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**Towards East Asian Leadership
in
Strengthening Multilateralism in an Increasingly
Turbulent World**

II. Planetary Boundaries

4. Implementing Paris Accord

**Implementing the Paris Accord in China: Progress, Challenges, and
Opportunities**

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Introduction

Climate change poses a tremendous and urgent threat to all human societies on the earth and thus requires the widest cooperation across the world. The Paris Accord represents one of the most recent joint efforts of the international community in addressing such issues. The agreement, which was adopted at the end of 2015, and entered into force in November 2016, requires all its signatories to be “ambitious”, and to submit concrete action plans to combat global warming. It is considered a milestone of the UNFCCC process that set the future framework for international cooperation on climate change.

China, as the world’s largest economy and the biggest greenhouse gas emitter, holds great responsibility in this battle against climate change. As a matter of fact, China had done a lot of constructive preparations that ensured the conclusion of an agreement and the final success of the Paris Conference. President Xi Jinping personally attended the conference, in which he gave a keynote speech that elaborated China’s plans for reducing GHG emissions. It indicated China’s decisive determination to actively participate in global climate governance, and to construct an equitable, rational, cooperative and win-win global climate governance system post 2020. Since then, China has been working progressively to push forward the enforcement and effective implementation of the Paris Accord, including, *inter alia*, carrying out low-carbon pilots across the country, strengthening laws and regulations on climate change and environment pollution, enhancing related strategic research, providing stronger scientific and technological support, and actively participating international negotiations and multilateral cooperation. All in all, tackling climate change presents a significant opportunity for China to transform its economic development mode. However, while doing so, the Chinese government also faces many difficulties. This paper intends to introduce some of the major progress China has made so far in implementing the Paris Accord. It also discusses the challenges and opportunities lying before China on taking the agreement into practice.

Progress

Even prior to the Paris Conference, the Chinese government had submitted the UN in June its *Intended Nationally Determined Contributions* (INDCs), which clarified China’s determination to take enhanced actions to tackle climate change, and reassured its firm commitment to green and low-carbon development. Since then, remarkable accomplishments have been achieved in multiple regards:

- **Strategic Planning and Institutional Construction**

- a) **Administrative Planning**

In October 2016, the State Council issued the *Work Plan for Controlling GHG Emissions during the 13th FYP Period*, stipulating that all local governments should incorporate a substantial reduction in GHG emissions into their respective policy agenda and take concrete measures to fulfill this goal. Until June 2017, there are 18 provinces that have come up with their own 13th FYPs. The *Work Plan* also demands reinforcing

the performance assessment and accountability system for controlling GHG emissions at the provincial level. It means that whether have fulfilled the goal will become the main basis for future appointments within the cadre system. Accordingly, the NDRC issued the specific measures of assessment for the 13th FYP, and carried out the evaluation for the year of 2016 in 31 provinces (autonomous regions and municipalities). All local governments, in light of their respective annual targets, conducted self-assessments of the progress that had been made for reducing carbon intensity.

Between late 2016 and early 2017, the NDRC and the NEA jointly issued a series of documents that provide guiding principles for the transformation and development of China's energy industry, including the *Strategy for Energy Production and Consumption Revolution (2016-2030)*, the *13th FYP of Energy Development*, the *13th FYP of Renewable Energy Development*, to just name a few. Other major ministries and administrations have also made their respective plan or program to tackle climate change.

b) Legal and Regulatory Reform

Since 2011, a leading group of legislators and experts organized by the NDRC have been conducting various researches on the legislation of the *Climate Change Law* and the *Regulation on the Management of Carbon Emission Trading*. During the process of drafting, stakeholders were widely consulted and their concerns were well taken into consideration. Both laws were included in the *2016 State Council Legislative Work Plan*, which was released in April 2016. The *Climate Change Law* was subsumed within the category of "research projects" and therefore is still under investigation. However, the *Work Plan for Controlling GHG Emissions* specified the need to accelerate the legislation process. On 31 October 2017, in the press release regarding the *2017 China's Policies and Actions for Addressing Climate Change*, Li Gao, leader of the Department of Climate Change of the NDRC, indicated that they were actively working with the LAO to accelerate the deliberation of the interim *Regulation* by the State Council.

At the local level, Fujian province in September 2016 published its interim regulation on carbon emission trading. The cities of Shijiazhuang and Nanchang, roughly about the same time, also adopted and implemented their respective regulations on climate change and low-carbon development.

c) Market Mechanism Construction

China attempts to introduce a market mechanism to encourage the enterprises' enthusiasm for lowering GHG emissions. The NDRC in 2011 selected seven provinces and cities, i.e. Beijing, Tianjin, Shanghai, Chongqing, Guangdong, Hubei and Shenzhen, to carry out carbon emission trading pilots. Since the pilots were activated, the transaction scale has been steadily increasing. As of September 2017, they have accumulatively completed the trading of quota of around 197 Mt CO₂e, with a trading volume up to RMB 4.5 billion. Based on the success achieved by the pilots, the NDRC is finalizing the preparatory work and is ready to launch a unitary national carbon emission trading market. The national program was originally set to launch in the first half of 2017. However, due to some problems with unreliable data and regulations, China probably needs to delay its launch until early 2018.

- **Low-Carbon Development**

- a) **Industrial Restructuring**

China aims to reduce carbon intensity by adjusting and optimizing its industrial structure. Starting from 2016, the State Council has introduced a number of policies to first facilitate eliminating the overcapacity in high-energy consumption enterprises, and secondly to promote strategic emerging industries, such as the green-car industry and information industry. For instance, in principle there will be no approval for new coal mine projects within a 3-year period. And a renewed subsidy program was put into effect from 2017 to continue to boost the nation's green auto industry and mitigate vehicle emissions. Moreover, this year's *Report on the Work of the Government* reasserted the importance to carry forward the *Internet Plus Action Plan*, in order to further increase the integration of informatization and industrialization.

Meanwhile, China places high value on the development of service industry. In 2016, the added value of service industry to national GDP was 58.2%, witnessing an increase by 5.3% than that of last year. At the very beginning of 2017, the MOC issued a plan to boost the proportion of consumer services and to formulate by the year of 2020 a high-quality, secure, convenient, and green service system for both urban and rural residents of China.

- b) **Energy Revolution**

There is indeed a grand energy revolution going on in China, which involves conserving energy, optimizing energy structure and enhancing energy efficiency. In 2016, the NEA specified the upper limit of aggregate energy consumption for the year. Accordingly, the NDRC allocated energy conservation targets to provincial governments and conducted an assessment of target fulfillment in 2017. The results, like those of controlling GHG emissions mentioned above, will be an important reference for evaluating governmental officials' performance. The Chinese government is also working actively in promoting energy conservation in various areas, such as in construction industry, transportation and public institutions.

China continues to substantially reduce the proportion of coal consumption. The *Air Pollution Prevention and Control Action Plan*, which was released in September 2013, requires that the top 10 cities with the worst air quality must maintain negative growth in yearly total coal consumption. Since 2016, the Beijing-Tianjin-Hebei region has started green transformation of the residential heating system to further decrease coal consumption. The total coal consumption was 3.78 Gton, dropping by 4.7% than that of 2015. In order to maintain economic growth, China is in need of finding alternative resources, and therefore has improved the utilization scale of natural gas and non-fossil fuels, including hydro, nuclear, wind and solar power. In 2016, the ratio of natural gas accounted for 6.4% in the overall energy consumption, while the power generation of renewable energy occupied 36.6% of China's total power generation.

Last year, China expanded resource tax coverage to enforce efficient utilization of resources. It means that using fuels with poor quality would be less likely in the future. The NDRC, in association with other relevant institutions, has further systematized the energy efficiency standards. Moreover, the government carried on the project of *Energy Efficiency Leaders* by releasing catalogs of energy-efficient products.

c) Low-Carbon Pilots

China has been carrying on the pilots of low-carbon provinces and cities, communities and industrial parks. These pilots have provided valuable experiences that later can be reproduced across the country. As of July 2017, the number of pilot provinces (autonomous regions and municipalities) has reached 87, while the number of pilot communities has exceeded 400, spread in 27 provinces. So far 51 industrial parks have entered into the pilot project. They have been able to decrease energy consumption and carbon emission while maintaining rapid economic growth, thus providing added values to carbon management. Furthermore, some provinces like Shaanxi and Guangdong have initiated near-zero emission demonstration projects, of which the number will be extended to 50 by 2020, according to Tian Chuan, a senior official of the NDRC.

• Capacity Building

a) Scientific Research and Technological Support

On 30 September 2016, the Third National Climate Change Expert Committee was established to serve as a national think tank on policy making regarding climate change. In the same year, the MOST supported a series of fundamental scientific research on climate change, including the *National Key Scientific Research Program on Global Change* and the *Research on Urgent and Important Issues of Climate Change after the Paris Conference*.

The NDRC released two batches of the *Catalogue of Key National Promoted Low-Carbon Technologies* this year to accelerate the promotion and application of low-carbon technologies. The MOST, the MEP and the CMA jointly issued the *Special Plan of Technology Innovation on Climate Change during the 13th FYP Period*, in order to encourage technology innovation.

b) Education, Publicity and Personnel Training

The MOE has encouraged colleges and universities to set up majors concerning climate change to accelerate the cultivation of qualified scientists, technicians and other experts. The newly established China-UK Low Carbon College exemplifies one of such efforts. By the end of 2016, China has built 22 majors related to atmospheric sciences, and over 42 majors related to energy saving and environmental protection.

In the year of 2016 and 2017, the NDRC and relevant ministries continue to hold a series of national low-carbon activities that are open to the public. Xinhua News Agency, People's Daily, CCTV and other mainstream media constantly report the important news and major events such as the UN Climate Change Conferences and negotiations. New media, like Weibo, Wechat are also utilized to spread news or scientific knowledge to the wide public on relevant topics. All these publicity activities have contributed to improving public awareness of energy conservation, environmental protection and low-carbon development.

Several ministries and departments have organized training activities on climate change and emergency response to improve the overall working capabilities of their employees and to educate the public. For instance, the NGOA has trained over 9,000 people all over the country on energy-saving and management.

Merely in Beijing, the MCA has offered training sessions to over 800 people on disaster relief. The CMA also provides free courses and training regarding climate change and ecological civilization.

c) Public Mobilization

With the development of relevant education, training and publicity work, the public has proactively engaged in activities combating climate change. Many people have chosen to live a low-carbon lifestyle. For example, bike sharing and car rental are booming in today's China. International and national NGOs like the WWF, the Low Carbon Alliance, and the China Youth Climate Action Network have also played important roles in mobilizing public support to fight climate change.

• International Cooperation

a) Cooperation with Developed Countries

China continues to have dialogues and exchanges with developed countries. It has held bilateral cooperative meetings on climate change with the US, the EU, South Korea, Russia, Germany, France, Australia, and New Zealand and started cooperation in various areas including carbon market, energy efficiency and climate change adaptation. This year the NDRC also managed to sign an arrangement on climate change cooperation with the MFAT of New Zealand.

b) South-South Collaboration

The Chinese government places high value on the South-South cooperation in addressing climate change. It has offered financial support and aids of material and equipment to many developing countries in Africa, Latin America, and South Pacific areas. China also seeks to assist these countries regarding their participation in international climate change negotiations, policy planning and personnel training. Until 2017, the MOC has aided more than 70 developing countries in total.

c) Cooperation under Multilateral Framework

In 2016, China actively participated in the negotiation meetings under the UNFCCC and largely contributed to the final success of putting the Paris Accord into enforcement. The Chinese delegation also attended that year's UN climate change conference held in Marrakech, where the representatives proposed China's standpoints on various issues, including intended contributions, adaptation to climate change, transparency and so on. For the upcoming Bonn conference on 6 November, China is also well prepared to present its accomplishments and to propose more ambitious goals.

Apart from the UN conferences, Chinese delegations also actively participate in the cooperation at other multilateral platforms, such as the G20, the APEC and the BRICS, the World Economic Forum. Early in 2017, President Xi Jinping delivered a keynote speech in Davos, where he highlighted that all signatories of the Paris Agreement should stick to it instead of just walking away irresponsibly. With the One Belt and One Road initiatives already being launched, China should also take full advantage of the opportunities provided

by this multilateral framework.

Challenges

According to its INDCs, China pledges to peak CO₂ emissions by 2030 and strive to achieve it as soon as possible, reduce the emission of CO₂ per unit of GDP by 60%~65% from the 2005 level, increase the share of non-fossil fuels in primary energy consumption to approximately 20%, and increase forest stock by approximately 4.5 billion m³ against the 2005 level. Although China has so far made much progress as illustrated above, its implementation of the Paris Accord is not without challenges.

First, **China is under tremendous pressure to deliver the 2030 commitment.** China is experiencing accelerated industrialization and urbanization. It is predicted that at least for a long period of time there will be an increasing demand for energy consumption, especially in the areas of buildings and transportation. Meanwhile, there is no doubt that China is facing a lot of difficulties in dealing with the overcapacity of the in traditional industries. China's economy is entering into a "new normal", where its growth shifts from a very high speed toward a medium-to-high basis, focusing more on better quality and industrial transformation. The demand of iron, steel, cement and other high energy-consuming products and raw materials will decrease, which will contribute to controlling the GHG emissions. Nevertheless, one cannot risk ignoring that China might fall into the so-called "Middle Income Trap", due to a slowdown in its economic growth. If this were to happen, it would bring a series of economic and social problems.

Secondly, **China faces serious challenges in optimizing and upgrading its energy structure.** China has become the largest energy consumer in the world. However, heavy coal reliance characterizes China's resource endowment. Coal consumption in 2016 still accounted for over 60% of its total energy consumption. Changing the coal-dominant energy mix is not going to be easy and cannot be realized overnight. While at the same time, imposing too strict emission measures might lead to direct economic losses of certain traditional enterprises and an increase in unemployment in the short term. Placating stakeholders and conciliate different interests will expect to be challenging for both the central government and its local counterparts. The dilemma posing between economic development and environmental constraint will continue to exist.

Moreover, **there has been a lack of new high-tech support** for the restructuring of both industrial sectors and energy mix, due to insufficient scientific research and technological innovation ability. That is precisely why the Chinese government has started to attach great importance to capacity building, to establish scientific institutions, conduct fundamental researches and cultivate qualified experts in this field.

Finally, **the rules of law and regulations concerning climate change have not been fully established.** Both the *Climate Change Law* and the *Regulation on Carbon Emission Trading* have not been adopted yet. The lack of a sufficient law and regulation system further caused the delay of other important work, such as the launch of a national carbon trading market. Even if they are to be put into motion, there is always the issue of poor enforcement that should be taken into consideration.

Opportunities

Despite the challenges, a successful and efficient implementation of the Paris Accord will bring China with extraordinary opportunities. Opportunities include the extensive possibilities to reduce air pollution, to create jobs and increase employment, to boost business and foreign investment, and more importantly, to achieve low-carbon development. By fully delivering its promises on combating climate change and providing a reference for other countries in the world, China can also gain international reputation and respect, and meanwhile foster international exchanges and cooperation at all aspects.

China apparently needs to seize current strategic opportunities and devote its every effort to try to fulfill the commitments to the Paris Agreement. Like President Xi Jinping put it, it is not only an unshirkable duty that we must take as a responsible power in the world but also a duty that we must assume for many generations to come.

Abbreviations

APEC	Asia-Pacific Economic Cooperation
CCTV	China Central Television
CMA	China Meteorological Administration
FYP	Five Year Plan
GHG	Greenhouse Gas
INDCs	Intended Nationally Determined Contributions
LAO	Legislative Affairs Office
MCA	Ministry of Civil Affairs
MEP	Ministry of Environmental Protection
MFAT	Ministry of Foreign Affairs and Trade (New Zealand)
MOC	Ministry of Commerce
MOE	Ministry of Education
MOST	Ministry of Science and Technology
NDRC	National Development and Reform Commission
NEA	National Energy Administration
NGOA	National Government Offices Administration
UNFCCC	United Nations Framework Convention on Climate Change
WWF	World Wide Fund for Nature

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