued to improve the development of water conservation infrastructure on farmlands as well as the overall agricultural productivity. It also further improved the evaluation system of crop varieties tests. It promoted the cultivation of crops with great resistance to pests. It additionally increased subsidies to accelerate the integration process of cultivation, reproduction and dissemination of superior crop strains. In 2012, more than 96 percent of farmland planting major crops nationwide was sown with superior strains. It established the state-led conservation and utilization system of the crop resources. More than 420,000 copies of crop germplasms have been preserved on a long term basis, ranking second in the world. It promoted water-saving agriculture and set up water-saving agricultural demonstration bases and demonstration projects of water-saving technology. Over 500 water-saving agricultural demonstration bases were established; the core demonstration area covered over

10 million mu. Agricultural water-saving technologies were developed and promoted according to local conditions. Nine water-saving technologies were demonstrated and promoted, including full the plastic film mulching on double ridges and planting in catchment furrows, under-mulch drip irrigation and soil moisture-based on-demand irrigation, covering an area of over 400 million mu.

(IV) Water Resources

The comprehensive planning (revised) of the seven major river basins, including the Yangtze River and the Liao River, organized by 10 ministries and organizations -- also listing the Ministry of Water Resources and the National Development and Reform Commission -- was approved by the State Council, clarifying the important goals and tasks in river basin development and protection. The Ministry of Water Resources also released its Implementation Plan for the Opinions on Implementing the Strictest Water Resources Management System and the View on Implementing the Assessment Methods of the Strictest Water Resources Management System, establishing a sound system for the most stringent water management structure. By the first half of 2013, 21 provinces (autonomous regions and municipalities) had issued Opinions on Implementing the Strictest Water Resources Management System

or its supporting documents. In addition, 30 provinces (autonomous regions and municipalities) had by then established the chief executives responsibility system of the Strictest Water Resources Management System. 14 provinces (autonomous regions) have now disassembled the 2015 provincial water resources management and control targets to the municipal administrative. The total water control, water use efficiency control and pollutant emission control were categorized in three Red Lines, which formed the core of the Strictest Water Resources Management System -- promoting the water dispatch of important river basins, the water allocation of major river basins, as well as propelling the construction of 14 aquatic ecosystem protection and restoration pilots in an orderly fashion. It also completed the first national water census, systematically mastering the current situation of the development, management and conservation of rivers and lakes. The Department of Housing and Urban Construction issued the National Urban Renovation and Construction of Water Supply Facilities for the 12th Five-Year Plan Period (2011-2015), the Future Targets of 2020 and the Assessment Criteria and Assessment Methods for the National Water-saving Cities, aiming to promote urban water conservation and source emission reduction.

(V) Coastal Areas and Ecosystem

The State Oceanic Administration organized the formation of the National Marine Career Development Plan for the 12th Five-Year Plan Period (2011-2015), the National Marine Economic Development Plan for the 12th Five-Year Plan Period and the Plan for the National Island Protection, all approved by the State Council. It drew up the guidance and management methods for the management and protection of the oceanic islands and actively built the monitoring and evaluation system of how a typical marine ecosystem responds to climate change. The central government allocated nearly 850 million yuan to support undertakings such as the restoration and remediation of local coastal waters and the coastal zones, the ecological restoration of oceanic islands and the protection of freshwater resources. The Ministry of Environmental Protection organized and implemented the Biodiversity Conservation Strategy and Action Plan of China (2011-2030), carried out basic investigation of biological resources, and actively promoted the construction of nature reserves. The State Forestry Administration implemented its Circular of the General Office of the State Council on Strengthening Management of Nature Reserves to further strengthen the conservation of the country's major ecological zones and key areas of biodiversity. The administration also finished the second national wetland resources

investigation and introduced the Administrative Regulations on Wetland Protection, proposing the index for evaluating the biological health of China's wetlands. The Ministry of Water Resources compiled or implemented the relevant plans, programs and rules according to a number of ordinances, guidelines, guidance and management practices against soil erosion. It approved a total of 374 plans for water conservation, running from 2012 to the first half of 2013, with an investment of some 35.21 billion yuan in soil and water conservation. 38 national nature reserves under the management of forestry authorities were added and the total number of nature reserves rose to 2,149. In 2012, 300,000 mu of existing wetland was restored. It put 1.35 million mu of new wetland under protection, developed 85 pilot national wetland parks and identified 11 important national wetlands.

(VI) Public Health

To promote the supervision and monitoring of drinking water quality and ensure the supply of safe drinking water to urban and rural areas, the National Health and Family Planning Commission and its related departments facilitated the implementation of the National Environment and Health Action Plan (2007-2015) and the National Rural Drinking Water Safety Project for the 12th Five-Year Plan Period (2011-2015). The commission issued the National

Urban Drinking Water Safety Protection Plan (2011-2020), further promoting the supervision and monitoring of drinking water safety. The drinking water safety, a service project with a notable impact on public health, was included in the deepened health system reform plans for the 12th Five-Year Plan Period. It established a monitoring network for national drinking water health and implemented a supervision, co-management and service project for the national basic public health services. In 2012, the coverage of the national drinking water monitoring network across prefecture-level cities and counties respectively reached 85.3 percent and 46.8 percent, with the drinking water health supervision and co-management ratio going up to 80 percent. In Beijing, Tianjin, Hebei Province and other provinces (municipalities) which saw frequent dust and haze pollution, the commission organized the monitoring of the dust-and-haze effect on public health and the monitoring pilot work of indoor PM_{2.5} in public places. The system for surveillance, reporting, prevention and control of communicable diseases has been improved and 3,486 national monitoring points have been set up. The emphasis was on the prevention and control of cholera, influenza, foot and mouth disease, as well as other diseases closely related to climate change. Regular supervision and monitoring activities were conducted in key provinces. The Ministry of Health also strengthened the overall emergency security work of health issues related to climate change.

V. Developing Low-carbon Pilot Projects

Since 2012, the government has continued to promote low-carbon pilot projects in selected provinces and cities, pushed forward pilot carbon emissions trading programs, researched and developed pilot and demonstration projects such as low-carbon products and communities. It has accumulated experience and laid a firm foundation for dealing with climate change and low-carbon development.

(I) Promoting Low-carbon Pilot Projects in Provinces and Cities

There has been positive development in the first five provinces and eight cities which have test-run low-carbon pilot projects. The designated pilot implemented policies to promote low-carbon development. They innovated systems and mechanisms, launched a series of significant actions and implemented a batch of key projects to optimize the resource structure, promote low-carbon development in industries, and in transportation and construction, lead a low-carbon lifestyle, and increase forest carbon sinks. The results are evident. In 2012, the Chinese government nominated 29 provinces and cities such as Beijing, Shanghai, Hainan Province and Shijiazhuang as the second batch of locations for low-carbon

pilot projects. These pilot areas set positive goals and principles, worked out plans for low-carbon development, and explored low-carbon green development models to fit local circumstances. They established green, environmentally friendly and circular low-carbon industry systems. They established statistics and management systems for greenhouse gas emissions while establishing a system with goals and obligations to curb greenhouse gas emissions. The areas have positively advocated a low-carbon green lifestyle and consumption model. Some of them even proposed curbing the total amount of greenhouse gas emissions and yearly goals for emissions peak.

(II) Pushing Forward Carbon Emissions Trading Pilot Programs

Since 2012, pilot programs for carbon emissions trading in Beijing, Tianjin, Shanghai, Chongqing, Hubei Province, Guangdong Province and Shenzhen have witnessed positive progress. In October 2012, Shenzhen implemented management rules. From July to August, 2013, Shanghai, Guangdong Province and Hubei Province sought opinions on carbon emissions trading management. Based on their local situations, the designated areas considered goals for energy saving and emissions reductions, economic development trends and the emission levels of enterprises and

industries, then worked out a range to cover how many enterprises which fit carbon emissions trading, and eventually researched and determined the trading range and quota allocation. Based on the industries that the trading covered, each pilot area has researched and set up calculation approaches and standards for carbon emissions, and carried out the calculation and checks on the past data of enterprises' carbon emissions. Shanghai issued carbon emission calculation guidelines for industries like steel and electric power in October 2012, while Shenzhen published quantity reports on greenhouse gas emissions according to local standards, and guidelines to check for emissions and detailed rules for the construction industry in November 2012 and April 2013. Shenzhen launched a carbon emissions trading platform in June 2013. Thus far the total trading volume is over 110,000 tons and the turnover is more than 7 million yuan.

(III) Carrying out Low-carbon Pilot Programs in Relevant Areas

Trials of low-carbon product certification. In February 2013, the National Development and Reform Commission and Certification and Accreditation Administration jointly issued the Interim Procedures for the Low-carbon Product Certification Management. Within the first batch of certified products, there are four products

including Portland cement, plate glass, aluminum profiles and small and medium three-phase asynchronous motors. The government also began certification trials in Guangdong Province and Chongqing, exploring a good system and environment for enterprises to produce the low carbon products which society is willing to consume.

Trials of low-carbon industrial parks and communities. The National Development and Reform Commission and several other relevant government departments organized studies to establish trials on low-carbon communities and explored the new model to run community low-carbonization management, reducing energy consumption and carbon emissions in residential areas and other aspects of life. The Ministry of Industry and Information Technology and the National Development and Reform Commission started the trial work in low-carbon industrial experimental zones, and established an evaluation index and support policies for it.

Low-carbon transport pilots. The Chinese government has selected 26 cities such as Tianjin, Chongqing, Beijing and Kunming to establish pilot low-carbon transport systems, with 26 trial projects and 40 transport harbors of drop and pull transport, pushing forward the pilot projects of inland water transportation using boats

which consume natural gas, and establishing gas and petroleum pilot recycle stations at crude oil terminals. The government also organized studies to establish an evaluation index system for low-carbon transport cities, ports, and the construction of low-carbon ports and sailing routes and low-carbon highways.

Pilot carbon capture, use and storage (CCUS) projects. The National Development and Reform Commission has published the Circular on Promoting the Trials of Carbon Capture, Use and Storage, indicating the recent trial works for promoting the CCUS. It set up the China Technology Innovation Union of Carbon Capture, Use and Storage which was joined by 40 enterprises, colleges and institutions. China has started to use CCUS on projects. Sinopec Group has established the first full-phase demonstration project in China using CCUS for coal-fired power plants. By 2012, Shenhua Group's CCUS demonstration project has stored 57,000 tons of CO₂ in total. By June 2013, China's first CO₂ geological storage demonstration project in Ordos, Inner Mongolia has sequestered 120,000 tons of CO₂.

Low-carbon pilots in local areas. All provinces, autonomous regions and municipalities have practiced low-carbon development according to their local characteristics, and have developed many great experiences and approaches. Sichuan Province designated

Chengdu, Guangyuan, Yibin, Suining, Ya'an as the provincial-level pilot low-carbon cities, which should actively explore the low-carbon development models with local features. Anhui Province has explored demonstration and trial low-carbon communities and industrial parks, arranging for special funds to support the construction of complex low-carbon demonstration bases in nine industrial parks and communities in the province. Shandong Province set up a series of special funds for low-carbon development, such as development funds for construction energy conservation and green building development, as well as funds for new energy industries and subsidies for new energy vehicles. The provincial government has strongly supported low-carbon pilot and demonstration projects in key industries and areas such as construction energy saving, reducing the consumption of industry and new energy development.

VI. Strengthening Foundational Capacity Building

Since 2012, China has continued to develop statistics and accounting systems for greenhouse gas emissions, promoted basic study and educational training, strengthened scientific research and decision-making support, and provided financial security, which

has significantly enhanced its foundational capability to deal with climate change.

(I) Strengthening Statistics and Accounting Systems for Greenhouse Gas Emissions

Developing basic statistics systems. In 2013, the National Development and Reform Commission and the National Bureau of Statistics released Opinions on Improving Response to Climate Change and Statistical Work for Greenhouse Gas Emissions, which stresses establishing a statistical indicator system in order to improve greenhouse gas emissions statistics. The Government Offices Administration of the State Council has published the Statistics System of Energy and Resources Consumption in Public Institutions which establishes a standard for energy and resources consumption statistics in public institutions, and gathered and analyzed statistics on energy and resources consumption by public institutions in 2011 and 2012. The number of public institutions directly included in the statistics has been extended to 690,000. Based on provincial forest resources and other forestry statistics, the State Forestry Administration measured the forested area and the changes in different provinces across the country.

Improving greenhouse gas emissions accounting capabilities. In 2012, the National Development and Reform Commission

organized the compilation of the Second National Report (the greenhouse gas emissions inventory for 2005) and submitted it to the secretariat for the UN Framework Convention on Climate Change. The Third National Report is currently at the project application stage and is expected to include the 2010 and 2012 greenhouse gas emission inventories. A total of 31 provinces (including autonomous regions and municipalities) have compiled greenhouse gas emission inventories, cleaned up their greenhouse gas emissions, and carried out annual accounting work for carbon intensity reduction. The assessment for the 2005 and 2010 provincial greenhouse gas emission inventories is currently being implemented. In addition, carbon emissions calculation methods and reporting guidelines have been compiled for enterprises in the chemicals, cement, steel, non-ferrous metals, electricity, aviation and ceramics industries. Provinces and cities with carbon emissions trading right have carried out or are carrying out enterprise carbon emissions projects, and are trying to establish a third-party accounting system for carbon emission.

(II) Strengthening Policy Research and Educational Training

Strengthening policy research. Since 2012, thanks to financial support provided by the China Clean Development Mechanism Fund and other financing channels, a range of policy research

projects on climate change have been carried out. By the end of 2012, a total of 495 million yuan in funds and donations had been arranged, more than 100 donation projects had been supported, and numerous research programs on domestic and international problems on climate change had been carried out.

Strengthening educational training. The National Development and Reform Commission has organized five joint training projects between China and German on climate change capability building, and five seminars on compiling provincial greenhouse gas emission lists and low-carbon development, attracting leaders from relevant organizations and professional staff from technology supporting institutions from 24 provinces and cities. The Government Offices Administration of the State Council has organized a range of energy-saving training sessions in public institutions for government leaders and university directors. The State Forestry Administration published the high school students' textbook *Forest Carbon Sink Metering and Climate Change*, produced three TV series, *Song of the Forest*, *Dream of the Earth* and *Forest China*, and promoted training on forest carbon sink metering and monitoring.

(III) Strengthening Scientific Research and Decision Making Support

Strengthening scientific research. The Ministry of Science and Technology has organized the compilation of the Third National Assessment Report on Climate Change which systematically summarizes China's scientific achievements on climate change, and formulates the National Achievement Transformation, Promotion and Application Lists on Energy Conservation, Emissions Reduction and Low-Carbon Technology. In April 2012, the Ministry of Science and Technology released Specific Plans for Clean Coal Technology During the 12th Five-Year Plan Period which determined clean coal technology as an important direction in advanced energy, focusing on efficient clean coal-fired power generation, advanced coal conversion, advanced energy-efficient technology, regulation of pollutants and resource utilization technology. The Government Offices Administration of the State Council has carried out research projects on new energy and renewable energy applications for public institutions, building the energy efficiency of central state organs, and the energy efficiency management information system for public institutions. The Ministry of Land and Resources has carried out a series of research programs on geothermal investigation and exploration, geologic traces of climate changes and geologic carbon sink, as well as

initiatives to make technological breakthrough on CO₂ geological storage. The General Administration of Quality Supervision, Inspection and Quarantine has carried out preliminary studies on relevant climate change standards. The State Forestry Administration has carried out empirical research on how forests can mitigate the impacts of climate change, and organized potential and process studies of carbon sequestration in a typical ecosystem. The Meteorological Administration has assessed climate change for the first time in the east, south, north, northeast, middle, southwest and northwest of China as well as the Xinjiang region. The Ministry of Water Resources has undertaken more than 10 significant research programs such as the impact of climate change on water resources security and how to response to it. The Ministry of Health and the State Family Planning Commission has initiated research on adaptation mechanisms, assessment and prediction to address the impact of climate change on human health. The State Oceanic Administration has launched remote sensing monitoring and evaluating systems for air-sea CO₂ in China's coastal waters.

Strengthening support for decision making. In 2012, the National Development and Reform Commission established the National Strategic Research and International Cooperation Center for Climate Change, which aims to provide decision consulting and a supporting service for climate change. The National Climate

Change Expert Committee has actively organized consulting and communication activities on climate change. The General Administration of Quality Supervision, Inspection and Quarantine has permitted 23 national urban energy measurement centers to provide all-round technical support for low-carbon economic development through several platforms, such as the energy measurement public data platform, the energy measurement detection technique service platform, energy measurement technical research platform and energy measurement talent training platform. Provincial research institutions have been established to combat climate change and promote low-carbon development. Tianjin founded the Low-Carbon Development Research Center (TLCC); Zhejiang Province set up the Center for Climate Change and Low-carbon Development Cooperation; and Beijing established the Climate Change Response Research and Education Center (BCCRC) among municipal universities to reinforce scientific and decision supporting capabilities for climate change.

VII. Participation of the Whole Society

Since 2012, public education campaigns have been carried out all over China. The function of the media has been given full play

which has increased public awareness of climate change and low-carbon development.

(I) Enhancing Government Guidance

The Chinese government is taking the lead in practicing a “low-carbon life.” In December, 2012, a meeting of the Political Bureau of the CPC Central Committee presided over by Xi Jinping, General Secretary of the Committee, adopted an eight-point regulation calling for improving the work style within the party in order to connect better with the public and reject extravagance, which has had a widespread impact throughout society. In September 2012, the State Council decided to introduce a National Low-carbon Day, starting in 2013. On June 17 2013, a series of National Low-carbon Day events were jointly held by the National Development and Reform Commission and the Beijing municipal government. The events included an exhibition on climate change themed “Beautiful Chinese Dream; Low-carbon China,” producing and broadcasting videos on low-carbon development for the public, as well as launching a “Low-carbon China” event. General Secretary of the United Nations Ban Ki-moon visited the exhibition on climate change and spoke highly of it. By 2012, a total of 152 cities in China have pledged to hold Car-free Days, organized by the Ministry of Housing and Urban-rural Development. The China

Meteorological Administration has organized and produced a multilingual public welfare advert for TV and the catalog “Combating Climate Change, China Is Taking Action 2012.” On National Low-carbon Day, events were organized in cities like Beijing, Shanghai, Chongqing, Guangzhou and Hangzhou to raise public awareness of low-carbon development. In July 2013, the 2013 Global Eco-forum “Building eco-civilization: green transformation and transition” opened in Guiyang. Extensive research was carried out on how green industry, urbanization and consumption can lead the sustainable development, and a broad consensus was formed.

(II) Extensive Media Publicity

In 2012, the Chinese media have carried varied and informative coverage of climate change, energy saving, environmental protection and low-carbon development. Xinhua News Agency, the People’s Daily, China Central Television (CCTV). News media, including China Radio International, China Daily and China News Agency, sent journalists to cover the 2012 Doha Climate Change Conference. News websites, such as www.xinhuanet.com, www.china.org.cn and www.chinanews.com, gave special coverage on the conference using texts, photos, audio and video, making positive contributions to creating good atmosphere for public

opinion and disseminating the knowledge of climate change. CCTV and other media organizations produced documentaries such as “Facing Climate Change,” “The Warming Earth,” “Climate Change: A Global Concern” and “Warm and Cold, We Share Together”. They also produced a public-interest advertisement for TV for the National Low-carbon Day. Radio programs with the theme of “Advocating low-carbon life, promoting energy saving” The Chinese media took measures to promote the concept of environmental protection and low-carbon consumption. The China Economic Herald and other media organizations selected top 10 news stories on addressing climate change and promoting low-carbon development in China in 2012. Beijing Daily and other media organizations held a large-scale event promoting environmental protection with the theme of “Green Beijing·Low-carbon Commuting.” China News Agency held a photography exhibition, “Low-carbon Development and Green Life.”

(III) Organization Initiatives

The activity “Cool China, National Low-carbon Action” was carried out in 11 Chinese cities by the Department of Education and Communications under the Ministry of Environmental Protection, National Center for Climate Change Strategy and International

Cooperation (NCSC), Green Commuting Fund under China Association for NGO Cooperation. During the National Low-carbon Day period, many enterprises and NGOs including PetroChina, Vanke and Green Commuting Fund formed the China Low Carbon Action League and issued the declaration of the league. The China Green Carbon Foundation launched an event called “buying a carbon sink online, fulfilling the obligation to plant trees” in 10 Chinese cities and national ministries. The 2013 International Expo on Low-carbon Industry was jointly held by the China Association of Low Carbon and the United Nations Industrial Development Organization (UNIDO). The China Light Industry Internet and other organizations ran the event “Low-carbon action, ride across China.” The “Green Land” campaign was carried out by China Society of Territorial Economists with the support of the Chinese Association for Science and Technology. The Next Generation Working Committee and other organizations launched an event promoting low-carbon living in Chinese families in 10 cities across China including Beijing, Tianjin and Shijiazhuang. Communities, enterprises and schools in over 80 Chinese cities including Beijing, Shanghai, Dalian, Hong Kong and Macao took part in the Earth Hour event, organized by the World Wide Fund for Nature (WWF).

(IV) Proactive Participation by the Public

Through education and training on climate change addressing, energy saving, emission reduction and low-carbon living, the public have gained a deeper understanding of climate change and have participated more widely and consciously. Increasing numbers of people have chosen to make low-carbon lifestyle choices in transport, as well as their eating habits and housing. Responding to climate change is becoming the conscious behavior of the whole society. The Clean Plate Campaign, which urged people to save food by not wasting anything on the table, was launched on Weibo in January 2013, and has drawn much attention from the public. An event featuring innovation in addressing climate change by 1,000 young environmental ambassadors was carried out in 2013 which has improved the young people's environmental leadership. Energy conservation campaigns have been carried out in families, communities, enterprises, organizations and schools in cities across China. Education activities with the theme of "Low-carbon, A healthy home life" were held in 15 cities including Nanjing, Shenzhen and Jinan, and 300,000 free publicity brochures have been distributed, to advocating a scientific concept of energy conservation and promote a low-carbon lifestyle.

VIII. Playing a Constructive Role in International Negotiations

With a high sense of responsibility, China has continued to play a constructive role in international climate change negotiations since 2012, promoting mutual understanding and consensus among all parties, and making a positive contribution to building a fair and reasonable international mechanism for addressing climate change.

(I) Proactive Participation in International Negotiations within the UN Framework

China adheres to the UNFCCC and the Kyoto Protocol as the basic framework, gives active play to the main channel of international climate change negotiations within the UN framework. China upholds the principles of “common but differentiated responsibilities”, and fairness and respective capabilities. It abides by the principles of openness and transparency, extensive participation, signatory leadership and consensus through consultation. China has always actively and constructively participated in negotiations, strived to make progress in negotiations based on fairness and reason, practice and efficiency, as well as cooperation and win-win policy, and reinforced the

all-round, effective and sustainable implementation of the UNFCCC.

In 2012, China took an active part in international negotiations within the UN framework, and continued with dialogues with other countries to further understanding and expand common ground, and made a positive contribution to the success of the Doha Climate Change Conference. China played an active role in the negotiations and consultations at the Doha Climate Change Conference, adhered to the principles of maintaining openness and transparency, extensive participation and consensus through consultation and pushed for a consensus among all parties with a positive, reasonable and practical posture. Following the joint efforts of China and other developing countries, the Doha Climate Change Conference achieved a balanced package of results, accomplished the Bali Road Map negotiations, finalized arrangements for international action to fight climate change before 2020, worked out a plan for negotiations within the Durban Climate Change Conference framework, determined principles governing further actions after 2020, maintained the effectiveness of the United Nations multilateral negotiations progress, and boosted confidence in international cooperation to address climate change. During the Doha Conference negotiations, the Chinese delegation held an eight-day Chinese Corner series of side events with 18 themed

activities, taking advantage of all channels and means to engage in candid and profound dialogues and exchanges which drew wide attention and positive feedback from all parties.

(II) Extensive Participation in Related International Dialogue

Pushing forward negotiations through high-level visits and major conferences. At the meeting of the BRICS leaders, the G20 Leaders' Summit, the APEC Leaders Summit and at other significant multilateral diplomatic events, Chinese President Xi Jinping made important speeches and worked in concert with leaders of other countries on climate change. The leaders of China and the United States attached great importance to the climate change issue as they reached a crucial consensus on strengthening dialogues and cooperation in climate change and the issue of HFCs during two meetings in 2013. At the 5th Round of the China-US Strategic and Economic Dialogue (S&ED) convened in July 2013, special representatives from the two sides co-chaired a special session on climate change, which helped to reinforce exchanges on their domestic climate change policies and bilateral practical cooperation. When former Chinese Premier Wen Jiabao attended the 2012 United Nations Climate Change Conference in June 2012, he called all parties to address climate change in accordance with

the principle of “common but differentiated responsibility”, develop the green economy and promote sustainable development.

Proactive participation in climate change conferences and progress outside the UNFCCC. China took part in a series of international consultations and exchanges, including the Rio+20 United Nations Conference on Sustainable Development, the Leaders' Representatives Meetings of the Major Economies Forum on Energy and Climate, the ministerial-level dialogue meeting on climate change in St. Petersburg and the Pre-COP19 Preparatory Ministerial-Level Meeting. China took an active part in negotiations under international mechanisms, such as the International Civil Aviation Organization, the International Maritime Organization, the Montreal Protocol on Substances that Deplete the Ozone Layer and the Universal Postal Union. China also actively participated in the Global Alliance for Clean Cookstoves, the Global Methane Initiative, the Global Research Alliance on Agricultural Greenhouse Gas while promoting negotiations on the UNFCCC as the main channel for progress.

Extensive engagement in bilateral and multilateral climate change dialogues and consultations. China continues to strengthen consultation mechanisms among the BASIC countries and developing countries with similar positions, and conduct joint

research with other developing countries, and actively safeguard the interests of developing countries. China held bilateral ministerial-level negotiations with developed countries including the United States, EU and Australia on climate change, to engage in extensive dialogues on climate change international negotiations, domestic climate change policies and related practical cooperation. China also actively boosted communication with think tanks from other countries.

(III) China's Basic Position at the Warsaw 2013 UN Climate Change Conference

In November of this year, the 19th session of the Conference of the Parties to the UNFCCC and the 9th Session of the Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol will be held in the Polish capital, Warsaw. At the end of last year, the Doha Climate Change Conference concluded the negotiations on the authorization of the Bali Road Map and this year's Warsaw Climate Change Conference should be an implementation and launch meeting. The priority at the Warsaw Conference is to take concrete actions to implement the results of the Bali Road Map negotiations, such as mitigation, adaptation, funding, technology, reviews and transparency, pushing all parties to swiftly ratify the Amendment to the second commitment period

of the Kyoto Protocol, keep discussing relative unsolved issues under the protocol, and fulfill the agreements and promises made at previous conferences. Developed countries should fulfill their emission cuts, funding and technology transfer pledges from previous conferences and scale up efforts with action before 2020. This is the foundation for maintaining mutual trust among all parties and also the precondition and guarantee for progress made at the Durban Conference negotiations. In the meantime, all parties should closely follow the principle of the UNFCCC and the authorization of the Durban Conference to launch substantive negotiations on mitigation, adaptation, funding and technology in a formal, balanced and targeted fashion, and strengthen the all-round, effective and sustainable implementation of the UNFCCC after 2020.

The Warsaw Conference should focus on two issues. One is that all parties in the second commitment period of the protocol should ratify the Amendment to the second commitment of the protocol as soon as possible, and set a higher emission-cutting target in line with the agreement reached at the Doha Conference. According to the principle of comparability, developed countries who have not signed up to the second commitment period of the protocol, or have withdrawn from or have not ratified the protocol should also raise their levels of emission cuts before 2020 in tandem with the

members of the second commitment period of the protocol. Developing countries will implement their proposed targets for emission-cutting action after they receive funding, technology and capability-building support from developed countries. The conference should also focus on the funding issue as a priority, and handle it properly. Developed countries should promise to inject funds of no less than the fast-start funding between 2013 and 2015, chart a clear course for meeting the funding pledge of US\$100 billion by 2020, invest in the Green Climate Fund as soon as possible and ensure that developing countries get concrete funding support.

China will continue to play an active and constructive role at the Warsaw conference, and work with all parties to ensure a successful conference by following the principle of openness and transparency, extensive participation, signatory leadership and consensus through consultation.

IX. Enhancing International Exchanges and Cooperation

Since 2012, China has continuously and proactively participated in South-South cooperation on tackling climate change and practical cooperation with developed countries and international organizations, and actively pushed forward global cooperation on

addressing climate change, based on the principle of “mutual benefit and win-win cooperation, and being practical and effective”.

(I) Deepening Cooperation with Developing Countries

China's National Development and Reform Commission has promoted South-South cooperation on climate change. According to former premier Wen Jiabao's initiative announced at the Rio+20 Conference to make available 200 million yuan for a three-year South-South project on climate change, China has established cooperation with 41 developing countries and signed the Memorandum of Understanding on Providing Foreign Aid to Address Climate Change with 12 developing countries, including Grenada, Ethiopia, Madagascar, Nigeria, Benin and Dominica. A donation of 900,000 energy-efficient lights and more than 10,000 energy-efficient air conditioners was made. China has arranged seminars on South-South cooperation policies and action on climate change, as well as workshops on climate change and green low-carbon development. The Ministry of Science and Technology and the Ministry of Foreign Affairs hosted the Combating Climate Change: China-ASEAN New and Renewable Energy Utilization International Technology and Cooperation Forum in collaboration with other departments, to promote exchanges and communication between China and ASEAN countries. China's National

Development and Reform Commission and the State Oceanic Administration implemented the South-South cooperation research project on maritime disaster monitoring and early warning system within the framework of climate change, drafted the English version of the Guide for Building the Capabilities of Developing Countries' Marine Disaster Monitoring and Early Warning, held seminars on developing countries' marine disaster monitoring and early warning technologies in Xiamen, providing training to 16 students from nine developing countries including Cambodia and Indonesia. China's State Forestry Administration held the Seminar on Monitoring Deforestation and Land Degradation and Evaluating South-South Cooperation within the Climate Change Framework. China's Meteorological Administration offered technology training to professionals from developing countries on the relationship between climate change and extreme weather and climate events, as well as early warning systems for various disasters and a climate service system.

(II) Strengthening Cooperation with Developed Countries

China's National Development and Reform Commission has continued to work on existing bilateral cooperation programs, including the Sino-Germany Climate Change Programme, the Sino-Italian Climate Change Cooperation Program, and the

Sino-Norway Climate Change Adaptation Strategic Application Research Programme. NDRC has organized and held bilateral consultations on climate change with the EU, Germany and Denmark and pushed for the adoption of relevant framework agreements and the launch of cooperation projects. NDRC also signed memorandums of understanding on cooperation concerning climate change with relevant departments from countries and states, including Switzerland, Denmark and the California state of the United States. With the support of the Australia-China Joint Coordination Group on Clean Coal, China has organized enterprises, academies and universities to conduct training programs and preliminary research dedicated to predominant issues related to carbon capture and storage technology utilization; China has cooperated with the United States on research projects on large-scale CO₂ usage, capture and storage technology applied to new model connecting and amplifying underground heating system, reached a consensus on a broad range of key areas including electricity system, clean fuel, petroleum and natural gas, energy and environmental technology and climatology and cooperated on a series of fruitful cooperation programs with the U.S. Ministry of Energy. China's Ministry of Environmental Protection has partnered with the United States, Japan, Italy, Norway and Australia on a wide range of bilateral and multilateral cooperation projects concerning mitigation, adaptation, basic capability building and

public awareness, including the Environmental Standard and Research on Implementation Details in Shale Gas Exploitation, the Sino-Norway Biodiversity and Climate Change Programme and Sino-Australia Studies on Environmental impact and Risks of CO₂ Geological Storage. China's State Forestry Administration has expanded technology exchanges on climate change issues with the United States, Britain, Finland and Switzerland. China's State Oceanic Administration has entered into a partnership with Italy in the Project of Capability Building of Coastal Ecosystem.

(III) Promoting Cooperation with International Organizations

China's National Development and Reform Commission continues to cooperate with multilateral institutions, including the United Nations Development Programme, the United Nations Environment Programme, the World Bank, the Asian Development Bank and the Global Environment Facility. NDRC has signed a momentum of understanding on cooperation for addressing climate change with the World Bank. It has also launched the Enhancing Capacity, Knowledge and Technology Support to Build Climate Resilience of Vulnerable Developing Countries and China Climate Technology Needs Assessment Project, which were funded by the Global Environment Facility, and launched the Carbon Capture and Storage Road Map, which was assisted by the Asian Development

Bank. At the 4th Round of the China-US Strategic and Economic Dialogue held in May 2012, China joined the Global Alliance for Clean Cookstoves and signed a Memorandum of Understanding (MoU) with the United Nations Fund and the Alliance Secretariat of the Global Alliance for Clean Cookstoves. China hosted workshops on carbon storage, utilization and storage technology with the Global Carbon Capture and Storage Institute and other relevant organizations. China's Ministry of Environmental Protection actively engaged in international cooperation in biodiversity and climate change adaptation, and organized and attended the First Plenary Meeting of the IPBES. China's National Health and Family Planning Commission has worked closely with international organizations, such as the World Health Organization, and has been involved in research pilot programs on climate change and health impact. China's State Forestry Administration has enhanced technology exchanges with the WWF, The Nature Conservancy, the Conservation International and the GIZ in addressing climate change in forestry. China's Ministry of Civil Affairs attended the 4th Global Platform for Disaster Risk Reduction, as it has continuously scaled up cooperation with the United Nations and relevant international organizations on disaster mitigation and rescue. China's Standardization Administration actively participated in international standardization work for greenhouse gas reductions, and hosted the 3rd Plenary Meeting of the ISO Committee for CO₂

Capture, Transport and Geological Storage Technology. China's Meteorological Administration attended around a dozen international meetings, including the 35th Plenary Meeting of the IPCC and took part in reviewing the Fifth Assessment Report of the IPCC.